AGENDA

BOARD OF DIRECTORS
ORANGE COUNTY SANITATION DISTRICT

DISTRICT'S ADMINISTRATIVE OFFICES
10844 ELLIS AVENUE
FOUNTAIN VALLEY, CA 92708
www.ocsd.com

REGULAR MEETING

July 17, 2002 – 6:00 p.m.

In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted in the main lobby of the District's Administrative Offices not less than 72 hours prior to the meeting date and time above. All written materials relating to each agenda item are available for public inspection in the office of the Board Secretary.

In the event any matter not listed on this agenda is proposed to be submitted to the Board for discussion and/or action, it will be done in compliance with Section 54954.2(b) as an emergency item, or that there is a need to take immediate action which need came to the attention of the District subsequent to the posting of the agenda, or as set forth on a supplemental agenda posted not less than 72 hours prior to the meeting date.

All current agendas and meeting minutes are also available via Orange County Sanitation District's Internet site located at www.ocsd.com. Upon entering the District's web site, please navigate to the Board of Directors section.

1. Invocation and Pledge of Allegiance

2. Roll Call

3. Consideration of motion to receive and file minute excerpts of member agencies relating to appointment of Directors, if any. (See listing in Board Meeting folders)

4. Appointment of Chair pro tem, if necessary

5. Public Comments: All persons wishing to address the Board on specific agenda items or matters of general interest should do so at this time. As determined by the Chair, speakers may be deferred until the specific item is taken for discussion and remarks may be limited to three minutes or less. Public comments relating to specific items on the Agenda, or matters of general interest, **shall be limited to a combined total of 45 minutes for all speakers, to be allocated among the number of persons requesting to address the Board** (in accordance with District Resolution No. OCSD 01-23).

   Matters of interest addressed by a member of the public and not listed on this agenda cannot have action taken by the Board of Directors except as authorized by Section 54954.2(b).

6. The Chair, General Manager and General Counsel 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.

a. Report of Chair; consideration of resolutions or commendations, presentations and awards
b. Report of General Manager
c. Report of General Counsel

7. If no corrections or amendments are made, the minutes for the special meeting held on June 19, 2002 and the regular meeting held on June 26, 2002 will be deemed approved as mailed and be so ordered by the Chair.

8. Ratifying payment of claims of the District, by roll call vote, as follows:

ALL DISTRICTS	06/15/02	06/30/02
Totals	$7,518,749.53	$4,961,194.79

CONSENT CALENDAR

All matters placed on the Consent Calendar are considered as not requiring discussion or further explanation and unless any particular item is requested to be removed from the Consent Calendar by a Director or staff member, there will be no separate discussion of these items. All items on the Consent Calendar will be enacted by one action approving all motions, and casting a unanimous ballot for resolutions included on the consent calendar. All items removed from the Consent Calendar shall be considered in the regular order of business.

The Chair will determine if any items are to be deleted from the Consent Calendar.

9. Consideration of motion to approve all agenda items appearing on the Consent Calendar not specifically removed from same, as follows:

a. Receive and file Summons and Complaint, Melinda S. Sargent v. Orange County Sanitation District, et al., Orange County Superior Court Case No. 02CC11206, and authorize General Counsel to appear and defend the interests of the District.

b. Receive and file Summons and Complaint, Kimberly D. Ruane v. Orange County Sanitation District, et al., Orange County Superior Court Case No. 02CC11252, and authorize General Counsel to appear and defend the interests of the District.

END OF CONSENT CALENDAR

10. Consideration of items deleted from Consent Calendar, if any.

NON-CONSENT CALENDAR

11. (1.a) Select a treatment technology appropriate for the Orange County Sanitation District that could include a range of options including any of the following:

Alternative A – Ocean Plan Permit Limits (Approx. 70% Primary and 30% Secondary)
Alternative B – Status Quo (50% Advanced Primary and 50% Secondary)
Alternative C – Conventional Activated Sludge Full Secondary
Alternative D – Alternative Advanced Technologies

- or -

(1.b) Select a particular set of effluent Biochemical Oxygen Demand (BOD) and Suspended Solids characteristics and direct staff to recommend to the Board at a later date the recommended technology to achieve the selected effluent characteristics; and,

(2) Authorize the General Manager to submit an Ocean Discharge Permit application for that selected level of treatment (or selected effluent characteristics) to the EPA and the RWQCB, no later than December 3, 2002, conditional upon successfully negotiating compliance terms satisfactory to the Board; and,

(3) Direct staff to report to the Board, on a regular basis, on the progress toward successfully negotiating satisfactory permit terms and conditions with EPA and the California RWQCB; and,

(4) Direct Staff to modify operation of the existing treatment facilities to maximize, to the extent practical and at the earliest date practical, the removal rates of BOD and Suspended Solids through the existing treatment facilities; and,

(5) Direct Staff to report to the Board, on a monthly basis, on the progress toward modifying operation of the existing treatment facilities and the resultant effluent Biochemical Oxygen Demand (BOD) and Suspended Solids concentrations resulting from such modifications.

12. a. Verbal report by Chair of Finance, Administration and Human Resources Committee re the July 10, 2002 meeting.

b. DRAFT FINANCE, ADMINISTRATION AND HUMAN RESOURCES COMMITTEE MINUTES – NO ACTION REQUIRED (Information only): The Chair will order the draft Finance, Administration and Human Resources Committee Minutes for the meeting held on July 10, 2002 to be filed. *(Minutes to be distributed at 07/17/02 Board Meeting)*

c. Receive and file Treasurer's Report for the month of June 2002.

d. (1) Approve Trojan Technologies as the Ultraviolet Light (UV) Equipment manufacturer for the Groundwater Replenishment System (GWR System) based on lowest calculated present worth life cycle cost of $20,253,000, and a total capital cost of $9,749,405, plus tax; (2) Approve a Pre-Selection Agreement between Orange County Water District (OCWD) and Trojan Technologies to provide engineering details for the equipment design in the total amount of $250,000, to be equally shared between OCWD and Orange County Sanitation District; (3) Grant authority to the Board of Directors of OCWD to assign the value of the UV Equipment to the construction contract to install the demonstration UV system at a total cost of $849,842, plus tax; and (4) Grant authority to the Board of Directors of OCWD to assign the value of the UV Equipment to the contract to install the permanent UV system at a total estimated capital cost of $8,649,563, plus tax.

e. Approve SAFETY-POL-109 and 203, as provided for in Resolution No. OCSD 02-5, regarding the District's Injury and Illness Prevention Program Policy.

f. Adopt Resolution No. OCSD 02-12, Approving First Amendment to the Deferred Compensation Plan for Officers and Employees of the District.

g. Adopt Resolution No. OCSD 02-13, Authorizing the District's Treasurer to Invest and/or Reinvest District's Funds; Adopting District's Investment Policy Statement and Performance Benchmarks for FY 2002-03; and Repealing Resolution No. OCSD 01-13.

h. Item removed.

i. Renew the District's Excess General Liability Insurance Program for the period July 1, 2002 through June 30, 2003, in an amount not to exceed $201,500.

13. a. Verbal report by Vice Chair of Joint Groundwater Replenishment System Cooperative Committee re July 8, 2002 meeting.

b. DRAFT JOINT GROUNDWATER REPLENISHMENT SYSTEM COOPERATIVE COMMITTEE MINUTES – NO ACTION REQUIRED (Information only): The Chair will order the draft Joint Groundwater Replenishment System Cooperative Committee Minutes for the meeting held on June 10, 2002 to be filed.

14. (1) Receive and file Addendum No. 6 to the Certified 1999 Strategic Plan Final Program Environmental Impact Report, prepared by Environmental Science Associates, for the Temporary Short-Term Bacteria Reduction Project, Job No. J-87; and (2) Authorize staff to proceed with the Short-Term Bacteria Reduction Project, Job No. J-87, contingent upon the Regional Water Quality Control Board approval of Order No. R8-2002-0055.

15.

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.

a. Convene in closed session, if necessary

b. Reconvene in regular session

c. Consideration of action, if any, on matters considered in closed session

16. Matters which a Director may wish to place on a future agenda for action and staff report

17. Other business and communications or supplemental agenda items, if any

18. Future Meeting Date: The next Board of Directors regular meeting is scheduled for August 28, 2002, at 7:00 p.m.

19. Adjournment

NOTICE TO DIRECTORS: To place items on the agenda for the Regular Meeting of the Board of Directors, items shall be submitted to the Board Secretary no later than the close of business 14 days preceding the Board meeting. The Board Secretary shall include on the agenda all items submitted by Directors, the General Manager and General Counsel and all formal communications.

General Manager	Blake Anderson	(714) 593-7110
Board Secretary	Penny Kyle	(714) 593-7130
Director of Finance	Gary Streed	(714) 593-7550
Director of Human Resources	Lisa Tomko	(714) 593-7145
Director of Engineering	David Ludwin	(714) 593-7300
Director of Operations & Maintenance	Bob Ooten	(714) 593-7020
Director of Technical Services	Bob Ghirelli	(714) 593-7400
Director of Information Technology	Patrick Miles	(714) 593-7280
Communications Manager	Lisa Murphy	(714) 593-7120
Assistant to General Manager	Greg Mathews	(714) 593-7104

BOARD OF DIRECTORS

AGENDA REPORT

Meeting Date	To Bd. of Dir. 07/17/02
Item Number	Item Number 8

Orange County Sanitation District

FROM: Gary Streed, Director of Finance
Originator: Lenora Crane, Executive Assistant

SUBJECT: PAYMENT OF CLAIMS OF THE ORANGE COUNTY SANITATION DISTRICT

GENERAL MANAGER'S RECOMMENDATION

Ratify Payment of Claims of the District by Roll Call Vote.

SUMMARY

See attached listing.

PROJECT/CONTRACT COST SUMMARY

N/A

BUDGET IMPACT

☒ This item has been budgeted. (Line item:)
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☐ Not applicable (information item)

ADDITIONAL INFORMATION

N/A

ALTERNATIVES

N/A

CEQA FINDINGS

N/A

ATTACHMENTS

Copies of Claims Paid reports from 06/01/02 – 06/15/02 and 06/16/02 – 06/30/02

BOARD OF DIRECTORS

AGENDA REPORT

Orange County Sanitation District

Meeting Date	To Bd. of Dir. 7/17/02
Item Number	Item Number 9(a)

FROM: Gary Streed, Director of Finance
Originator: Michael D. White, Risk Manager

SUBJECT: SUMMONS & COMPLAINT RE MELINDA S. SARGENT V. ORANGE COUNTY SANITATION DISTRICT ET AL.

GENERAL MANAGER'S RECOMMENDATION

Receive and file summons and complaint re Melinda S. Sargent v. Orange County Sanitation District, et al., Orange County Superior Court Case No. 02CC11206, and authorize General Counsel, to appear and defend the interests of the District.

SUMMARY

Please see attached memo dated 7/3/02 from General Counsel.

BUDGET IMPACT

☐ This item has been budgeted.
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☐ Not applicable (information item)

ADDITIONAL INFORMATION

ALTERNATIVES

CEQA FINDINGS

ATTACHMENTS

Memo from General Counsel.

BOARD OF DIRECTORS

AGENDA REPORT

Meeting Date	To Bd. of Dir. 7/17/02
Item Number	Item Number 9(b)

Orange County Sanitation District

FROM: Gary Streed, Director of Finance
Originator: Michael D. White, Risk Manager

SUBJECT: SUMMONS & COMPLAINT RE KIMBERLY D. RUANE V. ORANGE COUNTY SANITATION DISTRICT ET AL.

GENERAL MANAGER'S RECOMMENDATION

Receive and file summons and complaint re Kimberly D. Ruane v. Orange County Sanitation District, et al., Orange County Superior Court Case No. 02CC11252, and authorize General Counsel, to appear and defend the interests of the District.

SUMMARY

Please see attached memo dated 7/3/02 from General Counsel.

BUDGET IMPACT

☐ This item has been budgeted.
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☐ Not applicable (information item)

ADDITIONAL INFORMATION

ALTERNATIVES

CEQA FINDINGS

ATTACHMENTS

Memo from General Counsel.

BOARD OF DIRECTORS

AGENDA REPORT

Meeting Date	To Bd. of Dir. 7/17/02
Item Number	Item Number 11

Orange County Sanitation District

FROM: Blake P. Anderson, General Manager

SUBJECT: INTERIM STRATEGIC PLAN UPDATE FUTURE LEVEL OF TREATMENT

GENERAL MANAGER'S OPENING OBSERVATIONS

As unique and unprecedented as this decision happens to be, I thought it would be useful to take the unconventional action of beginning this Agenda Report with some initial observations.

First, the Orange County Sanitation District (District) has a very strong starting position, no matter what decision is made by the directors regarding future treatment. We are viewed quite favorably by the regulatory community. The District has a near perfect track record of compliance with our permit requirements. We have established ourselves as a cooperative and competent partner in regional water quality protection, providing leadership on issues such as grease management, sanitary sewer operation and maintenance, and spill response. We have proactively and creatively moved into new public policy arenas including water reclamation, water conservation, dairy wash water management, and urban runoff management. We have promoted public infrastructure planning and funding through our cutting-edge cooperative projects program and our charter membership in CalRAC.

Second, the Board of Directors (Board) is in a position to make a knowledgeable and fully informed decision. The District has conducted a high-quality and unbiased assessment of the ocean conditions off of Huntington Beach. The Board has in its hands a detailed description of the technical, financial, and regulatory issues surrounding this question. The Board also has ample understanding of the public's point-of-view on the question brought forward in three forms: direct public testimony, the results of second Planning Advisory Committee (PAC2), and two telephone surveys.

Third, the Board has already demonstrated its commitment to improving our ocean discharge in the very near future by committing to disinfection. If things go well at the Regional Water Quality Control Board meeting on July 19 so that our permit is amended to include disinfection, then we can begin disinfection in mid-August. This will provide the Board and the public with a considerable level of confidence that our operation is having no impact on the human health and economic interests of the beach-related activities in Huntington Beach and Newport Beach.

Fourth, the Board has the option of directing Staff to maximize the level of treatment provided by our existing facilities. The Director of Operations estimates that we can provide additional secondary treatment in the next few months that would result in approximately 65% secondary treatment—up from the present 53%. This level will change over time—moving up and down as systems are taken out of service and returned to service for necessary rehabilitation and upgrades. However, we can substantively improve our effluent quality by "revving up" what we now have.

Fifth, whatever the Board of Directors (Board) decides for the future, the Staff stands ready to execute the decision in the most timely and cost-effective manner possible. I would ask that whatever the Board decides, it provide Staff with as much flexibility as possible to get there. Please do not close the door on emerging technology that may prove to be an excellent solution.

Sixth, whatever the Board decides for the future, some degree of negotiation will be required with the Environmental Protection Agency (EPA) and the Regional Water Quality Control Board (RWQCB). The terms and conditions of any future permit must be carefully crafted and that will not be easy. The regulatory community will seek accountability through measurable and enforceable terms and conditions—we certainly agree with that objective. The environmental community will seek transparency and timely delivery on the terms and conditions—we certainly agree with that objective. However, we must be mindful that to be effective, we must seek flexibility, cost effectiveness, and achievability for all of the terms and conditions of a future permit. We must also seek terms and conditions that limit the risk of enforcement action or the threat of third party challenges or lawsuits in the future as we progress toward the stated objective of the Board. For this reason, the Board should consider making its decision conditional upon Staff achieving permit terms and conditions that are negotiated to the Board's satisfaction. With that as an introduction, here then is the conventional piece of this agenda report:

GENERAL MANAGER'S RECOMMENDATION

(1.a) Select a treatment technology appropriate for the Orange County Sanitation District that could include a range of options including any of the following:

Alternative A -- Ocean Plan Permit Limits (Approx. 70% Primary and 30% Secondary)
Alternative B – Status Quo (50% Advanced Primary and 50% Secondary)
Alternative C – Conventional Activated Sludge Full Secondary
Alternative D -- Alternative Advanced Technologies or (1.b) Select a particular set of effluent Biochemical Oxygen Demand (BOD) and Suspended Solids characteristics and direct Staff to recommend to the Board at a later date the recommended technology to achieve the selected effluent characteristics, and;

(2) Authorize the General Manager to submit an Ocean Discharge Permit application for that selected level of treatment (or selected effluent characteristics) to the EPA and the RWQCB, no later than December 3, 2002, conditional upon successfully negotiating compliance terms satisfactory to the Board, and; (3) Direct Staff to report to the Board, on a regular basis, on the progress toward successfully negotiating satisfactory permit terms and conditions with EPA and the California RWQCB, and; (4) Direct Staff to modify operation of the existing treatment facilities to maximize, to the extent practical and at the earliest date practical, the removal rates of BOD and Suspended Solids through the existing treatment facilities, and; (5) Direct Staff to report to the Board, on a monthly basis, on the progress toward modifying operation of the existing treatment facilities and the resultant effluent Biochemical Oxygen Demand (BOD) and Suspended Solids concentrations resulting from such modifications.

SUMMARY

- This action item was the subject of the June 19, 2002, Special Board Meeting. The Interim Strategic Plan Update was prepared to provide the Board, the public, and Staff with

necessary information to determine the appropriate level of treatment for our Ocean Discharge Permit application.

- The presentation included information related to the five key issue areas. These are:

    1. Ocean Monitoring Data and Studies
    2. Treatment Alternatives
    3. Financial Considerations
    4. Regulations and Permitting
    5. Public Input

PROJECT/CONTRACT COST SUMMARY

No authorization of expenditures is being requested at this time. Operations, maintenance, and capital costs are all projected to increase as we move from Alternative A to Alternatives B, C, or D.

BUDGET IMPACT

No new authorization of expenditures is being requested at this time. The 2002-03 budget was adopted in accordance with Alternative B for operations and maintenance costs, which included disinfection upgrades but not short term treatment upgrades. Capital costs implied by any significant long-term treatment improvements will be minimal during this fiscal year as design contracts are let and preliminary design work begins. However, there will be significant cost implications in future budget years as design and construction costs rise as related projects are initiated and completed. Those costs can be identified and budgeted in future fiscal years. Remember that overall cost implications are already described in the red book accompanying this agenda report.

In the event Staff is directed to modify existing operation in the short term to maximize removal of Biochemical Oxygen Demand (BOD) and Suspended Solids, then Staff will seek authorization at a future meeting to modify the budget accordingly. We anticipate no budgeting problems that can't be adequately addressed at that time

ADDITIONAL INFORMATION

The presentation and discussion at the June 19, 2002, Special Board Meeting included information on the following five key issue areas:

1. Ocean Monitoring Data and Studies
    - The ocean monitoring studies have shown that transport mechanisms exist that could move water from the area of the Orange County Sanitation District's (District) discharge toward the beach.
    - However, the monitoring studies did not provide evidence that the District's ocean discharge (plume) is linked to beach closures because no such events were ever observed.
    - On-shore investigations have found other sources that could be contributing to bacterial contamination at the beach.

2. Treatment Alternatives

- The Interim Strategic Plan Update developed four treatment alternatives that are summarized in Exhibit "A" in the attached Interim Strategic Plan Update Staff Report. The four alternatives are:

  Alternative A – Ocean Plan Permit Limits (Approx. 70%/30% Blend)
  Alternative B – Status Quo (50% Advanced Primary and 50% Secondary)
  Alternative C – Full Secondary Treatment
  Alternative D – Alternative Technologies

- Alternatives A, B, and D will require a 301(h) modified permit application.
- If the Board elects to move to a higher level of treatment and to eliminate the need for a permit under the Section 301(h) provisions in the Clean Water Act (CWA), a combination of technologies from Alternatives C and D may be considered. Facilities incorporating a combination of secondary treatment, such an activated sludge, and alternative technologies as microfiltration, could meet the full secondary treatment standards established in the CWA.
- Alternative C, or a combination of technologies considered in Alternatives C and D, may need a modified permit application until the implementation schedule is negotiated with the Environmental Protection Agency and Regional Water Quality Control Board.
- When implemented, Alternative C, or a combination of technologies considered in Alternatives C and D, would meet the water quality standards for secondary treatment as defined in the CWA, and therefore a 301(h) modified permit would not be required once the new secondary and/or alternative treatment facilities are in place.
- All of the alternatives include: pathogen reduction, participation in the Groundwater Replenishment System (GWRS), dry weather urban runoff diversions, and funding for upgrading biosolids treatment to Class "A" standards.

Comparison of Treatment Alternatives

	Alt. A Permit Limits	**Alt. B 50/50 Blend**	**Alt. C Full Secondary**	**Alt. D Alt. Treatment**
Biochemical Oxygen (BOD)& Total Suspended Solids (TSS) Levels	Highest	Reduced	Reduced	Reduced
Overall Environmental Impact	# 1 Least	# 2	# 4 Most	# 3

3. Financial Considerations

- A comparison of the estimated annual Operations and Maintenance costs, capital costs, and single family residence user fees for each of four treatment alternatives were presented at the June 17, 2002, Special Board Meeting.
- Under all treatment options, the Orange County Sanitation District will be required to increase user fees, as additional treatment is needed. This also includes the need for existing collection, treatment, and disposal facilities to be rehabilitated or replaced in the future.

Comparison of Treatment Alternatives

Currently Projected 2020 Residential - User Rate	**Alt. A Permit Limits 2020 Residential User Rate**	**Alt. B 50/50 Blend 2020 Residential User Rate**	**Alt. C Full Secondary 2020 Residential User Rate**	**Alt. D Alt. Treatment 2020 Residential User Rate**

$154/yr.	$153/yr.	$163/yr.	$195/yr.	$199/yr.

Typical User	2002 Est. User Fee (Current Fee)	Alt. A Permit Limits	Alt. B 50/50 Blend	Alt. C Full Secondary	Alt. D Alt. Treatment
Restaurant ($ per S.F.)	$522	$920	$980	$1,170	$1,196
Warehouse ($ per S.F.)	$15	$26	$28	$33	$34
Company A(*)	$325,737	$667,500	$699,000	$828,500	$846,000
Company B(*)	$359,144	$674,500	$718,000	$910,500	$937,000
Company C(*)	$189,723	$402,000	$421,500	$475,000	$482,500

(*) Described at the June 19, 2002, Special Board Meeting

4. Regulations and Permitting Summary

- All of the alternatives provide a level of treatment that will comply with the California Ocean Plan.
- The Orange County Sanitation District's (District) Ocean Discharge Permit application must be submitted by December 2002.
- District staff is seeking direction from the Board of Directors (Board) on a preferred level of treatment alternative now (July), to have enough time to complete the draft permit application by October 2002 for Board review. A decision later than July could require the preparation of multiple applications to ensure that the District stays in compliance with the Clean Water Act as discussed at the June 19, 2002, Special Board Meeting.
- Because implementation of Alternatives C, D, or a combination of C and D will take up to 11 years to plan, design and construct, we will need to continue operation at a level less than full secondary treatment in the interim period under a compliance schedule approved by Environmental Protection Agency and the Regional Water Quality Control Board.
- The District has the option to maximize the operation of existing secondary treatment facilities in this interim period, increasing the existing 50% secondary blend to 60% secondary in the short term, and as high as 65% secondary by 2006, when rehabilitation of existing facilities and the Groundwater Replenishment System project are complete. This operational change will increase the District's chemical, electrical, labor, and biosolids disposal costs.

Estimated OCSD Effluent with Maximized Operation of Existing Secondary Treatment

	% Secondary Treatment	Total Suspended Solids (milligrams/liter)	Biochemical Oxygen Demand (milligrams/liter)
July 2002	50%	47	73
December 2002	64%	35	54
2006(*)	65%	29	50

(*) up to 70 mgd of secondary effluent is projected to be diverted to GWRS in 2006.

5. Public Input

- The second Planning Advisory Committee (PAC2) comprised of community members from the District's service area was formed to provide input on the level of treatment decision.
- There were five PAC2 meetings between November 2001 and May 2002, and a summary statement was prepared and was distributed at the June 17, 2002, Special Board Meeting.
- There is a consensus among PAC2 that Alternative A, Ocean Plan Permit Limits, adopted as the preferred alternative in the 1999 Strategic Plan is an unacceptable treatment level.

The District has continued to operate at a higher level of secondary treatment (50% secondary treatment and 50% advanced primary treatment) than required by Alternative A.

- Some PAC2 members stated that the cost impacts of Alternatives C and D were reasonable for the benefit achieved.
- Some PAC2 members stated that the cost impacts of Alternative B was cost-effective and balanced environmental impacts to the air, land and water.
- The Orange County Sanitation District (District) has received hundreds of letters, e-mails, and telephone calls in opposition to operating at less than 100% secondary treatment.

ALTERNATIVES

Four alternative treatment levels were presented at the June 19, 2002 Special Board Meeting. There are combinations of the four that make the possible alternatives numerous.

CEQA FINDINGS

Treatment Alternative A, as presented at the June 19, 2002, Special Board Meeting, is the currently adopted treatment level, and the "Preferred Alternative" of the District. It is the alternative with the least overall environmental impacts. In October 1999 this treatment alternative, Scenario 2 from the 1999 Strategic Plan Program Environmental Impact Report (EIR), was declared the environmentally superior treatment option.

Treatment Alternatives B and C were previously considered in the 1999 Strategic Plan Program EIR and will require the District to issue a "Statement of Overriding Considerations" noting that water quality concerns outweigh other environmental impacts. Treatment Alternative D has not been analyzed in an EIR and will require a new EIR prior to implementation.

FAHR COMMITTEE

AGENDA REPORT

Meeting Date 7/10/02	To Bd. of Dir. 7/17/02
Item Number FAHR02-62	Item Number 12(c)

Orange County Sanitation District

FROM: Gary Streed, Director of Finance
Originator: Michael White, Controller

SUBJECT: TREASURER'S REPORT FOR THE MONTH OF JUNE 2002

GENERAL MANAGER'S RECOMMENDATION

Receive and file Treasurer's Report for the month of June 2002.

SUMMARY

Pacific Investment Management Co. (PIMCO), serves as the District's professional external money manager, and Mellon Trust serves as the District's third-party custodian bank for the investment program. Some funds are also deposited in the State of California Local Agency Investment Fund for liquidity.

The District's Investment Policy, adopted by the Board, includes reporting requirements as listed down the left most column of the attached PIMCO Monthly Report for the "Liquid Operating Monies" and for the "Long-Term Operating Monies" portfolios. The District's external money manager is operating in compliance with the requirements of the District's Investment Policy. The District's portfolio contains no reverse repurchase agreements.

As shown on page 2 of the attached PIMCO's Performance Monitoring and Reporting Report, the District is holding a United Airlines (UAL) Asset Backed Security that carried an acceptable credit rating at the time of purchase. Since that time, the rating from Moody's has fallen twice, first from A3 to BA1, and then to BA3. Likewise, the rating from Standard & Poor's has also fallen twice, first from A- to BBB, and then to BB. Although these ratings are less than what is required at the time of purchase, PIMCO believes, based on the financial strength of UAL and the underlying collateral of the security, that the District would suffer an unwarranted loss if this security was sold. The District's investment policy does not require any action because of "credit watch" notices or the decline in credit standing. PIMCO will continue to monitor the credit very closely.

Historical cost and current market values are shown as estimated by both PIMCO and Mellon Trust. The District's portfolios are priced to market ("mark-to-market") as of the last day of each reporting period. The slight differences in value are related to minor variations in pricing assumptions by the valuation sources at the estimate date.

PROJECT/CONTRACT COST SUMMARY

None.

BUDGET IMPACT

☐ This item has been budgeted. (Line item:)
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☒ Not applicable (information item)

ADDITIONAL INFORMATION

Schedules are attached summarizing the detail for both the short-term and long-term investment portfolios for the reporting period. In addition, a consolidated report of posted investment portfolio transactions for the month is attached. The attached yield analysis report is presented as a monitoring and reporting enhancement. In this report, yield calculations based on book values and market values are shown for individual holdings, as well as for each portfolio. Mellon Trust, the District's custodian bank, is the source for these reports. Transactions that were pending settlement at month end may not be reflected.

Also provided is a summary of monthly investment balances and transactions within the State of California Local Agency Investment Fund (LAIF).

These reports accurately reflect all District investments and are in compliance with California Government Code Section 53646 and the District's Investment Policy. Sufficient liquidity and anticipated revenues are available to meet budgeted expenditures for the next six months.

Funds/Accounts	Book Balances June 30, 2002	Estimated Yield (%)
State of Calif. LAIF	$ 22,600,964	2.74 (1)
Union Bank Checking Account	371,766	N/A
Union Bank Overnight Repurchase Agreement	943,000	1.09
PIMCO – Short-term Portfolio	43,358,061	3.70
PIMCO - Long-term Portfolio	363,112,603	4.20
Debt Service Reserves w/Trustees	35,162,564	4.16
Petty Cash	5,000	N/A
TOTAL	$465,553,958	

(1) This is the annualized yield for the month of May. The June annualized rate was not available as of the date of this report.

ATTACHMENTS

1. Monthly Investment Reports
2. Monthly Transaction Report

FAHR COMMITTEE

AGENDA REPORT

Meeting Date 07/10/02	To Bd. of Dir. 07/17/02
Item Number FAHR02-66	Item Number 12(d)

Orange County Sanitation District

FROM: David Ludwin, Director of Engineering
Originator: Wendy Sevenandt, Project Manager

SUBJECT: GROUNDWATER REPLENISHMENT SYSTEM, JOB NO. J-36, ULTRAVIOLET LIGHT EQUIPMENT PRE-SELECTION

GENERAL MANAGER'S RECOMMENDATION

(1) Approve Trojan Technologies as the Ultraviolet Light (UV) equipment manufacturer for the Groundwater Replenishment System (GWR System) based on lowest calculated present worth life cycle cost of $20,253,000, and a total capital cost of $9,749,405, plus tax; (2) Approve a Pre-Selection Agreement between Orange County Water District (OCWD) and Trojan Technologies to provide engineering details for the equipment design in the total amount of $250,000, to be equally shared between OCWD and Orange County Sanitation District; (3) Grant authority to the Board of Directors of OCWD to assign the value of the UV Equipment to the construction contract to install the demonstration UV system at a total cost of $849,842, plus tax; and (4) Grant authority to the Board of Directors of OCWD to assign the value of the UV Equipment to the contract to install the permanent UV system at a total estimated capital cost of $8,649,563, plus tax.

SUMMARY

- The GWR System will use UV equipment to disinfect reclaimed water. Early selection of UV equipment was needed to allow final design since the configuration of each UV system is unique.
- Staff solicited proposals for UV equipment with award to be based on a competitive evaluation of life cycle costs. The components of the life cycle cost were capital cost, power consumption, lamp replacement costs, and ballast replacement costs.
- Proposals were received from Trojan Technologies and Calgon Carbon Corporation who were both deemed responsive and responsible based on requirements in the contractual documents including bonding ability and financial statements.
- Trojan proposed a capital cost 24% lower than Calgon and a life cycle cost 12% lower than Calgon.
- The Joint Groundwater Replenishment System Cooperative Committee (JCC) and the OCWD Board of Directors approved the award to Trojan based on the competitive evaluation of the life cycle costs.
- In May, the Steering Committee deferred the action back to the JCC. However, no discussions ensured at the June JCC meeting.
- In June, the Steering Committee deferred the action to award UV equipment to the FAHR Committee to consider challenges to this award.
- Challenges to this award have been made centering on financial ability, “Buy American”, life cycle cost consideration, and proposed renegotiations with Calgon.

- Financial ability - Trojan is financially viable based on its quarterly financial reports.
- "Buy American" – Certain federal procurement provisions allow preference for American products if the cost difference is less than 6%. The margin between Trojan and Calgon is 24%. Under California law, "Buy American" provisions are not allowed.
- Life cycle costs - The Calgon system uses fewer lamps, but has a higher power requirement, needs more frequent lamp and ballast replacement, and has a higher replacement unit cost than Trojan. Capital and power costs had a greater impact on the life cycle cost than lamp or ballast replacement. Associated Ultraviolet Light (UV) equipment system infrastructure costs are similar for both systems.
- Proposed renegotiations with Calgon – If Orange County Sanitation District (OCSD) Board members find it advisable to contract with Calgon rather than Trojan, perhaps it can be proposed to the Orange County Water District (OCWD) to reject all bids. Separate negotiations for a contract with Calgon are possible. This action would cause delays in the schedule. This action is speculative in nature that an agreement could be reached with Calgon. Trojan's reaction to such an action could include a challenge in court.
- The issue of fairness and business practice. If Calgon is given the option of renegotiating, then should not Trojan? And if this happens, then the way the OCSD conducts orderly and competitive bid processes is placed into question. From that moment, all bidders and proposers will have a doubt about our intentions.
- Staff addresses the concerns and presents the reasons to reconsider awarding to Trojan Technologies in more detail in the additional information section below.
- At this time, the financial commitment is for a $250,000 contract to Trojan Technologies for engineering design documents.
- Award of construction contracts for the manufacture and delivery of the equipment will be presented to the Boards of Directors for their approval in accordance with authority delegated by the approved agreement between OCSD and OCWD in effect at that time.

Summary of Actions

- On July 30, 2001, the Joint Groundwater Replenishment System Cooperative Committee (JCC) approved staff's recommendation to pre-select UV equipment based on a performance specification.
- In October 2001, the JCC, OCWD Board and OCSD Board approved issuance of a Request for Proposals for UV equipment pre-selection.
- On March 11, 2002, the JCC approved and recommended to the Boards of OCWD and OCSD that Trojan Technologies be selected to provide UV disinfection equipment based on lowest life cycle cost analysis.
- Both Boards deferred the item back to staff. The OCSD Board requested staff to address a letter issued by Calgon dated March 1, 2002.
- On April 9, 2002, a response letter was issued by OCWD to address Calgon's concerns. The letter addressed consistency with current equipment installed at OCWD, technical and economic factors regarding the life cycle cost analysis, and financial stability of both Trojan and Calgon.
- On April 22, 2002, staff presented an update on the UV equipment to the JCC with no new action recommended or taken. The update presented the response letter dated April 9 to Calgon. Staff also distributed a letter received that day from Congresswoman Loretta Sanchez recommending award of future contracts to United State firms.
- On May 15, 2002, the OCWD Board approved the equipment pre-selection award to Trojan Technologies.

- On May 22, 2002, the Steering Committee recommended that the award of a contract to Trojan Technologies be referred back to the JCC.
- On June 10, 2002, staff updated the JCC on the action at the Steering Committee. No discussion ensued.
- On June 26, 2002, the Steering Committee referred this item to the FAHR Committee.

PROJECT/CONTRACT COST SUMMARY

See the attached Budget Information Table. The value of the agreement award for each agency with this action is $250,000 to be equally shared with OCWD in the amount of $125,000. The authorization of funds was made in October 2001, for the engineering documents only in the OCSD cost-shared amount of $125,000.

Authorization of expenditures for the Ultraviolet Light (UV) equipment will be requested with the award of the construction contracts in the future.

BUDGET IMPACT

☒ This item has been budgeted. (Line item: 2002-03 CIP Budget Sec. 8, page 157)
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☐ Not applicable (information item)

Please refer to the Budget Information Table.

ADDITIONAL INFORMATION

In October 2001, the Orange County Sanitation District (OCSD) Board of Directors authorized issuance of a Request for Proposals for the pre-selection of Ultraviolet Light (UV) equipment estimated at $10,250,000, and granted authority to the Orange County Water District (OCWD) Board of Directors to award a contract for equipment design in the amount of $250,000, and also granted authority to the OCWD Board of Directors to assign the value of equipment to construction contracts for installation.

The request for proposals was sent to four firms specializing in UV disinfection equipment and two proposals were received. Proposals were received from Calgon Carbon Corporation and Trojan Technologies on February 27, 2002. Both proposals were over the engineer's estimate of $10,250,000 when tax is included in the total cost.

Trojan Technologies proposes the lowest capital cost of $10,439,990.61 with tax included at 7.75%. Trojan had the lowest calculated present worth life cycle cost of $20,253,000. Calgon Carbon Corporation submitted a capital cost of $12,958,650.07. The calculated present worth life cycle cost for Calgon was $22,648,000. The life cycle cost was calculated based on the capital cost, power consumption, UV lamp replacement, and UV ballast replacement. Details for the capital cost and present worth life cycle calculation are tabulated in attachment 1.

With this approval, a contract in the amount of $250,000 ($125,000 OCSD share) will be awarded to Trojan for engineering design documents. The value of the UV disinfection equipment will be assigned to the demonstration unit construction contractor and the permanent

facilities construction contractor. These contracts are scheduled for bid and award later in 2002 and in 2003 at which time the commitment to the larger expenditures of money will be made by Board action. These construction contracts will be brought before the Joint Groundwater Replenishment System Cooperative Committee (JCC) and the OCSD and OCWD Board of Directors in accordance with authority delegated by the approved agreement between OCSD and OCWD in effect at that time.

The JCC recommended approval of the award to the full Boards of OCSD and OCWD on March 11, 2002. Please refer to the attached March 11, 2002 JCC Agenda Item Submittal. In March, the Boards deferred the item back to staff. The OCSD Board requested that staff address a letter dated March 1, 2002, issued by Calgon regarding the proposals. Staff prepared a response letter dated April 9, 2002, and discussed the issues of the Calgon Carbon Corporation letter at the April 22, 2002 JCC meeting. Staff maintained their recommendation to award to Trojan after their analysis of Calgon's concerns.

Staff also distributed a letter dated April 18, 2002, from Congresswoman Loretta Sanchez at the Joint Groundwater Replenishment System Cooperative Committee (JCC) meeting on April 22, 2002. Staff has investigated the issues brought forth in the letter and still maintains their recommendation to award to a contract to Trojan Technologies.

The Orange County Water District (OCWD) Board of Directors approved the selection of Trojan at their May 15, 2002 meeting.

Staff recommended award to Trojan as an item on the May 22, 2002 Board agenda. The Steering Committee deferred the item back to the JCC. At the subsequent JCC meeting on June 10, staff updated the JCC reporting the action taken by the Steering Committee. The JCC members did not discuss the issue. The recommendation of staff and the JCC to award to Trojan was placed on the June 26, 2002, Board agenda. On June 26, the Steering Committee deferred the matter to the FAHR Committee to discuss six issues. The issues and staff's responses are addressed in the following Table 1. Additional concerns were raised in emails from Director Steve Anderson and are addressed in the Attachment 11 to this agenda report.

Table 1
Issues and Concerns with Staff's Response

ISSUE/CONCERN	STAFF RESPONSE
Buy American. The Trojan system is estimated to be 50% American and 50% Canadian. Director Anderson stated that we shouldn't be shipping our technology or tax dollars out of the country. "9-11" cost American jobs. We should do everything to keep jobs here.	• The "Buy American" provision in the Federal regulations (40 CFR, 35-936-13.d) indicates that domestic equipment may be used in preference to non-domestic equipment if the cost difference is no more than 6%, and a greater differential is deemed unreasonable; Calgon's equipment cost is 24% greater than Trojan's costs. Trojan's present worth life-cycle cost is 12% lower than Calgon. • Over 70% of Trojan's projects are located in the United States and Trojan has offices in Atlanta, Tucson, and California. (Trojan pays state taxes in these three states.) • Over 50% of all equipment to be supplied by Trojan for the GWR System is of American origin. Engineering, system fabrication, and final testing are the major items performed at their headquarters, in London, Ontario, Canada. See letter dated June 24 from Trojan. • The UV portion of the GWR System equipment is only 13% of the total as compared to Microfiltration (MF) at 33% and Reverse Osmosis (RO) at 54%. All RO manufacturers qualified to supply equipment to the GWR System are based in the United States.

ISSUE/CONCERN	STAFF RESPONSE
Financial ability. Trojan was losing money two quarters ago.	• Trojan's second quarter revenue was $22.7 million (net income of $1.1 million) and third quarter revenue was $25.2 million (net income of $1.2 million). • Trojan has a backlog of $40 million not including the GWR System project. • Trojan has retired all short-term indebtedness and has a positive cash flow. • Trojan has successfully met all bonding requirements delineated in the contract documents. • Trojan has recently been selected by the City of Seattle for a 180 mgd drinking water UV disinfection system (the largest in the world). • The Water Replenishment District has recently selected Trojan for the Alamitos Barrier Project (3 mgd), which involves the use of MF and RO on tertiary effluent as pretreatment to UV for NDMA destruction. • Calgon reported lower quarterly profits down 40% from a year earlier. See Table 2 below for a financial performance comparison. Trojan's third quarter financial results are attached. • A June 24, 2002, Calgon forecast indicated projected further earnings reductions, and also a write-off of a large portion of $61 million in goodwill associated with its 1996 acquisition of Advanced Separation Technologies Inc.
Renegotiation will bring the Calgon price down. Calgon has indicated that they are willing to renegotiate the price to get their price down. An attorney representing Calgon has written that the OCSD and OCWD Boards are free to negotiate the contract price with Calgon.	• Both the Trojan and Calgon proposals were deemed to be responsible and responsive by staff and met all criteria required in the specifications. • OCWD does not wish to reject the Trojan proposal and negotiate a lower price with Calgon since it would expose OCWD and OCSD to litigation on the part of Trojan. • OCWD staff believes there are no overwhelming financial or technical issues to justify sole-source selection of Calgon. • If OCSD Board members find it advisable to contract with Calgon rather than Trojan, a recommendation should be made by the OCSD Board to the OCWD Board to reject all bids and separately attempt to negotiate a contract with Calgon. This action would cause delays in the schedule. This action is speculates that an agreement could be reached between Calgon and OCWD that is acceptable to both parties.
It's really a matter of money from the OCWD's point-of-view. Director Anderson stated that the OCWD has said that if OCSD is willing to pay the cost difference between the Trojan and Calgon proposals (capital and life cycle), then the OCWD would go along with the Calgon award.	• OCWD has never had an official position stating that it would allow OCSD to pay the increased cost of going with the number two proposer. • OCWD staff will not endorse a sole-source negotiation with Calgon even if it results in a lower capital and present worth cost. OCWD firmly believes that although both Trojan and Calgon are capable of performing the job the Trojan system is superior in terms of energy consumption and lamp efficiency. • OCWD staff expert opinion prefers the Trojan system to the Calgon system
The Trojan system, because of its configuration, will imply higher capital costs for the construction of the tanks and building associated with the UV system. GWR System design team staff has not taken this into the overall cost considerations.	• GWR System staff has considered and determined that peripheral capital costs are a small portion of the total costs and therefore were not included in the life cycle cost analysis. If they were Calgon's cost would be greater. • The UV portion of the GWR System will be housed under a canopy structure with only essential electrical equipment housed in an enclosed, climate-controlled building. • The overall space requirements of both systems are similar (nearly 60 ft by 96 ft) so the canopy structure of both would be equal in size. However, the Calgon system will require a fully enclosed electrical building that is 1600 square feet larger than that required for Trojan. • The Trojan system requires a more elaborate sub floor concrete

ISSUE/CONCERN	STAFF RESPONSE
	pad, but the Calgon system requires a greater super structure to support an overhead positioning (15 feet off the ground) of the 78" feed water pipes and treated water pipes.
Lack of time to consider the new information. The package of information that was provided to Directors Anderson and Patterson was delivered just 24 hours before the meeting.	• Referring the item to the FAHR Committee has addressed the issue of time. The Trojan third quarter financial statement only became available on June 25, 2002, the day it was forwarded to Directors Anderson and Patterson.

Table 2

Financial Performance Comparison

Item	Trojan Technologies March – May 2002	Calgon Carbon Corp. January – March 2002
Revenue Growth	+ 20% (a)	- 6%
Net Income (% of Revenue)	4.8	2.2
Cash	$15.6 million	$ 5.0 million
Goodwill Write-offs (b)	-	($ 61 million)
UV Segment Revenue	$ 25 million	$9 million (c)

(a) Does not include GWR System award (b)Reported by Calgon on June 24, 2002 (c) Includes other non-UV sales

ALTERNATIVES

Alternatives to issuing a proposal for pre-selection of the Ultraviolet light equipment included pre-purchase of the equipment or preparing final designs for all equipment options. Pre-purchase of the equipment was not selected to reduce liability to the agencies and place liability for the equipment on the Contractor. With substantial differences in each equipment design, preparing final designs for each manufacturer was determined to be cost prohibitive.

CEQA FINDINGS

The Orange County Sanitation District (OCSD) and Orange County Water District (OCWD) Boards of Directors certified the Environmental Impact Report for the GWR System on March 24, 1999. Addendum No. 1 was approved on March 28, 2001, Addendum No. 2 was approved by OCSD on January 23, 2002, and by OCWD on January 16, 2002.

ATTACHMENTS

1. Present worth life cycle calculation.
2. Budget Information Table
3. March 11, 2002 Joint Cooperative Committee Agenda Item Submittal re: Ultraviolet Light Equipment Pre-selection.
4. Letter dated March 1, 2002 from Calgon Carbon Corporation.
5. Letter dated April 9, 2002 from OCWD to Calgon Carbon Corporation.
6. Letter dated April 18, 2002, from Congresswoman Loretta Sanchez.
7. April 22, 2002 Joint Cooperative Committee Agenda Item Submittal re: Ultraviolet Equipment Update
8. Letter dated June 24, 2002 from Trojan Technologies.
9. News Release, Trojan Technologies Announces Third Quarter Results
10. Letter dated June 25, 2002 to Calgon Carbon from Richards, Watson & Gershon
11. Responses to issues raised by Steve Anderson in July 1 and July 2, 2002 emails

Attachment 1 – Present Worth Life Cycle Cost Comparison

The life cycle cost was calculated based on the capital cost, power consumption, UV lamp replacement, and UV ballast replacement.

Capital Cost Joint Cooperative Committee	Calgon	Trojan
Total	$12,958,650.07	$10,439,990.61

Calgon's capital cost is $2,518,659.46 (24%) higher than Trojan's.

Power Consumption	Calgon	Trojan
Number of Lamps in Service at 70 million gallons per day	50	3,456
Input Power per Lamp, Kilowatt (kW)	20	0.2569
Number of lamps in service x Input Power per Lamp (kW) x 8766-hours/year x .065-$/kW-hour	$569,790	$505,886
Present worth cost over 25 years	$7,283,853	$6,466,943

Trojan's uses more lamps, but each lamp consumes less power. The cost savings in annual power consumption for Trojan is $63,904 per year. Over a 25-year period, the present worth calculated savings in power using Trojan lamps is $816,910.

UV Lamp Replacement	Calgon	Trojan
Number of Lamps in Service at 70 million gallons per day	50	3,456
Lamp Replacement Warranty Period, hours	3,000	12,000
Lamp Replacement Price, $	$1,100	$90
Number of lamps in service x Lamp replacement price x 8766-hr/year / Lamp replacement warranty period	$160,710	$227,215
Present worth cost over 25 years	$2,054,420	$2,904,577

Calgon uses less lamps, but they need replacement more often and at a higher cost per lamp. On an annual basis, the Calgon cost is lower by $66,505 per year. Over a 25-year period, the present worth calculated savings in lamp replacement for Calgon is $850,156.

UV Ballast Replacement	Calgon	Trojan
Number of Ballasts in Service at 70 million gallons per day	50	1,728
Ballast Replacement Warranty Period, months	60	120
Ballast Replacement Price, $	$2,750	$200
Number of ballasts in service x Ballast replacement price x 12 months/year / Ballast replacement warranty period	$27,500	$34,560
Present worth cost over 25 years	$351,544	$441,794

Calgon uses less ballasts, but they need replacement more often and at a higher cost per ballast. On an annual basis, the Calgon cost is lower by $7,060 per year. Over a 25-year period, the present worth calculated savings in ballast replacement for Calgon is $90,251.

Present Worth Overall Life Cycle Comparison	Calgon	Trojan
Capital Cost	$12,958,650.07	$10,439,990.61
Power Consumption	$7,283,853	$6,466,943
UV Lamp Replacement	$2,054,420	$2,904,577
UV Ballast Replacement	$351,544	$441,794
Total	$22,648,467	$20,253,305

Trojan's life cycle cost is lower in capital cost and power consumption. Calgon's life cycle cost is lower in UV lamp and ballast replacement. Capital cost and power consumption have a larger impact on the total life cycle cost of the UV system, thus giving Trojan a lower total present worth that is $2,395,163 (12%) lower than Calgon.

BUDGET INFORMATION TABLE
GROUNDWATER REPLENISHMENT SYSTEM
JOB NO. J-36

PROJECT/TASK	ORIGINAL AUTHORIZED BUDGET	CURRENT PROJECT BUDGET	PROPOSED BUDGET INCREASE	PROPOSED REVISED BUDGET	FUNDS AUTHORIZED TO DATE	THIS AUTHORIZATION REQUEST	PROPOSED TOTAL AUTHORIZATION	ESTIMATED EXPENDITURE TO DATE	ESTIMATED EXPENDED TO DATE(%)
Project Development	$ 700,000	$ 4,000		$ 4,000	$ 4,000		$ 4,000	$ 4,000	100%
Studies/Permitting*		3,313,000		$ 3,313,000	$ 3,300,000		$ 3,300,000	$ 3,313,000	100%
Consultant PSA*	$ 7,500,000	$ 18,631,849		$ 18,631,849	$ 18,158,334		$ 18,158,334	$ 2,600,000	14%
Design Staff	$ 2,349,000	$ 5,357,000		$ 5,357,000	$ 5,357,000		$ 5,357,000	$ 1,400,000	26%
Construction Contract**	$ 86,481,500	$ 157,200,000		$157,200,000	$ 9,642,655		$ 9,642,655	$ 3,000,000	31%
Construction Administration***	$ 2,653,900	$ 6,653,000		$ 6,653,000	$ 5,496,519		$ 5,496,519	$ 200,000	4%
Construction Inspection	$ 9,345,600	$ 326,000		$ 326,000					0%
Contingency	$ 12,895,000	$ 9,721,151		$ 9,721,151					0%
PROJECT TOTAL	$ 121,925,000	$ 201,206,000		$201,206,000	$ 41,958,508	$ -	$ 41,958,508	$ 10,517,000	25%
Reimbursable Costs		$ 30,500,000		$ 30,500,000				$ 2,112,500	
PROJECT NET	$ 121,925,000	$ 170,706,000		$170,706,000	$ 41,958,508	$ -	$ 41,958,508	$ 8,404,500	20%

* Funds authorized to date includes multiple contracts issued under the terms of the Cooperative Agreement for Project Planning for the Groundwater Replenishment System with the Orange County Water District

**Funds authorized to date include Pipeline at Theo Lacy Jail, SCE substation construction, temporary office facilities, agreement and easements, production of MF/UV vendor design documents, and Owner Controlled Insurance Program.

*** Funds authorized to date include Construction Management Services awarded on February 27, 2002

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AGENDA ITEM SUBMITTAL

Meeting Date: March 11, 2002

To: Joint Groundwater Replenishment System Cooperative Committee

From: William R. Mills Jr.
Blake Anderson

Staff Contact: Tom Dawes

Budgeted: Yes
Funding Source: OCWD/OCSD/Grants
Program/Line Item No.: 501-4030-600.70-01
Cost Estimate: N/A

General Counsel Approval: N/A
Project Report Approved: Yes
CEQA Compliance: Yes

Subject: ULTRAVIOLET LIGHT EQUIPMENT PRE-SELECTION

SUMMARY

Two proposals were received on February 27, 2002 to provide ultraviolet light (UV) equipment for the Groundwater Replenishment System. Proposals were received from Calgon Carbon Corporation and Trojan Technologies. Four firms including Wedeco-Ideal Horizons and Aquionics had been pre-qualified to provide the equipment.

The proposal received from Trojan Technologies had the lowest calculated present worth life cycle cost. The Trojan Technologies proposal also had the lowest capital cost of the UV equipment. The proposed capital cost of the UV equipment at $9,749,405 plus tax or $10,439,990.61 including tax at 7.75%, is above the engineer's estimate of $10,250,000 (without the 15% contingency added). Based on the results of the present worth life cycle cost analysis, the recommended pre-selected UV equipment manufacturer is Trojan Technologies. The Trojan bid provides significant ongoing operations and maintenance savings compared to our estimates.

RECOMMENDATION

Agendize for March 20 OCWD Board meeting and for March 27 OCSD Board meeting.

Approve Addendums 1 and 2 providing a time extension and technical clarifications.

Recommend that the Boards of Directors of OCWD and OCSD authorize OCWD to award a pre-selection agreement to Trojan Technologies for the manufacture of ultraviolet light equipment for the Groundwater Replenishment System for the total capital cost of $9,749,405 plus tax as follows:

Authorize payment to Trojan Technologies for engineering details for the equipment design in the total amount of $250,000.

Assign the value of the ultraviolet light equipment to a future contract to install the demonstration UV system at a total cost of $849,842, plus tax.

Assign the value of the ultraviolet light equipment to the contract to install the permanent UV system at a total estimated capital cost of $8,649,563, plus tax.

BACKGROUND

On October 8, 2001 your Committee approved the use of a present worth life cycle cost analysis as the basis for pre-selection of the UV equipment manufacturer. In September, the Board of Directors of the OCSD authorized the award of this contract if at or below the Engineers Estimate of $10,250,000.

The criteria used for the determination of the lowest present worth life-cycle cost included the capital cost of a demonstration UV system, capital cost of the permanent UV system, lamp replacement price, lamp life warranty period, and operational costs over a 25-year life. The operational costs included energy costs. An interest rate of 6% was used in the present worth calculation. The amount of energy necessary for operation of each manufacturer's system was to be guaranteed by the manufacturer in their proposal. A value of 6.5 cents per kWh was used for energy cost calculations. In addition, a payment of $250,000, MF system engineering costs, was included in the proposal determined by staff for all bidders. The demonstration UV system has a capacity of 5 mgd and will be installed near the time when the temporary MF system will be constructed. The demonstration UV system will be used to verify the performance of the UV manufacturer's design for NDMA destruction and disinfection efficiency prior to delivery of the full UV system. The Department of Health Services (DHS) requires that installed UV systems show proof of disinfection efficiency prior to the system being put into full operation. Testing the demonstration system allows the design team to have confidence in the UV manufacturer's proposed design and meet DHS requirements.

DISCUSSION/ANALYSIS

The engineer's estimate for the capital cost of the equipment including the demonstration UV system, permanent UV system, $250,000 lump sum for engineering services, and sales tax was $10,250,000. (The original estimate was based on sales tax at 7.5%, it was bid at 7.75%. Depending on State of California finances, the sales tax rate may change before the equipment is delivered and payment is made.)

The basis of pre-selection is the lowest present worth life-cycle cost. This type of present worth analysis includes all capital as well as O&M costs over the 25-year period chosen for the analysis.

The Request for Proposal (RFP) and two addenda (attached) were sent to four pre-qualified UV equipment manufacturers. Two proposals were received on February 26, 2002, from Calgon Carbon Corporation and Trojan Technologies. The other two pre-qualified manufacturers, Wedeco-Ideal Horizons and Aquionics, did not submit a proposal for this project. The results of the proposals received were as follows:

Table 1
UV Equipment Pre-Selection Proposals

MF Manufacturer	Proposed Lamp type	Proposal Price for Capital Cost of Equipment* (not including sales tax)	Proposal Price for Capital Cost of Equipment* (including sales tax @ 7.75%)	Calculated Present Worth Life Cycle Cost
Trojan Technologies	Low pressure-high intensity	$9,749,405	$10,439,990.61	$20,253,000
Calgon Carbon Corp.	Medium pressure	$12,087,235.38	$12,958,650.07	$22,648,000

* Includes lump sum cost of $250,000 for special engineering services.

The proposal received from Trojan Technologies had the lowest calculated present worth life cycle cost. The Trojan Technologies proposal also had the lowest capital cost of the UV equipment. The proposed capital cost of the UV equipment was above the engineer's estimate, $10,250,000, for both proposals (the Trojan proposal was below when tax is not included). Based on the results of the present worth life cycle cost analysis, the pre-selected UV equipment manufacturer should be Trojan Technologies.

The UV equipment procurement will involve three separate contracts. The UV equipment procurement will include the following three contracts:

1. Demonstration and permanent UV system engineering (shop drawings/layout preparation/ control system design)
2. Demonstration UV system (5 mgd)
3. Permanent UV system (70 mgd which includes the 5 mgd demonstration system)

The first contract is between OCWD and Trojan Technologies as the UV equipment manufacturer. The amount of this contract will be limited to $250,000. This contract enables the treatment plant design team to prepare the work required to design the facilities necessary for the selected UV system. The contract for the demonstration UV system will be assigned to the general contractor chosen to install the demonstration UV system at a value of $849,842 plus tax. The contract for the permanent UV system will be assigned to the AWT general contractor at a value of $8,649,563, plus tax. Table 2 summarizes the breakdown of the Trojan Technologies contract.

Table 2
Breakdown of Trojan Technologies UV Proposal

Contract	**Proposal Price (not including sales tax)**
Engineering services	$250,000
Demonstration UV system equipment	$849,842
Permanent UV system equipment	$8,649,563
TOTAL	$9,749,405

OPERATION AND MAINTENANCE IMPLICATION

The December 2000 project cost estimate of $352 million included estimated costs for the UV system power consumption and lamp replacement. The annual power estimate was $14/AF, but based on the Trojan proposal the actual cost would be $7.00/AF. This represents a project cost savings of $7.00/AF. Also, the annual lamp replacement cost estimate was $5.00/AF and the Trojan proposal provides a cost of $3.00/AF. This is a savings of $2.00/AF for a total savings of $9.00/AF.

PRIOR COMMITTEE ACTIONS

Discussed from time to time under the Project Development Phase, including July 30 and October 8, 2001.

Attachments – RFP Addenda 1 and 2

April 9, 2002

Mr. Charles Drewry
Calgon Carbon Corporation, Inc.
2890 West Oasis Road
Tucson, AZ 85742

Subject: UV Light Equipment Pre-selection Groundwater Replenishment System

Dear Mr. Drewry:

This letter is written in response to the letter received from Calgon Carbon Corporation, Inc. dated March 1, 2002 requesting the Orange County Water District to consider certain issues pertaining to the pre-selection of the subject equipment. Our responses are grouped in the following categories:

Consistency with current equipment
Technical and economic factors
Financial stability of respondents

Consistency with Current Equipment:
Your letter infers several benefits related to consistency between the existing and proposed Calgon equipment. However, the Calgon proposed equipment is of different size, orientation and style compared to the Calgon UV tower currently in operation at Water Factory 21.

Technical and Economic Factors
Your letter states that several factors are not included in the life-cycle cost (LCC) analysis used to select the UV equipment manufacturer. These include: 1) Operator training costs; 2) Replacement lamp discounts; 3) Technical design criteria; 4) Installation costs; 5) Maintenance costs; and 6) American-based company. Each of these items were considered when preparing the pre-selection documents, but did not warrant inclusion in the specific LCC analysis criteria.

Operator training costs are a minor expense for either manufacturer. Replacement lamp costs were considered in the LCC analysis; the present worth (PW) of Calgon's lamp replacement costs were lower than Trojan's; however, the total PW cost (used for selection) for Calgon was $2.4 million higher than Trojan's (12% higher), considering all costs for power consumption, lamp replacement and ballast replacement. The technical design criteria issues listed in the letter (and labeled as "non-compliance issues") have been addressed in the Trojan proposal to OCWD's satisfaction. Installation costs, both electrical and structural costs, and maintenance costs are not significantly different between the manufacturers, and therefore were not included in the LCC analysis. Funding for the project from grants and loans are not affected by buying non-American products.

Financial Stability of Respondents
In evaluating the proposals for responsiveness, consideration was given to the financial standing of both Trojan and Calgon. Although Trojan has incurred a net loss during the period 1999-2001, as stated in your letter, Calgon also incurred a net loss ($13,729,000) in 1999, according to the 2000 Annual Report included in your proposal. We also reviewed Trojan's first quarter 2002 report, which indicates the following: 1) small net loss ($0.02 per share); 2) expected second quarter revenue of $22 million; and 3) selection by City of Seattle of Trojan

equipment for a 180 mgd drinking water disinfection system (largest in the world).

Review of Trojan's second quarter results (period ending February 28, 2002) indicate a strong financial turnaround, based on the following:

1. Second quarter revenue of $22.7 million (52% increase), an annual equivalent of $91 million;
2. Second quarter net income of $1.1 million ($0.06 per share compared to a $0.05 per share loss last year);
3. Retirement of all short-term indebtedness;
4. Positive cash flow; and
5. Backlog exceeding $40 million (not including the GWR System project)

In addition, Trojan has successfully met the performance bonding requirements delineated in the contract documents. We are satisfied with the financial viability of Trojan to successfully meet the project requirements.

Based on the proposal evaluation stated in Article 18 of Section 00200 and in accordance with Section 00310 of the specifications, the recommendation of award will remain Trojan Technologies. Thank you for your time and effort in submitting a proposal for the Groundwater Replenishment System Ultraviolet Disinfection and Oxidation System.

Sincerely,

William R. Everest, P.E.
Associate General Manager
Orange County Water District

cc:

Thomas Dawes, OCWD	Dave Ludwin, OCSD
Clark Ide, OCWD	Brad Hogin, OCSD
Mehul Patel, OCWD	Bruce Chalmers, CDM
Wendy Sevenandt, OCSD	Dave Murray, Brown and Caldwell
Christian Williamson, Trojan Tech.	Bob Finn, Brown and Cald

FAHR COMMITTEE

Meeting Date O7/10/02	To Bd. of Dir. 07/17/02
Item Number FAHR02-67	Item Number 12(e)

AGENDA REPORT

Orange County Sanitation District

FROM: Lisa Tomko, Director of Human Resources
Originator: Jeff Reed, Human Resources Manager

SUBJECT: Additions to Safety Policies as Authorized by Resolution No. OCSD 02-5

GENERAL MANAGER'S RECOMMENDATION

Approve SAFETY-POL-109 and 203, as provided for in Resolution No. OCSD 02-5, regarding the District's Injury and Illness Prevention Program Policy.

SUMMARY

Title 8 of the California Code of Regulations, Section 3203, and California Labor Code, Section 6401.7, require employers to establish, implement and maintain an effective injury prevention program. The District's written Injury and Illness Prevention (IIP) Program was approved in February 2002. The IIP Program provides that written safety and health policies, procedures and programs will be developed and maintained to ensure compliance with applicable Federal OSHA and Cal-OSHA requirements and to carryout effective accident prevention in the workplace, thereby reducing injury incidence rates.

To ensure that the IIP Program is effectively implemented, various Safety Policies are being developed to address targeted compliance areas. The compliance areas identified for program development and policy implementation at this time are indicated in the following policies:

- SAFETY-POL-109 Respiratory Protection Program
- SAFETY-POL-203 Ergonomics

PROJECT/CONTRACT COST SUMMARY

Not Applicable

BUDGET IMPACT

☐ This item has been budgeted. (Line item:)
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☒ Not applicable (information item)

ADDITIONAL INFORMATION

Written safety compliance programs are detailed in specific Safety Policies, Procedures or Programs. The policies being submitted for approval are the following:

SAFETY-POL-109 Respiratory Protection Program

This policy ensures the protection of employees from potentially harmful atmospheres by establishing the requirements for the selection, use, care and maintenance of respiratory protection equipment. This program also establishes the voluntary use, medical and training requirements for respiratory protection equipment and its users. It includes the duties of the program administrator, supervisor, and respiratory protection device user.

SAFETY-POL-203 Ergonomics

This policy ensures that employee workstations and other work areas are reviewed for compatibility with the human end user. It includes the requirements for workstation evaluation, and the selection, use and care for devices designed to reduce hazards in the workplace that can lead to repetitive motion and cumulative trauma injuries.

ALTERNATIVES

Not Applicable

CEQA FINDINGS

Not Applicable

ATTACHMENTS

Attachment 1 - SAFETY-POL-109 Respiratory Protection Program
Attachment 2 - SAFETY-POL-203 Ergonomics

ORANGE COUNTY SANITATION DISTRICT

Safety and Health Division

SAFETY-POL-109
Respiratory Protection Program

APPROVALS

Approved by:_____ Date:_____
Director of Human Resources

Approved by:_____ Date:_____
Manager, Human Resources

Approved by:_____ Date:_____
Safety and Health Supervisor

PROCEDURE REVISION HISTORY		
Rev.	**Date**	**Approval**
0	07/17/2002	

*This document is controlled when viewed online. When downloaded and printed, this document becomes **UNCONTROLLED**, and users should check the Safety and Health Division public folder to ensure that they have the latest version.*

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Respiratory Protection Program	SAFETY-POL-109

Purpose

Employees at the Orange County Sanitation District (district) may be exposed to air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors or oxygen deficient atmospheres, during their normal work activities. The district has attempted to remove these potentially dangerous conditions through the use of engineering controls where feasible. Engineering controls are not always feasible due to the remoteness of a location, the confines of a work area or in emergency situations. In an effort to control employee exposures to respiratory hazards, the district has developed this Respiratory Protection Program. All respiratory protective equipment shall be issued and used pursuant to this Policy.

The purpose of this Respiratory Protection Program and Policy is to establish a program that will protect employees from potentially harmful atmospheres by establishing the requirements for the selection, use, care and maintenance of respiratory protection equipment. This program also establishes the voluntary use, medical and training requirements for respiratory protective equipment and its users.

Definitions

Air-purifying respirator	A respirator with an air purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.
Atmosphere-supplying respirator	A respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.
Canister or cartridge	A container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.
Emergency situation	Any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.
Employee exposure	Exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.
End-of-service-life indicator (ESLI)	A system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.
Escape-only respirator	A respirator intended to be used only for emergency exit.
Filtering facepiece (dust mask)	A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.
Fit test	The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Quantitative fit test QNFT.)
Immediately dangerous to life or health (IDLH)	An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.
Oxygen deficient atmosphere	An atmosphere with oxygen content below 19.5% by volume.
Physician or other	An individual whose legally permitted scope of practice (i.e., license, registration, or

licensed health care professional (PLHCP)	certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by subsection (e).
Powered air-purifying respirator (PAPR)	An air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.
Qualitative fit test (QLFT)	A pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.
Self-contained breathing apparatus (SCBA)	An atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.
Service life	The period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.
Supplied-air respirator (SAR)	An atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.
Tight-fitting facepiece	A respiratory inlet covering that forms a complete seal with the face.
User seal check	An action conducted by the respirator user to determine if the respirator is properly seated to the face.

Requirements

The required elements listed below are the nine elements of a respiratory program required by the California Occupational Safety and Health Administration (Cal-OSHA). Specific detail of each element may be found in specific respiratory program standard operating procedures, where applicable.

Respirator Selection

Respirators shall be selected based on a workplace survey of potential and known respiratory hazards. Voluntary use of respiratory protective equipment is allowed with the approval of the Respiratory Program Administrator.

Respiratory Selection Process

THE SAFETY AND HEALTH DIVISION (SAFETY) SHALL CONDUCT A HAZARD ASSESSMENT SURVEY TO DETERMINE WHICH WORKPLACE HAZARDS HAVE RESPIRATORY HAZARDS AND TO DETERMINE THE CONDITIONS ENCOUNTERED BY EMPLOYEES EXPOSED TO RESPIRATORY HAZARDS. THIS HAZARD ASSESSMENT SHALL BE CONDUCTED IN ACCORDANCE WITH SAFETY-SOP-109.1 RESPIRATORY EQUIPMENT SELECTION PROCEDURES.

THE PROPER TYPE OF RESPIRATOR SHALL BE SELECTED FOR EACH WORK PLACE WHERE A RESPIRATORY HAZARD EXISTS.

RESPIRATORS FOR VOLUNTARY USE, WHERE A RESPIRATORY HAZARD DOES NOT EXIST SHALL BE SELECTED BY THE SAME MEANS.

ONLY RESPIRATORS APPROVED BY THE NATIONAL INSTITUTES OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH) SHALL BE SELECTED AND USED.

EMPLOYEES MAY ONLY CHOOSE THE MODEL/MANUFACTURER OF DISTRICT PROVIDED RESPIRATORY EQUIPMENT THEY WILL USE, NOT THE TYPE (AIR PURIFYING/AIR SUPPLIED) OF RESPIRATORY EQUIPMENT.

A. EMPLOYEES MAY NOT PURCHASE THEIR OWN RESPIRATORY PROTECTIVE EQUIPMENT FOR USE ON DISTRICT BUSINESS.

THE DISTRICT SHALL ENSURE THAT ALL FILTERS, CARTRIDGES AND CANISTERS USED IN THE WORKPLACE ARE LABELED AND COLOR-CODED WITH THE NIOSH APPROVAL LABEL AND THAT THE LABEL IS NOT REMOVED AND REMAINS LEGIBLE.

Medical Evaluation of Respirator Users

Using a respirator may place a physiological burden on an employee, which varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. A respirator may produce undesirable physiological and psychological effects on the wearer. Employees must not be assigned tasks that require the use of a respirator unless a licensed health care professional has determined they are physically capable of performing work while wearing respiratory protective equipment. Employees may refuse work that requires the use of a respirator if they have not been medically qualified in the previous 12 months.

Medical Surveillance Process

1. SAFETY SHALL SELECT A PHYSICIAN OR OTHER LICENSED HEALTH CARE PROFESSIONAL (PLHCP) TO PERFORM MEDICAL EVALUATIONS IN ACCORDANCE WITH SAFETY-POL-403, MEDICAL EXAMINATIONS AND SAFETY-SOP-403.1, MEDICAL SURVEILLANCE EXAMINATIONS FOR RESPIRATOR USERS.

2. EMPLOYEES SHALL BE EVALUATED ANNUALLY BY A PLHCP TO DETERMINE FITNESS TO WEAR A RESPIRATOR.

3. EMPLOYEES SHALL RECEIVE FOLLOW UP MEDICAL EXAMINATION(S) THAT SHALL INCLUDE ANY MEDICAL TESTS, CONSULTATIONS, OR DIAGNOSTIC PROCEDURES THAT THE PLHCP DEEMS NECESSARY TO MAKE A FINAL DETERMINATION.

4. Employees are entitled to follow up medical examinations if any of the following conditions apply:

   A. AN EMPLOYEE REPORTS MEDICAL SIGNS OR SYMPTOMS THAT ARE RELATED TO ABILITY TO USE A RESPIRATOR

   B. A PLHCP, SUPERVISOR, OR THE RESPIRATOR PROGRAM ADMINISTRATOR INFORMSTHE EMPLOYER THAT AN EMPLOYEE NEEDS TO BE REEVALUATED.

   C. INFORMATION FROM THE RESPIRATORY PROTECTION PROGRAM, INCLUDING OBSERVATIONS MADE DURING FIT TESTING AND PROGRAM EVALUATION, INDICATES A NEED FOR EMPLOYEE REEVALUATION.

   D. A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.

Respirator Use and Emergencies

This section outlines the procedures and responsibilities for the proper use of respirators during normal operations and emergency situations.

Respirator Usage

Employees shall use respiratory protective equipment in areas designated as respiratory protective equipment use areas as defined in SAFETY-SOP-109.2, Respirator Use.

EMPLOYEES WHO REQUIRE PRESCRIPTION EYEWEAR TO CORRECT VISION SHALL NOT ALLOW EYEGLASS TEMPLE BARS TO INTERFERE WITH THE SEAL OF THE RESPIRATOR. PRESCRIPTION EYEWEAR FOR RESPIRATORY PROTECTIVE EQUIPMENT USERS MAY BE OBTAINED IN ACCORDANCE WITH SAFETY-POL-102.2, OBTAINING PERSONALIZED PERSONAL PROTECTIVE EQUIPMENT.

EMPLOYEES SHALL INSPECT THEIR RESPIRATORS BEFORE ENTERING AREAS OR PERFORMING TASKS THAT REQUIRE THEIR USAGE. INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH SAFETY-SOP-109.8, RESPIRATOR INSPECTION.

EMPLOYEES SHALL NOT USE RESPIRATORY PROTECTIVE EQUIPMENT THAT IS DEFECTIVE.

When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, Safety shall reevaluate the continued effectiveness of the respirator in accordance with SAFETY-SOP-109.1

Respiratory Usage in Immediately Dangerous to Life and Health (IDLH) Atmospheres

The required respiratory protection for IDLH conditions caused by the presence of toxic materials or a reduced percentage of oxygen is a positive pressure SCBA or a combination supplied air respirator with an escape bottle.

IF AN EMPLOYEE MUST WORK IN AN ATMOSPHERE THAT IS IMMEDIATELY DANGEROUS TO LIFE AND HEALTH (IDLH), THE EMPLOYEE SHALL COMPLY WITH THE REQUIREMENTS OF SAFETY-SOP-109.3, WORKING IN IDLH ATMOSPHERES.

Emergency Situations involving Respiratory Equipment

In the event of an emergency situation that will require the use of respiratory protective equipment, only a positive pressure SCBA shall be used. The use of other respiratory protective equipment for emergency situations shall not be allowed without the approval of the Safety and Health Manager, Supervisor, or designee.

Voluntary Respirator Use

The district may provide respirators at the request of employees if the district has determined that such respirator use will not in itself create a hazard. If the district determines that any voluntary respirator use is permissible, the district shall provide the respirator users with the information contained in Attachment A.

Voluntary respirator users shall be required to meet all the requirements of this policy. Voluntary users who only use approved filtering face pieces, shall only require training in the proper use and care of filtering face pieces. Medical surveillance is not required.

Respirator Fit Testing

All respirators that rely on a mask-to-face seal need to be annually checked with a qualitative method to determine whether the mask provides an acceptable fit to a wearer.

Respirator Fit Test Process

1. All employees who wear respiratory protective equipment shall receive a fit test at least annually.

2. Fit tests shall be completed on a more frequent basis if:

   A. The employee uses more than one type of respirator face piece.

   B. The employee gains or loses more than 15 pounds in weight and notifies the Respiratory Program Administrator of the change.

   C. The employee believes that his or her selected respirator is no longer providing an adequate fit.

3. Fit tests will not be given to employees who are not clean-shaven as described in Section 3.8.

4. Qualitative fit test procedures shall be used and conducted in accordance with SAFETY-SOP-109.4, Respirator Fit Testing.

Respirator Cleaning, Maintenance and Storage

The cleaning, maintenance and storage of respiratory protective equipment is vital to an effective Respiratory Protective Program.

This section describes the requirements for the cleaning and disinfecting, storage, inspection, and repair of respirators used by employees.

The district shall initially provide each respirator user with a respirator that is clean, sanitary, and in good working order. It is the responsibility of each employee who is assigned a respirator to ensure that his or her personal respirator is properly inspected, disinfected and maintained.

Respirator Maintenance and Inspection Process

Respirators will not function properly if they are not inspected for damage and maintained on a regular basis. This section outlines the requirements for respirator inspections and maintenance.

1. All respirators shall be inspected by their user before each use and during cleaning in accordance with SAFETY-SOP-109.8 Respirator Inspections and SAFETY-SOP-109.6, Respirator Cleaning and Disinfection.

2. All respirators maintained for use in emergency situations shall be inspected at least monthly by the respirator owner (division manager or supervisor) and in accordance with the manufacturer's recommendations,

3. All respirators used for emergencies shall be checked for proper function by the employee using the respirator before and after each use by the user of the equipment.

4. The manager (or designee) shall ensure that respirators that fail an inspection or are otherwise found to be defective are removed from service. It is the inspecting employee's responsibility to inform the supervisor of defective equipment when discovered.

5. Repairs to respiratory protective equipment shall be conducted in accordance with SAFETY-SOP-109.5 Maintenance of Respirators.

Respirator Cleaning Process

RESPIRATORS SHALL BE CLEANED AND DISINFECTED IN ACCORDANCE WITH SAFETY-SOP-109.6 CLEANING AND DISINFECTION OF RESPIRATORY PROTECTIVE EQUIPMENT.

RESPIRATORS ISSUED FOR THE EXCLUSIVE USE OF AN EMPLOYEE SHALL BE CLEANED AND DISINFECTED BY THE EMPLOYEE AS OFTEN AS NECESSARY TO BE MAINTAINED IN A SANITARY CONDITION.

RESPIRATORS ISSUED TO MORE THAN ONE EMPLOYEE SHALL BE CLEANED AND DISINFECTED BEFORE BEING WORN BY DIFFERENT INDIVIDUALS. THE INDIVIDUAL WHO LAST USED THE RESPIRATOR IS RESPONSIBLE FOR DISINFECTING THE FACEPIECE.

RESPIRATORS USED IN FIT TESTING AND TRAINING SHALL BE CLEANED AND DISINFECTED AFTER EACH USE BY THE SAFETY AND HEALTH DIVISION.

Respirator Storage Process

All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals. They shall be packed or stored to prevent deformation of the face piece and exhalation valve.

1. RESPIRATORS SHALL BE STORED IN ACCORDANCE WITH SAFETY-SOP-109.7 RESPIRATOR STORAGE.

2. THE MANAGER OF THE DIVISION IN POSSESSION OF RESPIRATORY PROTECTIVE EQUIPMENT SHALL BE RESPONSIBLE FOR ENSURING THAT RESPIRATORY PROTECTIVE EQUIPMENT ISSUED TO MORE THAN ONE EMPLOYEE (I.E. SCBA OR AIRLINE EQUIPMENT) IS PROPERLY STORED WHEN NOT IN USE.

Breathing Air Quality

This section requires the district to provide employees using atmosphere-supplying respirators (supplied-air and SCBA) with breathing gases of high purity. Only compressed breathing air meeting at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989 shall be used.

Breathing Air Specification

1. SAFETY AND HEALTH STAFF SHALL ENSURE THAT ALL BREATHING AIR FOR ATMOSPHERE-SUPPLYING RESPIRATORS USE GRADE D BREATHING AIR AS DESCRIBED IN ANSI/COMPRESSED GAS ASSOCIATION COMMODITY SPECIFICATION FOR AIR, G-7.1-1989. SPECIFIC REQUIREMENTS MAY BE FOUND IN SAFETY-SOP-109.9 BREATHING AIR CERTIFICATION.

2. SAFETY AND HEALTH STAFF SHALL ENSURE THAT ALL BREATHING AIR MEETS THE REQUIREMENTS OF (1) ABOVE WHETHER SUPPLIED FROM DISTRICT SOURCES OR VENDOR SOURCES.

   A. SAFETY AND HEALTH STAFF SHALL APPROVE ALL VENDOR SOURCES OF BREATHING AIR PRIOR TO USE.

3. The manager of the division using breathing air couplings shall ensure that breathing air couplings are incompatible with outlets for non-respirable worksite air or other gas systems. No asphyxiating substance shall be introduced into breathing airlines.

4. The district does not maintain any compressors used to supply breathing air to

respirator users.

Training program

This section outlines the requirements the district has established to provide effective training to employees who are required to use respirators.

Respiratory Protection Training program

1. THE SAFETY AND HEALTH DIVISION SHALL ESTABLISH A RESPIRATOR TRAINING PROGRAM(S) AS DESCRIBED IN SAFETY-SOP-109.10 RESPIRATORY TRAINING PROGRAMS.
2. TRAINING SHALL BE PROVIDED PRIOR TO REQUIRING THE EMPLOYEE TO USE A RESPIRATOR IN THE WORKPLACE.
3. RETRAINING SHALL BE ADMINISTERED ANNUALLY, AND WHEN THE FOLLOWING SITUATION(S) OCCUR.
    A. CHANGES IN THE WORKPLACE OR THE TYPE OF RESPIRATOR RENDER PREVIOUS TRAINING OBSOLETE.
    B. IF THE EMPLOYEE CANNOT DEMONSTRATE KNOWLEDGE OF OR USE THE RESPIRATOR.
    C. ANY OTHER SITUATION ARISES IN WHICH RETRAINING APPEARS NECESSARY TO ENSURE SAFE RESPIRATOR USE

Prohibition of Facial Hair for Respirator Users

Cal-OSHA prohibits facial hair in places on the face and neck where it can interfere with the seal of a respirator on the face of the user. Therefore, employee's whose job classifications require the use of respiratory protective equipment shall be prohibited from wearing of facial hair from all areas of the face and body, which may interfere with the seal of respiratory protective equipment. Employees who voluntarily wear respiratory protective equipment shall be prohibited from wearing of facial hair from all areas of the body, which may interfere with the seal of respiratory protective equipment.

Employees who may be required to infrequently wear respiratory protective equipment and have the ability to shave prior to respiratory protection use, may have facial hair as long as it is removed prior to being fit tested or having to wear a respirator.

Program Administration and Review

The district has designated a program administrator who is qualified by appropriate training and experience to administer and oversee the respiratory protection program and conduct the required evaluations of program effectiveness.

Program Administration and Review Process

The Respiratory Program shall be managed and administered by the Safety and Health Division. The Respiratory Program Administrator shall be the Safety Specialist.

This Respiratory Protection Program shall be evaluated annually to ensure that it is

effective in providing adequate protection against the inhalation of harmful atmospheres in accordance with the procedures established in SAFETY-SOP-109.11 Respiratory Program Administration.

References

INTEGRATED EMERGENCY RESPONSE PLAN, VOLUME 2, CHAPTER 3

SAFETY-POL-102, PERSONAL PROTECTIVE EQUIPMENT

SAFETY-POL-102.2, OBTAINING PERSONALIZED PPE.

SAFETY-POL-403, MEDICAL EXAMINATIONS

SAFETY-SOP-403.3, MEDICAL SURVEILLANCE EXAMINATIONS FOR RESPIRATOR USERS.

SAFETY-SOP-109.1 RESPIRATORY EQUIPMENT SELECTION PROCEDURES

SAFETY-SOP-109.2 RESPIRATOR USE

SAFETY-SOP-109.3 RESPIRATORS IN IDLH ATMOSPHERES

SAFETY-SOP-109.4 FIT TEST PROCEDURES

SAFETY-SOP-109.5 MAINTENANCE OF RESPIRATORS

SAFETY-SOP-109.6 CLEANING AND DISINFECTION OF RESPIRATORY PROTECTIVE EQUIPMENT

SAFETY-SOP-109.7 RESPIRATOR STORAGE

SAFETY-SOP-109.8 RESPIRATOR INSPECTION

SAFETY-SOP-109.9 BREATHING AIR CERTIFICATION

SAFETY-SOP-109.10 RESPIRATOR TRAINING PROGRAMS

SAFETY-SOP-109.11 ADMINISTRATIVE PROGRAM REQUIREMENTS

Title 8, California Code of Regulations Section 5144, Respiratory Protection.

Title 29, Code of Federal Regulations, Part 1910 134, Respiratory Protection.

Attachments

Attachment A. Information for Employees Using Respirators When Not Required Under the Respiratory Protection Standard

Attachment A.
Information for Employees Using Respirators When Not Required Under the Respiratory Protection Standard

Reprinted from 29 CFR 1910.134 Appendix D

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides

respirators for your voluntary use, of if you provide your own respirator (See note below), you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

NOTE: It is against district policy for employees to provide their own respiratory protective equipment.

FAHR COMMITTEE

AGENDA REPORT

Meeting Date 07/10/02	To Bd. of Dir. 07/17/02
Item Number FAHR02-68	Item Number 12(f)

Orange County Sanitation District

FROM: Lisa Tomko, Director, Human Resources

SUBJECT: DEFERRED COMPENSATION 457 PLAN AMENDMENT

GENERAL MANAGER'S RECOMMENDATION

Adopt Resolution No. OCSD 02-12, approving first amendment to the Deferred Compensation Plan for Officers and Employees of the District.

SUMMARY

The Economic Growth and Tax Relief Reconciliation Act of 2001 ("2001 Act") was enacted by Congress and has had a substantial impact on the administration of Internal Revenue Code Section 457 ("Section 457") Deferred Compensation Plans. The State Legislature has now passed companion legislation (Chapter 34, 2002 STATS.), to provide that all the changes in Internal Revenue Code Section 457 are also allowed for State tax purposes. The most significant changes involve the amounts that may be contributed to a Section 457 Plan. The required changes are summarized in Exhibit A, attached to the proposed Resolution which is enclosed. They are described in detail in the attached amendment.

PROJECT/CONTRACT COST SUMMARY

Costs are limited to administrative costs, such as providing new documents to participants. There are no District contributions to the 457 Plan.

BUDGET IMPACT

☐ This item has been budgeted. (Line item:)
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☒ Not applicable (information item)

ADDITIONAL INFORMATION

ALTERNATIVES

CEQA FINDINGS

ATTACHMENTS

- Resolution No. OCSD 02-12 approving amendment to deferred compensation plan for Officers and Employees

- General Counsel May 29, 2002 memorandum, Deferred Compensation Plan Amendment
- First Amendment to Orange County Sanitation District Deferred Compensation Plan 1998]

RESOLUTION NO. _____

APPROVING FIRST AMENDMENT TO THE DEFERRED COMPENSATION PLAN FOR OFFICERS AND EMPLOYEES OF THE DISTRICT

A RESOLUTION OF THE BOARD OF DIRECTORS OF ORANGE COUNTY SANITATION DISTRICT APPROVING FIRST AMENDMENT TO THE ORANGE COUNTY SANITATION DISTRICT DEFERRED COMPENSATION PLAN [1998] FOR OFFICERS AND EMPLOYEES OF THE DISTRICT

WHEREAS, the Board of Directors has, pursuant to Resolution No. OCSD 98-36, adopted July 1, 1998, adopted a Deferred Compensation Plan, known as the Orange County Sanitation District Deferred Compensation Plan [1998], for eligible Employee Participants (hereinafter referred to as the "Plan"); and

WHEREAS, the United States Congress enacted the Economic Growth and Tax Relief Reconciliation Act of 2001 ("2001 Act"), in part amending Internal Revenue Code Section 457 relating to Deferred Compensation Plans; and

WHEREAS, the State Legislature has enacted Senate Bill 657 (Chapter 34, 2002 STATS.), amending the California Revenue & Taxation Code to conform to the similar provisions in the Internal Revenue Code Section 457; and

WHEREAS, the Board of Directors desires to amend the Plan in order to comply with and provide the benefits of the "2001 Act".

NOW, THEREFORE, the Board of Directors of Orange County Sanitation District,

DOES HEREBY RESOLVE, DETERMINE, AND ORDER:

Section 1: That the First Amendment to the Orange County Sanitation District Deferred Compensation Plan, as set forth in Exhibit "A", attached hereto and incorporated herein by reference as though set forth herein at length, is hereby adopted and shall remain in effect until amended or terminated by Resolution of the Board of Directors.

PASSED AND ADOPTED at a regular meeting held _____, 2002.

_____
Chair

ATTEST:

_____
Board Secretary

LAW OFFICES OF
WOODRUFF, SPRADLIN & SMART
A PROFESSIONAL CORPORATION

MEMORANDUM

Mr. Gary G. Streed
Ms. Lisa L. Tomko

FROM: General Counsel

DATE: May 29, 2002

District's Amended Deferred Compensation Internal Revenue Code Section 457 Plan: Changes Due to the Economic Growth and Tax Relief Reconciliation Act of 2001

The Economic Growth and Tax Relief Reconciliation Act of 2001 ("2001 Act") was enacted by Congress and has had a substantial impact on the administration of Internal Revenue Code Section 457 ("Section 457") Deferred Compensation Plans. The State Legislature has now passed companion legislation (Chapter 34, 2002 STATS.), to provide that all the changes to Internal Revenue Code Section 457 are also allowed for State tax purposes. The most significant changes involve the amounts that may be contributed to a Section 457 Plan. Due to the 2001 Act, we have reviewed and revised the Orange County Sanitation District's ("District") Section 457 Plan. Enclosed herewith is the District's amended Plan, along with all of the amended documents that employees who participate in the Section 457 Plan must have available and execute, as appropriate. Please note that we have only enclosed the documents that were amended due to 2001 Act changes. The District may continue to use the other Section 457 Plan documents already in its possession.

The Board Resolution should be placed on the next possible Agenda for adoption.

You should make arrangements to have each Section 457 Plan Participant receive a copy of the following documents (others should already be in the Participant's/District's possession[1]):

1. The adopted Amended Plan (Fourth Amendment);

2. The Board Resolution;

3. The Participation Agreement;

4. Attachment "A" to the Participation Agreement;

[1] The documents that the District should already have in its possession – and that are not affected by the 2001 Tax Act – include Attachments "C" – "H" to the Participation Agreement, as well as a Summary of the Participation Agreement.

5. Attachment "B" to the Participation Agreement;

The employee participant will need to sign the Participation Agreement, along with Attachment "A." Attachment "B" need not be provided to a Participant unless and until he or she requests to modify or terminate his or her participation in the Section 457 Plan. The adopted Amended Plan (Fourth Amendment) and Board Resolution are for the Participant's benefit and should be provided to each Participant for his/her records.

Summary of Section 457 Plan Changes Due to the 2001 Act:

1. Plan Benefit Contribution Limits and Coordination Requirements

The majority of the changes made to the District's Section 457 Plan are in the area of Plan benefit contribution limits (see Sections 4.2 and 4.3 of the District's Section 457 Plan). Prior to the 2001 Act, Section 457 of the Internal Revenue Code specified that the maximum annual deferral amount could not exceed the lesser of (1) $7,500.00 (and as indexed to higher levels pursuant to Regulations issued by the Secretary of the Treasury). This has happened twice, so that the maximum deferral amount was $8,000.00, and through 2001 was $8,500.00); or (2) 33-1/3% of the Participant's includable compensation. The District's Section 457 Plan tracked the Internal Revenue Code's provisions.

Additionally, prior to the 2001 Act, the Internal Revenue Code required that employers heed certain "coordination requirements" when calculating a Participant's maximum annual deferral amount. This maximum annual deferral amount was an overall limit that applied to *all deferrals* under qualified Plans in which an individual participated. Section 4.2 (a) of the District's Section 457 Plan reflected this requirement, stating that it was necessary to *reduce* the amount that a Participant could defer to the Plan by: (1) any amount excludable from the Participant's gross income for the taxable year under Internal Revenue Code Section 403(b) on account of contributions made by the District or any other employer. (Note: the District has no Section 403(b) Plan, so this is applicable solely to employees who join the District mid-year from another employer who had any Plan set out in Footnote No. 2); or (2) as otherwise specified in Internal Revenue Code Section 457(c)(2).[2]

[2] Prior to the 2001 Act, under the IRS' so-called "coordination requirements," contributions under the following arrangements were also taken into account in determining if the *maximum annual deferral amount* was reached:

(1) Tax-sheltered (Code section 403(b)) annuities;
(2) Cash or deferred arrangements (Code section 401(k) plans);
(3) Simplified employee pension plans (SEP's);
(4) SIMPLE retirement accounts; and
(5) Amounts for which a deduction is allowable for contributions to a plan described in Code Section 501(c)(18).

➢ **Changes After the 2001 Act Plan Benefit Contribution Limits**

The 2001 Act changed both the maximum annual deferral amount and the coordination requirements for Section 457 Plans. Whereas, the previous maximum deferral amount had been the lesser of $8,500.00 or 33-1/3% of includable compensation. Starting with 2002, the maximum annual deferral amount under a Section 457 Plan for the taxable year (other than rollover amounts) shall not exceed *the lesser of*:

the "applicable dollar amount," or

100% of the Participant's includible compensation (as this term is defined in the District's existing Section 457 Plan in accordance with the applicable Internal Revenue Code definition.)

The Internal Revenue Code specifies that in 2002, the "applicable dollar amount" is $11,000.00. For practical purposes, that means that a Participant may not defer more than $11,000.00 of his/her compensation for the 2002 taxable year. Thereafter, the following "applicable dollar amounts" apply (Code Sec. 457(b)(2)(A)):

$12,000.00 for 2003
$13,000.00 for 2004
$14,000.00 for 2005
$15,000.00 for 2006[3]

➢ **Changes After the 2001 Act Coordination Requirements**

In addition to changing the maximum annual deferral amounts, the 2001 Act *deleted* the provision requiring that Code Section 457 deferrals be *coordinated* with contributions to the other Plans in order to determine if the deferral limit was exceeded. Under the 2001 Act, the maximum amount of compensation that any one individual may defer under a Code Section 457 Plan during any tax year simply *cannot exceed the applicable dollar amount listed above*.

2. "Catch-Up Rule"

Under pre-2001 tax law, there was a special "catch-up rule" in Section 457(b)(3) that provided that, for one or more of the Participant's last three (3) years before retirement, the otherwise applicable maximum annual deferral was *increased* to the *lesser of*:

[3] Cost-of-living adjustments: In the case of taxable years beginning after December 31, 2006, the $15,000 amount shall be adjusted based on increases in the cost-of-living.

$15,000.00, or

the sum of the otherwise applicable limit for the year plus the amount by which the limit applicable in preceding years of participation exceeded the deferrals for that year.

The 2001 Act changed this "catch-up rule." The IRS has modified the "catch-up rule" so that a Participant's new *maximum annual deferral* amount in the three (3) years before retirement is *twice* the otherwise applicable dollar amount (as specified above, by year). (Code Sec. 457(b)(3)(A)) Thus, for 2002 the maximum annual deferral amount under the "catch-up rule" is $22,000.00 ($11,000.00 x 2 = $22,000.00).

3. Spouse (or Former Spouse) Subject to Tax on Benefits Received From a 457 Plan Distribution Under a "QDRO" After 2001

Prior to 2001, the assignment or alienation of benefits provided under eligible Retirement Plans was strictly prohibited, except in very limited circumstances. One exception to the prohibition on assignment or alienation was a "qualified domestic relations order" ("QDRO"). A QDRO is a domestic relations order that creates or recognizes a right of an alternate payee to any Plan benefit payable with respect to a Participant, and that meets certain procedural requirements.

Prior to the 2001 Act, distributions from various types of eligible Plans (other than Section 457 Plans) were taxable to the Participant in the year of distribution. However, if distributions were made to the Participant's spouse (or former spouse) under a QDRO, then the benefits were taxable to the spouse (or former spouse). Distributions under a QDRO that were made to an alternate payee other than the participant's spouse (or former spouse) were taxable to the participant.

- **Changes After 2001 Act**

As a result of the 2001 Act, the QDRO rules stated above *will apply* to Section 457 Plans for purposes of determining whether a distribution is made under a QDRO. Payments made to an *alternate payee* under the terms of a QDRO will not cause a section 457 Plan to violate the restrictions on distributions for Section 457 Plans.

Thus, where a spouse (or former spouse) of a Participant in a Section 457 Plan receives a distribution under the terms of a QDRO from the Section 457 Plan, the spouse (or former spouse) will be treated as the distributee and taxed on the benefits received. Section 457 Plan distributions made to an alternate payee other than a spouse/former spouse under a QDRO are taxable to the Participant.

As you will note from the enclosed documents, we have added a new Subsection 12.4 to the District's Section 457 Plan regarding "QDRO" distributions. We have also added a definition of the term "Qualified Domestic Relations Order" at Subsection 3.19.

4. Other Changes Due to 2001 Act

Finally, we wish to draw your attention to some additional changes due to the 2001 Tax Act. These changes do not necessitate any changes to the District's § 457 Plan.

The 2001 Act provides for a new *tax credit* for contributions made by "eligible taxpayers" to an eligible Retirement Plan. The 2001 Act allows an eligible taxpayer to claim a tax credit of *up to $2,000.00* for the amounts deferred to a Section 457R. There are restrictions on who is an "eligible taxpayer" and when the credit is available. Further, the IRS has set the tax credit as a percentage (50%, 20%, or 10%) of the deferred amount *up to $2,000.00* in contributions to a Section 457 Plan, according to the taxpayer's status (e.g., married filing separate returns, head of household, etc.). The availability of the tax credit to a particular Participant is beyond the scope of this memorandum, and is a topic that an individual Participant should discuss with his or her tax advisor.

An additional change due to the 2001 Act is a revised maximum compensation limit that may be taken into account for purposes of determining contributions and benefits under an eligible Retirement Plan. As of 2001, the maximum amount of compensation that can be taken into account in order to determine contributions and benefits has increased from $170,000.00 to $200,000.00.

Please feel free to contact this office with any questions or comments regarding the District's Section 457 Plan and the enclosed changes thereto.

Thomas L. Woodruff

THOMAS L. WOODRUFF
GENERAL COUNSEL

TLW:pj

cc: Mr. B.P. Anderson

FIRST AMENDMENT TO ORANGE COUNTY SANITATION DISTRICT DEFERRED COMPENSATION PLAN [1998]

SECTION 1: Background. The Board of Directors of the Orange County Sanitation District, pursuant to Resolution No. OCSD 98-36, adopted July 1, 1998, has adopted a Deferred Compensation Plan, known as the Orange County Sanitation District Deferred Compensation Plan [1998], for eligible Employee Participants (hereinafter referred to as the "Plan").

SECTION 2: Purpose. The primary purpose of the Plan is to attract and retain personnel by permitting them to enter into Plan Participation Agreements which will provide future payments in lieu of current income upon death, disability, retirement, or other termination of employment with the Employer. Neither the Plan, nor any provision of the Plan, shall be construed as either an employment agreement, or a right to be retained by the Employer. The Employer intends that the Plan satisfy the Internal Revenue Code Section 457 requirements for an "eligible deferred compensation plan." However, the Employer does not guarantee any tax benefits due to participation in the Plan, and each Participant should consult his or her own tax representative for information and advice on the tax ramifications of participation in the Plan.

SECTION 3: Definitions. For the purposes of this Plan, certain words or phrases used herein will have the following meanings:

3.1 "Applicable Dollar Amount" shall mean the maximum amount of elective deferrals that a Participant in the Employer's Section 457 Plan may defer for the taxable year, as set forth in Section 4.2 (a) and (b). *[2001 Amendment]*

3.2 "Category A Beneficiary" shall mean any individual designated as the beneficiary by the Participant, either pursuant to the Participation Agreement or pursuant to a later written election filed with the Employer before the death of the Participant. A trust may also be designated as a beneficiary under the Plan, under certain circumstances more specifically described in Subsection 10.6.2 below, but in that case the trust beneficiaries who may receive trust distributions on account of payments from the Plan shall be deemed to be the Category A Beneficiaries under the Plan. No other legal entity, such as a charitable foundation or the estate of the Participant, may be a Category A Beneficiary for the purposes of the Plan.

3.3 "Category B Beneficiary" shall mean a beneficiary who is designated by the Participant in either the Participation Agreement or a later written election filed with the Employer before the Participant's death, and who is not a "Category A Beneficiary" within the meaning of Section 3.2 above. (Example: a legal entity other than a trust, such as a charitable foundation or the estate of the Participant.)

3.4 "Deferred Compensation" shall mean the amount of compensation not yet earned, which the Participant and the Employer mutually agree shall be deferred in accordance with the provisions of this Plan.

3.5 "Deferred Compensation Investment Fund" shall mean the fund to which all Deferred Compensation is credited, as described in Section 6.2.

3.6 "Employee" shall mean any employee who is a director or officer, or who is a permanent, full-time employee of the Orange County Sanitation District.

3.7 "Employer" shall mean the Orange County Sanitation District.

3.8 “Includible Compensation” (a term defined in Internal Revenue Code Section 457(e)(5) and Treasury Regulation Section 1.457-2(e)(2)) shall mean compensation for services performed for the Employer which is currently includible in gross income. Accordingly, a Participant’s includible compensation for a taxable year does not include any amount payable by the Employer that is excludable from the Participant’s gross income under Internal Revenue Code section 457(a) and Treasury Regulation Section 1.457-1 (including but not limited to this Plan), Internal Revenue Code section 403(b), or other applicable federal income tax laws. The amount of Includible Compensation shall be determined without regard to any community property laws.

3.9 “Investment Account” shall mean a book account for the individual Participant, as more fully described in Section 6.3.

3.10 "Late Retirement" shall mean a termination of service with the Employer which becomes effective after the date on which the Participant has met the requirements to effect a Normal Retirement.

3.11 “Maximum Annual Deferral” shall mean the overall maximum annual dollar amount (except for roll-over amounts) that a Participant in the Employers’ Section 457 Plan may defer pursuant to Sections 4.2 and 4.3 of the Plan. *[2001 Amendment]*

3.12 "Normal Retirement" shall mean a termination of service with the Employer which becomes effective on the first day of the calendar month after the Participant meets the minimum age and/or service requirements, for voluntary retirement, specified in the Retirement Plan.

3.13 "Normal Retirement Age" shall mean the age at which the Participant has met the requirements for Normal Retirement; provided, however, that a Participant who continues to work for the Employer after attaining Normal Retirement Age may elect, for the purposes of Section 4.3 below, an alternate Normal Retirement Age, which may be an age greater than age 70½, but which shall be a date or age not later than either (a) any mandatory retirement age specified by the Employer, or (b) the date or age at which the Participant actually separates from service with the Employer. The Participant shall make any such election by delivering to the Employer, prior to separation from service with the Employer, written notice specifying the chosen alternate Normal Retirement Age. Nothing in this Section 3.13 shall be construed to mean that the Employer has imposed a mandatory retirement age or that the Participant has agreed to retire at a designated age.

3.14 "Participant" shall mean an Employee who has elected to participate in the Plan.

3.15 "Participation Agreement" shall mean the agreement which is executed by the Employee and filed with the Employer in accordance with Section 4, and pursuant to which the Employee elects to become a Participant in the Plan and defers a portion of his income.

3.16 "Plan" shall mean the Orange County Sanitation District Deferred Compensation Plan, as established hereunder.

3.17 "Plan Year" shall mean the calendar year.

3.18 “Qualified Domestic Relations Order (QDRO”)” is a judgment, decree, or order (such as an order approving of a property settlement agreement) which: (1) relates to the provision of child support, spousal support, or marital property rights to a spouse, former spouse, child, or other dependent of a Participant; and (2) creates or recognizes the existence of an alternate payees right to receive all or a portion of the Participant’s Investment Account. *[2001 Amendment]*

3.19 "Required Beginning Date" shall mean the latest date that distributions are permitted to commence under Section 10.3.

3.20 "Retirement Plan" shall mean the retirement plan of the Orange County Employees' Retirement System, which is governed by the County Employees Retirement Law of 1937 (California Government Code Section 31450 et seq.) and is made available to the employees of the Employer pursuant to contract.

3.21 "Salary" shall mean the full, regular, basic salary which would be paid by the Employer to or for the benefit of the Employee (if he were not a Participant in the Plan) for actual services for the period that he is a Participant.

3.22 "Termination of Service" shall mean the severance, prior to retirement and other than by death, of the Participant's employment with the Employer.

3.23 "Unforeseeable Emergency" shall mean a severe financial hardship to the Participant resulting from a sudden and unexpected illness or accident of the Participant or of a dependent (as defined in Internal Revenue Code Section 152(a)) of the Participant, loss of the Participant's property due to casualty, or other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Participant. The circumstances that will constitute an Unforeseeable Emergency will depend upon the facts of each case. Examples of what are not considered to be Unforeseeable Emergencies include the need to send a Participant's child to college or the desire to purchase a home.

SECTION 4: Participation in the Plan.

4.1 Any Employee designated by the Employer to be eligible may elect to become a Participant in the Plan by executing and filing a Participation Agreement with the Employer. An election to participate in the Plan and to defer compensation under the Plan shall become effective with respect to compensation earned by the Participant during the period commencing with the beginning date of the first pay period in the month following the month in which the Employer consents to and approves of the Participation Agreement. Such election to defer compensation shall continue thereafter in full force and effect unless and until terminated by the Participant as provided in Section 4.4, Section 10.4 or Section 11.

4.2 Each Participation Agreement shall specify the amount of compensation, either by dollar amount or by percentage of Salary, which is to be deferred pursuant to the Plan and to be withheld out of the Salary otherwise payable to the Participant for each pay period. The amount deferred each year may not exceed the lesser of:

(a) The "applicable dollar amount" determined in accordance with the following table:

Taxable Year	Applicable Dollar Amount
2002	$11,000
2003	$12,000
2004	$13,000
2005	$14,000
2006 or thereafter	$15,000

[2001 Amendment] 1

(b) One Hundred Percent (100%) of the Participant's Includible Compensation.

or be less than Three Hundred Dollars ($300.00) each year. This Three Hundred Dollar ($300.00) limitation shall not be applied to any Participant who is paid less than $1,200.00 per year for services rendered to the Employer. *[1997 Amendment]*

4.3 Notwithstanding the provisions of Section 4.2 herein, during any or all of the last three (3) taxable years ending before a Participant attains Normal Retirement Age (or the alternate Normal Retirement Age chosen pursuant to Section 3.11 above), the maximum amount which may be deferred annually shall be the lesser of:

(a) Twice the dollar amount in effect in Subsection 4.2(a) for the taxable year; *[2001 Amendment]* or

(b) The sum of:

(i) The maximum deferral amount established for the purposes of Section 4.2 for the taxable year (determined without regard to this Section 4.3), plus

(ii) The maximum deferral amount established in Section 4.2 for any prior taxable year or years, less the amount of compensation deferred under the Plan, for such prior taxable

1 Cost-of-Living adjustments: In the case of taxable years beginning after December 31,2006, the Secretary [of the Treasury] shall adjust the $15,000 amount (A) at the same time and in the same manner as under Internal Revenue Code Section 415(d), except that the base period shall be the calendar quarter beginning July 1, 2005, and any increase under this section which is not a multiple of $500 shall be rounded to the next lowest multiple of $500. *[*2001 *Amendment]*

year or years, pursuant to either Section 4.2 or this Section 4.3.

A prior taxable year shall be taken into account under subdivision (ii) only if: (a) it begins after December 31, 1978; (b) the Participant was eligible to participate in the Plan during all or any portion of the taxable year; and (c) compensation deferred (if any) under the Plan during the taxable year was subject to the maximum deferral amount under Section 4.2 herein. A Participant will be considered to have been eligible to participate in the Plan for a taxable year if the Participant was an Employee for any part of that taxable year. A prior taxable year includes a taxable year in which the Participant was eligible to participate in an Internal Revenue Code section 457 eligible deferred compensation plan sponsored by an entity other than the Employer, provided that such other entity is located in the State of California. *[1997 Amendment]*

4.4 A Participant may terminate his election to defer compensation under the Plan by executing and filing with the Employer a written notice at least thirty (30) days prior to the effective date of termination. In the event a Participant ceases to qualify under Section 3 hereof as a Participant, his election to defer compensation shall automatically terminate on the same date as he becomes ineligible. A Participant (including a former Participant who is again eligible to participate) may not resume the deferral of compensation during the calendar month in which termination occurred; however, he may elect to resume the deferral of compensation in subsequent calendar months after a lapse of not less than three (3) months. No amounts shall be payable to an Employee upon the termination of deferral of compensation, unless otherwise provided for in either Section 10 or Section 11.

4.5 A Participant may change the amount of compensation to be deferred in a subsequent calendar month by executing and filing notice with the Employer at least thirty (30) days prior to the beginning of such month; provided, however, that such change may be made not more than four (4) times in a calendar year.

4.6 In applying the provisions of this Section 4, amounts deferred shall be taken into account at present value in the Plan Year in which deferred.

SECTION 5: Deferral of Compensation. During the period of participation, the Employer shall not pay the Participant his full Salary, but shall defer payment of such part of his Salary as is specified by the Participant in the Participation Agreement, which has been executed and filed with the Employer.

SECTION 6: Administration of the Plan.

6.1 The Employer shall have full authority and power to adopt the rules and regulations for the administration of the Plan, and to interpret, amend, alter and revoke any rules and regulations so adopted. The actions of the Employer, with respect to the Plan and the administration of the Plan, shall be presumed to be fair, reasonable, and impartial, and the Employer shall be deemed to have exercised reasonable care, diligence and prudence, unless the contrary is proven by affirmative evidence.

6.2 The Employer shall establish a Deferred Compensation Investment Fund to which all Deferred Compensation shall be credited at such times as the amounts deferred would have been payable to the individual Employee if he were not a Participant in the Plan.

6.3 The Employer shall maintain a book account (the "Investment Account") for each Participant, to which shall be credited the Deferred Compensation of the individual Participant. The Participant's Investment Account shall be credited with the earnings thereof, if any, and shall be credited or debited, as the case may be, with the net amount of any gains or losses which may result from the investment of all or any portion of the amount in the Participant's Investment Account. The Employer, its directors, officers and employees, shall not be liable for any losses on any investment credited to any Investment Account. On a quarterly basis, the Employer shall credit the earnings and/or gains and debit the losses on each Investment Account. Such credits and debits shall be made, and the final quarterly balance of the Investment Account shall be posted, as of the last day of each quarter.

SECTION 7: Asset Ownership. Except as otherwise provided in Section 8 below, all Deferred Compensation credited to the Deferred Compensation Investment Fund, all property and rights purchased with amounts credited to the Deferred Compensation Investment Fund, and all income attributable to such amounts, property, or rights shall be and remain (until made available to the Participant or other beneficiary) solely the property and rights of the Employer (without being restricted to the provision of benefits under the Plan), subject only to the claims of the Employer's general creditors. Without such Employer ownership, the Plan would not qualify as an "eligible deferred compensation plan" within the meaning of Internal Revenue Code section 457, so as to make tax benefits available to the Participants.

SECTION 8: Declaration of Trust.

8.1 Notwithstanding the provisions of Section 7, all Deferred Compensation credited to the Deferred Compensation Investment Fund, all property and

rights purchased with amounts credited to the Deferred Compensation Investment Fund, and all income attributable to such amounts, property, or rights (collectively, the "Trust Estate") shall be held, by the Employer as trustee, in trust for the exclusive benefit of the Participants and their beneficiaries, per the terms and conditions of Section 8.2 below. No portion of the Trust Estate shall revert to the Employer or be used or diverted to purposes other than the exclusive benefit of the Participants and their beneficiaries.

8.2 The Employer, as trustee, and in accordance with applicable law:

(a) shall have the power to invest and reinvest the Trust Estate in all assets permitted under Government Code section 53609;

(b) shall have the power to retain in cash, without obligation for interest, such portion of the Trust Estate as it may deem (i) advisable to meet Plan obligations, or (ii) to be in the best interests of the Plan;

(c) shall have the power to retain, manage, operate, administer and otherwise deal with the Trust Estate in such manner as it deems appropriate;

(d) shall have the power to transfer, sell, exchange, redeem and dispose of the assets of the Trust Estate, in any manner and at any time, by private or public sale or otherwise;

(e) shall have the power, with respect to the assets of the Trust Estate, to exercise all the rights of an individual owner, including, but not limited to, the power to give proxies, to participate in any voting trusts, mergers, consolidations or liquidations, and to exercise or sell stock subscriptions or conversion rights;

(f) shall have the power to hold, authorize the holding of, and register any assets of the Trust Estate in any manner permitted by law;

(g) shall have the power, in its discretion, to compromise, contest (whether through legal proceedings or otherwise), arbitrate, or abandon claims and demands on behalf of the Trust Estate and/or the Plan, and to commence, maintain or defend the Trust Estate and/or the Plan in suits or legal proceedings;

(h) shall have the power to employ consultants, accountants, depositories, agents and legal counsel on behalf of the Trust Estate and/or the Plan;

(i) shall have the power to open, maintain and close any bank account(s), in any federally insured financial institution permitted by law, in the name of the Plan, the Employer or, to the extent permitted by law, any nominee or agent of the Plan or the Employer;

(j) shall have the power to charge to, and pay from, the Trust Estate: (i) any taxes levied or assessed upon or in respect to the assets of the Trust Estate, (ii) any commissions and similar expenses with respect to the assets of the Trust Estate, (iii) the reasonable compensation of any third-party manager or administrator utilized by the Employer in the management or administration of the Trust Estate and/or the Plan, and (iv) the reasonable expenses of such third-party manager or administrator or the Employer incurred in connection with Trust Estate and/or Plan management or administration (including, but not limited to, legal, accounting, investment and custodial services);

(k) shall pay benefits to Plan Participants and their beneficiaries, in cash or in kind or partly in each, in accordance with the terms hereof;

(l) shall have the power: (i) to retain any funds or property subject to any dispute, without liability to pay interest, (ii) to decline to make payment or delivery of the funds or property until final adjudication of the dispute is made by a court of competent jurisdiction, and (iii) to charge an Investment Account with the Employer's legal expenses and costs incurred due to a dispute concerning that Investment Account;

(m) shall have the power to make Participant loans, as described in Section 15;

(n) shall administer the Plan and the Trust Estate as described in Sections 6, 15 and this Section 8;

(o) shall have the discretion: (i) to make limited investment options available to the Participant and to change those investment options from time to time, (ii) to eliminate an investment option, even if all or a portion of a Participant's Investment Account is already invested therein, with the result that such amount must be reinvested in another, permitted, investment), and (iii) to invest the amounts in a Participant's Investment Account either as requested by the Participant, or as otherwise determined by the Employer;

(p) shall not be required to invest the amounts in the Trust Estate; however, it is the

amounts in a manner intended to increase the same, and the net interest, accumulation and increments thereon shall be credited to, and held in, the Trust Estate for the exclusive benefit of the Participants and their beneficiaries; the Employer shall not be responsible for any loss due to the investment or failure of investment of such assets; nor shall the Employer be required to replace any loss whatsoever which may result from said investments; and

(q) shall have the power to make, execute, acknowledge and deliver any and all instruments necessary or proper for the accomplishment of, and to do any and all other acts that it may deem necessary or appropriate to carry out, the foregoing powers.

SECTION 9: Plan Benefits. Deferred Compensation benefits are payable on the happening of any of the following events:

(a) Normal Retirement of a Participant;

(b) Late Retirement of a Participant;

(c) Termination of Service of a Participant; or

(d) Death of a Participant who dies either before or after Deferred Compensation payments commence, and before the entire amount of his Investment Account is paid.

SECTION 10: Distribution of Benefits.

10.1 Termination of Employment by Retirement. The Participant is eligible to receive distributions of benefits, with respect to retirement, after the Participant has met the requirements for Normal Retirement and has retired from service with the Employer. The Participant may submit to the Employer an application for distribution of benefits under the Plan as early as the date he notifies the Employer of his intended retirement and as late as thirty (30) days following the actual date of termination of employment due to retirement. Pursuant to such application, the Participant shall elect one of the benefits described below, expressed in terms of both payment option and commencement date option. Except as otherwise provided in Subsection 10.1.3, the commencement date portion of such election shall become irrevocable upon the lapse of the thirtieth (30th) day following termination of employment with the Employer due to retirement.

10.1.1 Options.

Following the Participant's termination of employment due to retirement and the receipt of such application, the Employer shall pay to the Participant one of the following benefits (expressed in terms of both payment option and commencement date option) as elected by the Participant:

A. PAYMENT OPTION -

(1) Options:

(a) Consecutive equal monthly payments over a period of 36 months to 180 months, as determined by the Participant; provided, however, that any such period may not extend beyond the life expectancy of the Participant or the joint life and last survivor expectancy of the Participant and the Participant's Category A Beneficiary.

(b) Consecutive equal monthly payments for the life of the Participant or for the lives of the Participant and his Category A Beneficiary.

(c) Annuity payments pursuant to an annuity that is offered by a Plan provider providing services to the Employer and that is structured so as to comply with all applicable provisions of the Internal Revenue Code, the Treasury Regulations and all other applicable laws.

(d) A single payment equal to the balance of the Participant's Investment Account.

(e) A single lump-sum payment in an amount to be determined by the Participant, with the remainder of the Participant's Investment Account to be paid under payment option (a), payment option (b), or payment option (c) above.

(2) Modified or Delayed Election:

The Participant may modify his payment option election at any time until the date which is thirty (30) days before the commencement date as finally determined pursuant to Subsection 10.1.1, 10.1.2, or 10.1.3, as applicable (the "Final Commencement Date"). Or, the Participant may choose to defer making a payment option election altogether, until a date as late as thirty (30) days before the Final Commencement Date. Thirty (30) days before the Final Commencement Date, the most recent payment option election on file with the Employer shall become irrevocable. If there is no payment option election on file with the Employer at that time, the Employer shall pay the sum in the Participant's Investment Account to the Participant according to payment option (d) above, on the Final Commencement Date.

B. COMMENCEMENT DATE OPTION -

(a) The first day of the third calendar month following the month in which termination of employment occurs, or

(b) The first day of a later month as designated by the Participant.

In the case of payment option (e) above, the lump sum must be paid on the same date that the first payment over time is paid.

C. LIMITATIONS -

The foregoing options are limited by, and these payments shall be made subject to, the provisions of Sections 10.3, 10.5, 10.6 and 10.7 hereof.

The total amount of any benefits paid pursuant to payment options (a) through (e) above shall not exceed the sum of the amounts deferred by the Participant, as adjusted for any earnings or losses thereon.

10.1.2 Default Election.

Should the Participant fail to elect one of the benefits hereunder by way of an application for retirement benefits filed with the Employer within thirty (30) days after retirement, the Employer shall pay the sum in the Participant's Investment Account according to the "Benefit A" election previously made

pursuant to either the Participation Agreement or a modification thereof. However, if there is no such previous election, then the Employer shall pay the sum in the Participant's Investment Account according to payment option (d) above on the Required Beginning Date.

10.1.3 One-Time Change in Commencement Date Election.

Notwithstanding anything to the contrary in this Section 10.1, the Participant may, at any time after the first day of the third calendar month following the month in which termination of employment occurs, and at least thirty (30) days before the scheduled commencement date, pursuant to either Subsection 10.1.1 or the Benefit “A” election on file with the Employer as of the date of retirement, elect to further defer the commencement date, to a date later than that previously elected (but not later than the Required Beginning Date). The Participant may exercise his or her right, under this Subsection 10.1.3, to file a changed commencement date election only once.

10.2 Termination of Employment Prior to Retirement. Following the Termination of Service of a Participant, the Employer shall pay to the Participant the benefit elected by the Participant pursuant to either (a) "Benefit B" of the Participation Agreement submitted by the Participant at the time of election to participate in the Plan or (b) a later written election delivered to the Employer within thirty (30) days following Termination of Service. Except as otherwise provided in Subsection 10.2.3 below, the commencement date portion of the latest such election filed with the Employer shall become irrevocable upon the lapse of the thirtieth (30th) day following Termination of Service.

10.2.1 Options.

A. PAYMENT OPTION -

(1) Options:

(a) Consecutive equal monthly payments over a period of 36 months to 180 months, as determined by the Participant; provided, however, that any such period may not extend beyond the life expectancy of the Participant or the joint life and last survivor expectancy of the Participant and the Participant's Category A Beneficiary.

(b) Consecutive equal monthly payments for the life of the Participant or for the lives of the Participant and his

Category A Beneficiary.

(c) Annuity payments pursuant to an annuity that is offered by a Plan provider providing services to the Employer and that is structured so as to comply with all applicable provisions of the Internal Revenue Code, the Treasury Regulations and all other applicable laws.

(d) A single payment equal to the balance of the Participant's Investment Account.

(e) A single lump-sum payment in an amount to be determined by the Participant, with the remainder of the Participant's Investment Account to be paid under payment option (a), payment option (b), or payment option (c) above.

(2) Modified or Delayed Election:

The Participant may modify his payment option election at any time until the date which is thirty (30) days before the commencement date as finally determined pursuant to Subsection 10.2.1, 10.2.2, or 10.2.3, as applicable (the "Final Commencement Date"). Or, the Participant may choose to defer making a payment option election altogether, until a date as late as thirty (30) days before the Final Commencement Date. Thirty (30) days before the Final Commencement Date, the most recent payment option election on file with the Employer shall become irrevocable. If there is no payment option election on file with the Employer at that time, the Employer shall pay the sum in the Participant's Investment Account to the Participant according to payment option (d) above, on the Final Commencement Date.

B. COMMENCEMENT DATE OPTION -

(a) The first day of the third calendar month following the month in which termination of employment occurs, or

(b) The first day of a later month as designated by the Participant.

In the case of payment option (e) above, the lump sum must be paid on the same date that the first payment over time is paid.

C. LIMITATIONS -

The foregoing options are limited by, and these payments shall be made subject to, the provisions of Sections 10.3, 10.5, 10.6 and 10.7 hereof.

The total amount of any benefits paid pursuant to payment options (a) through (e) above shall not exceed the sum of the amounts deferred by the Participant, as adjusted for any earnings or losses thereon.

10.2.2 Default Election.

Should the Participant fail to elect one of the benefits hereunder either pursuant to the "Benefit B" provisions of the Participation Agreement or pursuant to a subsequent written election delivered to the Employer within thirty (30) days after Termination of Service, then the Employer shall pay the total amount in the Participant's Investment Account to the Participant in a single lump sum on the first day of the third calendar month following the month in which Termination of Service occurs. In no event, however, shall such payment occur later than the Required Beginning Date.

10.2.3 One-Time Change in Commencement Date Election.

Notwithstanding anything to the contrary in this Section 10.2, the Participant may, at any time after the first day of the third calendar month following the month in which Termination of Service occurs, and at least thirty (30) days before the scheduled commencement date, pursuant to either Subsection 10.2.1 or the Benefit “B” election on file with the Employer as of the date of Termination of Service, elect to further defer the commencement date, to a date later than that previously elected (but not later than the Required Beginning Date). The Participant may exercise his or her right, under this Subsection 10.2.3, to file a changed commencement date election only once.

10.3 Required Beginning Date of Distributions. Notwithstanding any other provision of the Plan, payments under Sections 10.1 and 10.2 shall begin no later than the later of:

(a) April 1 of the calendar year following the calendar year in which the Employee attains age 70½; or

(b) April 1 of the calendar year following the calendar year in which the Employee retires.

10.4 Acceleration of Payment of Small Investment Accounts. Notwithstanding the provisions of Sections 10.1 and 10.2 above, a Participant may elect to receive the full balance of his or her Investment Account at any time, but only on the following conditions:

(a) the balance of the Investment Account does not exceed the maximum amount permitted under Internal Revenue Code section 457(e)(9) (or a successor provision) at the time of the withdrawal;

(b) no amount has been deferred under the Plan with respect to the Participant during the two-year period ending on the date of the distribution; and

(c) there has been no prior distribution to the Participant under this Section 10.4 (i.e., the acceleration right can be exercised only once).

Any distribution under this Section 10.4 shall be deemed a termination of participation in the Plan. The (former) Participant may re-elect to participate in the Plan, pursuant to Section 4.1, after a lapse of at least three (3) months after the date of distribution under this Section 10.4.

10.5 Lifetime Distribution Requirements. The distributions under this Plan must be made primarily for the benefit of the Participant and the schedule elected by the Participant for payment of benefits under Sections 10.1 and 10.2 of the Plan must be such that benefits payable to a beneficiary are not more than incidental, according to the applicable Treasury Regulations. Payments under those sections shall be distributed over the life of the Participant or over the lives of the Participant and a Category A Beneficiary (or over a period not extending beyond the life expectancy of the Participant or the joint life and last survivor expectancy of the Participant and a Category A Beneficiary), in accordance with the Treasury Regulations under Internal Revenue Code section 401(a)(9).

In addition, as required by Internal Revenue Code section 401(a)(9)(G), and except as otherwise provided in Section 10.7 below, all distributions shall be made in accordance with the incidental death benefit requirements of Internal Revenue Code section 401(a). As more fully described in the applicable Treasury Regulations, as promulgated pursuant to the authority of Internal Revenue Code section 401(a)(9), this means that distributions must be made in accordance with a certain formula designed to ensure that the entire Investment Account of the Participant is distributed over a period of time not to exceed the joint life and last survivor expectancy of the Participant and a Category A Beneficiary who is not more than ten years younger than the Participant.

10.6 Death of Participant. In the event of the death of the Participant, either before or after termination of employment (by retirement or otherwise), and before the entire amount of his Investment Account has been distributed, the Employer shall distribute the amount then remaining in the Participant's Investment Account pursuant to Subsections 10.6.1 through 10.6.3 below.

10.6.1 When Participant Dies on or after the Required Beginning Date and after Distributions Have Begun. If distributions have already begun during a Participant's lifetime, and the Participant dies on or after the Required Beginning Date and before the entire amount of his Investment Account has been distributed, then the remaining portion of the Participant's Investment Account shall be distributed, as elected by the Participant, pursuant to either the "Benefit C" provisions of the Participation Agreement or a later written election delivered to the Employer before the death of the Participant, unless the Participant's election would permit distributions to be made less rapidly after death than under the method of distribution being used as of the date of death. In order to comply with Internal Revenue Code section 401(a)(9), distributions (under this Subsection 10.6.1) after death must be made at least as rapidly as under the method of distribution being used as of the date of death.

10.6.2 When Participant Dies either before the Required Beginning Date or before Distributions Have Begun. If a Participant dies either before the Required Beginning Date or before distribution of his Investment Account has begun, and, if any portion of the Investment Account is payable to (or for the benefit of) a Category A or B Beneficiary, then the Employer shall pay such portion as follows -

A. CATEGORY A BENEFICIARIES **-**

(1) Category A Beneficiary Other than Surviving Spouse:

If the Category A Beneficiary is other than the surviving spouse, the portion of the Investment Account payable to such beneficiary shall be distributed according to one of the following options, expressed in terms of both payment option and commencement date option:

PAYMENT OPTION:

(a) consecutive equal monthly payments over a period of 36 months to 60 months (but not

exceeding the life expectancy of the Category A Beneficiary);

(b) annuity payments pursuant to an annuity that is offered by a Plan provider providing services to the Employer and that is structured so as to comply with all applicable provisions of the Internal Revenue Code, the Treasury Regulations and all other applicable laws;

(c) a single lump-sum payment; or

(d) a single lump-sum payment, with the remainder of the portion of the Investment Account payable to such beneficiary to be paid under either payment option (a) or payment option (b) above.

COMMENCEMENT DATE OPTION:

Such distributions shall begin on the date designated by either the Participant or, if permitted by the Participant, the Category A Beneficiary, but in no event later than December 31 of the calendar year immediately following the calendar year in which the Participant dies. If the Category A Beneficiary submits a permitted benefits election, the election must be filed with the Employer within ninety (90) days after the Participant's death, and the earliest commencement date shall be the first day of the fifth calendar month following the month in which the death of the Participant occurred.

(2) Surviving Spouse:

If the Category A Beneficiary is the surviving spouse of the Participant, the portion of the Investment Account payable to the surviving spouse shall be distributed according to one of the following options, expressed in terms of both payment option and commencement date option:

PAYMENT OPTION:

(a) consecutive equal monthly payments over a period not to extend beyond the life expectancy of the surviving spouse;

(b) annuity payments pursuant to an annuity that is offered by a Plan provider providing services to the Employer and that is structured so as to comply with all applicable provisions of the Internal Revenue Code, the Treasury Regulations and all other applicable laws;

(c) a single lump-sum payment; or

(d) a single lump-sum payment, with the remainder of the portion of the Investment Account payable to the surviving spouse to be paid under either payment option (a) or payment option (b) above.

COMMENCEMENT DATE OPTION:

Such distributions shall begin on the date designated by either the Participant or, if permitted by the Participant, the surviving spouse, but in no event later than the later of (i) December 31 of the calendar year immediately following the calendar year in which the Participant dies, and (ii) December 31 of the calendar year in which the Participant would have attained age 70½. Notwithstanding the foregoing, however, if as of the date of the Participant's death, both the surviving spouse and another are Category A Beneficiaries, then distributions shall begin on or before December 31 of the calendar year immediately following the calendar year in which the Participant dies. If the surviving spouse submits a permitted benefits election, the election must be filed with the Employer within ninety (90) days after the Participant's death, and the earliest commencement date shall be the first day of the fifth calendar month following the month in which the death of the Participant occurred.

(3) Elections:

PARTICIPANT'S ELECTION:

All elections (as to both payment option and commencement date) to be made under this Subsection 10.6.2 shall be made by the Participant

pursuant to either the "Benefit C" provisions of the Participation Agreement or a later written election delivered to the Employer before the death of the Participant. Notwithstanding the foregoing, however, the Participant, in the Participation Agreement or such later written election, may specify that, following the death of the Participant, the Category A Beneficiary may elect, subject to the foregoing limitations, the form of payments and the commencement date of distributions.

BENEFICIARY'S ELECTION:

Any permitted beneficiary election must be in the form of a written election filed with the Employer no later than ninety (90) days following the date of death of the Participant. In the absence of any such timely election, the portion of the Investment Account payable to such Category A Beneficiary shall be distributed to him in a lump sum on the first day of the fifth calendar month following the month in which the death of the Participant occurs. The commencement date portion of the Beneficiary's election shall become irrevocable on the date ninety (90) days after the Participant's death. However, the Beneficiary may modify his payment option election up to thirty (30) days before the previously elected commencement date.

(4) Death of a Category A Beneficiary:

If a Category A Beneficiary dies within six months of the date of the Participant's death and before the entire portion of the Investment Account allocated to him has been paid pursuant to this Subsection 10.6.2, then the remainder of such portion shall be paid to the contingent beneficiary, if any, designated by the Participant in either the Participation Agreement or a later written election delivered to the Employer before the Participant's death. If there is no such contingent beneficiary, or if the Category A Beneficiary dies more than six months after the date of the Participant's death and before the entire portion of the Investment Account allocated to him has been paid pursuant to this Subsection 10.6.2, then the remainder of such portion shall be paid to the estate of the deceased Category A Beneficiary. Any payment under this paragraph

shall be made in a lump sum on the first day of the third calendar month following the month in which the death of the Category A Beneficiary occurs.

B. CATEGORY B BENEFICIARIES -

If the beneficiary is a Category B Beneficiary, which is a validly existing legal entity (such as a charitable foundation or the estate of the Participant), the portion of the Investment Account payable to such beneficiary shall be distributed as a lump sum on the first day of the third calendar month following the month in which the death of the Participant occurs.

C. TRUST AS BENEFICIARY -

The Participant may designate a trust as his beneficiary under the Plan. However, in that case, any beneficiary of the trust, who is eligible to receive trust distributions on account of payments from the Plan, shall be deemed to be a Category A Beneficiary under the Plan. (For example, if the Participant designates as his beneficiary a trust of which his surviving spouse is the life beneficiary, and elects lifetime payments, then for the purpose of this Subsection 10.6.2, the surviving spouse shall be deemed to be the Category A Beneficiary, and the terms of this subsection shall be applied by basing distributions on the life expectancy of the surviving spouse.) Notwithstanding the foregoing, however, a trust may only be designated as a beneficiary (and the beneficiary of the trust will only be deemed to be a Category A Beneficiary) if, as of the later of the date that the Participant submits to the Employer the election in which the trust is named as a beneficiary or the Required Beginning Date, and as of all subsequent periods during which the trust is named as a beneficiary of the Plan, all of the following conditions are met: (1) the trust is a valid trust under state law, (2) the trust is irrevocable, (3) the beneficiaries of the trust can be identified from the trust instrument, and (4) a copy of the trust instrument has been provided to the Employer.

10.6.3 Default Provision. If, upon the death of the Participant, there exists neither a Category A Beneficiary nor a Category B Beneficiary to receive any portion of the Participant's Investment Account, then the Employer shall, on the first day of the third calendar month following the month in which the death of the Participant occurs, pay that portion in a lump sum to the estate of the Participant.

10.7 General Distribution Requirements and Provisions. Notwithstanding any other provision of this Plan to the contrary, all distributions under this Plan shall be made in accordance with the provisions of this Section 10.7 and, to the extent of any inconsistency, the provisions of this Section 10.7 shall control.

10.7.1 Calculation of Life Expectancy. For the purpose of ascertaining the relevant distribution periods and amounts hereunder, life expectancy, Where applicable, shall not be recalculated annually. Rather, once life expectancy has been initially calculated, it shall thereafter be reduced by one year for each year that passes. Notwithstanding the foregoing, however, with respect to permitted annuity distributions, life expectancy may be calculated in any manner permitted by the Internal Revenue Code, the Treasury Regulations, and all other applicable tax laws.

10.7.2 Additional Distribution Requirements. Any payments payable over a period of more than one year shall only be made in substantially non-increasing amounts, paid not less frequently than annually.

10.7.3 Employer Discretion to Accelerate Distributions. The Employer, in its sole and absolute discretion, shall have the right, at any time when subparagraphs (a)-(c) of Section 10.4 are satisfied, to distribute the entire balance of the Participant's Investment Account to the Participant. In addition, after distributions have begun under Sections 10.1, 10.2 or 10.6, if the balance of the Participant's Investment Account, or any portion thereof payable to a beneficiary, should be less than or equal to the amount provided in Internal Revenue Code section 457(e)(9) (or a successor provision), the Employer, in its sole and absolute discretion and for administrative ease, may distribute such balance or such portion in a lump sum on the date of the first regularly scheduled payment of the next calendar year. Moreover, at any time after distributions have begun under Sections 10.1, 10.2 or 10.6, if the Employer determines that the payment schedule as elected by the Participant, or by the Category A Beneficiary, if applicable, is such that monthly payments would be in an amount less than $200.00, then the Employer, in its sole and absolute discretion, may make distributions in the amount of $200.00 per month, until exhaustion of the Investment Account or portion thereof in question, irrespective of the fact that this would have the effect of shortening the distribution period originally elected by the Participant, or the Category A Beneficiary, if applicable.

10.7.4 Statutory Compliance. All distributions under this Plan shall be made in accordance with the Treasury Regulations under Internal Revenue Code section 401(a)(9), including both the minimum distribution requirements of Treasury Regulation section 1.401(a)(9)-1, and, (in accordance with Internal Revenue Code section 401(a)(9)(G)) the minimum distribution incidental benefit requirements of Treasury Regulation section 1.401(a)(9)-2. To the extent that any distribution option hereunder is inconsistent with Internal Revenue Code section 401(a)(9), the provisions of Internal Revenue Code section 401(a)(9) shall control and the Plan shall be administered so as to conform with section 401(a)(9). Notwithstanding the foregoing, however, if, pursuant to Internal Revenue Code section 457(d)(2)(B)(i)(I), Treasury Regulations (the "Superseding Regulations") should be issued which require more rapid distributions than those required by Internal Revenue Code section 401(a)(9)(G) and the Treasury Regulations under section 401(a)(9)(G), then the distributions under this Plan shall be made pursuant to such Superseding Regulations, to the extent inconsistent with section 401(a)(9) and the Treasury Regulations under that section.

10.7.5 Cost-of-Living Adjustment of Periodic Payments. The Participant or a Category A Beneficiary, at the time of submitting a distribution option election permitted under Section 10.1, Section 10.2, or Section 10.6 of the Plan, may elect that any distributions made pursuant to a periodic payment option may be made not in equal amounts, but rather in increasing amounts, based on increases in the cost-of-living. The formula for determining cost-of-living increases shall be established by the Employer from time to time.

SECTION 11: Emergency Withdrawals. In the event of an Unforeseeable Emergency, to be determined by the Employer in its sole discretion, the Employer may pay to the Participant all or any portion of the amount in such Participant's Investment Account, as of the month end following the date when such determination is made. Payment may not be made to the extent that the hardship resulting from the Unforeseeable Emergency is or may be relieved (a) through reimbursement or compensation by insurance or otherwise, (b) by liquidation of the Participant's assets, to the extent the liquidation of such assets would not itself cause severe financial hardship, or (c) by cessation of deferrals under the Plan. The amount that may be paid out is limited to the amount reasonably necessary to alleviate the Unforeseeable Emergency need and, in most cases, will be paid only in a single lump sum. In the event of an Unforeseeable Emergency which causes the initial lump sum payment to be inadequate to meet the Unforeseeable Emergency need, the Participant (or former Participant) may apply for the payment of subsequent lump-sum amounts, up to the entire amount in the Participant's (or former Participant's) Investment Account.

Any distribution under this section shall be deemed a termination of the election to defer compensation under Section 4.4 above, and no further deferral of compensation shall be made unless the Participant subsequently re-elects to defer compensation under the Plan, as provided in Section 4.4. Moreover, any distribution of 100% of the Participant's Investment Account under this section shall be deemed a revocation of the Participant's agreement to participate in the Plan. The (former) Participant may re-elect to participate in the Plan, pursuant to Section 4.1, after a lapse of not less than three (3) months.

SECTION 12: Assignments and Transfers.

12.1. Consistent with Section 7 above, no one, including the Participant, his beneficiary or designee, or any other person, shall have any right to commute, sell, assign, transfer, or otherwise convey the right to receive any payments hereunder, which payments and right thereto are expressly declared to be non-assignable and non-transferable. The Employer shall have no liability to either the Participant or a purported assignee or transferee, on account of any attempted assignment or transfer. In addition, except to the extent otherwise provided by law, no interest of the Participant in the Plan shall be subject to attachment, garnishment or execution, or be transferable by operation of law, whether due to bankruptcy, insolvency, liquidation for the benefit of creditors, or any other cause.

12.2 Notwithstanding the foregoing, however, the amounts deferred by a former Participant may be transferred to another Internal Revenue Code section 457 eligible deferred compensation plan of which the former Participant has become a participant, if the following conditions are met:

(1) the plan to which the former Participant wishes to transfer amounts deferred is located within the State of California;

(2) the plan receiving such amounts provides for the acceptance of such amounts;

(3) the employer accepting the transfer funds gives written notice of its agreement to accept such transfer and assumes liability therefor; and

(4) the Participant provides a written release to the Employer releasing the Employer from any claim or liability under the Plan after the date such transfer of funds occurs.

If a Participant separates from service in order to accept employment with another entity which permits the Participant to participate in a section 457 eligible deferred compensation plan, and if the four conditions enumerated above are met, payout of benefits will not commence upon separation from service, notwithstanding any other provision of the Plan, and amounts previously deferred will automatically be transferred to that other entity's section 457 eligible deferred compensation plan, to be credited to the Participant's account.

12.3 A Participant, who was formerly employed by another public agency located within the State of California, may transfer, to the Plan, funds from an Internal Revenue Code section 457 eligible deferred compensation plan maintained by that former employer, if that eligible deferred compensation plan permits transfers to other section 457 eligible deferred compensation plans and if the Participant complies with all applicable terms and conditions of both the transferring plan and this Plan in effectuating the transfer. As a condition to transfer to this Plan, the Employer may require that assets transferred from another plan be in the form of cash or cash equivalents.

12.4 “12.4 Qualified Domestic Relations Order (“ODRO”). Notwithstanding any other provision of these Distribution rules to the contrary, if a QDRO provides that a Participant’s benefit is to be divided and a portion allocated to an alternate payee under the terms of a QDRO (such as a spouse or former spouse), of a Participant in the District’s Section 457 plan receives a distribution under the terms of a QDRO, the spouse (or former spouse) will be treated as the distributee and taxed on the benefits received. Distributions under the District’s Section 457 plan made to an alternate payee other than a spouse (or former spouse) under a QDRO are taxable to the Participant.” *[2001 Amendment]*

SECTION 13: Notice. Any notice or other communication required or permitted under the Plan shall be in writing, and, if directed to the Employer (ATTN: Director of Human Resources), shall be sent to the Employer at its principal office, and, if directed to a Participant or a beneficiary, shall be sent to such Participant or beneficiary at his last-known address as it appears on the Employer's records. Such notice shall be deemed given when mailed, unless notice is given in person, in which case such notice shall be deemed given upon receipt.

SECTION 14: Amendment or Termination of Plan. The Employer may, at any time, terminate this Plan for all Participants. Upon such termination, the Participants in the Plan shall be deemed to have withdrawn from the Plan as of the date of such termination; each Participant's full Salary on a non-deferred basis will be thereupon restored; and the Employer agrees to pay each Participant the amount of money determined as if the Participant had terminated his employment, said payment to be made in accordance with the provisions of Section 10.2.

The Employer may also amend the provisions of this Plan at any time; provided, however, that no amendment shall affect the rights of the Participants or their beneficiaries to the receipt of payment of benefits, to the extent of any compensation already deferred at the time of the amendment, as adjusted for investment experience prior to and subsequent to the amendment.

SECTION 15: Participant Loans. The Employer may establish a Participant loan program on the terms and conditions set forth in this Section 15, and any additional terms and conditions as the Employer may prescribe from time to time. If the Employer establishes such a loan program, the Participants may apply to the Employer for loans, to be secured by their respective Investment Accounts. In addition to such other terms and conditions as the Employer may prescribe, the following terms and conditions shall apply to the Participant loans.

15.1 Maximum Loan Amount. The outstanding aggregate balance of all loans made to the Participant under the Plan shall not exceed the lesser of:

(a) fifty thousand dollars ($50,000), reduced by the excess (if any) of –

(i) the highest outstanding balance of loans from the Plan during the one-year period ending on the day before the date on which such loan was made, over (ii) the outstanding balance of loans from the Plan on the date on which such loan was made, or

(b) one-half of the present value of the nonforfeitable accrued benefit of the Participant under the Plan.

(For the purpose of determining the maximum loan amount under this Section 15.1, all deferred compensation plans of the Employer shall be treated as one plan.)

15.2 Maximum Loan Term. Except as otherwise provided in this Section 15, each loan shall be repaid in full within five (5) years. However, the five-year limitation shall not apply if the purpose of the loan is to enable the Participant to acquire a dwelling unit which, within a reasonable period of time (to be determined by the Employer at the time the loan is made), is to be used as the Participant's principal residence.

15.3 Promissory Note. The loan shall be evidenced by an interest-bearing promissory note, payable to the Employer. The promissory note shall be fully amortized, with payments to be made at such intervals as provided therein, which shall be no less frequently than quarterly. The promissory note shall contain terms and conditions as are required by this Section 15, and such additional terms and conditions as are established by the Employer from time to time.

15.4 Collateral/Security. The loan shall be secured by the Participant's assignment, to the Employer, of the Participant's right, title and interest in and to his or her Investment Account, or such portion thereof as the Employer, in its sole and absolute discretion, determines to be adequate security under the circumstances.

15.5. Distributions. No distribution of any portion of a Participant's Investment Account shall be made to any Participant, or to any beneficiary of the Participant, until such time as all Participant loans and accrued interest thereon are repaid in full. Notwithstanding the foregoing, however, the Employer, in its sole discretion, may permit an emergency withdrawal, under the terms and conditions described in Section 11 above, provided such emergency withdrawal shall not cause the then outstanding balance of the Participant's loan to exceed the maximum loan amount described in Section 15.1 above.

15.6 Repayment. Loan repayments shall be made by payroll deduction, or when repayment cannot be made by payroll deduction, then by check. Notwithstanding any provision of Section 15.2 to the contrary, the outstanding balance of all loans to a Participant shall immediately become due and payable in full on Termination of Service for any reason. If the loan is not paid in full within thirty (30) days of Termination of Service, the unpaid balance shall be deducted from any Plan benefit payable to the Participant or the Participant's beneficiary. In addition, in the event of default in repayment of a loan, the Employer, in its sole and absolute discretion, may deem the loan to be immediately due and payable in full, in which case the Employer may pursue any and all remedies available at law or in equity, and may liquidate the security and apply it to satisfy the then outstanding balance under the loan, treat the then outstanding balance as a distribution to the

Participant, and reduce the amount of the Participant's Investment Account by such amount.

15.7 Participant Loan Account. Notwithstanding any provision of Section 6.3 to the contrary, upon delivery, to the Employer, of the executed promissory note and assignment of interest in the Participant's Investment Account, the Employer shall establish a loan account for the Participant (the "Participant's Loan Account"), and transfer from the Participant's Investment Account to the Participant's Loan Account an amount equal to the amount of the Participant's loan. The assets of the Participant's Loan Account may be invested and reinvested only in promissory notes payable to the Employer by the Participant, or in cash. The Employer shall not be liable for any loss resulting from the Participant's breach of his payment obligations under such promissory note(s). Uninvested cash balances in a Participant's Loan Account shall not bear interest. Repayments of principal and interest shall be transferred to the Participant's Investment Account and invested as provided in Sections 6 and 8. The amount of the Participant's Loan Account shall be reduced by the amount of each such transfer.

15.8 Application Procedures, Loan Requirements, Terms and Conditions, and Accounting Procedures. From time to time, the Employer shall establish loan application procedures, loan requirements, loan terms and conditions, and loan accounting procedures. The application procedures, loan requirements, terms and conditions, and accounting procedures shall be uniform and non-discriminatory. From time to time, the Employer shall set an interest rate for new loans, based on prevailing rates. Loans made at different times may be subject to different interest rates, due to the difference in prevailing rates at the time.

The Employer hereby establishes, on the terms and conditions set forth above, the Orange County Sanitation District Deferred Compensation Plan.

FAHR COMMITTEE

AGENDA REPORT

Meeting Date 07/10/02	To Bd. of Dir. 07/17/02
Item Number FAHR02-69	Item Number 12(g)

Orange County Sanitation District

FROM: Gary Streed, Director of Finance
Originator: Michael D. White, Controller

SUBJECT: ANNUAL REVIEW AND ADOPTION OF THE DISTRICT'S INVESTMENT POLICY STATEMENT AND DELEGATION OF INVESTMENT AUTHORITY TO THE DIRECTOR OF FINANCE/TREASURER

GENERAL MANAGER'S RECOMMENDATION

Adopt Resolution No. OCSD 02-13, Authorizing the District's Treasurer to Invest and/or Reinvest District's Funds; Adopting District's Investment Policy Statement and Performance Benchmarks for FY 2002-03; and Repealing Resolution No. OCSD 01-13.

SUMMARY

This agenda item presents the annual review of the District's Investment Policy Statement to the FAHR Committee for consideration in the Committee's capacity as the oversight committee for the Investment Policy (Section 16.2). With adoption of the attached Resolution, the Board of Directors would readopt the District's current Investment Policy Statement, portfolio performance benchmarks, and monitoring and reporting requirements for FY 2002-03.

The District's Investment Policy Statement is recommended for adoption for 2002-03 with no changes from 2001-02. There have been no legislative revisions to the State Government Code since the adoption of the 2001-02 Investment Policy. The submitted Investment Policy Statement has received the Investment Policy Certification of Excellence Award from the Municipal Treasurer's Association of the United States and Canada.

PROJECT/CONTRACT COST SUMMARY

N/A

BUDGET IMPACT

☐ This item has been budgeted.
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☒ Not applicable (information item)

ADDITIONAL INFORMATION

Background

The District's current Investment Policy Statement was reviewed and approved by the Finance,

Administration and Human Resources Committee (FAHR) on June 13, 2001, and adopted by the Board of Directors on June 27, 2001 (Resolution No. 01-13).

The Investment Policy governs the investment activities of Pacific Investment Management Company (PIMCO), the District's external money manager, on behalf of the District. On May 28, 1999, the District's Investment Policy Statement received the Investment Policy Certification of Excellence Award from the Municipal Treasurer's Association of the United States and Canada. A copy of the letter of certification is included each year in the annual Investment Policy document. The District received its first Award of Excellence for the Investment Policy Statement in December 1996. Each MTA certification is valid for three years. Upon approval, the District will again be submitting this investment policy statement for award consideration.

The Investment Policy document itself consists of the Investment Policy Statement and the following eight appendices:

A. Summary of Investment Authorization
B. Treasury Management Procedures
C. Investment Manager Certification
D. Investment Pool Questionnaire (LAIF)
E. Board Resolution No. OCSD-02-XX
F. Sample Monthly & Quarterly Investment Program Monitoring Reports
G. Sections of the California Government Code Pertinent to Investing Public Funds
H. Glossary of Investment Terms

This document will be updated and delivered to FAHR Committee members following the adoption of the District’s investment policy statement.

Annual Review of Investment Policy

The Investment Policy includes the requirement that the District shall review its Investment Policy annually (Sections 1.2 and 16.1). Likewise, Section 53646 of the California Government Code (the "Code") requires local agencies to review their investment policy annually, and readopt their policy at a public meeting.

This staff report presents the annual review of the District's Investment Policy Statement to the FAHR Committee for consideration in the Committee's capacity as the oversight committee for the District’s investment program (Section 16.2). With adoption of the attached Resolution, the Board of Directors would readopt the District's current Investment Policy Statement, portfolio performance benchmarks, and monitoring and reporting requirements.

The District's Investment Policy Statement is recommended for adoption for 2002-03 with no policy changes from 2001-02. However, staff will continue to monitor pending legislative and regulatory proposals in the public finance area for their potential impact on the District’s existing financial programs.

Annual Delegation of Investment Authority

Effective January 1, 1997, Section 53607 of the Code states that governing boards of local agencies may only delegate authority to invest and/or reinvest agency funds to the agency's Treasurer for a one-year period.

With adoption of the attached Resolution, the Board of Directors would renew its delegation of investment authority to the Director of Finance/Treasurer for a one-year period in compliance with the requirements of Section 53607. Each year, the Board of Directors will consider similar actions along with the annual reconsideration of the District's Investment Policy.

ATTACHMENTS

1. Orange County Sanitation District's 2002-03 Investment Policy Statement.
2. Resolution No. OCDS-02-XX.
3. Exhibit "B" of the Investment Policy Document, "Performance Monitoring & Reporting".
4. Exhibit "B" of the Investment Policy Document, "Performance Monitoring & Reporting Schedule".

ORANGE COUNTY SANITATION DISTRICT

INVESTMENT POLICY STATEMENT

Reviewed and Approved
By
Finance, Administration and Human Resources Committee
On
~~July 10, 2002~~

Adopted
By
~~Board of Directors~~
On
~~July 17, 2002~~

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Appendix

A. Summary of Investment Authorization

B. Treasury Management Procedures

C. Investment Manager Certification

D. Investment Pool Questionnaire (LAIF)

E. Board Resolution No. OCSD-02-XX, Authorizing the District's Treasurer to Invest and/or Reinvest District Funds, and Adopting Investment Policy and Performance Benchmarks

F. Monthly & Quarterly Investment Program Monitoring Reports

G. Sections of the California Government Code Pertinent to Investing Public Funds

H. Glossary of Investment Terms

ORANGE COUNTY SANITATION DISTRICT

INVESTMENT POLICY STATEMENT

1.0 **Policy:**

It is the policy of the Orange County Sanitation District (OCSD) to invest public funds in a manner which ensures the safety and preservation of capital while meeting reasonably anticipated operating expenditure needs, achieving a reasonable rate of return and conforming to all state and local statutes governing the investment of public funds.

1.1. This Investment Policy is set forth by OCSD for the following purposes:

1.1.1. To establish a clear understanding for the Board of Directors, OCSD management, responsible employees and third parties of the objectives, policies and guidelines for the investment of the OCSD's idle and surplus funds.

1.1.2. To offer guidance to investment staff and any external investment advisors on the investment of OCSD funds (see Appendix "A").

1.1.3. To establish a basis for evaluating investment results.

1.2. OCSD establishes investment policies which meet its current investment goals. OCSD shall review this policy annually, and may change its policies as its investment objectives change.

2.0 **Scope:**

This Investment Policy applies to all financial assets of OCSD; except for the proceeds of OCSD's capital projects financing program, which are invested in accordance with provisions of their specific bond indentures; and such other funds excluded by law or other Board-approved covenant or agreement.

These funds are accounted for by OCSD as Enterprise Funds as represented in OCSD's Comprehensive Annual Financial Report.

3.0 **Standard of Prudence:**

The standard of prudence to be used by OCSD internal staff, and any authorized investment advisor(s), shall be as described in Section 53600.3 of the California Government Code as follows: Except as provided in subdivision (a) of Section 27000.3, all governing bodies of local agencies or persons authorized to make investment decisions on behalf of those local agencies investing public funds pursuant to this chapter are trustees and therefore fiduciaries subject to the **prudent investor** standard. When investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a **prudent person** acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency.

Within the limitations of this section and considering individual investments as part of an overall strategy, investments may be acquired as authorized by law.

4.0 **Investment Objectives:**

The primary objectives of OCSDs investment activities, in priority order, and as described in Section 53600.5 of the California Government Code, shall be:

4.1 **Safety**: The safety and preservation of principal is the foremost objective of the investment program of OCSD. Investments shall be selected in a manner that seeks to ensure the preservation of capital in OCSD's overall portfolio. This will be accomplished through a program of diversification, more fully described in Section 11.0, and maturity limitations, more fully described in Section 12.0, in order that potential losses on individual securities do not exceed the income generated from the remainder of the portfolio.

4.2 **Liquidity:** The investment program will be administered in a manner that will ensure that sufficient funds are available for OCSD to meet its reasonably anticipated operating expenditure needs.

4.3 **Return on Investments:** The OCSD investment portfolio will be structured and managed with the objective of achieving a rate of return throughout budgetary and economic cycles, commensurate with legal, safety, and liquidity considerations.

5.0 **Delegation of Authority:**

5.1 Authority to manage OCSD's investment program is derived from the California Government Code Sections 53600 *et seq.* and Sections 53635 *et seq.* The Board of Directors hereby delegates management responsibility for the OCSD investment program to it's Director of Finance / Treasurer, who shall establish written procedures for the operation of the investment program, consistent with this Policy. The Controller/Assistant Treasurer shall be responsible for day-to-day administration, monitoring, and the development of written administrative procedures for the operation of the investment program, consistent with this Policy. The current treasury management procedures are presented in Appendix "B." No person may engage in an investment transaction except as provided under the terms of this Policy and the procedures established by the Treasurer. The Treasurer shall be responsible for all transactions undertaken by OCSD internal staff, and shall establish a system of controls to regulate the activities of internal staff and external investment advisors engaged in accordance with Section 5.3.

5.2 The administrative procedures for the operation of OCSD's investment program will provide for, but not be limited to, the following:

5.2.1 Formats for monthly and quarterly reports to the Finance, Administration and Human Resources Committee, and the Board of Directors.

5.2.2 Compliance with generally accepted accounting principles of the Government Accounting Standards Board.

5.2.3 Establishment of benchmarks for performance measurement.

5.2.4 Establishment of a system of written internal controls.

5.2.5 Establishment of written procedures for competitive bids and offerings of securities that may be purchased or sold by internal OCSD staff.

5.2.6 Establishment of a Desk Procedures Manual for treasury operations and management.

5.3 The Board of Directors of OCSD may, in its discretion, engage the services of one or more registered investment advisors to assist in the management of OCSD's investment portfolio in a manner consistent with OCSD's objectives. Such external investment advisors, which shall be selected through a competitive process, shall be granted discretion to purchase and sell investment securities in accordance with this Investment Policy. Such advisors must be registered under the Investment Advisers Act of 1940, or be exempt from such registration.

6.0 **Ethics and Conflicts of Interest:**

6.1 Officers and employees of OCSD involved in the investment process shall refrain from personal business activities that could conflict with proper execution of OCSD's investment program, or which could impair their ability to make impartial investment decisions. Employees and investment officials shall disclose to the General Manager any material financial interests in financial institutions that conduct business within OCSD's boundaries, and they shall further disclose any large personal financial/investment positions, the performance of which could be related to the performance of positions in OCSD's portfolio.

7.0 **Authorized Financial Dealers and Institutions:**

7.1 For investment transactions conducted by OCSD internal staff, the Treasurer will maintain a list of financial institutions authorized to provide investment services to OCSD, including "primary" or regional dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (Uniform Net Capital rule), and Federal or State of California chartered banks. No public deposit shall be made except in a qualified public depository as established by State law.

All financial institutions which desire to become qualified bidders for investment transactions with OCSD must supply the following for evaluation by the Treasurer:

7.1.1. Audited financial statements for the institution's three (3) most recent fiscal years.

7.1.2. A statement, in the format prescribed by the Government Finance Officers Association (GFOA), certifying that the institution has reviewed OCSD's

Investment Policy and that all securities offered to the Districts shall comply fully and in every instance with all provisions of the California Government Code and with this Investment Policy. The current statement is presented in Appendix "C."

7.1.3. A statement describing the regulatory status of the dealer, and the background and expertise of the dealer's representatives.

Selection of financial institutions, broker/dealers, and banks authorized to engage in transactions with OCSD shall be made through a competitive process. An annual review of the financial condition of qualified institutions will be conducted by the Treasurer.

7.2 Selection of broker/dealers used by external investment advisors retained by OCSD, shall be in compliance with contract provisions between OCSD and any external investment advisors, and shall be in substantially the following form:

Use of Securities Brokers: Neither the Investment Advisor nor any parent, subsidiary or related firm shall act as a securities broker with respect to any purchases or sales of securities which may be made on behalf of OCSD, provided that this limitation shall not prevent the Investment Advisor from utilizing the services of a securities broker which is a parent, subsidiary or related firm, provided such broker effects transactions on a "cost only" or "nonprofit" basis to itself and provides competitive execution. The Investment Advisor shall provide the Districts with a list of suitable independent brokerage firms (including names and addresses) meeting the requirements of Government Code Section 53601.5, and, unless otherwise directed by OCSD, the Investment Advisor may utilize the service of any of such independent securities brokerage firms it deems appropriate to the extent that such firms are competitive with respect to price of services and execution.

8.0 **Authorized and Suitable Investments:**

All investments shall be made in accordance with the California Government Code including Sections 16429.1 *et seq.*, 53600 *et seq.*, and 53684, and as described within this Investment Policy. Permitted investments under this Policy shall include:

8.1 **Securities, obligations, participations, or other instruments of, or issued by, or fully guaranteed as to principal and interest by the US Government,** a federal agency, or a US Government-sponsored enterprise pursuant to Section 53601 (e) of the California Government Code. Investment in mortgage-backed bonds and CMOs is not governed by this Section 8.1, even if such bonds are issued by agencies of the US Government. See Section 8.2 for conditions of purchase of mortgage-backed securities. See Section 8.11 for conditions of purchase of CMOs.

8.2 **Mortgage-backed securities** issued by an agency of the US Government, which are backed by pools of mortgages guaranteed by the full faith and credit of the U.S. Government, or an agency thereof. Selection of mortgage derivatives, which include interest-only payments (IOs) and principal-only payments (POs);

inverse floaters, and RE-REMICs (Real Estate Mortgage Investment Conduits), is hereby prohibited.

8.3 **Commercial paper** of "prime" quality and rated "P1" by Moody's Investor Services (Moody's), ***and*** rated "A1" by Standard & Poor's Corporation (S&P), and issued by a domestic corporation organized and operating in the United States with assets in excess of $500 million and having a rating of "A" or better on its long-term debt as provided by Moody's or S&P. Purchases of eligible commercial paper may not exceed 270 days to maturity from the date of purchase. Purchases of commercial paper shall not exceed 15% of the market value of the portfolio, except that a maximum of 30% of the market value of the portfolio may be invested in commercial paper, so long as the average maturity of all commercial paper in the portfolio does not exceed 31 days. No more than 5% of the market value of the portfolio, or 10% of the issuer's outstanding paper, may be invested in commercial paper issued by any one (1) eligible corporation.

8.4 **Banker's acceptances** issued by institutions, the short-term obligations of which are rated a minimum of "P1" by Moody's, or "A1" by S&P provided that: (a) the acceptance is eligible for purchase by the Federal Reserve System; (b) the maturity does not exceed 180 days; (c) no more than 40% of the total portfolio may be invested in banker's acceptances; and (d) no more than 30% of the total portfolio may be invested in the banker's acceptances of any one (1) commercial bank.

8.5 **Medium term (or corporate) notes** of a maximum of five (5) years maturity issued by corporations organized and operating within the United States, or issued by depository institutions licensed by the United States, or any state, and operating within the United States with assets in excess of $500 million, and which is rated in a rating category of "A" or better on its long-term debt as provided by Moody's or S&P. Notes eligible for investment under this section shall be rated at least "A3" or better by Moody's, or "A-" or better by S&P. If, at the time of purchase, an eligible note is rated in a rating category of "A" or better by only one rating agency, the note shall also be rated at least "BBB" by the other rating agency. If, after purchase, the rating of an eligible note in a rating category of "A" or better, is downgraded to "BBB," the external investment advisor shall notify the District of the downgrade, and shall present an analysis and recommendations as to the disposition of the note consistent with the investment objectives of this Investment Policy. No more than 30% of the portfolio may be invested in eligible medium term or corporate notes.

8.6 **Shares of mutual funds** investing in securities permitted under this policy and under Section 53601 (k) of the California Government Code. Such funds must either: (1) attain the highest ranking, or the highest letter and numerical rating, provided by not less than two of the three largest nationally recognized rating services; or (2) have an Investment Advisor registered with the Securities and Exchange Commission with not less than five (5) years of experience investing in the securities and obligations authorized under this Policy and under California Government Code Section 53601, and with assets under management in excess of $500 million. The purchase price of shares of beneficial interest purchased pursuant to this policy, and the California Government Code may not include any

commission that the companies may charge, and shall not exceed 15% of the District's surplus money that may be invested pursuant to this section. However, no more than 10% of the District's surplus funds may be invested in shares of beneficial interest of any one (1) mutual fund pursuant to this section.

8.7 **Certificates of deposit:**

8.7.1 **Secured (collateralized) time deposits** issued by a nationally or state-chartered bank or state or federal savings and loan association, as defined by Section 5102 of the California Financial Code, ***and*** having a net operating profit in the two (2) most recently completed fiscal years. Collateral must comply with Chapter 4, Bank Deposit Law, Section 16500 *et seq*., and Chapter 4.5, Savings and Loan Association and Credit Union Deposit Law, Section 16600 *et seq*., of the California Government Code.

8.7.2 **Negotiable certificates of deposit (NCDs)** issued by a nationally or state-chartered bank or state of federal savings and loan association, as defined by Section 5102 of the California Financial Code; ***and*** which shall have a rating of "A" or better on its long-term debt as provided by Moody's or S&P; or which shall have the following minimum short-term ratings by at least two (2) rating services: "P1" for deposits by Moody's, "A1" for deposits by S&P, or comparably rated by a nationally recognized rating agency which rates such securities; or as otherwise approved by the District's Board of Directors.

8.7.3 To be eligible to receive local agency money, a bank, savings association, federal association, or federally insured individual loan company shall have received an overall rating of not less than "satisfactory" in its most recent evaluation by the appropriate federal financial supervisorial agency of its record of meeting the credit needs of California's communities, including low and moderate income neighborhoods, pursuant to Section 2906 of Title 12 of the United States Code.

8.8 **Taxable or tax-exempt municipal bonds** issued by the State of California or its subdivisions. Such securities must be rated "A3" or higher by Moody's, or "A-" or higher by S&P; or as otherwise approved by the Districts' Board of Directors.

8.9 **The State of California Local Agency Investment Fund (LAIF).** The LAIF is an investment alternative for California's local governments and special districts managed by the State Treasurer's Office. LAIF is more fully described in the Glossary (See Appendix "H.") The District shall use LAIF as a short-term cash management facility. Investment of District funds in LAIF shall be subject to investigation and due diligence prior to investing, and on a continual basis to a level of review pursuant to Section 3.0, Standard of Prudence, of this Policy. See Appendix "D" for investment pool questionnaire.

8.10 **The Orange County Treasurer's Money Market Commingled Investment Pool (OCCIP).** The OCCIP is a money market investment pool managed by the Orange County Treasurer's Office. OCCIP is more fully described in the Glossary. (See Appendix "H.") The District has no funds invested in OCCIP at this time. Investment of District funds in OCCIP would be subject to investigation

and due diligence prior to investing, and on a continual basis to a level of review pursuant to Section 3.0, Standard of Prudence, of this Policy.

8.11 **Collateralized mortgage obligations (CMOs)** issued by agencies of the US Government which are backed by pools of mortgages guaranteed by the full faith and credit of the U.S. Government, or an agency thereof, and asset-backed securities rated "Aaa" by Moody's and "AAA" by S&P. Selection of mortgage derivatives, which include interest-only payments (IOs) and principal-only payments (POs); inverse floaters, and RE-REMICS (Real Estate Mortgage Investment Conduits), is hereby prohibited. Securities eligible for purchase under this Section 8.11 shall be issued by an issuer having a rating on its unsecured long-term debt of "A" or higher. Combined purchases of mortgage-backed securities, CMOs and asset-backed securities as authorized under this Section 8.11, may not exceed 20% of the total Long-Term Operating Monies portfolio.

8.12 **Repurchase agreements** provided that:

8.12.1 All repurchase agreements shall be collateralized with securities eligible for purchase under this Policy. In order to anticipate market changes and to provide a level of security for all repurchase agreement transactions, collateralization shall be maintained at a level of at least 102% of the market value of the repurchase agreements, and shall be adjusted no less than weekly.

8.12.2 All repurchase agreements must be the subject of a Master Repurchase Agreement between OCSD and the provider of the repurchase agreement. The Master Repurchase Agreement shall be substantially in the form developed by The Bond Market Association.

8.13 **Reverse repurchase agreements** provided that:

8.13.1 No more than five percent (5%) of OCSD’s portfolio shall be invested in reverse repurchase agreements, and there shall be no long-term reverse repurchase agreements unless otherwise authorized by the Districts’ Board of Directors.

8.13.2 The maximum maturity of reverse repurchase agreements shall be ninety (90) days.

8.13.3 Reverse repurchase agreements shall mature on the exact date of a known cash flow which will be unconditionally available to repay the maturing reverse repurchase agreement.

8.13.4 Proceeds of reverse repurchase agreements shall be used solely to supplement portfolio income or to provide portfolio liquidity, and shall not be used to speculate on market movements.

8.13.5 All reverse repurchase agreements must be the subject of a Master Repurchase Agreement between OCSD and the provider of the reverse

repurchase agreement. The Master Repurchase Agreement shall be substantially in the form developed by The Bond Market Association.

8.14 Sales of OCSD-owned securities in the secondary market may incur losses in order to improve the risk or return characteristics of the portfolio, to prevent anticipated further erosion of principal, or when trading for securities that result in an expected net economic gain to OCSD.

8.15 If securities owned by the OCSD are downgraded by either Moody's or S&P to a level below the quality required by this Investment Policy, it shall be OCSD's policy to review the credit situation and make a determination as to whether to sell or retain such securities in the portfolio. If a decision is made to retain the downgraded securities in the portfolio, their presence in the portfolio will be monitored and reported monthly to the OCSD General Manager, the Finance, Administration and Human Resources Committee and Board of Directors.

9.0 **Collateralization:**

Generally, the value to secure deposits under this Policy shall comply with Section 53652 of the California Government Code. Collateralization will be required for secured time deposits, as more fully described in Section 8.7.1; and repurchase agreements, as more fully described in Section 8.12.1. Collateral will always be held by an independent third-party, as more fully described in Section 10.1. The right of collateral substitution is granted.

10.0 **Safekeeping and Custody:**

10.1 All securities transactions, including collateral for repurchase agreements, entered into by, or on behalf of OCSD, shall be conducted on a **delivery-versus-payment (DVP)** basis. Securities will be held by OCSD's third-party custodian bank, which shall be selected through a competitive process, or that agent's representative, or in the agent's account at the Federal Reserve Bank, and evidenced by safekeeping receipts.

11.0 **Diversification:**

OCSD will diversify its investments by security type, issuer, and financial institution in accordance with the following:

11.1 There is no limit on investment in securities issued by or guaranteed by the full faith and credit of the U.S. government.

11.2 No more than 20% of the portfolio may be invested in securities of a single agency of the U.S. government, which does not provide the full faith and credit of the U.S. government.

11.3 No more than 5% of the portfolio may be invested in securities of any one issuer, other than the U.S. government or its agencies. Investment in mutual funds is not governed by this Section 11.3. See Section 11.8 for conditions of purchase of mutual funds.

11.4 No individual holding shall constitute more than 5% of the total debt outstanding of any issuer.

11.5 No more than 40% of the portfolio may be invested in banker's acceptances.

11.6 No more than 15% of the portfolio may be invested in commercial paper, except that 30% of the portfolio may be so invested so long as the average maturity of all commercial paper in the portfolio does not exceed 31 days.

11.7 No more than 30% of the portfolio may be invested in medium-term (corporate) notes.

11.8 No more than 15% of the portfolio may be invested in mutual funds. However, no more than 10% of the District's portfolio may be invested in shares of beneficial interest of any one (1) mutual fund.

11.9 No more than 30% of the portfolio may be invested in negotiable certificates of deposit.

11.10 No more than 10% of the portfolio may be invested in eligible municipal bonds.

11.11 No more than 20% of the Long Term Operating Monies portfolio may be invested in a combination of mortgage-backed securities, CMOs and asset-backed securities. Mortgage-backed securities, CMOs and asset-backed securities may only be purchased by the Districts' external money managers, Pacific Investment Management Company (PIMCO), with prior Board approval (authorized by Board Minute Order, January 22, 1997), and may not be purchased by the District's staff.

11.12 No more than the lesser of 15% of the portfolio or the statutory maximum may be invested in LAIF.

11.13 No more than 15% of the portfolio may be invested in the Orange County Investment Pool.

11.14 No more than 20% of the portfolio may be invested in repurchase agreements.

11.15 No more than 5% of the portfolio may be invested in reverse repurchase agreements.

12.0 **Maximum Maturities:**

To the extent possible, OCSD will attempt to match its investments with reasonably anticipated cash flow requirements. The Treasurer shall develop a five-year cash flow forecast, which shall be updated quarterly. Based on this forecast, the Treasurer shall designate, from time-to-time, the amounts to be allocated to the investment portfolio. OCSD monies invested in accordance with this Policy are divided into two (2) categories:

12.1 **Liquid Operating Monies**. Funds needed for current operating and capital expenditures are known as Liquid Operating Monies.

12.1.1 The maximum final stated maturity of individual securities in the Liquid Operating Monies account portfolio shall be one (1) year from the date of purchase.

12.1.2 The average duration of the Liquid Operating Monies account portfolio shall be recommended by the Treasurer based on the Districts' cash flow requirements, but may never exceed 180 days, and shall be reviewed and approved by the Finance, Administration and Human Resources Committee, and shall be updated as needed.

12.2 **Long Term Operating Monies**. Funds needed for longer term purposes are known as the Long Term Operating Monies.

12.2.1 The maximum final stated maturity of individual securities in the Long Term Operating Monies account portfolio shall be five (5) years from the date of purchase, unless otherwise authorized by the Districts' Board of Directors (Board Minute Order dated January 22, 1997 has authorized the District's external money managers, PIMCO, to purchase individual securities providing the securities are permitted under Section 8.0 of this policy, which may have a stated maturity of more than five (5) years from the date of purchase).

12.2.2 The duration of the Long Term Operating Monies account portfolio shall be recommended by the Treasurer based on the Districts' five-year cash flow forecast, shall be reviewed and approved by the Finance, Administration and Human Resources Committee, and shall be updated as needed.

12.2.3 The duration of the Long Term Operating Monies account portfolio shall never exceed 120% of the duration as established in accordance with Section 12.2.2.

12.2.4 The duration of the Long Term Operating Monies account portfolio shall never be less than 80% of the duration as established in accordance with Section 12.2.2

13.0 **Internal Control:**

13.1 The Treasurer shall establish an annual process of independent review by an external auditor. This review will provide internal control by assuring compliance with policies and procedures. The current treasury management procedures are presented in Appendix "B."

14.0 **Performance Objectives and Benchmarks:**

14.1 **Overall objective.** The investment portfolio of OCSD shall be designed with the overall objective of obtaining a rate of return throughout budgetary and economic cycles, commensurate with investment risk constraints and reasonably anticipated cash flow needs.

14.2 **The Liquid Operating Monies.** The investment performance objective for the Liquid Operating Monies shall be to earn a total rate of return over a market cycle which exceeds the return on a market index approved by the Finance, Administration and Human Resources Committee, and by the District's Board of Directors, when the duration of the portfolio is established. This market index is more fully described in Board Resolution
No. OCSD-00-16 (see Appendix "E").

14.3 **The Long Term Operating Monies.** The investment performance objective for the Long Term Operating Monies shall be to earn a total rate of return over a market cycle which exceeds the return on a market index selected by the Finance, Administration and Human Resources Committee and approved by the Districts' Board of Directors, when the duration of the portfolio is established. This market index is more fully described in Board Resolution No. OCSD-00-16 (See Appendix "E").

15.0 **Reporting:**

15.1 Monthly and quarterly investment reports shall be submitted by the Treasurer to the Finance, Administration and Human Resources Committee which shall forward the reports to the District's Board of Directors. The monthly reports shall be submitted to the Finance, Administration and Human Resources Committee within 30 days of the end of the month in accordance with California Government Code Sections 53607, 53646, and this Investment Policy. The quarterly reports shall provide clear and concise status information on the District's portfolios at the end of each reporting period, including performance measures using the benchmarks described in Section 14.0 of this Investment Policy. Sample monthly and quarterly reports are presented in Appendix "F." These reports shall contain listings of individual securities held at the end of each reporting period, and shall disclose, at a minimum, the following information about the risk characteristics of OCSD's portfolio:

15.1.1 Cost and accurate and complete market value of the portfolio.

15.1.2 Modified duration of the portfolio compared to Benchmark.

15.1.3 Dollar change in value of the portfolio for a one-percent (1%) change in interest rates.

15.1.4 Percent of portfolio invested in reverse repurchase agreements, and a schedule which matches the maturity of such reverse repurchase agreements with the cash flows which are available to repay them at maturity.

15.1.5 For the Liquid Operating Monies account only, the percent of portfolio maturing within 90 days.

15.1.6 Average portfolio credit quality.

15.1.7 Percent of portfolio with credit ratings below "A" by any rating agency, and a description of such securities.

15.1.8 State that all investments are in compliance with this policy and the California Government Code, or provide a listing of any transactions or holdings which do not comply with this policy or with the California Government Code.

15.1.9 Time-weighted total rate of return for the portfolio for the prior three months, twelve months, year to date, and since inception compared to the Benchmark returns for the same periods.

15.1.10 State that sufficient funds are available for OCSD to meet its operating expenditure requirements for the next six months, or if not, state the reasons for the shortfall.

15.2 OCSD's Treasurer shall meet quarterly with the Finance, Administration and Human Resources Committee to review investment performance, proposed strategies and compliance with this Investment Policy. External investment advisors may be required to attend said meetings at the discretion of the Chairman of the Finance, Administration and Human Resources Committee.

16.0 **Investment Policy Adoption and Revision:**

16.1 The Investment Policy of OCSD shall be reviewed by the Finance, Administration and Human Resources Committee and shall be adopted by resolution of the Board of Directors of OCSD. The Policy shall be reviewed on an annual basis in accordance with California Government Code Section 53646, and this Investment Policy, by the Finance, Administration and Human Resources Committee, which shall recommend revisions, as appropriate, to the Board of Directors. Any modifications made thereto shall be approved by the Board of Directors.

16.2 The Finance, Administration and Human Resources Committee shall serve as the oversight committee for the District's Investment program and shall adopt guidelines for the ongoing review of duration, quality and liquidity of the District's portfolio.

APPENDIX "A"
SUMMARY OF INVESTMENT AUTHORIZATION
INTERNAL AND EXTERNAL MANAGERS

SHORT TERM OPERATING FUND

INVESTMENT	INTERNAL	EXTERNAL
U.S. Treasuries	OK	OK
Federal Agencies	Fixed coupon, fixed mat.	OK
Mortgage-backed	NO	NO
Commercial paper	OK	OK
Banker's Accept.	OK	OK
Medium Term Notes	Fixed coupon, fixed mat.*	OK
Mutual Funds	Money Market Only**	Money Market Only
Negotiable CDs	Fixed coupon, fixed mat.*	OK
Municipal Bonds	OK*	NO
LAIF	OK	NO
OCIP	OK	NO
CMOs	NO	NO
Asset-backed	NO	NO
Repurchase Agree.	OK	OK
Reverse Repos	OK*	OK

LONG TERM OPERATING PORTFOLIO

INVESTMENT	INTERNAL	EXTERNAL
U.S. Treasuries	OK	OK
Federal Agencies	Fixed coupon, fixed mat.	OK
Mortgage-backed	NO	OK
Mutual Funds	Money Market Only**	OK
Negotiable CDs	Fixed coupon, fixed mat.*	OK
Municipal Bonds	OK*	OK
LAIF	OK	NO
OCIP	OK	NO
CMOs	NO	With Board Approval
Asset-backed	NO	With Board Approval
Repurchase Agree.	OK	OK
Reverse Repos	OK*	OK

*With prior approval of the Finance, Administration and Human Resources Committee.
**Using financial institutions approved by the Finance, Administration and Human Resources Committee.

RESOLUTION NO. OCSD-02-13

AUTHORIZING THE DISTRICT'S TREASURER TO INVEST AND/OR REINVEST DISTRICT'S FUNDS, AND ADOPTING DISTRICT'S INVESTMENT POLICY STATEMENT AND PERFORMANCE BENCHMARKS

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE ORANGE COUNTY SANITATION DISTRICT, AUTHORIZING THE DISTRICT'S TREASURER TO INVEST AND/OR REINVEST DISTRICT'S FUNDS, AND ADOPTING DISTRICT'S INVESTMENT POLICY STATEMENT AND PERFORMANCE BENCHMARKS; AND REPEALING RESOLUTION NO. OCSD 01-13

* * * * * * * * * * * * * * * *

WHEREAS, on June 27, 2001, the Board of Directors adopted Resolution No. 01-13, readopting the District's Investment Policy Statement, and establishing specific performance benchmarks and objectives, together with a schedule of frequency of investment performance reports; and,

WHEREAS, pursuant to California Government Code Section 53607, the Board of Directors may delegate authority to invest and/or reinvest District's funds to the Treasurer for a one-year period; and,

WHEREAS, pursuant to California Government Code Section 53646, the District is required to review its Investment Policy annually and readopt its Policy at a public meeting, which Policy will establish specific performance benchmarks and objectives, and specific monitoring and reports.

NOW, THEREFORE, the Board of Directors of the Orange County Sanitation District, DOES HEREBY RESOLVE, DETERMINE AND ORDER:

Section 1: That the authority of the Board of Directors to invest or reinvest District's surplus funds, or to sell or exchange securities so purchased, or to deposit for safekeeping the funds and investments of the Districts with depositories, as provided for in California Government Code Sections 53608 and 53630, is hereby delegated to the District's Treasurer for a one-year period commencing on the date this Resolution is adopted, as authorized by California Government Code Section 53607.

Section 2: That the Board of Directors hereby adopt the Investment Policy Statement of the Orange County Sanitation District, as set forth in Exhibit “A”, attached hereto and incorporated herein by reference.

Section 3: That the Board of Directors hereby adopt the following specific performance benchmarks for their two investment funds in accordance with Section 14.0 of the District's Investment Policy:

LIQUID OPERATING MONIES: The Short-Term Operating Fund will be compared to the three month T-Bill rate, and the Callan Active Cash Flow Income Style Group. The Callan Active Cash Flow Income Style Group represents a peer group of managers who operate with a maximum maturity of one year.

LONG-TERM OPERATING MONIES: The Long-Term Operating Fund will be compared to the Merrill Lynch Government and Corporate One-to-Five Year Maturity Index and to the Callan Defensive Fixed Income Style Group.

Section 4: That the Board of Directors hereby adopt a performance monitoring and reporting schedule, as required by Section 15.0 of the District's Investment Policy, which schedule is attached hereto as Exhibit “B”, and incorporated herein by reference.

Section 5: That Resolution No. OCSD 01-13 is hereby repealed.

PASSED AND ADOPTED at regular meeting held July 17, 2002.

_____
Chair

ATTEST:

_____
Board Secretary

EXHIBIT "B"
ORANGE COUNTY SANTIATION DISTRICT
PERFORMANCE MONITORING & REPORTING
FOR THE
DISTRICT'S INVESTMENT PROGRAM

POLICY REFERENCE	PERFORMANCE CHARACTERISTIC	REPORTING PARTY*		
		PIMCO	MELLON	CALLAN
15.1.1	*Cost and market value* of the portfolio (monthly mark-to-market).	M, Q	M, Q	Q
15.1.2	*Modified duration* of the portfolio compared to benchmark.	M, Q		Q
15.1.3	*Dollar change in value* of the portfolio for a 1% change in interest rate.	M, Q		Q
15.1.4	Percent of portfolio invested in *reverse repurchase agreements,* and a schedule which matches the maturity of such reverse repurchase agreements with the cash flows which are available to repay them at maturity.	M, Q		
15.1.5	For the Liquid Operating Monies account only, the *percent of portfolio maturing within 90 days.*	M, Q		Q
15.1.6	Average portfolio *credit quality.*	M, Q		Q
15.1.7	Percent of portfolio with *credit ratings below "A"* by any rating agency, and a description of such securities.	M, Q		Q
15.1.8	Listing of any transaction or holdings which *do not comply* with this policy or with the California Government Code.	M, Q		
15.1.9	*Time-weighted total rate of return* for the portfolio for the prior three months, twelve months, year-to-date, and since inception compared to the benchmark returns for the same periods.	M, Q		Q
ADDL**	Comparison of portfolio performance to *market index benchmark.*	M, Q		Q
ADDL**	Comparison of Manager's performance to *peer group benchmark.*			Q
ADDL**	Monitoring of *organizational and structural changes* of investment management firm.			Q
ADDL**	Audit portfolios for *compliance* with investment policy guidelines.			Q
15.1.10	OCSD will report if sufficient funds are available for it to meet operating expenditure requirements for the next six months, or if not, state the reason for the shortfall.			

Notes
*M = Monthly
*Q = Quarterly
**ADDL= Monitoring of Additional Peformance Characteristics

Exhibit "B"

FY 2002-03 Performance Monitoring & Reporting Schedule

For the FAHR Committee and Board of Directors meetings of:	The Monthly Treasurer's Report to be presented for the month of:	The Quarterly Investment Management Program Report to be presented for the period of:
July 2002	June 2002	
August	July	April – June 2002
September	August	
October	September	
November	October	July – Sept 2002
December	November	
January '03 (Board only)	December	
February	January 2003	Oct – Dec 2002
March	February	
April	March	
May	April	Jan – March 2003
June	May	

FAHR COMMITTEE

AGENDA REPORT

Meeting Date 7/10/02	To Bd. of Dir. 7/17/02
Item Number FAHR02-72	Item Number 12(i)

Orange County Sanitation District

FROM: Gary Streed, Director of Finance
Originator: Michael D. White, Controller

SUBJECT: ANNUAL RENEWAL OF THE DISTRICT'S EXCESS LIABILITY INSURANCE PROGRAM, FY 2002-03

GENERAL MANAGER'S RECOMMENDATION

Renew the District's Excess General Liability Insurance Program for the period July 1, 2002 through June 30, 2003, in an amount not to exceed $201,500.

SUMMARY

Staff recommends the renewal of the District's $25 million Excess General Liability Insurance Program for FY 2002-03. The coverage is provided through the California Municipal Excess Liability Program (CAMEL). At present, the District is in the third and final year of a three-year commitment to the CAMEL program, approved by the Board in December 1998 after completing a competitive bid selection process.

Approval of this agenda item will continue the District's $25 million liability coverage through the CAMEL program through the third year of this three-year commitment. At this time, final premium costs within a range of $189,550 to $201,500 are being negotiated.

PROJECT/CONTRACT COST SUMMARY

N/A

BUDGET IMPACT

☒ This item has been budgeted. (Line item:)
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.
☐ Not applicable (information item)

ADDITIONAL INFORMATION

Background

The current liability insurance program provides the District with a $25 million policy of comprehensive coverage for municipal liability, bodily injury and property damage, and personal injury. The program was structured to also include Employment Practices, and Public Officials Errors & Omissions coverage. The $25 million coverage is per occurrence, with a self-insured deductible of $100,000 per occurrence. Since 1997, the Employment Practices portion of coverage was enhanced from a $2 million sub-limit, to the full $25 million policy limit.

Two important advantages of a multi-year renewal of the District's participation in the CAMEL general liability insurance program include guaranteed coverage and cost stability. When the District entered into the CAMEL program in July 1996, we obtained an annual premium cost not to exceed $125,000 in the first year, a commitment for a two-percent premium reduction in the second year of the program, and a five-percent premium reduction in the third year. Actual premium reductions obtained during this first three-year period were more than ten percent. A three-year agreement was reached in 1998-99 that included a level annual premium not to exceed $111,492 for the first $10 million layer of insurance coverage.

In 2000-01, a new three year commitment was reached that allows for the renewal of the District's Excess General Liability insurance policy that guarantees continuation of the District's first $10 million layer of insurance coverage, while placing a maximum on premium increases of ten percent per year through 2002-03. The premium on the next $15 million layer of insurance coverage excess of $10 million is subject to current market pricing.

2002-03 Renewal Cycle

First $10 million layer of $25 million Excess Liability Insurance Coverage ("Basic"):

Kemper, the program's current insurer, has decided it will no longer provide coverages to public agencies across the country for its "Basic" insurance. As of July 1, the underwriting agency that placed business with Kemper has not found a replacement insurer for their public risk business. Driver Alliant has therefore negotiated a 30 day extension of the existing $10 million program with Kemper to allow for the completion of negotiations with the new insurer.

The 30 day extension will be at the same terms as the existing program, but will have the addition of mold exclusion (required by reinsurance). The premium will be a pro-rata cost of the expiring program (no increase), except it will be placed using a Kemper "Non-Admitted" insurer and therefore 3.25 percent taxes and fees will apply to the extension premium. The estimated premium for this one month of coverage is $9,240.

The CAMEL's fall back position for renewal of the "Basic" $10 million program is a direct renewal with American Re through their Great Lakes U.K. insurance carrier. This worst case scenario calls for premium increases of 20 percent plus taxes and fees due to its non-admitted status within the State of California, or approximately $130,000. These terms continue to be dramatically better than the "open market" increases on many individual placements (minimum increases of 40 percent to 100 percent). The insurance market continues to worsen on a weekly, if not daily basis.

The best case scenario appears to be on a very promising proposal from a new insurer, although terms have yet to be finalized. If successfully concluded, the new arrangement will provide CAMEL members with the pre-agreed 10 percent premium increase, or $118,100, using an "Admitted" carrier, and with a full 7.5 percent dividend.

Second $15 million Layer of $25 million Excess Liability Insurance Coverage:

On July 1, the District received a proposal from Driver Alliant from the insurer Kemper Surplus Lines Insurance on $15 million of liability insurance coverage excess of $10 million at a premium of $62,208. This is an increase of 307.0 percent over the prior year's premium of $15,283 with relatively the same level of coverage. Although this is a non-admitted insurer, it

does carry an A-, Excellent rating from Best Guide Rating. To date, this has been the only insurance carrier will to submit a bid for this $15 million layer.

Dividend Rebates

Additionally, the District again becomes eligible for an annual CAMEL program dividend rebate in the amount of 15 to 20 percent of premium cost that began with the FY 1999-2000 renewal period. Each year, the dividend rebate will be calculated based on the loss experience of the program for the program year that expired two years prior to the calculation. Dividends are then paid to program participants in equal annual increments for the two years following the calculation.

Dividends were obtained in the amount of $21,450 covering the 1997-98 policy year. However, no dividends will be paid for the 1998-99 policy year due to loss experience. The District is currently waiting for the 1999-00 loss experience results.

Recommendation

The 2002-03 Excess General Liability Insurance Program is recommended for renewal through the CAMEL joint purchase program. This policy provides for $25 million of comprehensive coverage for municipal liability, bodily injury and property damage, and personal injury, with a self-insured deductible of $100,000 per occurrence.

The premium cost for FY 2002-03, under the worst case scenario is estimated to increase $89,584, or 80.0 percent over the prior year to $201,500. Under the best case scenario, the total premium would be limited to $189,550, a $77,634, or 69 percent increase from the prior year. Based on either the best or worst case scenarios, sufficient funds have been budgeted to cover premium costs.

ALTERNATIVES

N/A

CEQA FINDINGS

N/A

ATTACHMENTS

(1) Letter from Driver Alliant dated June 14, 2002 on the Worst Case Scenario for $10 million Liability Insurance Coverage.

(2) Letter from Driver Alliant dated June 26, 2002 on 30-day Extension of $10 million Liability Insurance Coverage.

(3) Proposal from Driver Alliant dated July 1, 2002 on $15 million of Liability Insurance Excess of $10 million.

BOARD OF DIRECTORS

AGENDA REPORT

Meeting Date	To Bd. of Dir. 07/17/02
Item Number	Item Number 14

Orange County Sanitation District

FROM: David Ludwin, Director of Engineering
Originator: Jim Herberg, Engineering Manager

SUBJECT: TEMPORARY SHORT-TERM OCEAN OUTFALL BACTERIA REDUCTION PROJECT, JOB NO. J-87

GENERAL MANAGER'S RECOMMENDATION

(1) Receive and file Addendum No. 6 to the Certified 1999 Strategic Plan Final Program Environmental Impact Report prepared by Environmental Science Associates for the Temporary Short-Term Ocean Outfall Bacteria Reduction Project, Job No. J-87, and (2) Authorize Staff to proceed with the Temporary Short-Term Ocean Outfall Bacteria Reduction Project, Job No. J-87, contingent upon the Regional Water Quality Control Board approval of Order No R8-2002-0055.

SUMMARY

- Since adoption of the 1999 Strategic Plan Final Program Environmental Impact Report (PEIR), a project has been identified that will need subsequent documentation according to the California Environmental Quality Act (CEQA). This project is the Temporary Short-Term Ocean Outfall Bacteria Reduction Project, Job No. J-87.

- The Strategic Plan PEIR included provisions for emergency bleach addition to the District's effluent. However, the PEIR did not describe facilities for continuous operation and dechlorination of treated effluent wastewater prior to discharge through the 120-inch outfall.

- Pursuant to CEQA, an addendum is the appropriate document to describe the modifications under the proposed project. According to CEQA, no public circulation or review period is required for an addendum prepared for a previously circulated and Certified Final Environmental Impact Report. The Orange County Sanitation District's (District) 1999 Strategic Plan PEIR was previously circulated for a 45-day public review period; June 29, 1999 through August 16, 1999.

PROJECT/CONTRACT COST SUMMARY

No expenditure is being requested at this time. Expenditures that have not yet been approved will be brought to the Board of Directors for approval or ratification separately.

BUDGET IMPACT

☒ This item has been budgeted. (Line item:Section 8, Page 91)
☐ This item has been budgeted, but there are insufficient funds.
☐ This item has not been budgeted.

☐ Not applicable (information item)

No budgetary action is being requested at this time.

ADDITIONAL INFORMATION

To address the project described herein, Environmental Science Associates (ESA) in collaboration with Kris Lindstrom Inc., has prepared an addendum to the 1999 Strategic Plan Final Program Environmental Impact Report (PEIR) in accordance with the California Environmental Quality Act (CEQA) guidelines. Addendum No. 6 for Temporary Short-Term Ocean Outfall Bacteria Reduction Project, Job No. J-87, has been prepared.

The addendum has been prepared to address minor modifications to the original disinfection facilities described in the PEIR. Although bacteria reduction of the treated wastewater is discussed in 1999 Strategic Plan Environmental Impact Report, the Temporary Short-Term Bacteria Reduction Project, Job No. J-87, was not specifically addressed. However, the District's existing bleach station facility, located at Plant No. 2, was designed to add bleach to treated wastewater discharged to the District's emergency 78-inch (1mile) outfall and the Santa Ana River emergency overflow.

The disinfection plan as described in the PEIR will be modified to install temporary short-term disinfection/dechlorination facilities at Plant Nos. 1 and 2, located in the cities of Fountain Valley and Huntington Beach, respectively. The temporary short-term disinfection facilities are necessary to respond to the Regional Water Quality Control Board (RWQCB) pending Order No. R8-2002-0055, mandating the District to employ and implement disinfection/dechlorination facilities by August 12, 2002.

Although the order has not yet been acted upon by the RWQCB, a hearing for approval of the order is scheduled for July 19, 2002. The RWQCB's proposed order will amend the District's 1998 Ocean Discharge Permit to mandate bacteria reduction effective August 12, 2002.

Therefore, contingent upon the RWQCB's issuance of the proposed order, Staff is proposing to install temporary facilities to disinfect the District's treated wastewater with sodium hypochlorite (chlorine bleach) and dechlorinate the effluent with sodium bisulfite (chlorine removal process). It is anticipated that temporary short -term, disinfection/dechlorination facilities will remain in service for a period of six to nine-months, until a more permanent (3-5 years) short-term facility is designed and constructed. The temporary short-term facilities will be removed as necessary as construction and implementation of future permanent short-term facilities are developed.

It is anticipated that the bacteria reduction will be conducted in three phases. The temporary short-term facilities will be designed and implemented, with phases two and three following as future projects. These phases will depend on upcoming regulatory requirements and the engineering and environmental considerations necessary to implement these phases. Phases two and three are planned to include:

- Phase 2- Permanent short-term facilities will remain in full-time service for a three to five-year period or until a long-term alternative is developed, designed and installed. The permanent short-term facilities will be considered as back-up facilities after the long-term facilities are installed.

- Phase 3- Long-term (2007-2020) facilities will be developed and designed based on the Strategic Plan Update. The permanent short-term facilities will be used as back-up facilities after the long-term facilities are installed.

The modifications do not require adoption of additional mitigation measures that were not already included within the 1999 Strategic Plan Final Program Environmental Impact Report (PEIR), nor does it change the conclusion of the PEIR regarding the significance of environmental impacts.

ALTERNATIVES

No alternative. If mandated by RWQCB, the District will be required to implement the Short Term Ocean Outfall Bacteria Reduction Project, Job No. J-87, by August 12, 2002.

CEQA FINDINGS

An addendum is the appropriate document to describe the modifications under the proposed project, because none of the conditions described in 14 California Code of Regulations Sections 15162 and 15163, calling for the preparation of a subsequent EIR or Supplemental EIR, have occurred. (14 Cal. Code of Regs. Section 115164.)

ATTACHMENTS

Addendum No. 6, Temporary Facilities for Short-Term Ocean Outfall Bacteria Reduction Project, Job No. J-87

OCSD temporary disinfection facilities project
Addendum no. 6 - 1999 strategic plan program EIR

1.0 introduction

Overview of proposed project

The Orange County Sanitation District (District or OCSD) has been developing plans to add a disinfection step to its wastewater treatment process. The District currently is refining plans for permanent disinfection facilities to be used in the short-term, over the next three to five years, while at the same time pursuing the necessary studies to develop long-term disinfection plans. The District anticipates construction of the permanent short-term disinfection facilities to begin at the end of 2002 and take 2-4 months. Prior to implementation of these permanent short-term facilities, the District intends to conduct the appropriate CEQA environmental review.

In the midst of the District's planning to implement a disinfection project, the California Regional Water Quality Control Board, Santa Ana Region (Regional Board or RWQCB), and the United States Environmental Protection Agency, Region 9 (EPA), jointly have proposed to amend the District's waste discharge requirements and NPDES permit to require compliance with bacterial objectives throughout the water column in offshore waters within three miles. The current Order/NPDES permit and Region 8 Basin Plan requires compliance with bacterial objectives in the top ten feet of the water column in offshore ocean waters within three miles. Compliance with the revised bacterial objectives will necessitate disinfection of the effluent discharge within a one-month time frame. The proposed amended Order/modified NPDES permit also adds water quality-based effluent limits for total residual chlorine, and revises the effluent limits for acute toxicity and acute toxicity test species in accordance with the 2001 update to the California Ocean Plan. The Regional Board has scheduled a hearing on the tentative Order/modified NPDES (Order No. R8-2002-0055 Amending Order No. 98-5, NPDES No. CA0110604) for mid-July 2002.

Thus, in order to implement disinfection immediately in response to the pending RWQCB order modifying the District's NPDES permit, the District is now proposing to install and operate temporary facilities that can be operational in less than one month by mid-August 2002. The temporary disinfection facilities would be operational for six to nine months while OCSD completes the current planning, review, and implementation of permanent short-term facilities that will be used for approximately three to five years. The District will conduct additional CEQA review before approval and implementation of the permanent short-term facilities. Ultimately, the District will implement and operate long-term disinfection facilities but planning, review, design and construction of these long-term facilities are expected to take up to five years to complete.

The temporary disinfection facilities project will make use of some existing facilities at the District's two treatment plants and require construction of some additional temporary storage tanks, pipelines, pump stations and related facilities, all within the existing plant sites. Section 2.0 describes the proposed project facilities and operations. Section 3.0 describes the purpose and need for the addition of disinfection to the OCSD wastewater treatment system process.

CEQA Review

As noted above, the District anticipates that the RWQCB will approve Order No. R8-2002-0055 Amending Order No. 98-5, NPDES No. CA0110604. The Order will require the District to implement the proposed disinfection program to comply with the new effluent limitations. If this occurs, the District will have no discretion as to whether the disinfection facilities should be constructed. Therefore, the District's implementation of this Order and ultimate construction of the facility would be a "ministerial act," which does not require CEQA review.

The District, however, has elected to prepare this CEQA Addendum No. 6 to its adopted 1999 Strategic Plan Program EIR (PEIR) to confirm that construction and operation of the proposed temporary, short-term disinfection facilities will not cause any significant environmental impacts beyond those that have already been identified previously in the 1999 PEIR and have already been mitigated through measures adopted by the District as part of that comprehensive CEQA process. The CEQA Guidelines, Section 15164(e), indicate that an Addendum is the appropriate document to identify and analyze minor modifications to the proposed project for which a Final EIR has been certified. An Addendum may be prepared if the modifications do not pose additional significant impacts. Section 15164(e) of the CEQA Guidelines requires an Addendum to include an explanation as to why a subsequent EIR is not necessary. A Subsequent or Supplemental EIR would be required if the project modifications required major revisions to the PEIR and new information of substantial importance that was not available at the time of preparation of the previous EIR.

The 1999 Strategic Plan PEIR addressed the District's long-term, phased program of sewer system improvement and expansion through the year 2020, including treatment system upgrades and new facilities at both OCSD's Reclamation Plant No. 1 and Treatment Plant No. 2. The program includes several actions over 20 years to rehabilitate, upgrade and expand facilities throughout the treatment system. The Strategic Plan indicated that the District would study the need and best approach for disinfection and implement a program as needed (PEIR page 3-37), but it did not identify specific facilities for evaluation in the 1999 PEIR.

As substantiated in this Addendum, the proposed construction of new tanks, pumps, and pipelines at the two OCSD treatment plant sites now for the temporary disinfection facilities would not result in major revisions in the project description as analyzed in the 1999 Strategic Plan PEIR. This Addendum describes the project modifications and assesses the potential for significant impacts. The project modifications would not alter the conclusions of the PEIR.

The 1999 PEIR was prepared and adopted prior to beach closures in Huntington Beach that have occurred periodically since that time. In response, numerous water quality studies have been conducted to evaluate the causative factors. To date, there have been no definitive conclusions implicating the OCSD wastewater discharge as being responsible for the beach closures. However, to assure that the District's discharge is not contributing to the beach closures, the District proposes to implement preventative measures via effluent disinfection, as will required by the pending new NPDES permit requirements.

Construction of the temporary disinfection facilities would not require adoption of additional construction-related mitigation measures beyond those that have already been adopted by the District. Further, the operation of the temporary disinfection facilities would be conducted in compliance with the revised NPDES permit to be issued by the RWQCB and thus be consistent with water quality regulations implemented to mitigate the potential for significant water quality and public health impacts. According to CEQA Section 15164(c), no public circulation or review period is required for an Addendum prepared for a previously circulated and certified Final EIR.

The District is still refining facility and operations plans for permanent, short-term disinfection facilities. The general approach to disinfection would be similar to that proposed for the temporary facilities. Sodium hypochlorite and sodium bisulfite would be used for chlorination and dechlorination. The temporary tanks and pipelines would be replaced with permanent tanks and pipelines. Once these plans are more fully develop and adequate facility design, construction and operation information is available, the District will determine whether additional CEQA review is required prior to implementing this action. The impacts of construction and operation of the permanent, short-term facilities would be similar to those associated with the temporary facilities but the District needs to complete the plans before it can determine what environmental impacts, if any, will result from construction of the short-term facilities. Therefore, impacts associated with the permanent short-term facilities are too speculative for evaluation in this Addendum.

The District is studying disinfection technologies to develop a long-term disinfection plan but a specific potential method, facilities and operation for a long-term plan has not been identified. Thus, it is premature to consider conducting CEQA review of the long-term plan as any assessment of impacts would be highly speculative.

2.0 Proposed Project

This CEQA EIR Addendum (No. 6) addresses construction and operation of temporary disinfection facilities at OCSD's two wastewater treatment facilities – Reclamation Plant No. 1 and Treatment Plant No. 2. The temporary facilities need to be ready for use immediately, with start-up targeted for mid-August 2002, and are intended to be in service for up to six to nine months. Section 4.0 provides an overview of the existing OCSD treatment facilities and operation.

Operation of the temporary disinfection facilities will employ chemical dosing of the wastewater with chlorine bleach (a 12.5 percent solution of sodium hypochlorite) to provide for the required bacteria reduction in the effluent. Then, to reduce the residual concentration of chlorine in the effluent before ocean discharge, the effluent will also undergo dechlorination using sodium bisulfite. The proposed temporary facilities and operations are described below.

Temporary Facilities

Existing facilities at both plants will be used to the extent feasible. Existing facilities will be supplemented with new equipment, piping and appurtenances as necessary to provide a fully controlled system. Table 1 summarizes the proposed facilities at each plant site.

Plant No. 1

Figure 1 shows proposed temporary facility locations at Plant No. 1.

Bleach Facilities

An existing bleach facility at Plant 1 that is scheduled for de-commissioning would be partially utilized. This facility is located near the trickling filter final clarifier, near the southeasterly plant boundary. Of this existing facility, only the existing tank currently in use would be used for the temporary chlorination facility. The existing tank is 12.5 feet high by 8 feet in diameter with a capacity of approximately 4,500 gallons; this tank already has secondary containment. Two to three new storage tanks would be constructed along with secondary containment. The total storage area would be about 50 feet by 55 feet or 2,750 square feet. These tanks would be approximately 12 feet high by 12 feet in diameter and have a capacity of about 6,500 gallons each. Total storage capacity for bleach provided by the existing tank plus the new temporary tanks would be 24,000 gallons, which would provide 5 to 6 days of storage.

The existing pumps cannot be used. And would be removed and replaced. Two new pumps would be installed to deliver bleach from storage to the disinfection point. The bleach would be applied to the trickling filter effluent. Approximately 25 feet of temporary plastic piping would be laid above-ground in a non-traffic area to connect the bleach facility to the dosing point at the trickling filters.

TABLE 1: Summary of Proposed Facilities and Operational Characteristics for the Temporary Disinfection Facilities Project

Project Component	Plant No. 1	Plant No. 2 Strategy 1 – Add Bleach to Primary Influent	Plant No. 2 Strategy 2 – Add Bleach to Primary Effluent
Bleach Facility	Partial reuse of existing facility.	Use existing emergency bleach facility.	
Storage Tanks	Bleach: Use one existing 4,500 gallon tank; 12.5 ft. high x 8 ft. dia. Construct 2-3 6,500 gallon tanks with secondary spill containment; 12 ft high x 12 ft dia.	Bleach: Use 6 existing 12,500 gallon tanks with secondary spill containment in place. Existing tank size 12.5 ft. high x 14 ft. diameter.	
		Sodium Bisulfite: Construct 3-4 new 6,500 gallon tanks with secondary spill containment; 12 ft high x 12 ft dia.	Sodium Bisulfite: Construct 4-6 new 6,500 gallon tanks with secondary spill containment; 12 ft high x 12 ft dia.
Total Storage Capacity	Bleach: Max cap: 24,000 gal	Bleach: 75,000 gallons	Bleach: 75,000 gallons

Days of Storage	5-6 days	6-7 days Sodium Bisulfite: Max cap: 26,000 gallons 5-6 days	3-4 days Sodium Bisulfite: Max cap: 39,000 gallons 3-4 days
Pumps	Bleach: Install 2 new pumps	Use existing pumps for bleach distribution Install 2 new pumps for sodium bisulfite distribution	
Pipelines	Bleach: Install 25 feet PVC above-ground pipe	10,350 feet of bleach pipe, approx. 900 feet in tunnels and 9450 feet above ground. Approx. 400 feet of sodium bisulfite pipe, above ground along existing 120-inch pipe.	
Bleach usage	6 mg/l (5-8 mg/l) 4,200 gpd	10 mg/l (8-15 mg/l) 7,300 gpd for primary 4,200 gpd for secondary 11,500 gpd total	25 mg/l (20-30 mg/l) 18,300 gpd for primary 4,200 gpd for secondary 22,500 gpd total
Delivery truck trips per day (bleach)	1-2 trucks per day	2-3 trucks per day	5-6 trucks per day
Sodium Bisulfite usage	None	6 mg/l (5-8 mg/l) 4,900 gpd	12 mg/l (8-15 mg/l) 9,800 gpd
Delivery truck trips per day (Sodium Bisulfite)	None	1-2 trucks per day	2-3 trucks per day

Operations

The anticipated initial dose rate for the bleach is 6 milligrams per liter (mg/l) but would range from 5 to 8 mg/l, depending on the quality of the wastewater. Bleach addition would be based on existing plant influent meters and optimized based on results of manual sampling of chlorine residual. The sampling would take place south of Plant No. 1 at the effluent junction box, adjacent to Garfield Avenue. Sampling, monitoring, recording, and adjustments to the system operation would be done manually. (In the near future, when permanent short-term disinfection facilities are implemented, these tasks would be automated.)

Based on the initial dose rate and an average Plant flow of up to 87 million gallons per day (mgd), typical bleach usage would be 4,200 gallons per day (gpd). The sodium hypochlorite solution would be delivered daily in one to two truck trips per day. Delivery trucks would enter and exit at the main plant entrance on Ellis Avenue.

Deliveries are normally scheduled during the regular shift (7:00 am to 5:00 pm) for safety reasons during unloading. The District staff currently uses bleach. Training and safety procedures for delivery and unloading of the trucks will be based on the current bleach application protocols established at the Plants. Because of the expected increase in the number of deliveries, additional staff training will be performed. A refresher training session of approximately 6 hours will be provided to about 60 staff. On-site spill prevention, containment, and clean up, as well as health and safety issues, will be part of the training. Off-site spills will be handled by the chemical vendor and/or transport company, as under current chemical transport protocols.

Plant No. 2

Figures 2 and 3 show the proposed temporary facilities locations at Plant No. 2 under two different treatment strategies, described below.

Bleach Facilities

Existing facilities would be used at Plant No. 2. These existing facilities would be supplemented with new equipment, piping, and appurtenances. The existing Plant 2 bleach station was constructed to disinfect the emergency release of effluent to the Santa Ana River. The facility has never been used. This facility is located in the southeast portion of Plant No. 2, approximately 150 feet west of the easterly property boundary near A and B digesters. The facilities are functional. There are existing bleach tanks, pumps, and piping at this site. The tanks are currently in use, and would continue to be used for the temporary facility. Minor upgrades and modifications of valving for daily use would be necessary. Additional piping is required as outlined in the 1999 Strategic Plan to feed other effluent discharge locations.

The existing pumps would be used to pump the bleach from the tanks to the feed points. It is anticipated that multiple pumps would be required for normal operation and standby duty. An education system would disperse the bleach into a stream of “push” water (plant water) to make a bleach solution of approximately 15-20% bleach. This would assist in mixing the bleach into the process flow streams, while eliminating the potential for vapor locking in the bleach delivery piping.

There are six existing 12,500-gallon storage tanks providing a total storage capacity of 75,000 gallons. Secondary spill containment for the tanks is already in place. These tanks will be used for the temporary facilities and no new tanks would be constructed. These tanks are 12.5 feet high and 14 feet in diameter.

There are two alternative treatment strategies being considered for Plant No. 2. Under Strategy 1 bleach would be added to the primary influent and under Strategy 2 bleach would be added to the primary effluent. The benefit of adding bleach to the primary influent is that it provides a longer contact time for the chlorine and the wastewater bacteria, and, therefore, less bleach needs to be applied. However, laboratory testing is continuing on this strategy to determine if there are any adverse impacts to the treatment process by adding bleach at this point. In addition, bleach would also be added to the secondary effluent under either strategy.

A facility layout plan for piping has been developed for each of the two treatment strategies. Figure 2 presents the proposed temporary facilities for Strategy 1 – addition of bleach to the primary influent. Figure 3 presents the proposed temporary facilities for Strategy 2 – addition of bleach to the primary effluent. Table 1, above, summarizes the facilities required under each strategy. Additional piping from existing bleach lines to the feed points would consist of PVC pipe and associated valves, fittings, and appurtenances.

Pipelines

Pipelines for Primary Influent Bleach Addition (Strategy 1)

Approximately 10,350 feet of bleach pipeline would be installed to deliver bleach to the feed points at the grit chamber effluent flow splitter boxes B and C. Of this, approximately 900 feet would be installed within existing tunnels and 9,450 feet of pipe would be laid above ground along the southeastern fence line of the plant to deliver bleach to the secondary effluent at the Activated Sludge (AS) treatment unit.

Pipelines Primary Effluent Bleach Addition (Strategy 2)

As with Strategy 1, a total of approximately 10,350 feet of pipeline would be installed. Up to 900 feet of pipe would be installed in existing tunnels to deliver bleach to the feed points at the grit chamber effluent flow splitter boxes B and C. Up to 9,450 feet of pipeline would be installed above ground along the southeastern fence line of the plant to deliver bleach to the secondary effluent at the Activated Sludge (AS) treatment unit.

Dechlorination Facilities

A new temporary sodium bisulfite facility at Plant No. 2 would be constructed. The proposed location for the temporary facility is northeast of the existing bleach facility. Two old, damaged bleach tanks are currently at this site. The old tanks would be removed and replaced. Under Strategy 1, three to four new 6,500 gallon tanks would be installed. This would provide up to 26,000 gallons of total storage, providing 5 to 6 days of chemical storage. These tanks would be approximately 12 feet high and 12 feet in diameter. There is existing containment consisting of a liner and sandbags that would be expanded and upgraded as necessary. Under Strategy 2, four to six new 6,500 gallon tanks would be installed along with additional secondary spill containment. This would provide up to 39,000 gallons of total storage, providing 3 to 4 days of chemical storage. Again, these temporary tanks would be 12 feet high and 12 feet in diameter.

New chemical feed pumps for sodium bisulfite would be constructed from the tanks. It is anticipated that two or three pumps would be required for normal operation and standby duty. All new pumps, piping and appurtenances would be used for this facility. An eductor would disperse the sodium bisulfate into a stream of “push” water (plant water) to make a solution of approximately 20-25 percent sodium bisulfate. This would assist in mixing the chemical into the process flow streams. The injection point for the dechlorination would be the Ocean Outfall Booster Station (OOBS) wet well. Approximately 400 feet of PVC piping would be installed above ground parallel to an existing 120-inch diameter pipeline from the sodium bisulfite facility to the OOBS feed point.

Operations

Strategy 1 – Primary Influent Bleach Addition

The initial bleach dose rate would be 10 mg/l with ranges from 8 to 15 mg/l, depending on water quality. Based on this dose and an average Plant No. 2 primary effluent flow of 91 mgd, typical bleach usage would be 7,300 gpd for the primaries. The anticipated dose rate for the AS Plant secondary effluent would be 8 mg/l with ranges from 5 to 10 mg/l. Based on average flows of 65 mgd through the AS plant, typical bleach usage would be 4,200 gpd. Total bleach consumption for Plant No. 2 under this treatment strategy would be 11,500 gpd. This would

require 2 to 3 tank truck deliveries per day. The existing 75,000 gallons of storage capacity would provide for 6 to 7 days of bleach storage.

For the dechlorination process, a dose rate of approximately 6 mg/l of sodium bisulfite with a range of 5 to 8 mg/l would be required. Sodium bisulfite usage is estimated to be about 4,900 gpd, requiring 2 to 3 tank truck deliveries per day.

All delivery trucks would enter and exit at the main plant entrance located between Banning Avenue and Bushard Street.

Strategy 2 – Primary Effluent Bleach Addition

The initial bleach dose would be 25 mg/l with ranges of 20 to 30 mg/l. Typical bleach usage would be 18,300 gpd for the primaries and 4,200 gpd for the secondary effluent. Total bleach consumption for Plant No. 2 under this treatment strategy would be approximately 22,500 gpd, almost twice as much as under Strategy 1. This usage would require 5 to 6 tank truck deliveries per day. The existing 75,000 gallons of storage capacity would provide for 3 to 4 days of bleach storage.

For the dechlorination process, a dose rate of approximately 12 mg/l of sodium bisulfite with a range of 8 to 15 mg/l would be required. Sodium bisulfite usage is estimated to be about 9,800 gpd, requiring 2 to 3 tank truck deliveries per day.

All delivery trucks would enter and exit at the main plant entrance located between Banning Avenue and Bushard Street.

Chlorine Residual / Sampling

Bleach will be dosed using existing plant effluent meters and optimized based on results of manual sampling of chlorine residual. The sampling will take place on primary and secondary effluent. In addition, the Plant 1 residual will also be monitored. Similar to Plant 1, temporary facilities at Plant 2 will not have automation. Sampling, monitoring, recording and adjustments to the system operation will be done manually. Additionally, the existing effluent sampler will be used to monitor the normal final effluent parameters.

3.0 PROJECT PURPOSE AND NEED

On March 6, 1998, the Regional Board and U.S. Environmental Protection Agency, Region 9, jointly adopted Order No. 98-5, NPDES No. CA0110604, renewing the waste discharge requirements for the County Sanitation Districts of Orange County (now known as Orange County Sanitation District, hereinafter OCSD or discharger) ocean outfall discharge of combined primary and secondary treated wastewater from its Reclamation Plant No. 1 and Treatment Plant No. 2. Order No. 98-5 contains receiving water limits designed to protect the health of people who come in contact with the ocean waters (both nearshore and offshore waters[1]) that

[1] *Nearshore waters are within a zone bounded by the shoreline and a distance of 1,000 feet form the shoreline or the 30-foot depth contour, whichever is further from the shoreline. Offshore waters are between the nearshore waters and the limit of ocean waters of the State (i.e., three miles from the shoreline.)*

may be affected by the OCSD effluent discharge. Receiving Water Limitation D.1.a.1. requires that certain bacterial objectives shall be maintained within the nearshore zone and within the offshore zone to a depth of 10 feet to protect the water contact recreational use of those waters. The requirement to maintain the objectives to the 10-foot depth in offshore waters was based on the Regional Board's finding that the waters in the top 10 feet of the offshore zone are used for water contact recreation. Due to the location of the OCSD outfall (at 55 m (200 feet) depth and approximately 4.2 miles offshore of the Huntington Beach area, just north of the Santa Ana River) and the ocean characteristics around the outfall, disinfection of the wastewater has not been necessary to maintain compliance with these objectives. The discharge consistently meets these receiving water limits, as shown by receiving water monitoring data.

In recent years, the waters off Huntington Beach have been plagued periodically with high concentrations of bacteria that have resulted in the closure of the beaches to water-contact recreation. Numerous studies have been conducted to determine the source(s) of the problem. To date, none of these studies has directly linked the problem to OCSD's wastewater discharge. However, recent monitoring work conducted by OCSD has detected low levels of total coliform bacteria, related to the discharge plume, at the surface at a sampling station about three miles from shore. The results also showed plume-related bacteria within one half mile of shore in the deep waters of a submarine canyon (Newport Canyon). Although neither the limitations in Order No. 98-5 nor the bacterial standards for beach waters[2] established by the Department of Health Services (DHS) pursuant to Assembly Bill (A.B.) 411 were exceeded, Regional Board staff believes that, based on these recent findings, it is prudent to modify the bacterial limits contained in Order No. 98-5 to ensure that water-contact recreational activities in both offshore and nearshore ocean waters are not threatened by this discharge. This Order would revise Receiving Water Limitation D.1.a.1. to require that the bacterial objectives shall be maintained throughout the water column in the offshore zone, rather than in only the top ten feet. Compliance with this Order will necessitate the disinfection of the wastewater discharged.

In response to the RWQCB directive, OCSD will disinfect their waste discharge with sodium hypochlorite (chlorine bleach) to achieve compliance with the proposed revised receiving water limitations. These interim facilities are expected to be operational by August 12, 2002. Wastewater disinfection with chlorine usually produces a chlorine residual. Chlorine and its reaction products are toxic to aquatic life. Since disinfection with chlorine was not contemplated at the time Order No. 98-5 was issued, the permit does not contain any limits on the amount of chlorine residual that may be in the effluent. Because of OCSD's proposal to now disinfect the wastewater, Order No. 98-5 must be amended to add chlorine residual limits.

OCSD's stated operational goal with the disinfection process is to comply with the RWQCB directive, achieve both the Ocean Plan bacterial objectives (as reflected in Order No. 98-5) and the A.B. 411 bacterial standards after initial dilution.

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[2] *These standards include total and fecal coliform, as well as enterococcus, another type of bacterial indicator. The Ocean Plan and A.B. 411 standards for total and fecal coliform are very similar.*

Order No. 98-5 also specified acute toxicity limits and test requirements based on the 1997 Ocean Plan. The acute toxicity requirements in the 1997 Ocean Plan were based on best available technology. Since the adoption of Order No. 98-5, the 1997 Ocean Plan has been revised. A new Ocean Plan became effective on December 3, 2001 (2001 Ocean Plan). The new Ocean Plan revised the procedures to develop acute toxicity limits in permits and changed the testing protocols for determining compliance with those limits. Acute toxicity effluent limits are now to be based on the acute toxicity water quality objective that is specified in the Ocean Plan. In addition, the Ocean Plan now requires the use of marine test species instead of freshwater species when measuring compliance. Thus, the acute toxicity limits and testing protocols specified in Order No. 98-5 will also be revised to be consistent with the 2001 Ocean Plan.

In accordance with Water Code Section 13389 of the California Water Code, the Regional Board Order amending Order No. 98-5, NPDES No. CA0110604, is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

On June 14, 2002, the Regional Board and the U.S. Environmental Protection Agency have notified the District and other interested agencies and persons of their intent to amend/modify the waste discharge requirements and authorization to discharge under the National Pollutant Discharge Elimination System (NPDES) for the discharge and have provided them with an opportunity to submit their written views and recommendations. OCSD proposes to implement this temporary disinfection project to ensure immediate compliance with the anticipated Regional Board order.

4.0 OCSD Background, STRATEGIC PLAN AND PROGRAM EIR

OCSD Background

The District currently discharges 243 million gallons per day (MGD) of treated wastewater into the ocean. The ocean outfall pipe releases the treated wastewater 4.2 miles offshore at a depth of 200 feet. The effluent is currently a blend of 50 percent advanced primary and 50 percent secondary treated wastewater. All wastewater treated at the facilities receives advanced primary treatment. Plant No. 1 treats approximately 87 MGD of sewage. Approximately, 60 MGD receives secondary treatment through trickling filters or the activated sludge plant. Plant No. 2 treats approximately 156 MGD of sewage. Sixty-five (65) MGD receives secondary treatment in the oxygen activated sludge process. The treated sewage flows from Plant No. 1 to Plant No. 2 through interplant pipelines. The flows are then blended at the Ocean Outfall Booster Station (OOBS) and pumped to the ocean outfall.

Current ocean permit requirements (for 30-day average discharge) are 100 mg/L of Biochemical Oxygen Demand (BOD) and 60 mg/L Total Suspended Solids (TSS). The average values for the District's treated wastewater are 69 mg/L BOD and 52 mg/L TSS, well within the permitted limits.

The District has an extensive ocean-monitoring program as required by the EPA and the California Regional Water Quality Control Board. This program includes routine monitoring of

17 offshore stations around the outfall for various parameters such as temperature, salinity, pH, ammonium, grease and E. coli bacteria. Additionally, 17 stations on the shoreline are sampled 3-5 times a week for total and fecal bacteria, and enterococci bacteria. The monitoring is performed to evaluate potential environmental and public health effects from the discharge of the treated wastewater. The Ocean Monitoring Group also performs various ocean studies for plume tracking.

1999 STRATEGIC PLAN AND PROGRAM EIR

The 1999 Strategic Plan PEIR identifies the District's Capital Improvement Programs (CIP) proposed to meet future demand for wastewater collection, treatment and disposal facilities through 2020. Projects are proposed to replace and rehabilitate sewer collection systems, expand and upgrade the Districts two wastewater treatment plants, provide adequate discharge capacity for projected peak flows, provide additional treated wastewater to the Orange County Water District for expanded water reuse, and study the feasibility of other improvements.

The objectives of the 1999 Strategic Plan are as follows:

- To plan for the wastewater collection, treatment, and disposal facilities to serve the needs of the District's service area through 2020.

- To insure compliance with existing and anticipated ocean discharged permit conditions, including the requirements of the 301(h) modified (secondary treatment waiver) National Pollutant Discharge Elimination System (NPDES) permit for the discharge.

- To recommend projects that meet the communities needs, protect public health, are technically feasible, and are cost effective and environmentally responsible; and

- To maximize the use of treated effluent for water recycling.

OCSD certified the Strategic Plan PEIR in October 1999 and began implementing the proposed facility improvements associated with the preferred alternative – Scenario 2. Scenario 2 involves continued provision for treatment to produce a 50:50 blend of advanced primary and secondary effluent coupled with implementation of the Groundwater Replenishment System ("GWRS") project.

The PEIR assumed that facility improvements would occur in four phases over a twenty-year period. PEIR Tables 3-7, 3-8, and 3-9 present the four phases of facilities improvement anticipated. PEIR Figures 3-7 and 3-10 illustrate the location and phasing of facilities improvement under the preferred program alternative at Plants No.1 and No 2, respectively. PEIR Section 3.7.6, Construction Methods and Schedule, describes the nature and magnitude of construction activities associated with the proposed facilities program at both treatment plants including construction methods, estimated excavation volumes and estimated truck trips during construction activities. PEIR Section 3.7.7, Operational Scenario, describes future plant operation characteristics including staffing, energy, water demand and usage, and chemical usage.

5.0 Environmental Review

This section reviews each of the environmental factors identified on the CEQA Environmental Checklist (CEQA Guidelines Appendix G) and describes either why there would be no impact or less-than-significant impact, where applicable, or why and where there would be a potentially significant impact associated with construction and/or operation of the temporary disinfection facilities that has already been disclosed and mitigated as part of the 1999 Strategic Plan PEIR. The environmental factors checked below would be potentially affected by this project.

☐ Land Use and Planning	✔ Transportation/Circulation	☐ Public Services
☐ Agricultural Resources	☐ Biological Resources	☐ Utilities
☐ Population and Housing	☐ Mineral Resources	☐ Aesthetics
☐ Geology and Soils	✔ Hazards / Hazardous Materials	☐ Cultural Resources
✔ Hydrology and Water Quality	☐ Noise	☐ Recreation
☐ Air Quality	☐ Mandatory Findings of Significance	

5.1 Land Use, Recreation and Aesthetics

Land Use and Aesthetic issues associated with facilities construction at the treatment plant were addressed in Section 6.1 (6.1-1 to 6.1-12) of the 1999 Strategic Plan PEIR.

Reclamation Plant No. 1 is located on a 108-acre site bounded by Ellis Avenue on the north, the Santa Ana River on the east, Garfield Avenue on the south, and Ward Street to the west (Figure 1). The plant site lies within the City of Fountain Valley. The site is zoned Specific Plan and is located in one of the City of Fountain Valley's three Specific Plan Areas. The southwestern corner near Ward and Garfield was previously leased to Garfield RV Self Storage, a self-storage and recreational vehicle storage business but is now vacant and will be used for an Engineering Trailer Complex to house about 70 personnel (OCSD PEIR Addendum No. 5, adopted June, 2002). Land uses surrounding the treatment plant include residential, industrial and mixed commercial uses. It is bordered to the northeast by the Orange County Water District's Water Factory 21 treatment facilities and administrative offices for the District. The Sanitation District offices are also located at Reclamation Plant No. 1.

Land uses to the north of Ellis Avenue are commercial and manufacturing facilities of a mixed use. West of Ward Avenue (Huntington Beach) and across the Santa Ana River to the east lie (City of Costa Mesa) residential neighborhoods of older single-family homes. South of Garfield lies mixed uses including commercial (nursery) and public utility facilities (electrical switching and transmission facilities) that lie within the jurisdiction of the City of Huntington Beach. There is a bikeway along the Santa Ana River channel to the east and the San Diego Freeway and on and off ramps lie immediately east of the treatment plant's northeasterly corner. The treatment plant is fenced and landscaped which provides for good visual screening from most directions.

Treatment Plant No. 2 is located adjacent to the mouth of the Santa Ana River at the southern corner of the City of Huntington Beach on a 110-acre site. The site is bounded by Brookhurst Street on the west, the Orange County flood control channel that was recently restored as Talbert Marsh by the Huntington Beach Wetlands Conservancy on the south, and the Santa Ana River on the east. Some apartments adjoin the vacant northerly portions of the site. The site is designated Public and zoned Industrial by the City of Huntington Beach. The treatment facilities occupy the southerly two-thirds of the site.

The proposed temporary disinfection facilities would be located on OCSD treatment plant property within the existing fence line at both Reclamation Plant No. 1 and Treatment Plant No. 2. Construction and operation of the proposed temporary disinfection facilities would not alter land uses at Plant No. 1 or No. 2. The proposed facilities would not conflict with any applicable local plan or policy including general plans, specific plans, zoning ordinances and habitat conservation plans.

The City of Fountain Valley designates the Plant No. 1 site as a Specific Plan Area. Adopted in 1993, the Sanitation District Plant No. 1 Specific Plan is consistent with the City's General Plan. It describes existing uses and provides guidance for the continued use and the proposed future development of the site. It provides detailed policies, standards and criteria for the development or redevelopment of the specific area. Namely, proposed structures, exterior storage and/or landscaping that can be viewed from adjacent streets or properties shall be submitted to the City's Planning/Building Director for design review. The temporary disinfection facilities would not be visible offsite and would not alter views of the treatment facility from offsite. Existing facilities would be used, including an existing storage tank and the proposed 2 to 3 new tanks would be located behind the existing secondary clarifier. The existing storage tank is 12.5 feet high and the new storage tanks would be 12 feet high. For perspective on the height of these proposed facilities, under the Strategic Plan new digesters will be constructed at Plant No. 1 that will be 35-40 feet high, representing the tallest structures at the plant.

Existing landscaping along the eastern property boundary (along the Santa Ana River) would screen views of the proposed bleach facility area from residential areas east of the river. No additional landscaping would be installed as part of this project. The District is proceeding with a landscaping program previously adopted (addressed by PEIR Addendum No. 2, November 2001). No additional parking or lighting would be installed with the project and no changes in traffic circulation would occur.

The Specific Plan also requires that the District submit a hazardous materials plan to the City of Fountain Valley Fire Department for review and approval. Consistent with current practices, the District will submit an updated plan to both the Fountain Valley and City of Huntington Beach Fire Departments incorporating information on the increased delivery, storage and use of sodium hypochlorite and the added use of sodium bisulfite.

Plant No. 2 is located in an area designated by the City of Huntington Beach General Plan as Public, which allows facilities such as public utilities. The city holds an easement to extend

Banning Avenue through the northern portion of the plant to the Santa Ana River. The proposed temporary disinfection facilities would not encroach on the easement and future roadway area. For the bleach storage, six existing tanks would be used; these tanks are 12.5 feet high. For the sodium bisulfite storage, two old damaged tanks would be removed and replaced with three to six new temporary tanks, depending on which treatment strategy is selected. These new tanks would be 12 feet high and 12 feet in diameter. While the project would add additional tanks to this location, this would not significantly alter existing views of treatment plant site from surrounding properties. The new temporary tanks would be the same height as the existing tanks there now. The existing views of the plant at this location are of storage tanks, piping and associated facilities and the project would not significant change the nature of this view.

There are no designated recreation areas within either of the two treatment plant sites. Construction and operation of the proposed temporary facilities on the two plant sites would have no significant effect on the Santa Ana River trail, which lies adjacent to both treatment plants.

With respect to potential effect on habitat conservation areas, the Talbert Marsh area lies adjacent to Plant No. 2, on the southern side of plant. The temporary disinfection facilities would not be constructed near this wetland area and would have no effect on the wetland management activities or the biological resources that occur there.

5.2 Agricultural Resources

The project construction activities would be confined to the already disturbed area that is now devoted to wastewater treatment and reserved for process facilities. No significant agricultural land exists at either of the treatment plant sites. The PEIR identified no potential impacts to agricultural resources (PEIR Section 6.1, Land Use, pages 6.1-1 to 6.1-12). The project modifications would contribute no additional impacts to agricultural resources.

5.3 Population and Housing

The 1999 Strategic Plan PEIR presented a comprehensive discussion of the growth inducement potential and secondary effects of growth associated with OCSD's long-term plans to provide wastewater management service to meet the needs of planned growth in the communities throughout its service area. (See PEIR, Chapter 11). The Strategic Plan identified the necessary infrastructure improvements to OCSD's collection, treatment, and disposal system capacities to meet increasing service demand associated with planned growth.

The construction and operation of the temporary disinfection facilities would not increase or decrease the treatment capacity at either plant. The proposed temporary project would provide for further treatment of the wastewater flows currently handled at the plant. This project would have no growth inducement potential and would not affect population or housing adjacent to the plants or within the OCSD service area. The proposed facilities would be constructed on the District's two existing treatment plant sites and would not displace any housing or people as a result.

5.4 Geology and Soils

Geology, soils, and seismic issues were addressed in PEIR Section 6.6 (pages 6.6-1 to 6.6-5). Both treatment plant sites are flat, and largely paved. There are no slope or soil stability issues at these sits. In unpaved areas the soils have been extensively modified, primarily for sludge drying basins, which historically occupied most of the open space at each site. There would be little earthwork to construct the proposed temporary facilities and the proposed tanks, pumps and pipeline would be installed above ground. Some limited earthwork (on the order of 100 to 300 cubic yards of material) may be associated with development of secondary spill containment around new storage tanks. Given the flat, largely paved nature of the proposed sites, and the limited earthwork, there would be limited potential for soil erosion. The District and its contractors would implement best management practices during construction to manage erosion from stormwater, in accordance with the District's Storm Water Management Plan and adopted PEIR mitigation measure 6.7-1a. The proposed project site would not disturb more than an acre and would not require a separate NPDES construction permit for storm water management.

Both treatment plants are located in a region subject to earthquakes. The nearest fault zone is the Newport-Ingelwood Fault Zone. Other major fault structures in the region include the San Andreas fault, San Jacinto Fault, Whittier-Elsinore fault, and Palos Verdes fault. As discussed in PEIR Impact 6.6-1 (PEIR page 6.6-3), any facilities constructed at the treatment plants would be located in area susceptible to primary and secondary seismic hazards (including groundshaking, liquefaction, and settlement). Mitigation measures requiring secondary spill containment, adopted as part of the PEIR (measure 6.6-2b) and included in the design of the temporary disinfection facilities, would reduce the potential for significant impact associated with a chemical spill during a seismic event. Secondary spill containment already exists for the existing storage tanks proposed for use in the temporary disinfection process and would be installed for any new tanks constructed. In accordance with PEIR measures 6.6-1b, the District would design and construct new facilities in accordance with District seismic standards and/or meet or exceed the requirements of the most recent edition of the California Building Code. Further, the District will implement its Spill Prevention, Containment and Countermeasures Plan in the event of a spill (PEIR measure 6.6-2a).

The project would not expose people to any increased risk of injury associated with geologic hazards of seismic activity.

5.5 Hydrology and Water Quality

Hydrology and water quality issues at the treatment plant sites were addressed in PEIR Section 3.7 (PEIR pages 3.7-1 to 3.7-9). The marine environment including water quality, public health and aquatic resources was addressed in PEIR Chapter 5.0.

Flooding

The District's Plants No. 1 and No. 2 are adjacent to the Santa Ana River and within the 100-year flood plan of the river. The District's facilities are protected from flooding by walls and levees that were constructed by the Army Corps of Engineers in 1995. Construction of the temporary disinfection facilities would not alter the flood risk at the plant sites.

Marine Water Quality

Disinfection of the OSCD effluent prior to ocean discharge will reduce pathogens, thereby improving water quality and providing an additional measure of safety for public health with respect to recreational use of marine waters. The District would provide a level of disinfection that complies with the regulatory water quality standards established for body-contact recreation after initial dilution that will be reflected in the revised NPDES permit. For operation of the temporary disinfection facilities the District proposes to conduct manual sampling, monitoring, reporting, and adjustment of chlorination levels. Bench-scale laboratory testing to date has indicated that disinfection of the effluent is not likely to change effluent quality enough to preclude compliance with the toxicity-related limits in the pending modification of the OCSD's NPDES effluent discharge permit as proposed by RWQCB and EPA. The only permit condition that has been of increasing concern is toxicity. The use of bleach and sodium bisulfite (for dechlorination) (see below) has not been shown to contribute to higher toxicity based on the bench-scale work done to date. Testing will continue in the future to evaluate permit compliance and the effectiveness of disinfection on bacterial levels in the receiving waters.

Wastewater disinfection with chlorine usually produces a chlorine residual. Chlorine and its reaction products are toxic to aquatic life. In order to remove chlorine from the effluent prior to ocean discharge so that there is no chlorine residual that could impact aquatic life the District will dechlorinate the effluent through the application of sodium bisulfite. The revised NPDES permit that is pending will require this dechlorination and establish chlorine residual limits that the District must meet. OCSD conducts routine monitoring of the effluent to determine concentrations of regulated constituents and confirm compliance in accordance with its NPDES permit. Monitoring of chlorine residual will be added to this routine monitoring. The District will monitor chlorine residual manually for operation of the temporary facilities.

The District has conducted preliminary testing to determine the effect of chlorination and dechlorination on effluent toxicity. The preliminary tests were conducted using the same test methods and species required in the District's current NPDES permits. In addition, two marine acute toxicity tests are being used, as it is anticipated that these will be incorporated into the pending NPDES permit modifications. An *Engineering Report on Temporary and Permanent Facilities for Short-term Ocean Outfall Bacteria Reduction*, which includes a review of the testing methods and results is being prepared. The District's preliminary test results on chlorinated-dechlorinated effluent showed that this new treatment method did not increase existing effluent toxicity levels. While some variations in chemical parameters were noted, all parameters remained within permit requirements after chlorination and dechlorination and no significant production of adverse chemical byproducts associated with the chlorination-dechlorination process is anticipated. As noted above, the effluent will be routinely monitored to confirm compliance with all discharge permit water quality requirements.

Storm Water

The PEIR analyzes the potential for the project to impact surface water as well as groundwater during facility construction and operation in Section 6.7. The PEIR established mitigation measures to avoid and minimize impacts to water quality related to construction activities. The adopted mitigation measures **(**Measure 6.7-1a through 1f**)** establish guidelines to be implemented by the contractors to minimize impacts to hydrology and water quality. The conditions include the implementation of Best Management Practices (BMPs) to prevent erosion

and sedimentation to avoid significant adverse impacts to surface water quality and the storing and staging of all equipment in designated staging areas. Both plants have internal drainage systems that collect stormwater and any drainage within treatment process areas for treatment. Only stormwater that does not come in contact with the treatment process area, such as along the perimeter roads, is allowed to drain off-site to unpaved areas on the plant site. The proposed project facility sites are within the treatment process area, therefore stormwater would be collected for treatment.

Groundwater
Although groundwater can be encountered at shallow depths at both plant sites, no significant subsurface earthwork or construction would occur with this project and no site dewatering would be required.

5.6 Air Quality

Air Quality issues were addressed in PEIR Section 6.5 (PEIR pages 6.5-1 to 6.5- 21). Based on the small scale of the project, air pollutant emissions would be minor and are largely associated with the slight increase in the number of trucks bringing chemicals to the two treatment plant sites. Construction of the tanks and containment facilities at Plant No. 1 or Plant No. 2 would not create emissions in excess of the threshold criteria established by the South Coast Air Quality Management District (SCAQMD). Project operation would increase truck deliveries to Plant No. 1 by an additional one to two trucks per day and at Plant No. 2 by an additional 5 to 9 trucks per day, depending on the treatment strategy selected. These increases in truck traffic would not significantly alter vehicle emissions associated with OCSD plant operations.

All facilities would be constructed above ground and earthwork that could generate dust would be limited to construction of secondary spill containment for some of the new storage tanks. Installation of new tanks may affect an area of approximately 30 feet by 60 feet, and may involve movement of 100 to 300 cubic yards of material. Dust control measures adopted by the District (PEIR mitigation measure 6.5-1c, page 6.5-13) would be implement during construction as needed.

Chemical storage and use of the chlorine bleach and sodium bisulfite would occur within enclosed facilities. Therefore, the temporary disinfection facilities would not emit air pollutants that would require implementation of emission controls to comply with SCAQMD standards and regulations. No air quality permits would be required. Chemicals to be used in the disinfection process are liquid form not gaseous (sodium hypochorite and sodium bisulfite). There is no risk associated with the release of toxic air emissions and the project would not increase impacts to any sensitive receptors in the areas surrounding the two treatment plants. Secondary spill containment facilities exist for existing storage tanks to be used and would be installed for any new tanks constructed to capture any release of the liquid chemicals.

5.7 Transportation and Circulation

Traffic issues were addressed in PEIR Section 6.2, PEIR pages 6.2-1 to 6.2-7. Construction would not result in any significant changes to local traffic flow and use patterns. An estimated 5-6 trucks per day and 20-40 vehicle trips per day would be needed to support construction

activities over a maximum 90-day period. As an individual project, construction of the temporary disinfection facilities would have a less than significant effect on local traffic flow and no mitigation would be required. If this project is constructed simultaneously with other major or multiple Strategic Plan projects, then the District will continue to implement PEIR measure 6.2-1 to coordinate construction traffic associated with various projects underway at its treatment plants: for each major project or construction period, the District would complete a detailed construction schedule and notify the cities of Fountain Valley and Huntington Beach. Construction vehicles should be run on a schedule to minimize travel on the regional transportation facilities during peak traffic periods.

Operation of the disinfection process will require the delivery of one to two tank trucks per day of sodium hypochlorite at Plant No. 1 and six to eight trucks per day at Plant No. 2 for sodium hypochlorite and sodium bisulfite delivery. This will result in an estimated increase of 10 trucks per day, or approximately 300 per month. Currently, chemical trips average 6 per day or up to 180 per month. With the additional chemical usage, total chemical deliveries are anticipated to increase from 6 to 16 per day, with 12 daily trips at Plant No. 2 and four at Plant No. 1. Overall, the chemical deliveries represent a small percentage of the vehicle trips per day that are needed to support the District operations, which total between 450-500 trips a day or 13,500 per month. Employee trips account for about 80% of all trips. The increased truck trips associated with operation of the temporary disinfection facilities would not significantly affect levels of service at local intersections.

5.8 Biological Resources

Biological resources at the treatment plants were addressed in PEIR Section 6.3 (Pages 6.3-1 to 6.3-4). The PEIR analyzed the biological setting for the two treatment plant sites and determined, given the urban setting that no impacts to biological resources were expected. The proposed sites for the temporary disinfection facilities are located within the treatment plant boundaries on paved areas previously developed with treatment facilities. No vegetation occurs at these sites and no wildlife use occurs at these sites. Construction and operation of the temporary disinfection facilities would have not impact on terrestrial biological resources. See the discussion of hydrology and water quality issues below for a discussion of potential project effects on the marine environment.

5.9 Mineral Resources

All modifications will be to previously disturbed land. As analyzed in the PEIR, no impacts to mineral resources are anticipated.

5.10 Hazards and Hazardous Materials

Hazards and Hazardous Materials issues were addressed in PEIR Section 6.9 (PEIR pages 6.9-1 to 6.9-7). Sodium hypochlorite and sodium bisulfite are potentially hazardous materials if~~s~~ not properly managed. However, these chemicals are routinely used in wastewater treatment plants and other industrial settings. The District currently uses sodium hypochlorite. These chemicals would be delivered in tank trucks licensed to transport these materials and off-loaded into storage tanks with containment structures to prevent spillage or leaks from entering the surrounding environment. The PEIR (page 6.9-4) reviews the properties and issues associated with these chemicals. The chemicals are liquid form and pose less risk than alternative options

for disinfection including chlorine gas, sulfur dioxide, or liquid oxygen. Neither chemical has the potential to form vapor clouds if accidentally released that could travel off site. Storage of the chemicals with the secondary spill containment would not pose a risk to surrounding land uses. Secondary spill containment provides a barrier to the spread of any spill or leak in the tank area. It can be provided in various ways by developing some form of containment basin, either through excavation of a basin and/or construction of berms; the containment area is then lined to prevent leakage of any liquids.

Chemical deliveries are normally scheduled during the regular shift (7:00 am to 5:00 pm) for safety reasons during unloading. Training and safety procedures for delivery and unloading of the trucks will be based on the current bleach application protocols established at the Plants. Because of the expected increase in the number of deliveries, additional staff training will be performed. A refresher training session of approximately 6 hours will be provided to about 60 staff. On-site spill prevention, containment, and clean up, as well as health and safety issues, will be part of the training. Off-site spills will be handled by the chemical vendor and/or transport company, as under current chemical transport protocols.

5.11 Noise

Noise issues associated with construction and operation of facilities at the treatment plants were addressed in the PEIR in Section 6.4 (PEIR pages 6.4-1 to 6.4-12). Because the proposed temporary disinfection facilities would be installed aboveground with little earthwork and subsurface foundation work required, there would not be pile driving or other major excavation work that could result in significant construction noise. Construction of the temporary facilities is projected to last for up to a maximum of 90 days, with the majority of work to be completed within in a 30-day period. The project would not result in significant noise impacts and would not require mitigation. The District would continue to comply with relevant PEIR noise mitigation measures and local requirements that address construction activities at the plant sites, including PEIR measure 6.4-1a: construction activities will be limited to between the hours of 7:30 am and 5:30 pm and as necessary to comply with local ordinances. Any nighttime or weekend construction activities would be subject to local permitting. Operation of the temporary facilities would not increase noise levels at either plant.

5.12 Public Services / Utilities

The availability of public services to serve the treatment plants was addressed in PEIR Section 6.8 (PEIR pages 6.8-1 to 6.8-4). The PEIR concluded that construction of major new or additional treatment facilities as proposed under the Strategic Plan could cause short-term disruption of the wastewater treatment process. However, the construction and operation of the temporary disinfection facilities would not disrupt the existing treatment process. Disinfection would be added to the existing treatment process and would not require any part of the system to be shut-down for installation. The PEIR found no significant effects of proposed facility construction on other services or utilities including police, fire, security, or water (PEIR page 6.8-3)

5.13 Cultural Resources

As noted in the 1999 PEIR (PEIR page 4-26), the 1977 EIS prepared by the District indicated that there are no cultural resources located at either Plant No. 1 or No. 2. These conclusions

were based on a thorough review of the literature and field surveys conducted at the two sites. Moreover, the 1977 EIS concluded that extensive modification of both sites over the years, both historically from flooding and more recently from plant facilities development, further reduces the possibility of encountering previously unknown resources during construction. In addition, installation of the temporary disinfection facilities would involve little earthwork as most facilities (the temporary tanks and pipelines) would be installed above ground. Thus, it is unlikely that cultural resource would be encountered during construction on the proposed facilities and no impacts to cultural resources are expected.