

**AGENDA
IRVINE RANCH WATER DISTRICT
BOARD OF DIRECTORS
REGULAR MEETING**

December 17, 2007

PLEDGE OF ALLEGIANCE

CALL TO ORDER

6:00 P.M., Board Room, District Office
15600 Sand Canyon Avenue, Irvine, California

ROLL CALL

Directors Matheis, Miller, Swan, Withers, and President Reinhart

NOTICE

If you wish to address the Board on any item, including Consent Calendar items, please file your name with the Secretary. Forms are provided on the lobby table. Remarks are limited to five minutes per speaker on each subject. Consent Calendar items will be acted upon by one motion, without discussion, unless a request is made for specific items to be removed from the Calendar for separate action.

COMMUNICATIONS TO THE BOARD

1. A. Written:

B. Oral: Mrs. Joan Irvine Smith relative to the Dyer Road Wellfield.

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

Recommendation: Determine that the need to discuss and/or take immediate action on item(s) introduced come to the attention of the District subsequent to the agenda being posted.

PRESENTATION

Next Resolution No. 2007 - 43

3. RESOLUTION COMMENDING TEOFY COMILLAS FOR HER SERVICE TO THE DISTRICT

Recommendation: That the Board adopt a resolution commending Teofy Comillas for her dedicated and loyal service to the District.

Reso No. 2007-

4. NATIONAL PURCHASING INSTITUTE ACHIEVEMENT OF EXCELLENCE IN PROCUREMENT AWARD

The Achievement of Excellence in Procurement Award was presented to Irvine Ranch Water District by the National Purchasing Institute for the seventh year in a row. The award is achieved by those organizations that demonstrate excellence in procurement by obtaining a high score on a rating of standardized criteria. The program is designed to measure innovation, professionalism, e-procurement, productivity, and leadership attributes in the procurement function.

5. CASQA 2007 OUTSTANDING STORMWATER RESEARCH PROJECT AWARD

Mr. Chris Crompton will present the 2007 Outstanding Stormwater Research Project Award to IRWD for the Cienega Filtration Project - Selenium and Nitrogen Treatment Research.

CONSENT CALENDAR

Next Resolution No. 2007 - 43

Items 6 - 21

6. MINUTES OF BOARD MEETING

Recommendation: That the minutes of the November 26, 2007 Regular Board Meeting be approved as presented.

7. RATIFY/APPROVE BOARD OF DIRECTOR'S ATTENDANCE AT MEETINGS AND EVENTS

Recommendation: That the Board ratify/approve the meetings and events for Mary Aileen Matheis, Darryl Miller, Doug Reinhart, Peer Swan, and John Withers.

8. MASTER CALENDAR AND OTHER INFORMATION ITEMS

Recommendation: Receive and file.

9. 2008 SELECTION OF STATE LOBBYIST AND LOCAL GOVERNMENT CONSULTANT

Recommendation: That the Board authorize the General Manger to execute professional services agreement for a term of six months with Isenberg/O'Haren in the amount of \$6,500 per month retainer plus reimbursable direct expenses for a total not-to-exceed \$42,900 and a professional services agreement for a term of six months with Curt Pringle and Associates in the amount of \$5,000 per month retainer plus reimbursable direct expenses for a total not-to-exceed \$33,000.

10. NOVEMBER 2007 FINANCIAL REPORTS

Recommendation: Receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate SWAP Summary for November 2007; approve the November 2007 Summary of Wire Transfers and ACH payments in the total amount of \$5,586,114.34; and approve the November 2007 Warrant Nos. 285228 through 286216, Workers' Compensation Distributions and voided checks in the total amount of \$10, 574,839.14.

11. IRWD INTERCONNECTION TO SOUTH ORANGE COUNTY WATER TRANSMISSION MAINS PHASE A – REDUCTION OF RETENTION

Recommendation: That the Board authorizes the reduction of retention from 10% to 5% of the contract amount and release of funds in excess of 5% of the contract amount from retention currently held for the IRWD Interconnection to South Orange County Water Transmission Mains, Phase A, project 11159.

CONSENT CALENDAR

Next Resolution No. 2007 - 43

Items 6 - 21

12. RESERVOIR LADDER AND SAFETY IMPROVEMENTS – REDUCTION OF RETENTION AND FINAL ACCEPTANCE

Recommendation: That the Board authorizes the reduction of retention from 10% to 5% of the contract amount and release of funds in excess of 5% of the contract amount from retention currently held; accept construction of the reservoir ladder and safety improvements, project 10819; authorize the General Manager to file a Notice of Completion; and authorize the release of retention 35 days after filing of the Notice of Completion.

13. DYER ROAD WELL FIELD STARTER REPLACEMENT PROJECT – FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Dyer Road Well Field Starter Replacement, project 10534; authorize the General Manager to file a Notice of Completion; and authorize the release of retention 35 days after filing of the Notice of Completion.

14. SAN JOAQUIN RESERVOIR ACCESS ROAD REPAIR PROJECT – FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the San Joaquin Reservoir access road repair, project 30277; authorize the General Manager to file a Notice of Completion; and authorize the payment of the retention 35 days after the date of recording the Notice of Completion.

15. CULVER DRIVE WATER MAIN REPLACEMENT – FINAL ACCEPTANCE

Recommendation: That the Board accepts construction of the Culver Drive water main replacement from Campus Drive to Bonita Canyon Drive, project 10569; authorize the General Manager to file a Notice of Completion; and authorize the release of retention 35 days after filing of the Notice of Completion.

16. BUDGET INCREASE AND EXPENDITURE AUTHORIZATION FOR THE ANNEXATION OF IRWD INTO ORANGE COUNTY WATER DISTRICT

Recommendation: That the Board approve a budget increase for project 19420 by \$277,300, from \$715,000 to \$992,300, and approve an Expenditure Authorization in the amount of \$387,300 for the annexation of IRWD areas into the Orange County Water District.

CONSENT CALENDAR - Continued	Next Resolution No. 2007 - 43	Items 6 - 21
17. <u>SANTIAGO FIRE DAMAGE – REPAIR AND REPLACEMENT FUNDING</u>	Recommendation: That the Board adopt resolution Rescinding Resolution No. 1998–2 and authorizing its agents to provide to the State Office of Emergency Services all matters pertaining to such state disaster assistance the assurances and agreements required.	Reso No. 2007-
18. <u>REIMBURSEMENT TO MERRILL LYNCH FOR RATING AGENCY SERVICES</u>	Recommendation: That the Board authorize payment of \$87,627.51 to Merrill Lynch to reimburse staff time and expenses related to meetings with the rating agencies to upgrade the ratings on the 2002 certificates of participation.	
19. <u>PROPOSITION 50 GRANT AGREEMENT WITH DEPARTMENT OF WATER RESOURCES FOR DEVELOPMENT OF STATEWIDE ET DATA PROTOCOL</u>	Recommendation: That the Board authorize the General Manager to enter into an agreement with the Department of Water Resources to receive \$156,300 in Prop 50 Grant Funding for the development of a Statewide Evapotranspiration (ET) Data Protocol.	
20. <u>KERN COUNTY WATER AGENCY AGREEMENT TO PURCHASE FEE TITLE AND TEMPORARY CONSTRUCTION EASEMENT</u>	Recommendation: That the Board authorize the General Manager to execute an agreement with Kern County Water Agency for the purchase of fee simple title to .40-acre portion of Strand Ranch and a temporary construction easement to .57 acre portion of Strand Ranch.	
21. <u>TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN IRWD AND THE CITY OF IRVINE FOR THE INSTALLATION OF MISCELLANEOUS FACILITIES (2008/09)</u>	Recommendation: That the Board authorize the General Manager to execute the two-year reimbursement agreement between Irvine Ranch Water District and the City of Irvine for the installation of miscellaneous facilities (2008-2009), and recommend approval of an Expenditure Authorization in the amount of \$39,000 for project 10889.	

ACTION CALENDAR

22. SHORT-TERM WATER STORAGE PARTNERSHIP WITH CARPINTERIA VALLEY WATER DISTRICT

Recommendation: That the Board authorize the General Manager to execute the letter agreement with Carpinteria Valley Water District subject to non-substantive changes approved by the General Manager and Legal Counsel.

23. MWRP PRIMARY CLARIFIERS COATING REPLACEMENT CONSTRUCTION AWARD

Recommendation: That the Board approve a budget increase to the Fiscal Year 2007-08 Capital budget for project 20433 by \$664,400, from \$629,200 to \$1,293,600; approve an Expenditure Authorization for \$842,600 for project 20433; and authorize the General Manager to execute a contract with Zebron Coating, Inc. for \$725,088 for the MWRP Primary Clarifiers Coating Replacement, project 20433.

24. HARVARD AVENUE TRUNK SEWER DIVERSION TO MICHELSON WATER RECLAMATION PLANT – CONTRACT CHANGE ORDER NO. 2

Recommendation: That the Board authorize a budget increase for project 20400 in the amount of \$414,800, from \$9,009,100 to \$9,423,900; approve an Expenditure Authorization for project 20400 in the amount of \$414,800; and authorize the General Manager to execute Contract Change Order No. 2 for project 20400 in the amount of \$394,894 to CDM Constructors, Inc. for construction of the Harvard Avenue Trunk Sewer diversion to Michelson Water Reclamation Plant, project 20400.

25. WELLS 21 AND 22 REHABILITATION AND PRELIMINARY DESIGN

Recommendation: That the Board authorize the addition of project 10285 for \$1,225,400 to the Fiscal Year 2007/08 Capital budget; approve an Expenditure Authorization in the amount of \$1,167,700 for project 10285; and authorize the General Manager to execute an engineering services agreement with RBF Consulting for project 10285 for Wells 21 and 22 Rehabilitation and Preliminary Design in the amount of \$801,809.

ACTION CALENDAR - Continued

26. ASSET OPTIMIZATION – WATERWORKS WAY BUSINESS PARK
CONSTRUCTION AWARD AND EXPENDITURE AUTHORIZATION

Recommendation: That the Board authorize the General Manager to execute a construction contract with WL Butler Construction, Inc. in the amount of \$4,703,354.15 and approve an Expenditure Authorization for \$5,432,300 for project 11117.

27. ASSESSMENT OF WATER SUPPLY FOR PLANNING AREA 40/12
GENERAL PLAN AMENDMENT, ZONE CHANGE AND ENVIRONMENT
IMPACT REPORT

Recommendation: Staff requests the Board approve the Assessment of Water Supply for Planning Area 40/12 General Plan Amendment, Zone Change and Environmental Impact Report.

28. PLANNING AREA 39 SEWER IMPROVEMENTS - APPROVAL OF
PROJECT ADDITION TO THE FISCAL YEAR 2007/08 CAPITAL BUDGET,
EXPENDITURE AUTHORIZATION, AND SUPPLEMENTAL
REIMBURSEMENT AGREEMENT

Recommendation: That the Board authorize the addition of project 20736 to the Fiscal Year 2007-08 Capital budget in the amount of \$1,599,200; approve an Expenditure Authorization for project 20736 in the amount of \$1,599,200; and authorize the General Manager to execute a supplemental reimbursement agreement with the Irvine Community Development Company for the design and construction of the Irvine Ranch Water District capital sewer pipeline facilities for Planning Area 39.

29. PLANNING AREA 40 CAPITAL IMPROVEMENTS – APPROVAL OF
PROJECTS ADDITION TO THE FISCAL YEAR 2007/08 CAPITAL BUDGET,
EXPENDITURE AUTHORIZATIONS, AND SUPPLEMENTAL
REIMBURSEMENT AGREEMENT

Recommendation: That the Board authorize the addition of project 10419 for \$859,100, project 20419 for \$226,900, and project 30419 for \$204,600 to the Fiscal Year 2007-08 Capital budget; approve Expenditure Authorizations in the amount of \$108,900 for project 10419, \$226,900 for project 20419, and \$204,600 for project 30419; and authorize the General Manager to execute a supplemental reimbursement agreement with the Irvine Community Development Company for the design and construction of the Irvine Ranch Water District facilities for Planning Area 40.

ACTION CALENDAR - Continued

30. ELECTION OF OFFICERS FOR 2008

Recommendation: Conduct an election of the President and Vice President.

OTHER BUSINESS

Pursuant to Government Code Section 54954.2, members of the Board of Directors or staff may ask questions for clarification, make brief announcements, make brief reports on his/her own activities. The Board or a Board member may provide a reference to staff or other resources for factual information, request the staff to report back at a subsequent meeting concerning any matter, or direct the staff to place a matter of business on a future agenda. Such matters may be brought up under the General Manager's Report or Directors' comments.

31. A. General Manager's Report

B. Directors' Comments

1)

2)

OTHER BUSINESS - Continued

31. B. Directors' Comments

3)

4)

5)

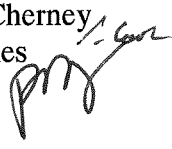
OTHER BUSINESS - Continued

31. C. 1) CLOSED SESSION with legal counsel relative to anticipated litigation- Government Code Section 54956.9(b) - significant exposure to litigation – one potential case concerning claim filed by SEMA Construction against the City of Tustin under the Tort Claims Act (Valencia North Loop Road and Armstrong Avenue), on file with the District.
- 2) CLOSED SESSION with legal counsel relative to anticipated litigation- Government Code Section 54956.9(b) - significant exposure to litigation – one potential case concerning arbitration filed by Affholder, Inc. against Vido Artukovich & Son/Vidmar (Armstrong Trunk Sewer)

D. Adjournment

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The Irvine Ranch Water District Board Room is wheelchair accessible. If you require any special disability-related accommodations (e.g., access to an amplified sound system, etc.) please contact the District Secretary at (949) 453-5300 during business hours at least seventy-two (72) hours prior to the Scheduled meeting. This agenda can be obtained in alternative format upon written request to the District Secretary at least seventy-two (72) hours prior to the scheduled meeting.

December 17, 2007
Prepared and
Submitted by: Debby Cherney
Approved by: Paul Jones 

PRESENTATION

RESOLUTION COMMENDING TEOFY COMILLAS
FOR HER SERVICE TO THE DISTRICT

SUMMARY:

As Ms. Teofy Comillas will be retiring from the District in late December 2007 following 30 years of dedicated and outstanding service, staff has prepared a resolution (provided as Exhibit "A") to honor her at the Board meeting.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2007 –

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
TEOFY COMILLAS FOR HER DEDICATED AND
LOYAL SERVICE TO THE DISTRICT

LIST OF EXHIBITS:

Exhibit "A" – Resolution

EXHIBIT "A"

RESOLUTION NO. 2007 -

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT COMMENDING
TEOFY COMILLAS FOR HER DEDICATED AND
LOYAL SERVICE TO THE DISTRICT

WHEREAS, Teofy Comillas began her career in the Finance department of the Irvine Ranch Water District on December 12, 1977; and

WHEREAS, Teofy's 30 years of service will be remembered for her significant contributions to the District's Finance Department resulting from her high level of expertise, creativity, intelligence and integrity; and

WHEREAS, Teofy is ending her long career as an Accounting Supervisor having worked her way up from an Accounting Clerk III to Assistant General Accounting Supervisor to Accounts Receivable Supervisor to General Accounting Supervisor, having trained over 30 Finance professionals during her tenure at the District; and

WHEREAS, Teofy was responsible for maintaining an incredibly complex chart of accounts, general ledger, Improvement District accounting, State Controller's Reports, and financial statements; and

WHEREAS, any question related to the District's financial history could be requested of her and she would return almost immediately containing a folder that identified the decisions made, the reasons supporting the decision, and the signature of the person responsible for said action; and

WHEREAS, during Teofy's tenure, she was responsible for consolidating four sets of financial statements as a result of consolidations with Santa Ana Heights Mutual Water Company, Carpenter Irrigation District, Los Alisos Water District and Santiago County Water District; and

WHEREAS, Teofy, was responsible for the accounting supporting \$468.5 million in bond sales, and project management accounting for nearly \$1.32 billion in capital improvements; and

WHEREAS, given a few hours, Teofy could discover and reconcile virtually any error in a general ledger account, no matter how large or small; and

WHEREAS, all Board members, employees and other colleagues who have come to know Teofy will genuinely miss her; and

NOW, THEREFORE, BE IT RESOLVED, the Board of Directors of the Irvine Ranch Water District commends Teofy Comillas for her long and loyal service. Her dedication and outstanding service to the District stands as an example to all employees. On this occasion, the Board extends its best wishes to Teofy Comillas in her retirement.

SIGNED and APPROVED this 17th day of December, 2007.

President, IRVINE RANCH WATER
DISTRICT and of the Board of
Directors thereof



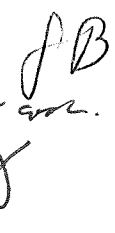
December 17, 2007

Prepared and

Submitted by: L. Bonkowski

and N. Savedra

Approved by: P. Jones



CONSENT CALENDAR

MINUTES OF REGULAR BOARD MEETING

SUMMARY:

Provided as Exhibit "A" are the minutes of the November 26, 2007 Board meetings for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDED MOTION:

THAT THE MINUTES OF THE NOVEMBER 26, 2007 MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" - Minutes

EXHIBIT "A"

MINUTES OF REGULAR MEETING – NOVEMBER 26, 2007

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 6:00 p.m. by President Reinhart on November 26, 2007 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Withers (arrived at 6:06 p.m.), Miller, Swan, Reinhart, and Matheis

Directors Absent: None.

Also Present: General Manager Jones, Assistant General Manager Cook, Director of Engineering Heiertz, Director of Finance Cherney, Secretary Bonkowski, Legal Counsel Arneson, Mr. Jim Reed, Ms. Beth Beeman, Mr. Wayne Posey, Mr. Terry Loomis, Mr. Paul Weghorst, Mr. Mark Tetterer, and other members of the public and staff.

COMMUNICATIONS TO THE BOARD

Written Communications: None.

Oral Communications: Mrs. Joan Irvine Smith addressed the Board of Directors with respect to the Dyer Road Wellfield. Mrs. Smith said it was her understanding that currently wells 5, C-8 and C-9, 10, 14, 15, 17, and 18 are in operation in accordance with the District's annual pumping plan which is 2,200 AF per month for November. This was confirmed by Mr. Paul Jones, General Manager of the District.

With respect to the Orange County Basin Groundwater Conjunctive Use Program being coordinated by Municipal Water District of Orange County (MWDOC) and Orange County Water District (OCWD), the agencies participating are the cities of Anaheim, Westminster, Santa Ana, Buena Park, and Garden Grove, Yorba Linda Water District and Southern California Water Company. Contracts have been awarded by OCWD to Layne Christensen Company and Bakersfield Well & Pump, Inc. to construct a total of eight wells. Well drilling activities are complete, and it will take an additional 18 months to complete the well head facilities. OCWD is required to have the wells operational by March 2008. Following well construction, each well will be owned by the individual participating agency. This was confirmed by Mr. Jones.

Relative to the OCWD annexation of certain IRWD lands, an OCWD Board workshop was held on September 24 at 4:00 p.m. to discuss the annexation status and issues. Both Director Miller and General Manager Jones attended the workshop. Director Miller reported that at the OCWD Board Workshop, OCWD staff and legal counsel were directed to work with IRWD on the Annexation Agreement. Staff and legal counsel of both agencies have come to consensus on several sections of the draft Annexation Agreement, and an additional meeting to address outstanding issues was held on October 23. Potential litigation in regard to the annexation matter was discussed twice, in Closed Session during IRWD's Strategic Planning Meeting held on October 26, and at IRWD's Regular Board Meeting on November 12. A subsequent meeting was held with OCWD's General Manager to convey IRWD's current position on the Annexation Agreement. This was confirmed by Mr. Jones.

CONSENT CALENDAR

Director Swan asked that Item No. 13 be moved to the Action Calendar for discussion. There being no objection, this item was moved to the Action Calendar. On MOTION by Swan, seconded and unanimously carried, CONSENT CALENDAR ITEMS 3 THROUGH 12 AND 14 THROUGH 18 WERE APPROVED AS FOLLOWS:

3. MINUTES OF BOARD MEETING

Recommendation: That the minutes of the October 26, 2007 Adjourned Regular Board Meeting and November 12, 2007 Regular Board Meeting be approved as presented.

4. RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS

Recommendation: That the Board ratify/approve the meetings and events for Mary Aileen Matheis, Darryl Miller, Doug Reinhart, Peer Swan, and John Withers.

5. STRATEGIC MEASURES DASHBOARDS

Recommendation: Receive and file.

6. 2007 STATE LEGISLATIVE WRAP-UP

Recommendation: Receive and file.

7. UPCOMING PROJECTS' STATUS REPORT

Recommendation: Receive and file.

8. OCTOBER 2007 FINANCIAL REPORTS

Recommendation: Receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate SWAP Summary for October 2007; approve the October 2007 Summary of Wire Transfers and ACH payments in the total amount of \$14,013, 460.01; and approve the October 2007 Warrant Nos. 284416 through 285227, Workers' Compensation Distributions and voided checks in the total amount of \$16,098,473.63.

9. IRWD CUSTOMER OUTREACH REGARDING WATER SUPPLY ISSUES

Recommendation: That the Board direct staff to implement a water supply outreach plan utilizing the themes, materials and communication methods outlined in the write-up; and request that MWDOC exclude the IRWD service area from its proposed regional outreach campaign.

10. ROYALTY CARPET RETROFIT FINANCING AGREEMENT

Recommendation: That the Board authorize the General Manager to execute the Retrofit Financing Agreement for the Use of Recycled Water with Royalty Carpet for a not-to-exceed amount of \$40,000.

11. ROBERTSON'S READY MIX – RECYCLED WATER CONVERSION CONSULTANT SELECTION, BUDGET AND EXPENDITURE AUTHORIZATION

Recommendation: That the Board authorize the addition of project 30313 for \$259,400 to the Fiscal Year 2007/08 Capital budget, and approve an Expenditure Authorization for \$50,100 for the Robertson's Ready Mix Recycled Water Conversion project.

12. OPPORTUNITIES STUDY – ADDITIONAL FUNDING FOR PHASE 3

Recommendation: That the Board authorize payment of \$73,725 to the City of Lake Forest related to funding Phase 3 of the Opportunities Study.

14. AMENDMENTS TO AGREEMENTS FOR DISPOSAL AND TREATMENT OF SR 261 GROUNDWATER

Recommendation: That the Board authorize the General Manager to execute Amendment No. 1 to the agreement with Orange County Sanitation District titled Permit Agreement for Discharge from Groundwater, and Amendment No. 1 to the agreement with Caltrans titled Agreement between Transportation Corridor Authority, California Department of Transportation and Irvine Ranch Water District for Disposal of Untreated Groundwater.

15. LOS ALISOS WATER RECLAMATION PLANT 2005 UPGRADES VARIANCE NOS. 1 AND 2

Recommendation: That the Board approve Variance Nos. 1 and 2 in the amount of \$102,400 and \$124,100 to HDR Engineering's engineering construction support agreement for the Los Alisos Water Reclamation Plant 2005 Upgrades, projects 20243 and 30134.

16. PRELIMINARY DISINFECTION FACILITY CHEMICAL LINE REPLACEMENT EXPENDITURE AUTHORIZATION AND CONSULTANT SELECTION

Recommendation: That the Board authorize the General Manager to execute an engineering services agreement with Tetra Tech, Inc. in the amount of \$118,410, and authorize the General Manager to approve an Expenditure Authorization in the amount of \$165,500 for project 11228.

17. RESERVOIR MANAGEMENT SYSTEMS AT NINE DOMESTIC WATER RESERVOIRS – CONSTRUCTION PHASE CONSULTANT SERVICES AWARD AND APPROVAL OF VARIANCE NO. 2

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with NMG Geotechnical, Inc. in the amount of \$68,614, and approval of Variance No. 2 in the amount of \$80,766 to DBE Psomas for Reservoir Management Systems at Nine Domestic Water Reservoirs, projects 10991 and 11165.

18. WATER SUPPLY VERIFICATION FOR EAST ORANGE PLANNED COMMUNITY TRACT 17185 (AREA 2)

Recommendation: That the Board approve the water supply verification for East Orange Planned Community Tract 17185 (Area 2).

ACTION CALENDAR

AMENDMENT NO. 1 TO LAGUNA BEACH UNIFIED SCHOOL DISTRICT APPLICATION FOR SERVICE TO THE EL MORRO LIFT STATION

Director Swan made an inquiry about the amendment with Laguna Beach Unified School District deferring payment of certain engineering costs totaling \$13,329 in five annual installments. Following discussion, on MOTION by Matheis, seconded by Miller, and carried (4-1) Matheis, Reinhart, Miller and Withers voting aye, and Swan voting no, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE AMENDMENT NO. 1 TO THE LAGUNA BEACH UNIFIED SCHOOL DISTRICT'S APPLICATION FOR SERVICE AND AGREEMENT WITH IRVINE RANCH WATER DISTRICT FOR THE EL MORRO SCHOOL LIFT STATION AND FORCE MAIN.**

COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR FY 2006-07

Director of Finance Cheney reported that staff was presenting the fourth Comprehensive Annual Financial Report (CAFR) and that all of the District's CAFRs have won awards from the Government Finance Officers Association. Ms. Cheney said that the CAFR is intended to provide a more comprehensive description of the District's scope and fiscal position than is provided in standard audited financial statements. In preparing this year's CAFR, staff sought to continue the key message points from prior year CAFRs which were benchmarked against bank and rating agency opinions on highly rated bond offerings.

Ms. Cheney said that the standard requirements of the CAFR are set forth by Government Accounting, Auditing and Financial Reporting (GAAFR) and included three sections: 1) Profile of the District, factors affecting financial condition of the District, major initiatives, and awards and acknowledgments; 2) The financial section containing the Independent Auditor's Report, management's discussion and analysis, and basic financial statements; and 3) The statistical section containing a variety of schedules and charts which provides readers with various demographical and financial information, most of which is provided in terms of a 10-

year comparison or trend. Where the data is not readily available for a 10-year period, the standards allow the District to report for a shorter period and build up to a 10-year history.

Director Swan said that this item was reviewed at the Finance and Personnel Committee on November 6, 2007. On MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED THE COMPREHENSIVE ANNUAL FINANCIAL REPORT (CAFR) FOR FY 2006-07.

PHASE 1 – MICHELSON WATER RECLAMATION PLANT 2005 UPGRADES – CONSTRUCTION CHANGE ORDER

Director of Engineering Heiertz reported that in June 2006, the Board awarded the construction contract to Gateway Pacific Contractors for \$8,828,497 for the Phase 1 - Michelson Water Reclamation Plant (MWRP) 2005 Upgrades Project. Mr. Heiertz said that the project consists of construction of a new secondary clarifier with ancillary equipment. He then summarized the two change orders as follows: deletion of the north inlet flow meter station for <\$500,000.00>; deletion of the south inlet flow meter station for <\$450,000.00>; deletion of electrical for both north and south flow meter stations for <\$50,000.00>; relocation of mixed liquor flow control station for <\$85,296.36>; submersible pump change for \$43,402.58; air compressor shelter and pad for \$32,274.09; temporary flow monitoring for \$68,745.15; realign 42-inch secondary effluent line due to utility conflicts for \$22,480.64; and realign 16-inch RAS line due to utility conflicts for \$10,400.32, for a total of <907,993.58>.

Mr. Heiertz said that Change Order No. 11 consists of concrete repair to the MWRP tertiary filters in the amount of \$169,394 which is needed to address significant cracking and spalling that has been documented in the interior filter cells, on the upper support structure, and on external parts of the filter structure. He said that staff requested a proposal from Gateway Pacific to perform the repair work and its proposal was \$169,394 which is very close to the engineer's estimate of \$160,000. The repairs consist of epoxy injection grouting and coating of the exterior filter cell walls. Western Jalco will perform the repair work as a subcontractor to Gateway Pacific Contractors via Change Order No. 11 with inspection services provided by Harper & Associates.

Director Withers said that this item was reviewed and approved by the Engineering and Operations Committee on November 20, 2007. On MOTION by Withers, seconded and unanimously carried, THE BOARD AUTHORIZED A BUDGET INCREASE FOR PROJECT 20470 IN THE AMOUNT OF \$102,200 FROM \$142,000 TO \$244,200; APPROVED AN EXPENDITURE AUTHORIZATION FOR PROJECT 20470 IN THE AMOUNT OF \$217,200; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NOS. 10 AND 11 FOR PROJECTS 20276 AND 20470 IN THE AMOUNTS OF (\$907,993) AND \$169,394 WITH GATEWAY PACIFIC CONTRACTORS, INC. FOR THE PHASE 1 - MWRP 2005 UPGRADES AND MWRP TERTIARY FILTER CONCRETE CRACKING.

MICHELSON WATER RECLAMATION PLANT FLOODWALL IMPROVEMENTS
VARIANCE AND EXPENDITURE AUTHORIZATIONS

Director of Engineering Heiertz reported that flood protection for the Michelson Water Reclamation Plant (MWRP) and other IRWD facilities adjacent to the San Diego Creek is a top priority for IRWD. Mr. Heiertz said that at the May 29, 2007 Board meeting final design of permanent floodwalls was authorized to provide 200-year flood protection to these facilities.

Mr. Heiertz said that the geotechnical investigation determined that differential soil settlement under the proposed wall of up to six inches will occur and this settlement will likely be uneven from one location to another. He said that mitigating this settlement issue will require: 1) protection of existing buried utilities, particularly in the area of Riparian View that is being raised by five to six feet. An additional separate construction project is anticipated which will include directional drilling, monitoring, and cement grouting work, and 2) The 2,300 linear foot floodwall will be built on pile foundations. The piles are expected to be located every eight linear feet at 55-foot depth. These piles will require additional geotechnical analysis and final design modifications. He said that in addition to the settlement issue, VA Consulting is performing several other out-of-scope design tasks as outlined in Variance No. 1. Meetings and coordination have become important tasks due to the other construction projects at MWRP and have resulted in not only additional meetings and design work to accommodate the MWRP Expansion and Marsh Campus projects, but also resolving various issues with the County of Orange staff.

Mr. Heiertz said that prior to starting this design effort, staff developed an action plan for mitigating short-term and long-term flood risk to the MWRP and surrounding facilities which resulted in providing temporary flood protection measures (K-rail) at MWRP in December 2006. It also included attorney/client privileged work related to IRWD's agreements with the County of Orange. The budget for this work requires approval of additional Expenditure Authorizations totaling \$583,900.

Director Withers reported that this item was reviewed and approved by the Engineering and Operations Committee on November 20, 2007. On MOTION by Withers, seconded and unanimously carried, THE BOARD APPROVED EXPENDITURE AUTHORIZATIONS FOR PROJECTS 20542 AND 30542 IN THE AMOUNTS OF \$316,000 AND \$267,900, RESPECTIVELY, AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 1 WITH VA CONSULTING, INC. IN THE AMOUNT OF \$88,600 FOR ADDITIONAL ENGINEERING SERVICES FOR THE MWRP FLOODWALL IMPROVEMENTS, PROJECTS 20542 AND 30542.

CHLORINE ANALYZERS AND RESERVOIR MIXERS AT TEN DOMESTIC WATER
RESERVOIRS CONSTRUCTION AWARD, BUDGET INCREASE, AND EXPENDITURE
AUTHORIZATION

Director of Engineering Heiertz reported that since Metropolitan Water District of Southern California (MWD) and the Irvine Ranch Water District (IRWD) switched to chloramines as the primary disinfectant for potable water, a number of IRWD potable water reservoirs have experienced nitrification. Mr. Heiertz said that a separate project will install the Severn Trent Services Reservoir Management System (RMS), an in-tank disinfection system, in nine reservoirs that experience the worst nitrification events. He said that the chlorine analyzers and

reservoir mixers at 10 Domestic Water Reservoirs' projects will install a chlorine analyzer to monitor the water quality in 10 additional reservoirs. The chlorine analyzers will allow staff to monitor the reservoir water quality throughout the week and respond quickly to nitrification events. In addition, a reservoir mixer will be installed in each reservoir to break thermal stratification in the reservoirs to get a well mixed water quality sample, and to mix any calcium hypochlorite added to the reservoir during nitrification events. These reservoirs include the Quail Hill Zone 4, Shady Canyon Zone 5, Turtle Rock Zone 3, Northwood Zone 2, Northwood Zone 3, East Irvine Zone 4, Foothill Zone 6, Foothill Zone 6A, Portola Zone 8, and Portola Zone 9.

Mr. Heiertz said that in February 2007, the Board authorized a design contract with DBE Psomas for the chlorine analyzers and reservoir mixers at Domestic Water Reservoirs. In October 2007, the design was completed, and plans and specifications were made available to 13 pre-selected contractors. He said that the bid opening occurred with four contractors submitting bids with the apparent low bid being Gateway Pacific Contractors with a bid amount of \$1,509,665. The engineer's estimate for the project is \$2,065,000. He further said with the recent slowdown in construction, contractors have been submitting bids at or below the engineer's estimate. All four construction bids received were below the estimate.

On MOTION by Miller, seconded and unanimously carried, THE BOARD AUTHORIZED A BUDGET INCREASE TO THE FY 2007-08 CAPITAL BUDGET FOR PROJECT 11168 BY \$332,900, FROM \$1,568,800 TO \$1,901,700; APPROVED AN EXPENDITURE AUTHORIZATION FOR PROJECT 11168 IN THE AMOUNT OF \$1,755,700; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONTRACT WITH GATEWAY PACIFIC CONTRACTORS FOR PROJECT 11168 IN THE AMOUNT OF \$1,509,665 FOR THE CHLORINE ANALYZERS AND RESERVOIR MIXERS AT TEN DOMESTIC WATER RESERVOIRS.

SAN JOAQUIN WILDLIFE SANCTUARY NATURAL TREATMENT SYSTEM FACILITIES THREE-YEAR MAINTENANCE SERVICES CONTRACT – 2008 THROUGH 2011

General Manager Jones reported that current operation and maintenance needs within the San Joaquin Wildlife Sanctuary and Natural Treatment System Facilities requires landscape maintenance contract services to control and remove native and non-native vegetation along with landscape and irrigation maintenance. Mr. Jones said that the Natural Treatment System Facilities will also be transferred to Irvine Ranch Water District (District) for Operation and Maintenance during FY 2007-08.

Mr. Jones said that staff initiated a competitive bid process for the contract and five companies were selected to participate in the Request for Proposal (RFP) process. Nakae and Bemus, along with Oak Leaf Landscape, responded with no interest. Based on the responding bids, staff recommends that the contract be awarded to TruGreen LandCare.

Director Withers said that this item was reviewed at the Engineering and Operations Committee on November 20, 2007 and applauded staff on their organization with this contract. On MOTION by Withers, seconded and unanimously carried, THE BOARD APPROVED THE SAN JOAQUIN WILDLIFE SANCTUARY AND NATURAL TREATMENT SYSTEM FACILITIES MAINTENANCE SERVICES CONTRACT IN THE AMOUNT OF \$1,218,625.

HARVARD AVENUE TRUNK SEWER DIVERSION TO MICHELSON WATER RECLAMATION PLANT – CONTRACT CHANGE ORDER NO. 1

General Manager Jones reported that the Harvard Avenue Trunk Sewer (HATS) Diversion to the Michelson Water Reclamation Plant Project will be capable of diverting wastewater flows ranging from a minimum of 2.0 million gallons per day (MGD) to a maximum of 16.5 MGD with an average flow of 8.0 MGD. Mr. Jones said that in March 2007, the Board awarded a construction contract to CDM Constructors in the amount of \$7,839,000 for the construction of the project utilizing a design-build delivery approach. The project is currently under construction with substantial completion expected in April 2008.

Mr. Jones said that a Contract Change Order No. 1 (CCO No. 1) in the amount of \$203,255 was being submitted for approval with consists of four negotiated contract change requests and includes the following items: 1) City of Irvine Encroachment Permit – Extend the substantial completion date by 46 calendar days and the final completion date by 16 calendar days to account for delays associated with the permitting process; 2) project optimization – optimize the design of project facilities to develop an overall project that balances capital costs with operations and maintenance costs - \$69,926; 3) corrosion protection – change the interior coatings for Manhole No. 1, the Junction Structure, and the Vortex Manhole from Sancon to T-Lok, - \$8,731, and 4) noise mitigation – install a sound wall at Manhole No. 1 and at the Lift Station to minimize the construction noise impact on adjacent homeowners - \$124,598.

Director Withers said that this item was reviewed and approved by the Engineering and Operations Committee on November 20, 2007. On MOTION by Withers, seconded and unanimously carried, THE BOARD APPROVED CONTRACT CHANGE ORDER NO. 1 IN THE AMOUNT OF \$203,255 TO CDM CONSTRUCTORS, INC. FOR THE HARVARD AVENUE TRUNK SEWER DIVERSION TO MICHELSON WATER RECLAMATION PLANT, PROJECT 20400.

CIENEGA FIELD DEMONSTRATION PROJECT – CONSTRUCTION CHANGE ORDER AND ENGINEERING SERVICES' AGREEMENT

Director of Engineering Heiertz reported that IRWD is continuing with the implementation of the Natural Treatment System (NTS) Master Plan to assist the County and Cities within the San Diego Creek Watershed in meeting surface water quality requirements as set by the Santa Ana Regional Water Quality Control Board (Regional Board). The Cienega Filtration Project is a specialized component of the NTS and is intended to provide a means to capture, treat, and remove selenium from the watershed to meet existing and future regulatory requirements.

Mr. Heiertz said that the City of Irvine entered into an agreement with IRWD to allow its participation in the Field Demonstration Project for nitrogen and selenium removal credits. The Cienega Field Demonstration Project (0.3 cfs) is currently being constructed to ensure that major construction and operational issues are resolved before IRWD commits to construction and operation of the Full Scale Cienega facility (3cfs). The Field Demonstration Project is located adjacent to Peters Canyon Channel under the future ball fields for Irvine Unified School District's Creekside Alternative High School.

Mr. Heiertz said that the construction of the Cienega Field Demonstration project was awarded to CDM Constructors (CDM) on May 29, 2007. Construction of the NTS In-line Basin project was awarded to Lonerock, Inc. on February 26, 2007. The In-line Basin project consists of a series of weirs constructed in the Santa Ana/Santa Fe, San Diego and Peters Canyon County storm channels. Both IRWD projects have facilities that are to be constructed within a portion of Peters Canyon channel upstream of Barranca and within close proximity to each other. These in-channel facilities were to be constructed at different time periods as to not to conflict with one another.

During implementation of the IRWD construction projects the County restricted IRWD contractors from performing any work in the channel adjacent to and upstream of the current County's Bike Trail/Channel improvement project for water quality reasons. The restricted access did not present any issues at the time of project implementation because IRWD's contractors could work on other items of their respective projects until the County's contractor was finished in mid-August. However, the completion date for the County's project was delayed several times in two-week increments and was finally completed in mid-October.

The County's project caused IRWD's project schedules to overlap such that both IRWD contractors were vying to complete work in the channel at the same time. This caused a conflict between the two contractors and would have resulted in delay cost claims by the contractors if IRWD left the issue unresolved. Lonerock has substantially completed its work and any delay of work at Weir No. 1 will result in remobilization and other cost claims. CDM was in the first one-third of its project, but had scheduled its channel work to coincide with other heavy equipment work. CDM also needs immediate access to the channel to complete the work prior to the flood season. To eliminate the risk for construction delay, remobilization or other change order claims from the contractors, staff recommends that a Change Order to CDM's contract be approved to perform the additional work to construct the In-line Basin Project's Weir No. 1 in the amount of \$295,297 and that a credit from Lonerock in the amount of \$83,000 be negotiated for the deleted work.

The Cienega Field Demonstration project will be significantly completed in late February 2008 and ready for the one-year testing period as required by the Regional Board to prove its effectiveness. Staff requested GeoSyntec submit a proposal for a sole source Engineering Services Agreement to develop a comprehensive plan for Testing Protocols; develop a monitoring and reporting plan for the 401 Permit; provide operational support and consultation in implementation of the Testing Protocols during the one-year field demonstration period; Provide support to IRWD in coordination of the State Water Resources Control Board (SWRCB) 319(h) grant for the project; and communicate support for operational progress update presentations to the County's NSMP and the City of Irvine.

GeoSyntec is the only firm that has this unique project knowledge and solicitation of comparative proposals would not produce significant results. Staff recommends that a sole source Engineering Services Agreement with GeoSyntec Consultants be approved to provide testing protocols, operational consultation, 319(h) grant and 401 permit compliance assistance for the Field Demonstration Project in the amount of \$143,148.

Director Withers reported that this item was reviewed at the Engineering and Operations Committee on November 20, 2007. Following discussion relative to outside funding for the

project, on MOTION by Withers, seconded, and unanimously carried, THE BOARD APPROVED AN EXPENDITURE AUTHORIZATION FOR \$479,800 FOR PROJECT 10866; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CHANGE ORDER TO CDM CONSTRUCTORS, INC. FOR \$295,300; AND AN AGREEMENT FOR ENGINEERING SERVICES WITH GEOSYNTEC CONSULTANTS FOR \$143,148 FOR THE CIENEGA FILTRATION (FIELD DEMONSTRATION) PROJECT.

GENERAL MANAGER'S REPORT: None

DIRECTORS' COMMENTS

Director Swan reported that the location of WACO meetings will be moved to MWDOC in January. Mr. Swan said he attended the OCBC Infrastructure meeting, MWDOC Administration and Finance Committee meeting, an ACWA Regional Board meeting and orientation, and a MWDOC Board of Directors' meeting.

Director Swan suggested visiting various facilities due to the recent fires and follow up with lessons learned. General Manager reported that Supervisor Campbell held a post fire clean-up meeting on solid wastes. He said that staff would be scheduling a follow-up meeting relative to mud flows. Additionally, he said that Facilities Maintenance staff are visiting IRWD sites to check on shrubs/trees to eliminate fuel for fires. He said that they are also looking at retrofitting facilities as necessary. President Reinhart asked staff to check on fire retardants to spray on IRWD buildings (in the case of a fire).

Director Withers reported that he attended the SMWD "California Water Future is Now" meeting and the annual Exchange Club of Irvine's Thanksgiving breakfast.

Vice President Miller said he attended a NWRI Operations Committee meeting, an Urban Water Resources Center meeting on the current California water landscape, a California Water Policy Conference, an OCSG GWRS Steering Committee meeting and an NWRI Operations Committee meeting.

President Reinhart said that he attended a MWDOC MSR meeting, a SMWD "California Water Future is Now" meeting, an OPAMWC Board meeting, and an SCWD Groundwater Recovery Facility Grand Opening Ceremony.

Santiago County Water District Advisory member Mary Ann Brown reported on various community meetings being held due to the recent fires. She also said that her house would be demolished tomorrow as a result of the fires.

CLOSED SESSION

President Reinhart said that a conference would be held with legal counsel relative to anticipated litigation (Government Code Section 54956.9(b) - significant exposure to litigation (two potential cases).

OPEN SESSION

Following the Closed Session, the meeting was reconvened with Reinhart, Miller, Swan, Matheis, and Withers present. No action was reported.

ADJOURNMENT

There being no further business, President Reinhart adjourned the meeting.

APPROVED and SIGNED this 17th day of December, 2007.

President, IRVINE RANCH WATER DISTRICT

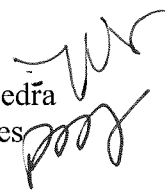
Secretary, IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Legal Counsel - Bowie, Arneson, Wiles & Giannone



December 17, 2007
Prepared and
Submitted by: N. Savedra
Approved by: P. Jones



CONSENT CALENDAR

RATIFY/APPROVE BOARD OF DIRECTORS'
ATTENDANCE AT MEETINGS AND EVENTS

SUMMARY:

Pursuant to Resolution 2006-29 adopted on August 28, 2006, approval of attendance of the following events and meetings are required by the Board of Directors.

Events/Meetings

Mary Aileen Matheis

12/05/07	Urban Water Institute Board of Directors' Meeting
1/25/08	OCWD Groundwater Replenishment System Dedication Ceremony
2/25-28/08	ACWA 2008 Washington DC Conference
5/5-9/08	ACWA Spring Conference, Monterey, CA

Darryl Miller

12/12/07	Orange Park Acres Mutual Water Company Board of Directors' Meeting
12/13/07	OCSD Issues Meeting
12/19/07	OCWD Annexation Meeting
12/20/07	Meeting with Paul Jones regarding District activities
5/5-9/08	ACWA Spring Conference, Monterey, CA

Doug Reinhart

12/12/07	Orange Park Acres Mutual Water Company Board of Directors' Meeting
12/13/07	OCSD Issues Meeting
12/20/07	Monthly meeting w/Paul Jones regarding District activities
5/5-9/08	ACWA Spring Conference, Monterey, CA

Peer Swan

1/9-12/08	CASA Mid-Year Conference, Indian Wells
1/15/08	ACWA Region 10 Activity Planning for 2008-09 – Vista, CA
1/23-26/08	ACWA Strategic Planning Workshop, Sacramento, CA
5/5-9/08	ACWA Spring Conference, Monterey, CA

John Withers

5/5-9/08	ACWA Spring Conference, Monterey, CA
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RECOMMENDED MOTION:

RATIFY/APPROVE THE MEETINGS AND EVENTS FOR MARY AILEEN MATHEIS,
DARRYL MILLER, DOUG REINHART, PEER SWAN AND JOHN WITHERS AS
DELINEATED ABOVE.

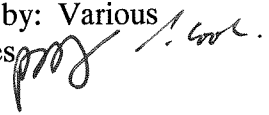
LIST OF EXHIBITS:

None

December 17, 2007

Prepared and Submitted by: Various

Approved by: Paul Jones



CONSENT CALENDAR

MASTER CALENDAR AND OTHER INFORMATION ITEMS

SUMMARY:

Provided as Exhibits "A", "B", and "C" are the informational items for Board review. The Strategic Measures Dashboards are not available at this time, but will be brought to the Board next month.

RECOMMENDED MOTION:

RECEIVE AND FILE.

EXHIBITS:

- Exhibit "A" – Calendar – January 2008
- Exhibit "B" – Dyer Road Wellfield Status
- Exhibit "C" – Reservoir Data



EXHIBIT "A"

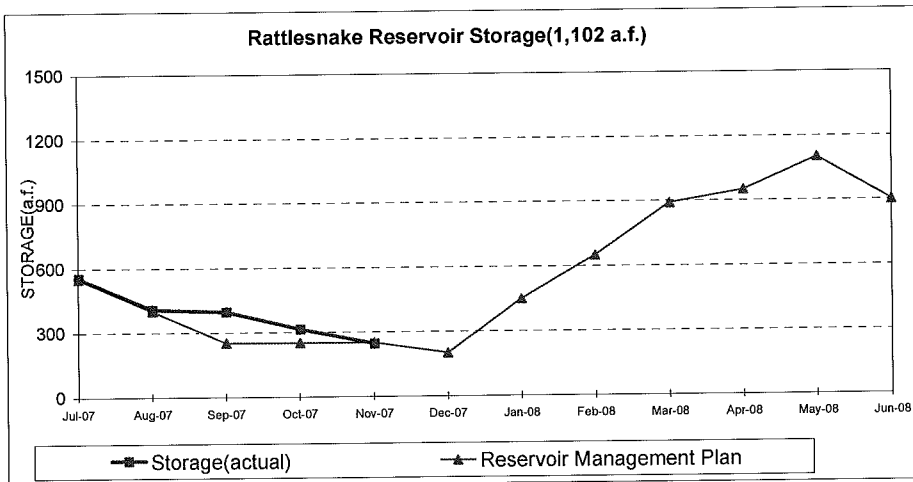
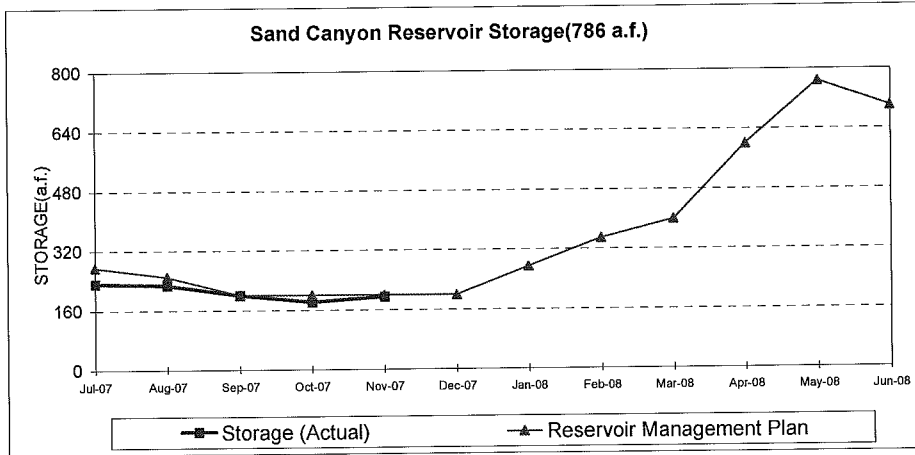
January 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<p><i>Multi-State Salinity Coalition Summit</i> 1/17-1/18</p> <p><i>CASA Mid-Year Conference, Indian Wells</i> 1/9-1/12</p> <p><i>ACWA Strategic Planning Workshop</i> 1/23-1/26</p> <p><i>41st Annual Water User's Conference</i> 1/23-1/25</p>		<p>1</p> <p>IRWD Holiday (offices closed)</p>	<p>2</p> <p>2:00 p.m.-MWDOC Workshop Board mtg. 5:00 p.m.-OCWD Board meeting 6:00 p.m.-Costa Mesa City Council meeting 7:00 p.m.-Lake Forest City Council meeting</p>	<p>3</p> <p>7:30 a.m.-IRWD/SCWD Mgmt. Adv. Comm. 5:30 p.m.-Irvine City Planning Comm. mtg.</p>	<p>4</p> <p>7:30 a.m.-WACO (MWDOC)</p>	<p>5</p>
<p>6</p>	<p>7</p> <p>9:30 a.m.-OC Board of Supervisors 6:00 p.m.-Santa Ana City Council meeting 7:00 p.m.-Orange Planning Comm. mtg.</p>	<p>8</p> <p>7:00 a.m.-IRWD Finance/Personnel 7:30 a.m.-Newport Chamber Gov. Affairs Committee mtg. 8:30 a.m.—Serrano WD Board mtg. 9:30 a.m.-OC Board of Supervisors 4:00 p.m.-Irvine City Council mtg. 4:30 p.m.-Orange City Council meeting 7:00 p.m.-NB City Council meeting 7:00 p.m.-Tustin Planning Comm. mtg. 7:00 p.m.-Mesa Consolidated Water District Board mtg.</p>	<p>9</p> <p>7:30 a.m.-Orange Chamber Gov. Affairs 9:00 a.m.-LAFCO 12:00 p.m.-Metropolitan Water District Board mtg. 5:00 p.m.-IRWD/OPAMWC Board meeting</p>	<p>10</p> <p>6:00 p.m.-South Coast Water Dist. Board mtg. 7:00 p.m.-Lake Forest Planning Comm. mtg.</p>	<p>11</p>	<p>12</p>
<p>13</p>	<p>14</p> <p>5:30 p.m.-Santa Ana Planning Comm. mtg. 6:00 p.m.-IRWD Board meeting 6:30 p.m.—Costa Mesa City Planning Comm.</p>	<p>15</p> <p>7:00 a.m.-IRWD Eng. & Ops. 9:30 a.m.-OC Board of Supervisors 6:00 p.m.-Costa Mesa City Council meeting 7:00 p.m.-Tustin City Council meeting 7:00 p.m.-Lake Forest City Council meeting</p>	<p>16</p> <p>7:30 a.m.-South Orange County Regional Chamber Legislative Action Committee mtg. 8:30 a.m.-MWDOC Board mtg. 5:00 p.m.-OCWD Board meeting 7:00 p.m.-Santa Margarita Board mtg.</p>	<p>17</p> <p>7:00 a.m.-Costa Mesa Chamber 90 min. Business Breakfast Boost 7:30 a.m.-OCCVB Board meeting 5:30 p.m.-Irvine City Planning Comm. mtg. 6:00 p.m.-South Coast Water Dist. Board mtg. 6:30 p.m.-NB City Planning Comm. mtg.</p>	<p>18</p>	<p>19</p>
<p>20</p>	<p>21</p> <p>8:30 a.m.-MWDOC Public Affairs & Legislation Committee 4:00 p.m.-IRWD WRP 6:00 p.m.-Santa Ana City Council meeting 7:00 p.m.-Orange Planning Comm. mtg.</p>	<p>22</p> <p>4:00 p.m.-Irvine City Council mtg. 4:30 p.m.-Orange City Council meeting 7:00 p.m.-NB City Council meeting 7:00 p.m.-Tustin Planning Comm. mtg. 7:00 p.m.-Mesa Consolidated Water District Board mtg.</p>	<p>23</p> <p>7:00 a.m.-IRWD Asset Mgmt. 7:30 a.m.-Orange Chamber Leg. Action Committee mtg. 6:30 p.m.-OCSD Board meeting</p>	<p>24</p> <p>10:30 a.m.-Orange County Council of Gov. Board mtg. 12:30 p.m.-NWRI Board mtg. 1:00 p.m.—OC Great Park Corp. Board mtg. 4:00 p.m.-Shadetree 7:00 p.m.-Lake Forest Planning Comm. mtg.</p>	<p>25</p> <p>7:30 a.m.-South Orange County Regional Chamber Gov. Affairs Committee mtg.</p>	<p>26</p>
<p>27</p>	<p>28</p> <p>5:30 p.m.-Santa Ana Planning Comm. mtg. 6:00 p.m.-IRWD Board meeting 6:30 p.m.—Costa Mesa City Planning Comm.</p>	<p>29</p> <p>9:30 a.m.-OC Board of Supervisors</p>	<p>30</p>	<p>31</p> <p>6:30 p.m.-NB City Planning Comm. mtg.</p>		

EXHIBIT "B"

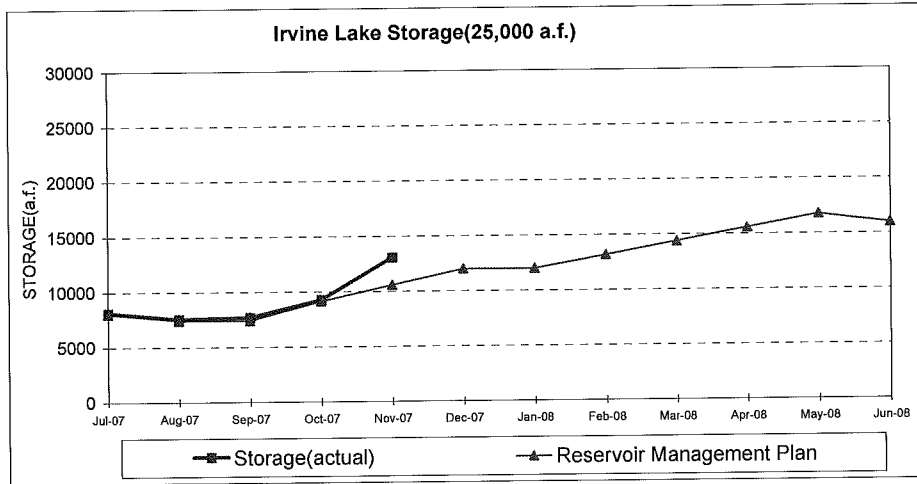
DYER ROAD WELL FIELD STATUS							November 2007	
Well Number	Production Mo./YTD	Ref. Point Elevation	Depth to Water 6/4/2007	Water Level-MSL	Depth of Bowls	Bowl Setting-MSL	Feet of Water Above Intake	
1	98.6 AF 1,032.8 AF	34	N/A	N/A	270	-236	N/A	
2	102.4 AF 1,237.3 AF	37	184	-147	300	-264	116	
				Pumping				
3	0.0 AF 393.7 AF	55	120	-65	200	-145	80	
				Static				
4	85.7 AF 913.3 AF	38	128	-90	216	-178	88	
				Static				
5	263.9 AF 1,338.4 AF	48	240	-192	270	-222	30	
				Pumping				
6	0.0 AF 943.3 AF	43	113	-70	250	-207	137	
				Static				
7	0.0 AF 659.9 AF	40	139	-99	281	-241	142	
				Static				
C-8 DATS	310.0 AF 1,912.6 AF	37	155	-118	305	-268	150	
				Pumping				
C-9 DATS	315.2 AF 1,548.3 AF	23	148	-125	305	-282	158	
				Pumping				
10	363.2 AF 1,625.0 AF	47	184	-137	250	-203	66	
				Pumping				
11	0.5 AF 723.4 AF	40	142	-102	310	-270	168	
				Static				
12	0.0 AF 651.8 AF	51	N/A	51	270	-219	270	
				Static				
13	90.4 AF 898.7 AF	40	140	-100	300	-260	160	
				Static				
14	158.3 AF 1,508.9 AF	47	148	-101	311	-264	164	
				Static				
15	117.5 AF 1,123.2 AF	44	141	-97	300	-256	159	
				Static				
16	201.1 AF 1,401.1 AF	47	213	-166	280	-233	67	
				Pumping				
17	234.5 AF 1,073.5 AF	52	190	-139	260	-209	70	
				Pumping				
18	91.6 AF 941.6 AF	45	136	-91	300	-255	164	
				Static				
Clear production:	1,807.5 AF for the month							
FYTD:	16,465.9 AF							
DATS production:	625.2 AF for the month							
FYTD:	3,460.9 AF							

RESERVOIR DATA
FY 07/08

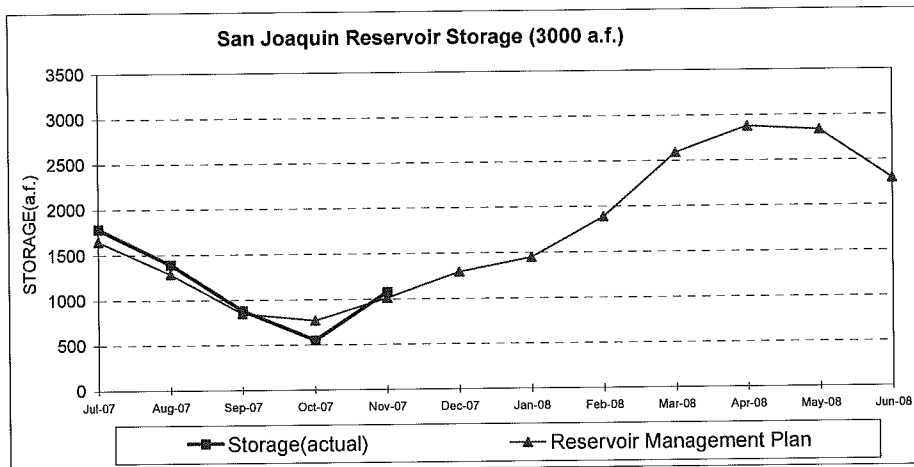


Comments: Higher than normal system demands required a higher than normal reservoir level.
Demands have dropped off and the reservoir level has been brought back to the normal operating plan.

RESERVOIR DATA FY 07/08



Comments: Due to a lesser amount of available water supplies available to Metropolitan Water District, Metropolitan announced that all agricultural supplied water will be cut back by 30 percent, effective January 1, 2008. Therefore, Irvine Lake will be filled to 13,000 af by December 31, 2007 to offset the loss of available supply. This level will be maintained until April 1. Additional water will be added into Irvine Lake through the Metropolitan Seasonal Shift Program to meet projected 2008 demands by May 1.



December 17, 2007

Prepared by: Beth Beeman

Submitted by: Beth Beeman

Approved by: Paul Jones

Beth Beeman
Paul Jones

CONSENT CALENDAR

2008 SELECTION OF STATE LOBBYIST AND LOCAL GOVERNMENT CONSULTANT

SUMMARY:

The purpose of this item is to authorize lobbyist/consultant professional service contracts for the District on key state and local issues. Staff recommends approval of six-month contracts with Isenberg-O'Haren for state lobbying services and with Curt Pringle and Associates for local and state government consulting.

BACKGROUND:

Key state legislative issues continue to have potential impact on IRWD. These issues are discussed further in Exhibit "A" as part of the attached contract proposal from Phil Isenberg and Maureen O'Haren and are summarized as follows:

- State Budget: minimize the impact on the District's property tax allocation, reserves and investment interests.
- Special District Oversight: protect IRWD interests in any legislation establishing new requirements or other reform measures affecting special district governance and operations.
- Water Rights, Water Conservation and Related Legislative Issues: protect and advance IRWD interests on policy issues
- Bond Funding: Ensure IRWD has opportunities
- Wetlands Oversight: Protect the Natural Treatment System

On the local level, assistance from a consulting firm with local influence continues to be an invaluable asset to the District. Curt Pringle and Associates has provided assistance in several areas over the last six months including the Orange County Water District annexation and local support for state and federal grant funding. The Curt Pringle and Associates proposal for consulting services is included in Exhibit "B" and summarized as follows:

- Municipal Water District of Orange County municipal services review
- Annexation: Orange County Water District/Orange Park Acres and other annexation issues
- Local Government Expertise: provide expertise on local level issues
- Governor's Administration: provide advice to IRWD on key issues

Both firms, Isenberg-O'Haren and Curt Pringle and Associates, will work in a complementary manner to address both local and statewide issues. The two firms will provide the District with a

high level of service, knowledge, credibility and access from both the Republican and Democratic perspectives. In addition, and most importantly, staff's recommended lobbyist/consultant selections will provide the best possible representation and source of information relative to impacts from the state's budget situation.

To serve IRWD's needs, staff is proposing that the District authorize professional services contract agreements for a six month period with Isenberg/O'Haren for a \$6,500 monthly retainer plus reimbursable expenses and for a six month period with Curt Pringle and Associates for \$5,000 a month plus reimbursable expenses. The current contracts with both Isenberg/O'Haren and Curt Pringle and Associates expire on December 31, 2007.

FISCAL IMPACTS:

The contracts will be charged against the FY 2007-08 Operating Budget, under Department 12 expenses. The total requested contract(s) authorization is \$75,900.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications Committee meeting on December 10, 2007.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT FOR A TERM OF SIX MONTHS WITH ISENBERG/O'HAREN IN THE AMOUNT OF \$6,500 PER MONTH RETAINER PLUS REIMBURSABLE DIRECT EXPENSES FOR A TOTAL NOT-TO-EXCEED \$42,900 AND A PROFESSIONAL SERVICES AGREEMENT FOR A TERM OF SIX MONTHS WITH CURT PRINGLE AND ASSOCIATES IN THE AMOUNT OF \$5,000 PER MONTH RETAINER PLUS REIMBURSABLE DIRECT EXPENSES FOR A TOTAL NOT-TO-EXCEED \$33,000.

LIST OF EXHIBITS:

- Exhibit "A" - Isenberg/O'Haren Contract Proposal
- Exhibit "B" - Curt Pringle and Associates Contract Proposal

EXHIBIT A

November 19, 2007

Beth Beeman
Director of Public Affairs
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

RE: PROPOSAL FOR REPRESENTATION
January 2008 to July 2008

Dear Ms. Beeman:

Thank you for your interest in continuing our contract to represent the Irvine Ranch Water District in Sacramento. We have greatly enjoyed representing you and working with district leadership these many years, and certainly hope to continue. We had a tremendously successful year this year with the passage and signing of AB 557 (Plescia) on the California Irrigation Management Information System and in particular AB 1406 (Huffman), which will expand the use of recycled water in condominiums and apartments. We have also succeeded in generally ensuring that your interests are represented and your voice is heard on major issues of concern.

As mentioned, we were very active in 2007, sponsoring two bills, AB 1406 (Huffman) on water recycling and AB 566 (Plescia) on funding the California Irrigation Management Information System. While we did not secure actual funding for CIMIS in AB 566, we have codified it and made it a priority for funding within the Department of Water Resources. In 2008, we hope to work through the budget subcommittee process to ensure funding is appropriated, despite what will be a very difficult budget year.

AB 1406 was a major victory. Although the bill had no outside opposition, the Department of Public Health opposed the bill because of fears of cross-connections. Those fears were fueled by news stories of a cross-connection incident in Chula Vista in which recycled water was delivered to faucets and sources of drinking water. But increased efforts by our coalition, the support of the Department of Water Resources and, in particular, intervention with key officials in the Governor's office—made largely by Curt Pringle—turned the tide and the bill was signed.

We also monitored the progress of SB 201 (Florez), which is a two-year bill. The bill is aimed at food safety in light of the *e coli* outbreak, but may negatively affect recycled water efforts.

The remainder of this letter reiterates our background and the scope of services we provide. This proposal also modifies the scope of work based on developments to date.

Background

From 1997 to the end of 2004, Phil Isenberg and Maureen O'Haren provided government relations services to a host of clients through our practice at Miller, Owen & Trost. Our clientele included trade associations, local governments, corporations and non-profit organizations in a variety of fields. On January 1, 2005, we opened the doors to our own firm, Isenberg/O'Haren.

We have attached an updated client list. If you have questions about those clients or prior successes or activities we have undertaken for them or prior clients, we would be happy to provide additional information. You can also find a resume of experience on our website at www.isenberg-oharen.com.

While our government relations practice began initially with a heavy emphasis on health care policy, and continues to include several health care clients, we have expanded our representation to a wide variety of policy areas. We have represented a number of trade associations in a variety of areas, including manufacturing, government employment, Native American tribes and resources issues. We have also had both public and private clients in the area of energy, water, insurance oil exploration, public health and social services. This experience has broadened our knowledge of various policy areas and strengthened our ability to deal with complex organizations that require consensus before acting.

We have represented several water interests, including the Metropolitan Water District of Southern California through a subcontract with Ross Communications from 1998 to 2000. As part of this work, Phil Isenberg helped negotiate and pass a \$300 million funding package in 1999 that set aside \$300 million in state general fund money for use in the San Diego-Imperial County water exchange necessary to comply with the 4-4 Plan for Colorado River water. We also represented Cadiz, Inc., which is recognized as one of the major water marketing companies in American and is also a large California agricultural producer. In 1999 and 2000, we were hired to represent Cadiz on a variety of legislative and regulatory matters relating to water marketing and trading in California. Currently, we represent Anaheim Public Utilities on its water and power issues, ensuring that we avoid any conflicts with IRWD policies.

We have also represented energy producers and marketers. We were very involved during 2001 in the complex and controversial response to the state's energy crisis, including the negotiations affecting the renewable power generators. We have represented Automated Power Exchange, an internet-based trading entity; FPL Energy, a generator that includes a significant portion of renewable energy plants in its portfolio; and, currently, the Independent Energy Producers, the trade association of the energy-generating companies.

Through our work with other clients, we have also worked on budget and tax matters, governance and local agency issues. We feel that this background will continue to be important to IRWD.

General Scope of Services

We provide full-service lobbying and government relations services for our clients. The following is a general list of the services we provide.

- Strategic planning and consultation.
- Introduction to specific legislators and administration officials.
- Lobbying legislation and budget issues of concern or interest to the client.
- Bill tracking and monitoring.
- Regular communications and updates regarding priority issues.
- Staffing of sponsored legislation.
- Drafting of legislative language, including amendments.
- Testimony in committee hearings.
- Preparation of testimony for client representatives.
- Briefing of client representatives for meetings and hearings.
- Preparation of letters and other written materials for legislators and administration officials.
- Background research on issues.
- Creation of coalitions and staffing of coalitions.
- Coordination with coalition partners in lobbying, committee hearings and grassroots activities.
- Advocacy on regulatory matters, including meetings with officials and formal written or oral comment on proposed regulations.
- Advocacy on regulatory decisions specific to the client.
- Maintenance of relationships with legislators, administration officials and key staff.
- Representation of client at conferences, coalition meetings and other events.
- Development of charitable contribution or charitable activity strategies that support or complement government affairs goals.
- Development of local outreach and grass roots efforts to enhance relationships with local legislators.

In providing these services, generally, Phil Isenberg provides overall strategic guidance, develops tactical plans and key messages, maintains high-level administration and legislative contacts, serves as the main contact and spokesperson for clients, and provides budget expertise and insight in regular communications to clients and legislators. Maureen O'Haren provides the day-to-day management of priority legislation (including sponsored legislation); supervises the tracking of all legislation; prepares letters, policy statements, testimony and periodic reports on legislation; attends meetings, hearings and negotiation session; works with IRWD staff on amendments and IRWD responses; and coordinates lobbying efforts. Both of us share responsibility for testifying in committee hearings, attending meetings with legislators and participating in coalition efforts.

Phil Isenberg has previously served in a variety of unpaid state government studies, work groups and task forces. These include leading transition teams for a former speaker of the Assembly and a former state Treasurer. In addition, at the request of California Resources Agency Secretary Michael Chrisman, Isenberg chaired the Marine Life Protection Act Task

Force, a two-year advisory effort (2004-2006) to implement California's law on marine life protection.

Isenberg currently chairs the Delta Vision Blue Ribbon Task Force, created by an Executive Order of Governor Schwarzenegger. The Task Force is responsible for developing a vision for the Sacramento Bay-Delta and related environmental water and policy issues and recommending a strategic plan to implement that vision. This activity will continue through 2008. By this letter and our contract, Isenberg/O'Haren and IRWD acknowledge that Isenberg will not be required to represent IRWD on any Delta-related issues before the Legislature or any state agencies or officials during this period. This restriction will end January 1, 2009. In addition, Mr. Isenberg also served as a board member of First Lady Maria Shriver's nonprofit foundation, the California State Alliance, which supports charitable efforts in California. None of these activities appears to create any conflict with IRWD policies or efforts.

Irvine Ranch Water District Proposal

Below we have developed a general outline of the areas of advocacy for the 2008 legislative session. We acknowledge that this outline may change based on the legislation introduced by the new Legislature and the Governor's January budget. All of these activities would be undertaken pursuant to IRWD direction.

ISSUE: State Budget

GOAL: Minimize the impact on the District's property tax allocation, reserves and investment interests. Secure funding for CIMIS.

TASKS:

- Gather and report budget intelligence.
- Maintain communications with key legislators on major budget efforts.
- Maintain communications with ACWA staff monitoring budget developments.
- Develop coalitions with common interests and coordinate with coalition partners.
- Schedule and attend lobbying meetings with legislators, key staff and administration officials in advance of hearings, as needed.
- Provide regular budget updates to the District as needed.
- Provide regular budget analyses and reviews of new budget proposals of concern.
- Advocate with key entities, including trade associations, coalitions and administrative agencies.
- Monitor budget committee hearings and activities when appropriate.
- Provide public testimony in budget hearings when appropriate and consistent with strategy.
- Draft budget language as needed.
- Develop and coordinate with potential legislative sponsors of District proposals or language.

ISSUE: Special District Oversight
GOAL: Protect IRWD interests in any legislation establishing new requirements or other reform measures affecting special district governance and operations.

TASKS:

I. Issue Development

- Review and assist in the development of policy goals.
- Analyze the legislation.
- Determine IRWD priorities and position. As part of this activity, it is essential to identify areas in which IRWD is different from other water districts. Unique characteristics of governance structure, financing or ethics policies may allow IRWD to achieve special recognition, or exclusion, from larger efforts in this area.

II. Strategy Development

- Develop a legislative strategy, if needed, based on IRWD position and priorities.
- Meet with identified legislators, key staff and other key decision makers if necessary.
- Work with IRWD staff on language and position, and influence member associations such as ACWA, CSDA and others to ensure they support or promote our amendments.
- Determine whether testimony at committee hearings is appropriate.
- Prepare regular updates for IRWD Board of Directors.
- Lobby Administration officials on IRWD position if necessary.

III. Execution

- Watch for any resurrection of SB 393 (Ortiz) or similar measures.

ISSUE: Water Rights, Water Conservation and Other Legislative Issues
GOAL: Protect and advance District interests in policy issues.

TASKS:

- Provide full lobbying services (as described above), consistent with strategic direction, on priority legislation identified by IRWD through IRWD monitoring of bills introduced and identified by industry groups, such as ACWA.
- Promote legislation encouraging the use of conservation rate structures by water purveyors.
- Assist in development of position, strategy and amendments on priority legislation and assist in drafting of position letters and amendments.
- Attend negotiating sessions with author's staff and strategy meetings of associations. Influence association position so that it is consistent with and supportive of IRWD position.
- Testify as needed on legislation and report on results.

- Provide regular reports on priority legislation and reassess strategy and position as issues develop.
- Identify and notify the District of any specific legislation or developments that may have significant impact on IRWD.
- Monitor negotiations on any resurrection of SB 820, AB 672 or other relevant legislation.

ISSUE: Bond Funding
GOAL: Ensure IRWD Opportunities

TASKS:

- Monitor all Proposition 50-related legislation and other bond measures that may provide funds for water projects.
- Maintain communications with key staff.
- Monitor budget negotiations for funding opportunities.
- Maintain communications with key legislators involved in budget and bond funding and implementation.
- Review implementation language regarding consistency with IRWD projects.
- Ensure implementation of 2007 water bond measure reflects IRWD interests.

ISSUE: Wetlands Oversight
GOAL: Protect IRWD's Natural Treatment System

TASKS:

- Monitor intelligence on emerging policy relating to wetlands and the SWANCC gap.
- Attend relevant workgroup and board meetings dealing with wetlands regulation or legislation.
- Advocate for narrow oversight limited to the SCANCC gap only.
- Advocate the advantages of IRWD's Natural Treatment System.

Fee Proposal

We propose a monthly retainer of \$6,500. In addition, we request reimbursement for additional costs such as courier service, long-distance telephone calls, conference calls, facsimiles, printing, costs associated with business meetings and other similar costs, in addition to travel costs (including airfare, ground transportation, meals, hotel, etc). We would, consistent with the existing agreement, obtain prior approval for any travel. We also agree to a limitation of \$3,900 in costs over the six-month contract period.

We hope that this letter provides you with an adequate scope of services. Thank you again for your continued relationship. We enjoy working with you.

Regards,

PHILLIP L. ISEBERG

MAUREEN O'HAREN

APPROVED BY: _____ **DATE:** _____
Paul D. Jones, II, General Manager
Irvine Ranch Water District

EXHIBIT B

Curt Pringle & Associates

public relations • consulting • government affairs

December 3, 2007

Mr. Paul Jones
General Manager
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Dear Mr. Jones,

Working with the Irvine Ranch Water District (IRWD) over the last few years has been rewarding and successful.

This year, we again look forward to working with IRWD and feel that we can be of service in a number of key areas.

Over the past year, we have worked with IRWD mainly on issues of local governance. These issues include possible annexation of additional service areas into the District, as well as areas within the District being annexed into the Orange County Water District.

Further, we have provided strategic counsel on state legislative and state budget issues.

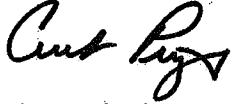
In the upcoming year, we look forward to providing support in similar areas. This year as with past years, you will have many local issues in which we can provide support and counsel. This local intergovernmental support will be provided to assist the district in moving your critical policy goals forward.

Services will be provided for a monthly contact of \$5,000 for the six month period. Curt Pringle & Associates does not charge by the hour or for any specific incidentals (e.g. photocopying, faxing). However, we would expect to be reimbursed for any project related costs (e.g. printing, postage, travel). Naturally, these expenses would be incurred at your prior request or authorization.

Also to reiterate as in past years, due to my position with the city of Anaheim, I am unable to assist the district with any project that may constitute a conflict with the city of Anaheim.

I look forward to the opportunity to work together with you and all those at the Irvine Ranch Water District toward much success in 2008.

Regards,

A handwritten signature in black ink, appearing to read "Curt Pringle". The signature is written in a cursive style with a prominent initial "C" and a stylized "P".

Curt Pringle

December 17, 2007

Prepared by: Fournier/Jacobson

Submitted by: Debby Cherney

Approved by: Paul Jones

CONSENT CALENDAR

NOVEMBER 2007 FINANCIAL REPORTS

SUMMARY:

The following is submitted for the Board's information and approval:

- A. The Investment Summary Report for November 2007. This Investment Summary Report is in conformity with the 2007 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Monthly Interest Rate Swap Summary as of November 30, 2007, as outlined in Exhibit "B".
- C. The Summary of Wire Transfers and ACH payments in the total amount of \$5,586,114.34, as outlined in Exhibit "C".
- D. The November 2007 tabulation of Warrant Nos. 285228 through 286216, Workers' Compensation distributions, and voided checks in the total amount of \$10,574,839.14, as outlined in Exhibit "D".

FISCAL IMPACTS:

As of November 30, 2007, the book value of the investment portfolio was \$244,692,565.80 with a 5.05% rate of return and a market value of \$244,780,609.64.

As of November 30, 2007, the total notional amount of the interest rate swap portfolio was \$270 million (\$140 million fixed receiver swaps/\$130 million fixed payer swaps). Cash flow in November from all swaps was a negative \$235,353 and a negative \$3,126,334 fiscal year to date. The mark-to-market value of all swaps was approximately \$253 million at month-end.

Wire transfers, ACH payments, and checks issued for debt service, accounts payable, payroll and water purchases for November totaled \$16,160,953.48.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act Code of Regulations, Title 14, Chapter 3 Section 15378.

COMMITTEE STATUS:

This item was not submitted to a Committee; however, the investment and interest rate swap reports are submitted to the Finance and Personnel Committee on a monthly basis.

RECOMMENDATION:

RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT AND THE MONTHLY INTEREST RATE SWAP SUMMARY FOR NOVEMBER 2007; APPROVE THE NOVEMBER 2007 SUMMARY OF WIRE TRANSFERS AND ACH PAYMENTS IN THE TOTAL AMOUNT OF \$5,586,114.34; AND APPROVE THE NOVEMBER 2007 WARRANTS NOS. 285228 THROUGH 286216, WORKERS' COMPENSATION DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$10,574,839.14.

LIST OF EXHIBITS:

Exhibit "A" - Investment Summary Report

Exhibit "B" - Monthly Interest Rate Swap Summary

Exhibit "C" - Monthly Summary of Wire and ACH Transfers

Exhibit "D" - Tabulation of Warrants

Exhibit "A"

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT

11/30/07

SETTLMT	MATURITY	RATING	INVESTMENT TYPE	INSTITUTION/ISSUER	PAR AMOUNT	COUPON	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE 11/30/2007	UNREALIZED GAIN/(LOSS)
09/19/07	12/15/07		LAIF	State of California Tsy.	\$40,000,000.00		5.000%	\$40,000,000.00	\$40,000,000.00	39,981,800.88	
11/19/07	12/19/07		LAIF- 2007 Bonds	State of California Tsy.	\$24,885,599.41		5.000%	\$24,885,599.41	\$24,885,599.41	24,874,277.01	
11/21/07	12/15/07		LAIF-JPA	State of California Tsy.	\$34,900,000.00		5.000%	\$34,900,000.00	\$34,900,000.00	34,884,121.27	
11/30/07	12/01/07		Columbia Tsy. Reserves Fund	Bank of America	\$1,603,407.56		2.890%	\$1,603,407.56	\$1,603,407.56	1,603,407.56	
07/29/07	12/07/07	Aaa	FHLMC-Disc. Note	Federal Home Loan Mtg. Corp.	10,000,000.00		5.270%	9,801,861.11	9,991,508.32	9,995,000.00	3,491.68
07/03/07	12/12/07	Aaa	FNMA - Disc. Note	Fed Natl Mortgage Assoc	10,000,000.00		5.260%	9,771,850.00	9,984,508.33	9,990,000.00	5,491.67
07/19/07	01/07/08	Aaa	FHLMC-Disc. Note	Federal Home Loan Mtg. Corp.	10,000,000.00		5.279%	9,757,288.89	9,947,788.87	9,959,000.00	11,211.13
07/19/07	01/09/08	Aaa	FNMA - Disc. Note	Fed Natl Mortgage Assoc	11,000,000.00		5.285%	10,720,600.00	10,939,463.34	10,951,600.00	12,136.66
07/19/07	01/09/08	Aaa	FNMA - Disc. Note	Fed Natl Mortgage Assoc	10,000,000.00		5.280%	9,754,466.67	9,944,966.65	9,956,000.00	11,033.35
07/19/07	01/14/08	Aaa	FHLMC-Disc. Note	Federal Home Loan Mtg. Corp.	10,000,000.00		5.295%	9,748,913.89	9,937,788.91	9,950,000.00	12,211.09
07/20/07	02/15/08	Aaa	FNMA - Note	Fed Natl Mortgage Assoc	12,000,000.00	5.750%	5.317%	12,028,200.00	12,010,205.71	12,030,000.00	19,794.29
08/15/07	02/15/08	Aaa	FNMA - Note	Fed Natl Mortgage Assoc	20,000,000.00	5.750%	5.212%	20,052,400.00	20,021,643.48	20,050,000.00	28,356.52
12/24/03	02/15/08	Aaa	US Treasury Note	US Treasury	200,000.00	3.000%	2.661%	202,642.00	200,132.53	199,890.00	(242.53)
09/12/07	03/12/08	Aaa	FHLB-Disc. Note	Fed Home Loan Bank	15,000,000.00		4.775%	14,651,166.67	14,804,500.01	14,826,000.00	21,499.99
11/14/07	05/14/08	Aaa	US Treasury Note	Fed Home Loan Bank	15,000,000.00		4.310%	14,685,291.67	14,714,687.50	14,719,500.00	4,812.50
12/25/03	05/15/08	Aaa	US Treasury Note	US Treasury	200,000.00	2.625%	2.778%	198,742.00	199,869.90	199,406.24	(463.66)
11/26/07	05/21/08	Aaa	FNMA - Disc. Note	Fed Natl Mortgage Assoc	10,000,000.00		4.328%	9,794,975.00	9,800,766.67	9,805,000.00	4,233.33
11/27/07	05/21/08	Aaa	FNMA - Disc. Note	Fed Natl Mortgage Assoc	10,000,000.00		4.274%	9,799,722.22	9,803,155.55	9,805,000.00	1,844.45
12/26/03	08/15/08	Aaa	US Treasury Note	US Treasury	200,000.00	3.250%	2.888%	203,122.00	200,474.67	199,954.00	(520.67)
12/27/03	09/15/08	Aaa	US Treasury Note	US Treasury	200,000.00	3.125%	2.918%	201,811.00	200,302.88	199,781.24	(521.64)
12/28/03	10/15/08	Aaa	US Treasury Note	US Treasury	200,000.00	3.125%	2.952%	201,539.00	200,279.26	199,812.50	(466.76)
12/29/03	11/15/08	Aaa	US Treasury Note	US Treasury	200,000.00	3.375%	2.989%	203,492.00	200,683.16	200,328.00	(355.16)
12/30/03	12/15/08	Aaa	US Treasury Note	US Treasury	200,000.00	3.375%	3.019%	203,265.00	200,682.10	200,578.00	(104.10)
02/15/01	12/15/08	Aaa	GNMA Note #28077IS	Gov. Natl. Mort. Assoc	150.99	9.00%		150.99	150.99	152.94	1.95
			IRWD - Petty Cash		\$245,789,157.96			\$243,368,507.08	\$244,692,565.80	\$244,780,609.64	\$133,444.10
			Bank Balance (unreconciled)	Bank of America						3,350.00	
										(470,693.95)	
										\$244,313,265.69	

(1) LAIF market value is as of the most recent quarter-end as reported by LAIF. Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing.	Outstanding Variable Rate Debt	\$398,400,000
(2) Gain (loss) calculated against carry value using the trading value provided by Bank of New York/Brokers	Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)	\$268,400,000
(3) Securities transferred to IRWD as a result of the 7/1/2006 consolidation with SCWD	Investment Balance:	\$244,313,266
	Investment to Variable Rate Debt Ratio:	91%
	Average Mo. To Mat.	1.85
	Monthly Rate of Return (Estimated)	5.05%
		5.19%
		November
		October

This Investment Summary Report is in conformity with the 2007 investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

IRVINE RANCH WATER DISTRICT
 SUMMARY OF MATURITIES

November 30, 2007

PORTFOLIO \$245,789,158

DATE	TOTAL	%	AGENCIES	TREASURYS	CD's	TREASURY RESERVE SWEEP	LAIF
12/07	\$121,389,007	49.39%	\$20,000,000			\$1,603,408	\$99,785,599
1/08	\$41,000,000	16.68%	\$41,000,000				
2/08	\$32,200,000	13.10%	\$32,000,000	\$200,000			
3/08	\$15,000,000	6.10%	\$15,000,000				
4/08							
5/08	\$35,200,000	14.32%	\$35,000,000	\$200,000			
6/08							
7/08							
8/08	\$200,000	0.08%		\$200,000			
9/08	\$200,000	0.08%		\$200,000			
10/08	\$200,000	0.08%		\$200,000			
11/08	\$200,000	0.08%		\$200,000			
SUB-TOTAL	\$245,589,007	99.92%	\$143,000,000	\$1,200,000		\$1,603,408	\$99,785,599
1-5 YEARS							
9/1/2008 -12/31/2008	\$200,151	0.08%	\$151	\$200,000			
1/1/2009 -12/31/2009							
1/1/2010 -12/31/2010							
1/1/2011 -12/31/2011							
TOTALS	\$245,789,158	100.00%	\$143,000,151	\$1,400,000		\$1,603,408	\$99,785,599

% OF PORTFOLIO 58.18% 0.57% 0.65% 40.60%

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Nov-07

MATURITIES/SALES

PURCHASES

DATE	SECURITY TYPE	PAR	YIELD	DATE	SECURITY TYPE	PAR	YIELD
11/06/07	FMC Disc. Note Due 11/06/07	\$10,000,000	5.29%				
11/14/07	FNMA Disc. Note Due 11/14/07	\$10,000,000	5.26%	11/14/07	FHLB Disc. Note Due 5/14/08	\$15,000,000	4.31%
11/15/07	US TREASURY NOTE 11/15/07	\$173,000	2.55%				
11/26/07	FMC Disc. Note Due 11/26/07	\$10,000,000	5.29%	11/26/07	FNMA Disc. Note Due 5/21/08	\$10,000,000	4.33%
11/28/07	FNMA Disc. Note Due 11/28/07	\$10,000,000	5.30%	11/28/07	FHLB Disc. Note Due 5/21/08	\$10,000,000	4.27%

LAI F ACTIVITY

11/06/07	LAI F - JPA	\$10,000,000
11/08/07	LAI F - JPA	(\$1,000,000)
11/13/07	LAI F - JPA	(\$1,000,000)
11/14/07	LAI F - JPA	(\$4,400,000)
11/15/07	LAI F - JPA	(\$800,000)
11/19/07	LAI F - JPA	(\$3,408,000)
11/21/07	LAI F - JPA	\$3,000,000
	Increase/(Decrease)	<u>\$2,392,000</u>



Exhibit "B"

IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT (BY TYPE)
11/30/2007

Prior Mo.	Current Mo.	12-Mo Avg
4.98%	4.77%	5.28%
3.57%	3.45%	3.65%

LIBOR avg %	5.28%
BMA avg %	3.65%

Current Fiscal Year Active Swaps				Cash Flow		(Since 3/04)		Market Value		Total Return			
Effective Date	Maturity Date	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mkt Value	Unrealized Gain/(Loss)	Net Gain/(Loss)

Fixed Receiver Swaps - By Effective Date													
3/10/2004	3/10/2009	CG	\$ 70,000,000	FXR	BMA	2.337%	\$ (75,998)	\$ (66,712)	\$ (385,347)	\$ (1,099,119)	\$ 69,464,804	\$ (535,196)	\$ (1,634,315)
3/10/2004	3/10/2009	ML	\$ 70,000,000	FXR	BMA	2.337%	\$ (75,998)	\$ (66,712)	\$ (385,347)	\$ (1,099,119)	\$ 69,466,342	\$ (533,658)	\$ (1,632,777)
Totals/Weighted Avgs							1.3	\$ 140,000,000	\$ (151,998)	\$ (770,694)	\$ (2,198,239)	\$ (1,068,854)	\$ (3,267,093)

Fixed Payer Swaps - By Effective Date														
6/4/2006	6/4/2019	CG	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (17,706)	\$ (20,789)	\$ (66,656)	\$ (244,908)	\$ 17,209,065	\$ (2,790,935)	\$ (3,035,843)	
6/4/2006	6/4/2019	ML	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (17,706)	\$ (20,789)	\$ (66,656)	\$ (244,908)	\$ 17,204,347	\$ (2,795,653)	\$ (3,040,561)	
6/17/2006	6/17/2019	CG	\$ 30,000,000	FXP	LIBOR	6.140%	\$ (18,910)	\$ (26,145)	\$ (80,798)	\$ (317,792)	\$ 25,959,424	\$ (4,040,576)	\$ (4,358,368)	
3/10/2007	3/10/2029	CG	\$ 30,000,000	FXP	LIBOR	5.687%	\$ (8,592)	\$ (17,103)	\$ (30,728)	\$ (60,243)	\$ 26,710,312	\$ (3,289,688)	\$ (3,349,931)	
3/10/2007	3/10/2029	ML	\$ 30,000,000	FXP	LIBOR	5.687%	\$ (8,592)	\$ (17,103)	\$ (30,728)	\$ (60,243)	\$ 26,724,473	\$ (3,275,527)	\$ (3,335,770)	
Totals/Weighted Avgs							16.0	\$ 130,000,000	\$ (71,506)	\$ (101,929)	\$ (275,666)	\$ (928,095)	\$ (16,192,379)	\$ (17,120,474)

Total Current Year Active Swaps	\$ 270,000,000	\$ (223,504)	\$ (235,353)	\$ (1,046,260)	\$ (3,126,334)	\$ 252,738,767	\$ (17,261,233)	\$ (20,387,567)
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Current Fiscal Year Terminated Swaps				Cash Flow		Market Value		Total Return					
Effective Date	Maturity Date	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Income	Current Mkt Value	Unrealized Gain/(Loss)	Net Gain/(Loss)

Total Current Year Terminated Swaps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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Current Fiscal Year - Total Swaps				Cash Flow		Market Value		Total Return					
Effective Date	Maturity Date	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Income	Current Mkt Value	Unrealized Gain/(Loss)	Net Gain/(Loss)

Total Current Year Active & Terminated Swaps	\$ (223,504)	\$ (235,353)	\$ (1,046,260)	\$ (3,126,334)	\$ 252,738,767	\$ (17,261,233)	\$ (20,387,567)
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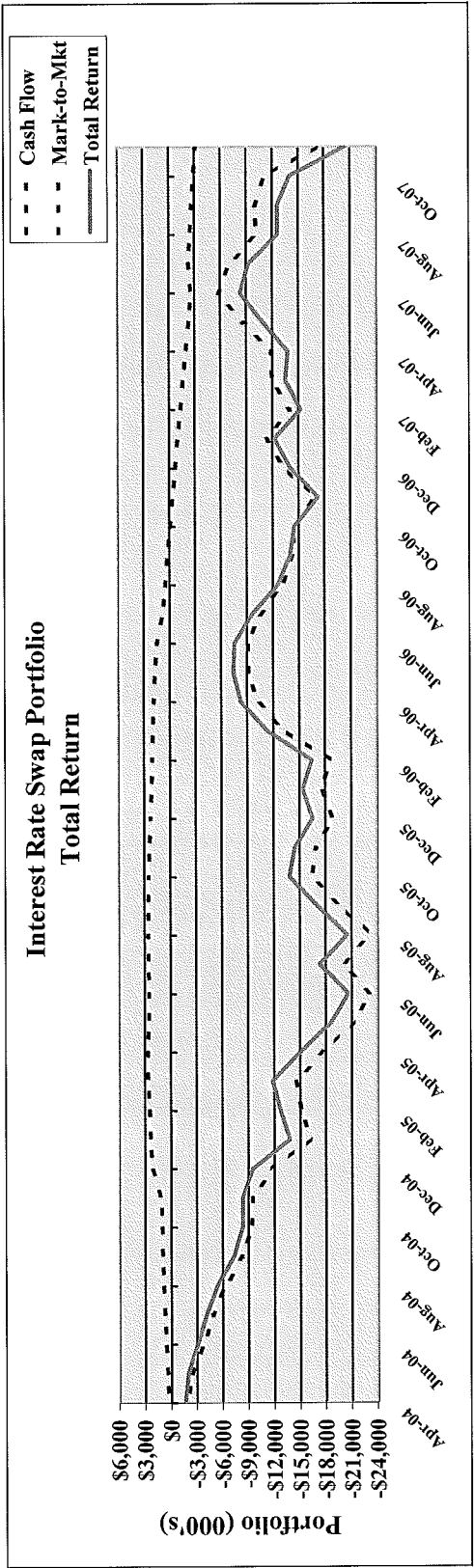


Exhibit "C"

MONTHLY SUMMARY OF WIRE TRANSFERS AND ACH PAYMENTS

**NOVEMBER
2007**

DATE	AMOUNT	VENDOR	PURPOSE
11/1/2007	\$46,675.22	DEUTSCHE	DEBT SERVICE
11/2/2007	\$40,836.67	WELLS FARGO	DEBT SERVICE
11/2/2007	\$68,055.55	DEUTSCHE	DEBT SERVICE
11/7/2007	\$98,752.60	HELABA	DEBT SERVICE
11/7/2007	\$77,661.37	STATE STREET	DEBT SERVICE
11/7/2007	\$118,248.49	BANK OF AMERICA	DEBT SERVICE
11/7/2007	\$71,122.35	LBBW	DEBT SERVICE
11/8/2007	\$46,675.22	DEUTSCHE	DEBT SERVICE
11/8/2007	\$145,586.42	BANK OF AMERICA	FEDERAL TAX LIABILITY
11/8/2007	\$42,309.58	BANK OF AMERICA	STATE TAX LIABILITY
11/8/2007	\$652,587.26	BANK OF AMERICA	PAYROLL 11/8/07
11/8/2007	\$34,913.55	OCFTCU	PAYROLL DEDUCTION
11/9/2007	\$79,073.54	GREAT WEST	DEFERRED COMP A/O 11/8/07
11/9/2007	\$67,083.33	DEUTSCHE	DEBT SERVICE
11/9/2007	\$38,844.67	WELLS FARGO	DEBT SERVICE
11/13/2007	\$107,853.37	LBBW	DEBT SERVICE
11/15/2007	\$46,339.22	DEUTSCHE	DEBT SERVICE
11/15/2007	\$950,320.67	MWDOC	WATER PURCHASE
11/15/2007	\$1,101,374.85	HELABA	DEBT SERVICE
11/15/2007	\$164,924.88	CalPERS	RETIREMENT
11/16/2007	\$39,660.67	WELLS FARGO	DEBT SERVICE
11/16/2007	\$67,083.33	DEUTSCHE	DEBT SERVICE
11/23/2007	\$41,988.67	WELLS FARGO	DEBT SERVICE
11/23/2007	\$124,302.88	DEUTSCHE	DEBT SERVICE
11/21/2007	\$151,494.70	BANK OF AMERICA	FEDERAL TAX LIABILITY
11/21/2007	\$42,231.51	BANK OF AMERICA	STATE TAX LIABILITY
11/21/2007	\$654,990.97	BANK OF AMERICA	PAYROLL 11/23/07
11/21/2007	\$34,913.55	OCFTCU	PAYROLL DEDUCTION
11/21/2007	\$7,855.76	NAT'L BOND & TRUST	SAVINGS BONDS
11/23/2007	\$88,823.31	GREAT WEST	DEFERRED COMP A/O 11/23/07
11/29/2007	\$44,683.32	DEUTSCHE	DEBT SERVICE
11/30/2007	\$46,092.67	WELLS FARGO	DEBT SERVICE
11/30/2007	\$74,861.11	DEUTSCHE	DEBT SERVICE
11/30/2007	\$167,893.08	CalPERS	RETIREMENT
	\$5,586,114.34		

Exhibit "D"

11/30/2007
14:17:30

IRVINE RANCH WATER DISTRICT

Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007Page 1
AP238R

Vendor Name	Issued	Voided	Check#	Check Amount
BROWN, RICHARD	11/01/07		285228 ✓	1,712.35
IRVINE, CITY OF	11/01/07		285229	4,000.00
ORANGE COUNTY FIRE AUTHORITY	11/01/07		285230	200.00
ORANGE COUNTY TAX COLLECTOR	11/01/07		285231	12,125.76
ORANGE COUNTY WATER DISTRICT	11/01/07		285232	61,548.00
AB CONTROLS LLC	11/01/07		285233	1,475.00
ACTION ELECTRIC CORP	11/01/07		285234	1,507.39
AIR TECHNOLOGY LABORATORIES	11/01/07		285235	780.00
AQUA-METRIC SALES COMPANY	11/01/07		285236	20,719.26
AQUACRAFT INC	11/01/07		285237	33,567.55
ARMORCAST PRODUCTS COMPANY	11/01/07		285238	4,003.94
AT&T	11/01/07		285239	564.98
AT&T	11/01/07		285240	15.66
AT&T	11/01/07		285241	1,143.30
AT&T CALIFORNIA	11/01/07		285242	457.79
AT&T INTERNET SERVICES	11/01/07		285243	299.00
AT&T/MCI	11/01/07		285244	8,464.08
AWWA RESEARCH FOUNDATION	11/01/07		285245	7,649.10
BATTERY SPECIALTIES	11/01/07		285246	537.89
BECK, CINDY	11/01/07		285247	173.00
BIOMAGIC LLC	11/01/07		285248	5,515.45
BONKOWSKI, TOM	11/01/07		285249	9.94
BRENTAG PACIFIC INC	11/01/07		285250	10,667.25
BTF PRECISE MICROBIOLOGY INC.	11/01/07		285251	490.00
BUSALD, LESTER	11/01/07		285252	89.97
BUSH & ASSOCIATES INC	11/01/07		285253	1,720.00
C WELLS PIPELINE MATERIALS INC	11/01/07		285254	6,598.61
CALIFORNIA BARRICADE	11/01/07		285255	3,518.75
CANON BUSINESS SOLUTIONS	11/01/07		285256	270.00
CDW GOVERNMENT INC	11/01/07		285257	205.65
CERTIFIED TRANSPORTATION	11/01/07		285258	496.24
CHAMPION FENCE COMPANY	11/01/07		285259	2,368.00
CHARLES CRON	11/01/07		285260	131.00
CHARNAW FOFI	11/01/07		285261	28.66
CHEM TECH INTERNATIONAL INC	11/01/07		285262	5,976.80
COAST PLUMBING HEATING	11/01/07		285263	100.00
COMMERCE ENERGY, INC.	11/01/07		285264	1,481.04
CONYBEARE INC	11/01/07		285265	956.40
CORTECH ENGINEERING INC	11/01/07		285266	6,503.37
COX COMMUNICATIONS	11/01/07		285267	50.81
CROWLEY CO, CHARLES P	11/01/07		285268	639.56
DAN'S MACHINE TOOL	11/01/07		285269	1,392.37
DATA CLEAN CORPORATION	11/01/07		285270	490.00
DATASITE INC	11/01/07		285271	17,393.00
DELPHIN COMPUTER SUPPLY	11/01/07		285272	900.79
DEPARTMENT OF JUSTICE	11/01/07		285273	150.00
DMC ENGINEERING	11/01/07		285274	2,800.00
DUDEK & ASSOCIATES INC	11/01/07		285275	814.44
DX SYSTEMS COMPANY	11/01/07		285276	10,208.00
EXPRESS AIR	11/01/07		285277	170.70
FARRELL & ASSOCIATES	11/01/07		285278	305.22
FEDERAL EXPRESS	11/01/07		285279	136.97
FERGUSON WATERWORKS	11/01/07		285280	898.64
FIKE, CHRISTOPHER	11/01/07		285281	7.00
FIRSTCORP	11/01/07		285282	631.42
FISHER SCIENTIFIC	11/01/07		285283	2,158.03
FORESTRY SUPPLIERS INC	11/01/07		285284	40.99

IRVINE RANCH WATER DISTRICT
Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007

Vendor Name	Issued	Voided	Check#	Check Amount
FULLER TRUCK ACCESSORIES	11/01/07		285285	4,843.51
GAMMA SOFTWARE, INC	11/01/07		285286	675.00
GANAHL LUMBER COMPANY	11/01/07		285287	2,241.71
GARCIA, ALEX	11/01/07		285288	116.35
GEOTIVITY INC	11/01/07		285289	550.00
GILL REPROGRAPHICS INC	11/01/07		285290	2,295.40
GINEST, LANCE	11/01/07		285291	80.00
GINGRAS, MARK	11/01/07		285292	38.00
GRAINGER	11/01/07		285293	5,271.18
GUIDA SURVEYING INC	11/01/07		285294	6,870.00
HACH COMPANY	11/01/07		285295	273.64
HACH COMPANY	11/01/07		285296	519.57
HALCYON ELECTRIC INCORPORATED	11/01/07		285297	644,639.58
HARBOR DIESEL AND EQUIPMENT	11/01/07		285298	605.00
HARMSWORTH ASSOCIATES	11/01/07		285299	3,787.88
HDR ENGINEERING INC	11/01/07		285300	378,860.07
HDR ENGINEERING, INC.	11/01/07		285301	37,856.96
HILL BROTHERS CHEMICAL CO	11/01/07		285302	6,427.47
HOME DEPOT	11/01/07		285303	637.97
HOWELL, MARTIN	11/01/07		285304	22.80
HSG, INC	11/01/07		285305	520.00
HUNSAKER & ASSOCIATES IRVINE	11/01/07		285306	336.00
IBM CORPORATION	11/01/07		285307	56,653.00
IDEXX LABORATORIES	11/01/07		285308	2,588.57
INDUSTRIAL DISTRIBUTION GROUP	11/01/07		285309	86.95
INDUSTRIAL METAL SUPPLY CO	11/01/07		285310	1,158.45
INMARK/VICTOR	11/01/07		285311	60.75
INWESCO INCORPORATED	11/01/07		285312	51.76
IREY, JANET	11/01/07		285313	30.33
IRVINE COMMUNITY DEVELOPMENT	11/01/07		285314	20,115.00
IRVINE COMMUNITY DEVELOPMENT	11/01/07		285315	84,096.45
IRVINE PIPE & SUPPLY	11/01/07		285316	16,926.94
IRWD-PETTY CASH CUSTODIAN	11/01/07		285317	940.60
JACKSON/DEMARCO/TIDUS/PECKENPA	11/01/07		285318	843.62
KENNY SCHOBER TRANSPORT INC	11/01/07		285319	375.00
KILL-N-BUGS TERMITE &	11/01/07		285320	200.00
KIMBALL MIDWEST	11/01/07		285321	439.25
KLEINFELDER INC	11/01/07		285322	1,297.50
LAW OFFICES OF JOHN R ALCORN	11/01/07		285323	3,500.00
LEONARD CHAIDEZ TREE SERVICE	11/01/07		285324	6,375.00
LONEROCK, INC.	11/01/07		285325	157,576.82
MALCOLM PIRNIE INC	11/01/07		285326	87,081.31
MALLOY, STEVE	11/01/07		285327	317.35
MARVIN GARDENS LLC	11/01/07		285328	112.49
MC MASTER CARR SUPPLY CO	11/01/07		285329	1,621.41
MCLAUGHLIN, KIRSTEN	11/01/07		285330	10.76
MERCHANTS LANDSCAPE SERVICE	11/01/07		285331	4,930.64
MORTON SAFETY COMPANY	11/01/07		285332	1,077.34
MOUSE GRAPHICS	11/01/07		285333	18,848.71
MUNICIPAL WATER DISTRICT/OC	11/01/07		285334	50.00
NATIONAL READY MIXED CONCRETE	11/01/07		285335	632.49
NELSON AND SONS POOLS	11/01/07		285336	2,139.80
NEWPORT WINDOW MAINTENANCE	11/01/07		285337	897.00
NINYO & MOORE	11/01/07		285338	6,800.50
NOREX, INC	11/01/07		285339	2,550.00
O'DONNELL DAN	11/01/07		285340	23.61
ONESOURCE DISTRIBUTORS INC	11/01/07		285341	1,348.77

IRVINE RANCH WATER DISTRICT
Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007

Vendor Name	Issued	Voided	Check#	Check Amount
ORANGE COUNTY SANITATION DIST	11/01/07		285342	1,570.00
ORANGE, COUNTY OF	11/01/07		285343	2,900.00
ORANGE, COUNTY OF	11/01/07	11/02/07	285344	13,776.00
ORANGE, COUNTY OF	11/01/07		285345	5,040.00
PACIFIC BUILDING CARE	11/01/07		285346	10,411.70
PACIFIC COAST BOLT CORP	11/01/07		285347	9,024.49
PARK, PHILIP	11/01/07		285348	95.51
PARKWAY LAWNMOWER SHOP	11/01/07		285349	1,898.77
PILLSBURY WINTHROP SHAW	11/01/07		285350	34.00
PIONEER AMERICAS LLC	11/01/07		285351	4,360.18
POLYDYNE INCORPORATED	11/01/07		285352	175.50
POPESCU, LUMINITA	11/01/07		285353	16.22
PRAXAIR DISTRIBUTION INC	11/01/07		285354	2,064.21
PROBOLSKY RESEARCH	11/01/07		285355	7,500.00
PROFESSIONAL FIRE PROTECTION	11/01/07		285356	432.50
PROJECT MANAGEMENT INSTITUTE	11/01/07		285357	154.00
PROTECTION ONE	11/01/07		285358	207.51
PRUDENTIAL OVERALL SUPPLY	11/01/07		285359	1,113.26
QUICKEL PAVING INC	11/01/07		285360	3,785.00
R.W. BECK	11/01/07		285361	1,294.00
RAINBOW NUT & BOLT INC	11/01/07		285362	10,150.05
RAM AIR ENGINEERING	11/01/07		285363	1,222.24
RICOH AMERICAS CORPORATION	11/01/07		285364	3,813.20
RICOH CUSTOMER FINANCE CORP	11/01/07		285365	3,086.19
RUTAN & TUCKER	11/01/07		285366	761.50
SANCHEZ FIONA	11/01/07		285367	34.28
SANTA ANA, CITY OF	11/01/07		285368	25,000.00
SANTA MARGARITA WATER DISTRICT	11/01/07		285369	17,087.21
SCHRECK, JEFF	11/01/07		285370	33.01
SECURTEC INC	11/01/07		285371	3,000.00
SIERRA SCIENTIFIC SERVICES	11/01/07		285372	16,055.00
SOLIS, HENRY	11/01/07		285373	171.00
SOUTH COAST WATER	11/01/07		285374	137.17
SOUTHERN CALIFORNIA WATER COMM	11/01/07		285375	250.00
SOUTHERN COUNTIES LUBRICANTS	11/01/07		285376	849.67
STANTEC CONSULTING INC	11/01/07		285377	15,729.50
STANTEC CONSULTING, INC	11/01/07		285378	4,500.00
STOEL RIVES LLP	11/01/07		285379	2,137.00
SUPELCO INC	11/01/07		285380	704.73
SUPER SMOG	11/01/07		285381	1,731.50
TEKDRAULICS	11/01/07		285382	1,900.00
TRANSCAT INC	11/01/07		285383	6.48
TRENCH SHORING CO	11/01/07		285384	26,748.94
TROPICAL PLAZA NURSERY INC	11/01/07		285385	21,534.14
TRUGREEN LANDCARE	11/01/07		285386	33,486.11
UNITED SITE SERVICES OF CA INC	11/01/07		285387	82.46
UNITED STATES POST OFFICE	11/01/07		285388	28,500.00
URS CORPORATION	11/01/07		285389	1,368.75
USA BLUEBOOK	11/01/07		285390	366.90
VARGAS, GABRIEL	11/01/07		285391	28.00
VERIZON CALIFORNIA	11/01/07		285392	80.06
VERIZON WIRELESS	11/01/07		285393	10,532.71
VORTEX CORP	11/01/07		285394	221.30
VORTEX INDUSTRIES INC	11/01/07		285395	295.60
VWR INTERNATIONAL INC	11/01/07		285396	2,668.89
WALSH, KEVIN	11/01/07		285397	256.13
WASTE MGMT OF ORANGE COUNTY	11/01/07		285398	1,512.84

IRVINE RANCH WATER DISTRICT
Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007

Vendor Name	Issued	Voided	Check#	Check Amount
WAVELENGTH AUTOMATION INC	11/01/07		285399	1,788.00
WAXIE SANITARY SUPPLY	11/01/07		285400	134.54
WECK LABORATORIES INC	11/01/07		285401	410.00
WEST COAST SAND & GRAVEL INC	11/01/07		285402	628.18
WESTSIDE BUILDING MATERIALS	11/01/07		285403	2,164.70
WORKFLOWONE	11/01/07		285404	1,719.65
DEAN, STEVEN	11/02/07		285405	2,078.75
APPLE STORE/ TIM KOENIG	11/08/07		285406	2,217.39
ATTORNEY GENERAL'S REGISTRY OF	11/08/07		285407	25.00
BOTTALICO ADMIRE	11/08/07		285408	25.54
BRISTOL NEWPORT MEDICAL PLAZA	11/08/07		285409	14.80
BRISTOL NEWPORT MEDICAL PLAZA	11/08/07		285410	14.80
BRISTOL NEWPORT MEDICAL PLAZA	11/08/07		285411	14.80
CALAHAN JIM	11/08/07		285412	21.26
CALIFORNIA PACIFIC HOMES	11/08/07		285413	21.15
CHUNG HYO W	11/08/07		285414	15.00
CLARKE MASONRY INC	11/08/07		285415	513.59
COLIN GINA	11/08/07		285416	16.22
CONSOLIDATED CONTRACTING SERVI	11/08/07		285417	516.33
CREW, INC.	11/08/07		285418	887.59
DEPARTMENT OF JUSTICE	11/08/07		285419	150.00
DIAZ RAY	11/08/07		285420	30.43
EMPRESSA LLC	11/08/07		285421	89.97
EMPRESSA LLC	11/08/07		285422	369.13
EMPRESSA LLC	11/08/07		285423	118.20
FRANCHISE TAX BOARD	11/08/07		285424	10.00
GENERAL MONITORS TRANSNATIONAL	11/08/07		285425	887.59
GENNETTE HEATHER	11/08/07		285426	28.83
GRAY I.C.E. BUILDERS	11/08/07	11/08/07	285427	878.95
GREAT WEST CONTRACTORS, INC.	11/08/07		285428	340.32
HANSLER KATHY	11/08/07		285429	25.73
HICKAM KEVIN	11/08/07		285430	14.23
HILL DONNA	11/08/07		285431	28.94
HILLENBRAND JESSICA	11/08/07		285432	73.77
HOMES RODEO	11/08/07		285433	30.15
HOMES RODEO	11/08/07		285434	13.73
ICE BUILDERS INC	11/08/07		285435	835.71
IKEMI KIYOSHI	11/08/07		285436	21.59
ITEK SERVICES INC	11/08/07		285437	68.41
JOHN G ALEVIZOS DO INC	11/08/07		285438	20.00
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285439	27,543.00
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285440	5,768.30
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285441	11,227.00
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285442	13,273.00
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285443	37,119.00
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285444	233.97
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285445	73,354.00
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285446	13,835.35
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285447	2,723.08
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285448	17,000.00
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285449	750.00
KELLY, RICHARD	11/08/07		285450	2,803.27
KEN THOMPSON, INC	11/08/07		285451	832.21
KING ROBERT	11/08/07		285452	65.59
KLEIN LUANNE	11/08/07		285453	14.69
KLORMAN CONSTRUCTION	11/08/07		285454	831.57
KYOCERA MITA AMERICA, INC.	11/08/07		285455	891.51

IRVINE RANCH WATER DISTRICT
Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007

Vendor Name	Issued	Voided	Check#	Check Amount
LAMBINE ANDRE	11/08/07		285456	15.00
LENNAR HOMES	11/08/07		285457	15.00
LENNAR HOMES	11/08/07		285458	15.00
LYLE PARKS JR., INC.	11/08/07		285459	42.78
MARINA LANDSCAPE INC	11/08/07		285460	4,975.40
MARTIN MIKE	11/08/07		285461	41.30
MASSIE CATHY	11/08/07		285462	26.07
MASTERFOODS USA,A MARS INC CO	11/08/07		285463	946.95
MASTO ADELLE	11/08/07		285464	26.02
NAIR ANIL	11/08/07		285465	25.08
NOWROOZI FRED	11/08/07		285466	31.14
ORR GAYLE A	11/08/07		285467	34.93
OWEN CLAUDIA	11/08/07		285468	18.56
OWR CONSTRUCTION, INC	11/08/07		285469	309.49
PARKWEST LANDSCAPE INC	11/08/07		285470	104.72
PATRICK TIM	11/08/07		285471	107.06
PRZESTALSKI ANDREW	11/08/07		285472	33.98
PUU MANDI	11/08/07		285473	21.15
PVI (AMERICA), INC.	11/08/07		285474	53.03
SANDOVAL NANCY	11/08/07		285475	26.15
SHOSHANA AYELET	11/08/07		285476	26.89
SICAT JOEL	11/08/07		285477	30.65
SKILLMAN VILETTA	11/08/07		285478	26.39
SMITH TIM B	11/08/07		285479	3.25
STANFORD COURT APTS	11/08/07		285480	41.98
STEWART KRISTINA	11/08/07		285481	112.50
SUFI NASIR	11/08/07		285482	34.29
SUITES IAC	11/08/07		285483	13.15
TAYLOR WOODROW HOMES	11/08/07		285484	59.19
TUINHOUT SUSAN	11/08/07		285485	20.37
UNITED STATES POST OFFICE	11/08/07		285486	200.00
WEINBERG DORITTE	11/08/07		285487	20.00
WILLIAM LYON HOMES	11/08/07		285488	20.09
WILLIAM LYON HOMES	11/08/07		285489	32.02
WILLIAM LYON HOMES	11/08/07		285490	11.55
WILLIAM LYON HOMES	11/08/07		285491	393.45
WILLIAM LYON HOMES	11/08/07		285492	115.06
WILLIAM LYON HOMES	11/08/07		285493	61.49
WILLIAM LYON HOMES	11/08/07		285494	43.52
WILMAN LAUREN	11/08/07		285495	29.93
WL BUTLER CONSTRUCTION, INC.	11/08/07		285496	827.07
WOODSIDE IRVINE HOA	11/08/07		285497	571.18
ABPA SOUTHERN CALIF CHAPTER	11/08/07		285498	75.00
ACTION ELECTRIC CORP	11/08/07		285499	800.73
ACWA SERVICES CORPORATION	11/08/07		285500	24,946.75
AIR TECHNOLOGY LABORATORIES	11/08/07		285501	780.00
AKIYOSHI, ERIC	11/08/07		285502	60.07
AMERICAN MESSAGING SERVICES	11/08/07		285503	369.30
AMERICAN PUBLIC WORKS ASSC	11/08/07		285504	161.25
AQUA BEN CORP	11/08/07		285505	29,723.92
AQUA-METRIC SALES COMPANY	11/08/07		285506	746.56
ASCE	11/08/07		285507	250.00
AT&T INTERNET SERVICES	11/08/07		285508	825.00
AT&T/MCI	11/08/07		285509	556.37
ATECH ENGINEERING & MFG CO.	11/08/07		285510	344.00
BALLARD, CARL	11/08/07		285511	518.00
BANK OF NEW YORK THE	11/08/07		285512	5,618.00

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BAY SECURITY & COMMUNICATIONS	11/08/07		285513	1,398.00
BC WIRE ROPE & RIGGING	11/08/07		285514	44.99
BEHRENS & ASSOCIATES	11/08/07		285515	5,107.57
BELL TOWER FLORIST	11/08/07		285516	280.79
BILL'S SWEEPING SERVICE INC	11/08/07		285517	700.00
BLUE SHIELD-CA LIFE/HLTH INS.	11/08/07		285518	4,189.82
BNY WESTERN TRUST COMPANY	11/08/07		285519	2,105.00
BOWIE, ARNESON, WILES &	11/08/07		285520	32,888.00
BROWN & CALDWELL	11/08/07		285521	10,011.13
BURTON KEVIN L	11/08/07		285522	60.63
BUSH & ASSOCIATES INC	11/08/07		285523	3,864.00
C WELLS PIPELINE MATERIALS INC	11/08/07		285524	171.32
CALIFORNIA BARRICADE	11/08/07		285525	1,567.50
CALIFORNIA UTILITY EQUIPMENT	11/08/07		285526	1,618.31
CDM CONSTRUCTORS, INC.	11/08/07		285527	164,340.00
CDW GOVERNMENT INC	11/08/07		285528	359.78
CERTIFIED TRANSPORTATION	11/08/07		285529	496.24
CHAMPION FENCE COMPANY	11/08/07		285530	225.00
CHEM TECH INTERNATIONAL INC	11/08/07		285531	14,289.50
CHERNEY, DEBORAH	11/08/07		285532	16.00
CLA-VAL COMPANY	11/08/07		285533	1,744.17
COASTLINE EQUIPMENT	11/08/07		285534	524.53
CONEYBEARE INC	11/08/07		285535	7,529.88
CONTROLLED KEY SYSTEMS INC	11/08/07		285536	1,149.58
COOPER, DOROTHY	11/08/07		285537	52.22
CORMACK, STEVE J	11/08/07		285538	597.22
COSTANTINO, JOE	11/08/07		285539	89.91
COUNTY OF ORANGE AUDITOR-CONTR	11/08/07		285540	99.00
CREDENTIAL CHECK CORPORATION	11/08/07		285541	106.00
D & G SIGNS	11/08/07		285542	1,045.18
DANBRU WIRE & CABLE INC	11/08/07		285543	19,288.44
DBE PSOMAS	11/08/07		285544	2,590.71
DBE PSOMAS	11/08/07		285545	6,123.95
DBE PSOMAS	11/08/07		285546	1,720.00
DELPHIN COMPUTER SUPPLY	11/08/07		285547	3,082.94
DIONEX CORPORATION	11/08/07		285548	2,053.15
DMC ENGINEERING	11/08/07		285549	1,800.00
DUDEK & ASSOCIATES INC	11/08/07		285550	11,262.04
DX SYSTEMS COMPANY	11/08/07		285551	9,254.19
EARTH RESOURCE FOUNDATION	11/08/07		285552	195.00
EARTH TECH, INC	11/08/07		285553	10,592.13
EISEL ENTERPRISES INC	11/08/07		285554	3,200.71
ENVIRONMENTAL RESOURCE	11/08/07		285555	122.49
EQUIPCO	11/08/07		285556	1,111.32
EXPRESS AIR	11/08/07		285557	227.35
FARRELL & ASSOCIATES	11/08/07		285558	1,180.94
FEDERAL EXPRESS	11/08/07		285559	292.72
FEDERAL EXPRESS	11/08/07		285560	62.32
FIRST CHOICE SERVICES	11/08/07		285561	277.99
FIRSTCORP	11/08/07		285562	631.42
FISHER SCIENTIFIC	11/08/07		285563	6,067.20
FLEET TALK MANAGEMENT SERVICES	11/08/07		285564	90.00
FLEETWOOD CONTINENTAL	11/08/07		285565	303.57
FRANK LA PLACA EXTERMINATING	11/08/07		285566	175.00
FROST, GARRICK	11/08/07		285567	28.72
GEORGE YARDLEY CO INC	11/08/07		285568	233.01
GILL REPROGRAPHICS INC	11/08/07		285569	2,792.90

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Vendor Name	Issued	Voided	Check#	Check Amount
GMU GEOTECHNICAL, INC	11/08/07		285570	16,576.49
GRAINGER	11/08/07		285571	1,072.52
GRIFFIN DEWATERING CORPORATION	11/08/07		285572	907.78
GROENIGER & CO	11/08/07		285573	15,383.35
HARDY & HARPER INC	11/08/07		285574	1,500.00
HAYDEN, DAVID	11/08/07		285575	8.00
HDR ENGINEERING INC	11/08/07		285576	3,899.20
HDR ENGINEERING, INC.	11/08/07		285577	474.12
HEALTH SCIENCE ASSOCIATES	11/08/07		285578	1,141.00
HILL BROTHERS CHEMICAL CO	11/08/07		285579	7,270.07
HOME DEPOT	11/08/07		285580	786.74
HSG, INC	11/08/07		285581	520.00
HUMANSIZE COMPANY	11/08/07		285582	1,606.37
IDEARC MEDIA CORP.	11/08/07		285583	61.75
IDEXX LABORATORIES	11/08/07		285584	7,591.62
INDUSTRIAL METAL SUPPLY CO	11/08/07		285585	335.71
INFOPRINT SOLUTIONS COMPANY	11/08/07		285586	1,598.42
IRVINE PIPE & SUPPLY	11/08/07		285587	3,435.36
IRWD-PETTY CASH CUSTODIAN	11/08/07		285588	902.19
JOBS AVAILABLE	11/08/07		285589	315.00
JOE RHODES MAINTENANCE INC	11/08/07		285590	231.45
JOHN G ALEVIZOS DO INC	11/08/07		285591	425.00
KERN CO TREASURER-TAX COLLECTO	11/08/07		285592	11,763.68
KILL-N-BUGS TERMITE &	11/08/07		285593	200.00
KNOX COMPANY	11/08/07		285594	543.79
KONECRANES INC	11/08/07		285595	580.00
LAB SAFETY SUPPLY INC	11/08/07		285596	113.99
MALCOLM PIRNIE INC	11/08/07		285597	7,590.00
MARSHALL MATT	11/08/07		285598	50.00
MASWADEH, GRETCHEN	11/08/07		285599	145.01
MBC APPLIED ENVIRONMENTAL	11/08/07		285600	1,000.00
MC MASTER CARR SUPPLY CO	11/08/07		285601	754.75
MCCROMETER INC	11/08/07		285602	604.63
MOODY'S INVESTORS SERVICE	11/08/07		285603	5,000.00
MORTON SAFETY COMPANY	11/08/07		285604	1,077.30
MWH LABORATORIES	11/08/07		285605	72.00
NATIONAL READY MIXED CONCRETE	11/08/07		285606	397.60
NEW PIG CORPORATION	11/08/07		285607	159.17
NEWPORT REAL ESTATE SERVICES	11/08/07		285608	5,500.00
NINYO & MOORE	11/08/07		285609	8,304.00
OFFICE DEPOT INC	11/08/07		285610	140.16
OLDEWAGE, LARS	11/08/07		285611	385.24
ONESOURCE DISTRIBUTORS INC	11/08/07		285612	950.06
ORANGE COUNTY BUSINESS JOURNAL	11/08/07		285613	69.00
ORANGE, COUNTY OF	11/08/07		285614	209.00
PARKHOUSE TIRES INC	11/08/07		285615	4,650.31
PASMA	11/08/07		285616	75.00
PAUL E BRADLEY INC	11/08/07		285617	4,387.50
PINNACLE TOWERS LLC	11/08/07		285618	467.94
PIONEER AMERICAS LLC	11/08/07		285619	3,127.42
POSEY, WAYNE	11/08/07		285620	158.51
PRAXAIR DISTRIBUTION INC	11/08/07		285621	1,155.25
PRUDENTIAL OVERALL SUPPLY	11/08/07		285622	1,150.48
RAIN FOR RENT	11/08/07		285623	672.00
RAINBOW DISPOSAL CO INC	11/08/07		285624	378.68
RAM AIR ENGINEERING	11/08/07		285625	470.00
REPRO IMAGE INTERNATIONAL	11/08/07		285626	130.38

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REYNOSO, PIO	11/08/07		285627	8.00
ROSCOE MOSS COMPANY	11/08/07		285628	2,963.67
SAF-R-DIG	11/08/07		285629	106,555.36
SANDERS PAVING INC	11/08/07		285630	25,201.00
SANTIAGO AQUEDUCT COMMISSION	11/08/07		285631	86,658.93
SCHOLTEN RICK	11/08/07		285632	81.24
SIERRA SCIENTIFIC SERVICES	11/08/07		285633	10,402.50
SOUTHERN CALIFORNIA EDISON	11/08/07		285634	59,137.59
SOUTHERN CALIFORNIA EDISON	11/08/07		285635	233,644.05
SOUTHERN CALIFORNIA GAS CO	11/08/07		285636	33.16
SPARKLETTTS	11/08/07		285637	153.33
SPECIALTY TECHNICAL PUBLISHERS	11/08/07		285638	522.00
SPECTRA COMPANY	11/08/07		285639	7,578.97
STANDARD AUTOMATION	11/08/07		285640	261,335.88
STANTEC CONSULTING, INC	11/08/07		285641	20,149.50
STEVEN ANDREWS ENGINEERING	11/08/07		285642	17,400.00
SUNNY HILLS CLEANERS INC.	11/08/07		285643	4,751.81
SUPER SMOG	11/08/07		285644	49.75
TALLEY COMMUNICATIONS	11/08/07		285645	287.68
TEKDRAULICS	11/08/07		285646	98,563.43
TESTAMERICA ANALYTICAL TESTING	11/08/07		285647	192.15
TETRA TECH ISG	11/08/07		285648	2,308.80
THYSSENKRUPP ELEVATOR	11/08/07		285649	375.16
TIBBS, SHAVONNE	11/08/07		285650	15.96
TROPICAL PLAZA NURSERY INC	11/08/07		285651	6,802.79
TRUGREEN LANDCARE	11/08/07		285652	881.52
U S EQUIPMENT CO INC	11/08/07		285653	1,973.02
U S RIGGING SUPPLY	11/08/07		285654	720.00
ULTRA SCIENTIFIC	11/08/07		285655	107.18
URISA	11/08/07		285656	150.00
US BANK TRUST	11/08/07		285657	2,750.00
USA MOBILITY WIRELESS INC	11/08/07		285658	62.57
VARIAN INC	11/08/07		285659	581.29
VERIZON CALIFORNIA	11/08/07		285660	245.71
VWR INTERNATIONAL INC	11/08/07		285661	1,250.48
WALTERS WHOLESALE ELECTRIC CO	11/08/07		285662	84.31
WATER ENVIRONMENT FEDERATION	11/08/07		285663	192.00
WAXIE SANITARY SUPPLY	11/08/07		285664	698.94
WECK LABORATORIES INC	11/08/07		285665	150.00
WIRELESS MOBILEDATA	11/08/07		285666	4,908.89
SUNNY HILLS RESTORATION	11/13/07		285667	23,180.36
ALL AMERICAN ASPHALT	11/15/07		285668	272.57
CHAVEZ TIM	11/15/07		285669	411.60
COLWICK HAROLD D	11/15/07		285670	99.05
CROWE, DAVID	11/15/07		285671	1,240.60
ENTERPRISE PROPERTY MANAGEMENT	11/15/07		285672	10.41
FARMER GLENN	11/15/07		285673	29.71
GRAY I.C.E. BUILDERS	11/15/07		285674	878.95
GUYMON NICHOLE	11/15/07		285675	44.24
KARTCH TERRY	11/15/07		285676	42.57
KEC	11/15/07		285677	660.56
KOJIMA MASAZUMI	11/15/07		285678	18.02
LAM THANH	11/15/07		285679	26.47
MCCARTHY	11/15/07		285680	773.95
NAKASAKI GAYLE	11/15/07		285681	22.26
NGUYEN LAN	11/15/07		285682	44.53
OPUS WEST CONSTRUCTION CORP	11/15/07		285683	532.47

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ORANGE COUNTY REGISTER	11/15/07		285684	561.55
ORANGE COUNTY SANITATION DIST	11/15/07		285685	1,570.00
ORANGE COUNTY SANITATION DIST	11/15/07		285686	750.00
ORANGE COUNTY SANITATION DIST	11/15/07		285687	750.00
PANNELL MICHELLE	11/15/07		285688	22.30
PANNELL MICHELLE	11/15/07		285689	22.30
PARKWEST LANDSCAPE	11/15/07		285690	121.78
PCL CONSTRUCTION SERVICES, INC	11/15/07		285691	481.20
PENHALL COMPANY	11/15/07		285692	687.60
ROMEY ROY	11/15/07		285693	21.85
SEASHORE CONSTRUCTION INC.	11/15/07		285694	737.93
SUNYOUNG INC	11/15/07		285695	12.93
SUVANKAR JANA	11/15/07		285696	114.16
VALLEYCREST COMPANIES	11/15/07		285697	732.32
VORCE JAMES	11/15/07		285698	12.60
WANG CHIO-MEI	11/15/07		285699	41.51
21 HIGHWATER, LLC	11/15/07		285700	792.48
ADVANCED INVERTER SERVICE INC	11/15/07		285701	385.00
AIR TECHNOLOGY LABORATORIES	11/15/07		285702	1,560.00
AIRGAS WEST	11/15/07		285703	439.65
AT&T	11/15/07		285704	543.78
AT&T CALIFORNIA	11/15/07		285705	1,959.75
AT&T/MCI	11/15/07		285706	469.31
BARCO PRODUCTS CO	11/15/07		285707	1,886.00
BC WIRE ROPE & RIGGING	11/15/07		285708	66.05
BDC SPECIAL WASTE SERVICES	11/15/07		285709	1,477.43
BIOMAGIC LLC	11/15/07		285710	1,575.84
BOYLE ENGINEERING CORPORATION	11/15/07		285711	3,465.00
BOYLE ENGINEERING CORPORATION	11/15/07		285712	2,422.12
BRENNTAG PACIFIC INC	11/15/07	11/16/07	285713	12,976.04
BRITHINEE ELECTRIC	11/15/07		285714	2,640.33
BUTIER ENGINEERING INC	11/15/07		285715	42,844.40
CALIFORNIA BARRICADE	11/15/07		285716	4,791.80
CARL WARREN & CO	11/15/07		285717	6,527.02
CDM CONSTRUCTORS, INC.	11/15/07		285718	102,240.00
CHAMPION FENCE COMPANY	11/15/07		285719	1,950.62
CHANDLER MICHAEL	11/15/07		285720	148.26
CHECKFREE SERVICES CORPORATION	11/15/07		285721	4,741.15
CHEM TECH INTERNATIONAL INC	11/15/07		285722	4,679.65
CJW CONSTRUCTION, INC.	11/15/07		285723	135,675.00
COAST PLUMBING HEATING	11/15/07		285724	70.00
COAST ROOF CO INC	11/15/07		285725	117,547.20
COLLAZO, CARLOS	11/15/07		285726	885.26
CONEYBEARE INC	11/15/07		285727	1,884.94
CONTROLLED KEY SYSTEMS INC	11/15/07		285728	364.04
COSTA MESA CITY OF	11/15/07		285729	735.00
CUMMINS CAL PACIFIC INC	11/15/07		285730	1,182.82
CUTTING EDGE SUPPLY	11/15/07		285731	6,953.69
D & G SIGNS	11/15/07		285732	1,579.28
DALEY & HEFT	11/15/07		285733	3,359.75
DE VAUL PAINT COMPANY	11/15/07		285734	163.89
DELL MARKETING L P	11/15/07		285735	1,444.46
DELPHIN COMPUTER SUPPLY	11/15/07		285736	863.45
DUGAN, JEFF	11/15/07		285737	117.00
DWYER INSTRUMENTS INC	11/15/07		285738	870.32
EAST ORANGE COUNTY WATER	11/15/07		285739	309.17
EDWARDS, MARIA	11/15/07		285740	26.84

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ENVIRONMENTAL ENGRG & CONT INC	11/15/07		285741	4,877.12
EQUIPCO	11/15/07		285742	843.56
EXPRESS AIR	11/15/07		285743	248.80
FEDERAL EXPRESS	11/15/07		285744	209.80
FISHER SCIENTIFIC	11/15/07		285745	701.69
FOUNTAIN VALLEY PAINTS INC	11/15/07		285746	107.75
G.A.NICOLL & ASSOCIATES,INC.	11/15/07		285747	200.00
GATEWAY PACIFIC CONTRACTORS	11/15/07		285748	38,887.83
GATEWAY PACIFIC CONTRACTORS	11/15/07		285749	3,577.34
GATEWAY PACIFIC CONTRACTORS	11/15/07		285750	573,579.87
GILL REPROGRAPHICS INC	11/15/07		285751	339.15
GRAINGER	11/15/07		285752	371.69
GRAY I.C.E. BUILDERS	11/15/07		285753	259.40
HACH COMPANY	11/15/07		285754	1,934.53
HANUMANATUDHI, MUTHU	11/15/07		285755	25.00
HARTFORD LIFE INSURANCE CO	11/15/07		285756	12,368.38
HD SUPPLY WATERWORKS	11/15/07		285757	899.71
HILL BROTHERS CHEMICAL CO	11/15/07		285758	510.00
HOME DEPOT	11/15/07		285759	691.47
I I FUELS	11/15/07		285760	24,203.95
INDUSTRIAL DISTRIBUTION GROUP	11/15/07		285761	2,275.29
INDUSTRIAL ELECTRIC MACHINERY	11/15/07		285762	1,671.81
IRVINE PIPE & SUPPLY	11/15/07		285763	104.83
JOHN CRANE INC	11/15/07		285764	528.91
KANOFF DEBBIE	11/15/07		285765	500.00
KILL-N-BUGS TERMITE &	11/15/07		285766	100.00
KIM, JEAN Y	11/15/07		285767	33.75
KIM, ROLLAN	11/15/07		285768	12.25
KNOBBE, MARTENS, OLSON & BEAR	11/15/07		285769	114.80
KOENIG, TIMOTHY	11/15/07		285770	50.00
LAB SAFETY SUPPLY INC	11/15/07		285771	149.19
LAGUNA BEACH COUNTY WATER	11/15/07		285772	2,614.13
LEADERS, KEN	11/15/07		285773	33.96
MARKET-THINK, LLC	11/15/07		285774	3,250.00
MC MASTER CARR SUPPLY CO	11/15/07		285775	2,094.15
MCWILLIAMS, PHIL	11/15/07		285776	40.79
MEYERHOFER, STACEY	11/15/07		285777	400.00
MILLER, DARRYL	11/15/07		285778	1,932.23
MISSION COMMUNICATIONS	11/15/07		285779	355.00
MOUSE GRAPHICS	11/15/07		285780	5,046.43
NATIONAL READY MIXED CONCRETE	11/15/07		285781	1,950.05
NEWPORT REAL ESTATE SERVICES	11/15/07		285782	7,500.00
NEWPORT REAL ESTATE SERVICES	11/15/07		285783	24,000.00
NMG GEOTECHNICAL INC	11/15/07		285784	13,897.50
OCEAN BLUE ENVIRONMENTAL	11/15/07		285785	3,262.61
ORANGE COUNTY LOCAL AGENCY	11/15/07		285786	2,630.00
ORANGE, COUNTY OF	11/15/07		285787	2,241.50
ORANGE, COUNTY OF	11/15/07		285788	13,776.00
OXYGEN SERVICE COMPANY	11/15/07		285789	1,054.57
PANDICH, KATHLEEN	11/15/07		285790	12.18
PFE INTERNATIONAL INC	11/15/07		285791	157.61
PHILCO CONSTRUCTION INC	11/15/07		285792	200,251.62
PRAXAIR DISTRIBUTION INC	11/15/07		285793	202.15
PRUDENTIAL OVERALL SUPPLY	11/15/07		285794	1,036.65
R&B AUTOMATION INC	11/15/07		285795	458.00
RAIN FOR RENT	11/15/07		285796	120.00
RAM AIR ENGINEERING	11/15/07		285797	2,157.50

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REACH	11/15/07		285798	798.20
REED, JAMES D	11/15/07		285799	1,906.02
REINHART DOUGLAS J	11/15/07		285800	369.32
RESENDEZ, RAY	11/15/07		285801	179.13
RJM DESIGN GROUP INC	11/15/07		285802	1,945.00
ROGALLA, WAYNE	11/15/07		285803	1,100.00
RUTAN & TUCKER	11/15/07		285804	6,133.26
SADDLEBACK MEMORIAL MEDICAL CT	11/15/07		285805	1,750.00
SANTA MARGARITA WATER DISTRICT	11/15/07		285806	102.90
SCHMID, CARL	11/15/07		285807	84.21
SCHULER ENGINEERING CORP	11/15/07		285808	386,128.80
SCHULER ENGINEERING CORP	11/15/07		285809	42,903.20
SEMA CONSTRUCTION INC	11/15/07		285810	76,378.54
SEMA CONSTRUCTION INC	11/15/07		285811	8,486.50
SHAMROCK SUPPLY CO	11/15/07		285812	1,125.44
SHIMADZU SCIENTIFIC INST	11/15/07		285813	927.00
SOTO, FRANK	11/15/07		285814	55.00
SOUTH COAST WATER	11/15/07		285815	40.00
SOUTHERN CALIF SEC CENTERS INC	11/15/07		285816	22.52
SOUTHERN CALIFORNIA EDISON	11/15/07		285817	37,325.37
SOUTHERN CALIFORNIA EDISON	11/15/07		285818	333,056.74
SOUTHERN CALIFORNIA GAS CO	11/15/07		285819	3,349.11
SOUTHERN CALIFORNIA WATER COMM	11/15/07		285820	90.00
SPARKLETTTS	11/15/07		285821	99.60
SPECTRA COMPANY	11/15/07		285822	4,370.00
SS MECHANICAL CORPORATION	11/15/07		285823	99,900.00
STANTEC CONSULTING INC	11/15/07		285824	6,428.00
STATE BOARD OF EQUALIZATION	11/15/07		285825	1,403.00
SULLY-MILLER CONTRACTING CO	11/15/07		285826	1,295.79
SUNNY HILLS RESTORATION	11/15/07		285827	10,217.57
TEKDRAULICS	11/15/07		285828	30,506.09
TESTAMERICA ANALYTICAL TESTING	11/15/07		285829	474.60
TETRA TECH ISG	11/15/07		285830	97,849.03
THOMAS, MARICELLE	11/15/07		285831	21.78
TRIPAC MARKETING INC	11/15/07		285832	3,631.18
TRUGREEN LANDCARE	11/15/07		285833	35,571.83
TUSTIN, CITY OF	11/15/07		285834	588.00
ULTRA SCIENTIFIC	11/15/07		285835	99.50
VA CONSULTING, INC	11/15/07		285836	89,211.02
VELOCITA WIRELESS	11/15/07		285837	795.14
VERTECH INDUSTRIAL SYSTEMS	11/15/07		285838	92,874.50
VIDO ARTUKOVICH & SONS INC	11/15/07		285839	239,338.16
VORTEX INDUSTRIES INC	11/15/07		285840	4,824.30
W.M. LYLES COMPANY	11/15/07		285841	586,926.45
W.M. LYLES COMPANY	11/15/07		285842	65,214.05
WALTERS WHOLESALE ELECTRIC CO	11/15/07		285843	277.86
WASTE MGMT OF ORANGE COUNTY	11/15/07		285844	1,515.67
WAXIE SANITARY SUPPLY	11/15/07		285845	2,114.61
WECK LABORATORIES INC	11/15/07		285846	865.00
WELLER, RONALD	11/15/07		285847	26.02
WESTERN HYDRO CORPORATION	11/15/07		285848	221.63
WHITE CAP INDUSTRIES INC	11/15/07		285849	143.68
WITHERS, JOHN	11/15/07		285850	49.47
WOOLARD, CHERYL	11/15/07		285851	71.49
KATIE OSUMI ENTERPRISES, INC	11/19/07		285852	27,543.00
KATIE OSUMI ENTERPRISES, INC	11/19/07		285853	5,768.30
KATIE OSUMI ENTERPRISES, INC	11/19/07		285854	11,227.00

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KATIE OSUMI ENTERPRISES, INC	11/19/07		285855	13,273.00
KATIE OSUMI ENTERPRISES, INC	11/19/07		285856	37,119.00
KATIE OSUMI ENTERPRISES, INC	11/19/07		285857	233.97
KATIE OSUMI ENTERPRISES, INC	11/19/07		285858	73,354.00
KATIE OSUMI ENTERPRISES, INC	11/19/07		285859	13,835.35
KATIE OSUMI ENTERPRISES, INC	11/19/07		285860	2,723.08
KATIE OSUMI ENTERPRISES, INC	11/19/07		285861	17,000.00
KATIE OSUMI ENTERPRISES, INC	11/19/07		285862	750.00
ARCIERO BROS. INC.	11/22/07		285863	647.04
ASRANI FAL	11/22/07		285864	226.92
BBRAUN MEDICAL INC	11/22/07		285865	67.03
BOWERS RICHARD	11/22/07		285866	10.58
CUESTA CONSTRUCTION CO	11/22/07		285867	700.00
DAVINO AL	11/22/07		285868	22.84
DOUG MARTIN CONTRACTINE CO.	11/22/07		285869	576.30
FLUOR ENTERPRISE INC	11/22/07		285870	136.81
IMPERIAL PAVING COMPANY, INC.	11/22/07		285871	983.94
ISMAIL MOHAMMAD	11/22/07		285872	28.00
JL MADISON CO	11/22/07		285873	694.60
LEGACY PARTNERS BUILDERS INC	11/22/07		285874	68.53
LENNAR HOMES	11/22/07		285875	31.84
LENNAR HOMES	11/22/07		285876	48.57
LENNAR HOMES	11/22/07		285877	15.05
LYLE PARKS JR. CONSTRUCTION	11/22/07		285878	864.41
LYLE PARKS JR., INC.	11/22/07		285879	871.31
MARINA LANDSCAPE, INC	11/22/07		285880	900.83
MCKAY KEITH	11/22/07		285881	31.29
MCNULTY STACEY	11/22/07		285882	26.07
NORTON DAVID	11/22/07		285883	39.63
PAZ AL ASAF	11/22/07		285884	239.26
PINNICK INC	11/22/07		285885	39.52
VELARDES, MATTIAS	11/22/07		285886	1,081.70
WR LAYNE	11/22/07		285887	1,126.02
YUN ERICA	11/22/07		285888	24.43
A&Y COMPANY, INC.	11/22/07		285889	124,858.36
AARP HEALTH CARE OPTIONS	11/22/07		285890	188.10
ACTION ELECTRIC CORP	11/22/07		285891	851.90
ACWA	11/22/07		285892	20,110.00
AFLAC	11/22/07		285893	2,227.60
AIRGAS WEST	11/22/07		285894	75.84
ALBERTS, DALE	11/22/07		285895	217.23
ALCORN FENCE COMPANY	11/22/07		285896	7,805.00
AMERICAN WATER WORKS ASSOC	11/22/07		285897	346.00
APCO GRAPHICS	11/22/07		285898	168.89
AQUA BEN CORP	11/22/07		285899	1,241.28
AQUA-METRIC SALES COMPANY	11/22/07		285900	1,446.69
AQUACRAFT INC	11/22/07		285901	48,572.08
AT&T CALIFORNIA	11/22/07		285902	4,897.12
ATHENS SERVICES	11/22/07		285903	754.00
BIOMAGIC LLC	11/22/07		285904	7,122.82
BLAZE CONE CO	11/22/07		285905	606.43
BORKMAN, CHARLES	11/22/07		285906	23.77
BOYLE ENGINEERING CORPORATION	11/22/07		285907	1,473.20
BREITER, JOE	11/22/07		285908	14.02
BRENNTAG PACIFIC INC	11/22/07		285909	12,976.04
BROWN & CALDWELL	11/22/07		285910	6,161.40
BUTIER ENGINEERING INC	11/22/07		285911	36,823.56

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C WELLS PIPELINE MATERIALS INC	11/22/07		285912	14,374.82
CAL WATER	11/22/07		285913	76.00
CALIFORNIA BARRICADE	11/22/07		285914	715.00
CHARLES CRON	11/22/07		285915	131.00
CHEM TECH INTERNATIONAL INC	11/22/07		285916	12,074.65
CHO DESIGN ASSOCIATES INC	11/22/07		285917	900.00
CH2M HILL INC	11/22/07		285918	21,595.18
CIT TECHNOLOGY FINANCING SVC	11/22/07		285919	4,685.21
CLA-VAL COMPANY	11/22/07		285920	5,678.76
COLONIAL LIFE & ACCIDENT INS	11/22/07		285921	2,336.14
COMMERCE ENERGY, INC.	11/22/07		285922	398.74
COMPUTERGRAFIX	11/22/07		285923	1,875.00
CONEYBEARE INC	11/22/07		285924	712.80
CONTROLLED KEY SYSTEMS INC	11/22/07		285925	359.36
CORRAL ED	11/22/07		285926	50.00
CRAWFORD, JOHN P	11/22/07		285927	140.02
D & G SIGNS	11/22/07		285928	118.53
DANBRU WIRE & CABLE INC	11/22/07		285929	206.09
DE VAUL PAINT COMPANY	11/22/07		285930	2,364.68
DEPARTMENT OF CONSUMER AFFAIRS	11/22/07		285931	125.00
DESIGNWORX	11/22/07		285932	101,406.66
DEUTSCHE BANK TRUST CO AMERIC	11/22/07		285933	2,500.00
DMC ENGINEERING	11/22/07		285934	975.00
DUDEK & ASSOCIATES INC	11/22/07		285935	480.00
DUDEK & ASSOCIATES INC	11/22/07		285936	562.50
DX SYSTEMS COMPANY	11/22/07		285937	10,527.00
ERWIN, KEN	11/22/07		285938	21.14
ETAC	11/22/07		285939	1,200.00
EVERGREEN OIL INC	11/22/07		285940	45.00
EVERSOFT	11/22/07		285941	56.65
EXPRESS AIR	11/22/07		285942	238.05
FIERRO, SERGIO	11/22/07		285943	3,567.00
FIRST CHOICE SERVICES	11/22/07		285944	1,213.78
FISHER SCIENTIFIC	11/22/07		285945	3,121.12
FLEET TALK MANAGEMENT SERVICES	11/22/07		285946	90.00
GE BETZ INC	11/22/07		285947	15,921.41
GEOSYNTEC CONSULTANTS	11/22/07		285948	38,193.01
GEOTIVITY INC	11/22/07		285949	550.00
GILL REPROGRAPHICS INC	11/22/07		285950	127.66
GRAINGER	11/22/07		285951	1,647.32
GRAPHIC CONTROLS CORP	11/22/07		285952	542.30
GRAYBAR	11/22/07		285953	1,597.30
HARDY & HARPER INC	11/22/07		285954	31,630.00
HARTFORD LIFE AND ACCIDENT	11/22/07		285955	228.76
HAVARD COURT APTS	11/22/07		285956	41.48
HDR ENGINEERING INC	11/22/07		285957	487,280.80
HDR ENGINEERING, INC.	11/22/07		285958	28,282.73
HILL BROTHERS CHEMICAL CO	11/22/07		285959	7,427.62
HOME DEPOT	11/22/07		285960	475.60
HOOLIHAN, MICHAEL	11/22/07		285961	273.41
HUMANA INSURANCE CO	11/22/07		285962	78.10
I I FUELS	11/22/07		285963	25,283.09
IBM CORPORATION	11/22/07		285964	558.55
IMPAC GOVERNMENT SERVICES	11/22/07		285965	56,498.08
IMPRINT ENTERPRISES	11/22/07		285966	238.50
INCUIITY DATA SOLUTIONS, INC	11/22/07		285967	7,971.83
INDUSTRIAL ELECTRIC MACHINERY	11/22/07		285968	37,649.50

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INDUSTRIAL METAL SUPPLY CO	11/22/07		285969	272.81
IRON MOUNTAIN	11/22/07		285970	2,499.00
IRVINE PIPE & SUPPLY	11/22/07		285971	1,025.01
ISENBERG/O'HAREN	11/22/07		285972	6,748.78
ITT FLYGT CORP	11/22/07		285973	5,733.61
JOHN G ALEVIZOS DO INC	11/22/07		285974	2,420.00
JWC ENVIRONMENTAL	11/22/07		285975	866.99
KEY EQUIPMENT FINANCE	11/22/07		285976	3,972.93
KILL-N-BUGS TERMITES &	11/22/07		285977	200.00
KIMBALL MIDWEST	11/22/07		285978	1,026.22
KONECRANES INC	11/22/07		285979	1,750.00
LAYNE CHRISTENSEN CO	11/22/07		285980	9,500.00
LAYNE CHRISTENSEN CO	11/22/07		285981	9,320.00
LEAL, ELIBERTO	11/22/07		285982	48.00
MACIAS ELIZABETH	11/22/07		285983	21.52
MARK BALAN & ASSOCIATES	11/22/07		285984	17,130.00
MARTINEZ, JOSE III	11/22/07		285985	485.65
MARVIN GARDENS LLC	11/22/07		285986	2,508.70
MBC APPLIED ENVIRONMENTAL	11/22/07		285987	11,370.22
MERCHANTS LANDSCAPE SERVICE	11/22/07		285988	5,880.00
MORALES, JACK	11/22/07		285989	14.02
MOUSE GRAPHICS	11/22/07		285990	121.05
MUTUAL PROPANE	11/22/07		285991	750.00
NATIONAL READY MIXED CONCRETE	11/22/07		285992	470.47
NEAL, JUDITH	11/22/07		285993	56.21
NINYO & MOORE	11/22/07		285994	4,963.75
OCB REPROGRAPHICS	11/22/07		285995	644.96
OCE	11/22/07		285996	5,306.97
OCE	11/22/07		285997	10,027.22
ONESOURCE DISTRIBUTORS INC	11/22/07		285998	2,918.71
ORANGE, COUNTY OF	11/22/07		285999	70.00
PACIFIC BUILDING CARE	11/22/07		286000	10,411.70
PACIFIC COAST TOOL AND SUPPLY	11/22/07		286001	171.60
PARMA	11/22/07		286002	100.00
PAUL E BRADLEY INC	11/22/07		286003	4,117.50
PAULUS ENGINEERING INC	11/22/07		286004	8,879.47
PHILCO CONSTRUCTION INC	11/22/07		286005	31,320.00
PIONEER AMERICAS LLC	11/22/07		286006	1,563.71
POSTINI CORPORATION	11/22/07		286007	823.08
POWER PLUS	11/22/07		286008	18,230.00
PRAXAIR DISTRIBUTION INC	11/22/07		286009	251.47
PRE-PAID LEGAL SERVICES INC	11/22/07		286010	1,165.74
PRUDENTIAL OVERALL SUPPLY	11/22/07		286011	1,145.58
R&B AUTOMATION INC	11/22/07		286012	5,713.60
RAM AIR ENGINEERING	11/22/07		286013	2,179.01
RESOURCE LANDOWNERS COALITION	11/22/07		286014	10,000.00
RESPONSE ENVELOPE	11/22/07		286015	1,605.48
RICK GOACHER/PLANNING INC.	11/22/07		286016	290.50
RICOH AMERICAS CORPORATION	11/22/07		286017	95.20
SCHINDLER ELEVATOR CORPORATION	11/22/07		286018	160.73
SHANAFELT SHANE	11/22/07		286019	113.13
SIMI VALLEY LANDFILL	11/22/07		286020	837.45
SOUTH COAST AIR QUALITY MGMNT	11/22/07		286021	5,516.78
SOUTH COAST WATER	11/22/07		286022	137.17
SOUTHERN CALIFORNIA EDISON	11/22/07		286023	12,942.06
SOUTHERN CALIFORNIA GAS CO	11/22/07		286024	3,476.58
SP CONSULTING GROUP THE	11/22/07		286025	10,211.87

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SPANGENBERG, CARL	11/22/07		286026	87.54
STANDARD & POOR'S	11/22/07		286027	7,000.00
STANTEC CONSULTING INC	11/22/07		286028	16,156.50
STEVEN ANDREWS ENGINEERING	11/22/07		286029	3,280.00
SUNNY HILLS RESTORATION	11/22/07		286030	4,324.36
TALLEY COMMUNICATIONS	11/22/07		286031	753.08
TECHNOLOGY MANAGEMENT CORP	11/22/07		286032	4,509.81
TESTAMERICA ANALYTICAL TESTING	11/22/07		286033	666.75
TETRA TECH ISG	11/22/07		286034	67,689.12
TETTEMER, MARK	11/22/07		286035	16.00
THE PRINTERY INC	11/22/07		286036	5,196.64
TOBIN, ANN	11/22/07		286037	87.54
TRENCH SHORING CO	11/22/07		286038	158.39
TROPICAL PLAZA NURSERY INC	11/22/07		286039	1,101.00
TRUGREEN LANDCARE	11/22/07		286040	34,064.31
TRUN, THU BACH	11/22/07		286041	40.61
UNDERGROUND SERVICE ALERT OF	11/22/07		286042	636.80
UNITED PARCEL SERVICE	11/22/07		286043	116.39
URS CORPORATION	11/22/07		286044	2,268.10
VARGAS, GABRIEL	11/22/07		286045	51.71
VELARDES, MATTIAS	11/22/07		286046	238.62
VENTURE COMPLIANCE SVCS, LLC	11/22/07		286047	2,600.00
VERIZON CALIFORNIA	11/22/07		286048	201.94
WECK LABORATORIES INC	11/22/07		286049	530.00
WEF	11/22/07		286050	192.00
WELCH, KELLIE	11/22/07		286051	164.01
WESTERN EXTERMINATOR COMPANY	11/22/07		286052	4,466.00
WORKFLOWONE	11/22/07		286053	2,074.85
ZEE MEDICAL SERVICE CO	11/22/07		286054	118.46
ORANGE COUNTY LOCAL AGENCY	11/26/07		286055	4,600.00
AGI INDUSTRIES	11/29/07		286056	57.38
CALIFORNIA PACIFIC HOMES	11/29/07		286057	15.00
CHANIN AMI	11/29/07		286058	20.98
DAY BRIAN	11/29/07		286059	29.67
GALLEGOS, RICHARD	11/29/07		286060	1,461.42
JOHN G ALEVIZOS DO INC	11/29/07		286061	90.00
KNUDSON CRAIG	11/29/07		286062	25.36
MIRKAMALY MEHRY	11/29/07		286063	46.97
NELSON FRED	11/29/07		286064	27.00
ORANGE COUNTY SANITATION DIST	11/29/07		286065	1,570.00
PARK WEST LANDSCAPE, INC.	11/29/07		286066	921.22
PHILCO. CONSTRUCTION CO	11/29/07		286067	312.67
POST COMPANY	11/29/07		286068	939.47
POST COMPANY	11/29/07		286069	939.47
REDHILL/MCGAW OWNERS ASSOC	11/29/07		286070	8,040.82
SOUTHERN CALIFORNIA GRADING	11/29/07		286071	875.26
STICE COMPANY, INC.	11/29/07		286072	872.13
STICE COMPANY, INC.	11/29/07		286073	833.49
TAYLOR DARREN	11/29/07		286074	696.82
WILLIAM LYON HOMES	11/29/07		286075	18.05
AIRGAS WEST	11/29/07		286076	261.08
ALLEN OLDSMOBILE CADILLAC INC	11/29/07		286077	1,899.42
AQUA BEN CORP	11/29/07		286078	620.64
ARMORCAST PRODUCTS COMPANY	11/29/07		286079	11,561.58
AT&T	11/29/07		286080	15.68
AT&T CALIFORNIA	11/29/07		286081	24.93
AT&T INTERNET SERVICES	11/29/07		286082	1,124.00

IRVINE RANCH WATER DISTRICT
Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007

Vendor Name	Issued	Voided	Check#	Check Amount
AT&T LONG DISTANCE	11/29/07		286083	241.64
AT&T/MCI	11/29/07		286084	8,321.03
BATTERY SYSTEMS	11/29/07		286085	810.09
BLOOMBERG FINANCE L.P.	11/29/07		286086	10,485.00
BONKOWSKI, LESLIE	11/29/07		286087	326.56
BONKOWSKI, TOM	11/29/07		286088	63.24
BOWIE, ARNESON, WILES &	11/29/07		286089	26,602.67
BUTIER ENGINEERING INC	11/29/07		286090	15,225.00
C WELLS PIPELINE MATERIALS INC	11/29/07		286091	6,456.38
CA CLIMATE ACTION REGISTRY	11/29/07		286092	850.00
CA-NV SECTION AWWA	11/29/07		286093	45.00
CALIFORNIA BARRICADE	11/29/07		286094	2,552.50
CALIFORNIA MUNICIPAL TREASURER	11/29/07		286095	140.00
CALIFORNIA UTILITY EQUIPMENT	11/29/07		286096	2,805.77
CHAMBERS GROUP INC	11/29/07		286097	5,300.19
CHEM TECH INTERNATIONAL INC	11/29/07		286098	4,861.30
CH2M HILL INC	11/29/07		286099	13,361.46
CITY OF NEWPORT BEACH	11/29/07		286100	45.00
COAST PLUMBING HEATING	11/29/07		286101	60.00
CONEYBEARE INC	11/29/07		286102	4,352.78
COUNTY CIRCUIT BREAKER	11/29/07		286103	161.63
COX COMMUNICATIONS	11/29/07		286104	163.09
DELPHIN COMPUTER SUPPLY	11/29/07		286105	4,577.22
DISCOVERY SCIENCE CENTER	11/29/07		286106	2,400.00
DME INC	11/29/07		286107	4,058.20
DWYER INSTRUMENTS INC	11/29/07		286108	1,059.00
EBERHARD, KEN & SANDRA	11/29/07		286109	952.65
EMEDCO	11/29/07		286110	1,231.81
EXPRESS AIR	11/29/07		286111	114.90
FEDERAL EXPRESS	11/29/07		286112	212.11
FERGUSON WATERWORKS	11/29/07		286113	808.13
FISHER SCIENTIFIC	11/29/07		286114	114.77
FLUID CONSERVATION SYSTEMS	11/29/07		286115	366.96
FOURNIER, TANJA	11/29/07		286116	59.56
FRED PRYOR SEMINARS	11/29/07	11/29/07	286117	179.00
GARCIA, ALEX	11/29/07		286118	1,671.45
GEORGE T HALL CO INC	11/29/07		286119	556.33
GEOSYNTEC CONSULTANTS	11/29/07		286120	4,500.00
GRAINGER	11/29/07		286121	1,327.32
GRAPHIC CONTROLS CORP	11/29/07		286122	107.37
GRAYBAR	11/29/07		286123	1,331.67
HARPER & ASSOC ENGR INC	11/29/07		286124	1,858.75
HASLER INC	11/29/07		286125	290.93
HDR ENGINEERING, INC.	11/29/07		286126	278.33
HEIERTZ, GREGORY	11/29/07		286127	65.00
HENRY MIEDEMA & ASSOCIATES	11/29/07		286128	4,949.25
HERZOG, JEFF	11/29/07		286129	59.62
HILL BROTHERS CHEMICAL CO	11/29/07		286130	978.50
HOME DEPOT	11/29/07		286131	252.27
HR/LABOR SOLUTIONS INC	11/29/07		286132	8,072.20
HSG, INC	11/29/07		286133	520.00
IDENTICARD SYSTEMS WORLDWIDE,	11/29/07		286134	364.45
INDUSTRIAL DISTRIBUTION GROUP	11/29/07		286135	20.24
INDUSTRIAL METAL SUPPLY CO	11/29/07		286136	688.95
INDUSTRIAL NETWORKING SOLUTION	11/29/07		286137	28,004.72
INFOPRINT SOLUTIONS COMPANY	11/29/07		286138	726.76
IRVINE COMMUNITY DEVELOPMENT	11/29/07		286139	4,933.50

IRVINE RANCH WATER DISTRICT
Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007

Vendor Name	Issued	Voided	Check#	Check Amount
IRVINE COMMUNITY DEVELOPMENT	11/29/07		286140	251,207.77
IRVINE PIPE & SUPPLY	11/29/07		286141	1,386.14
IRVINE UNIFIED SCHOOL DISTRICT	11/29/07		286142	18.66
IRWD-PETTY CASH CUSTODIAN	11/29/07		286143	1,498.43
JACKSON GINA	11/29/07		286144	25.08
JOHANNESSEN JOHNNIE	11/29/07		286145	105.00
JOHN G ALEVIZOS DO INC	11/29/07		286146	674.88
KAZARIANS & ASSOCIATES	11/29/07		286147	4,967.50
KENNEDY, JOHN	11/29/07		286148	90.00
KINNER, CHRISTOPHER	11/29/07		286149	862.35
KLEINFELDER INC	11/29/07		286150	2,564.00
LAB SAFETY SUPPLY INC	11/29/07		286151	331.49
LSA ASSOCIATES INC	11/29/07		286152	2,367.34
MATHEIS, MARY AILEEN	11/29/07		286153	556.03
MCCROMETER INC	11/29/07		286154	259.09
MCR TECHNOLOGIES INC	11/29/07		286155	907.60
MERCHANTS LANDSCAPE SERVICE	11/29/07		286156	4,130.64
MRC TECHNOLOGIES INC	11/29/07		286157	19,505.04
MUNOZ, ALEX	11/29/07		286158	548.55
NATIONAL READY MIXED CONCRETE	11/29/07		286159	904.02
NINYO & MOORE	11/29/07		286160	1,584.50
NMG GEOTECHNICAL INC	11/29/07		286161	6,965.40
OFFICE DEPOT INC	11/29/07		286162	1,294.72
OLSON HAGEL & FISHBURN LLP	11/29/07		286163	296.00
ORANGE COUNTY HOSE CO	11/29/07		286164	2,765.81
ORANGE, COUNTY OF	11/29/07		286165	787.50
ORANGE, COUNTY OF	11/29/07		286166	14.82
PACIFIC COAST BOLT CORP	11/29/07		286167	806.66
PARKWEST LANDSCAPE INC.	11/29/07		286168	1,032.28
PASCAL & LUDWIG CONSTRUCTORS	11/29/07		286169	653,584.61
PASCAL & LUDWIG CONSTRUCTORS	11/29/07		286170	72,620.51
PAUL E BRADLEY INC	11/29/07		286171	3,735.00
PAULUS ENGINEERING INC	11/29/07		286172	26,257.86
PR DIAMOND PRODUCTS INC	11/29/07		286173	1,195.00
PRAXAIR DISTRIBUTION INC	11/29/07		286174	762.27
PROBOLSKY RESEARCH	11/29/07		286175	7,500.00
PROCESS PUMP SALES INC	11/29/07		286176	1,226.34
PRUDENTIAL OVERALL SUPPLY	11/29/07		286177	1,302.41
PUMPING SOLUTIONS INC	11/29/07		286178	2,808.40
R.W. BECK	11/29/07		286179	8,465.00
RALPHS GROCERY COMPANY	11/29/07		286180	14,820.00
RAM AIR ENGINEERING	11/29/07		286181	1,309.18
REALTY AMERILAND	11/29/07		286182	25.00
RESPONSE ENVELOPE	11/29/07		286183	749.54
RICOH CUSTOMER FINANCE CORP	11/29/07		286184	2,431.49
RINGCLEAR	11/29/07		286185	70.60
SADDLEBACK MEMORIAL MEDICAL CT	11/29/07		286186	1,725.00
SANCHEZ FIONA	11/29/07		286187	38.00
SANTA ANA CITY OF	11/29/07		286188	48.37
SAVEDRA, NANCY	11/29/07		286189	64.02
SECURTEC INC	11/29/07		286190	3,000.00
SHADOWHAWK, INC	11/29/07		286191	111.30
SOIL & PLANT LABORATORY INC	11/29/07		286192	237.50
SOUTH COAST ANSWERING SERVICE	11/29/07		286193	477.32
SOUTHERN CALIF SEC CENTERS INC	11/29/07		286194	168.20
SOUTHERN CALIFORNIA EDISON	11/29/07		286195	47,732.29
SOUTHERN CALIFORNIA EDISON CO	11/29/07		286196	715.50

IRVINE RANCH WATER DISTRICT
Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007

Vendor Name	Issued	Voided	Check#	Check Amount
SOUTHERN CALIFORNIA EDISON CO	11/29/07		286197	2,071.48
SOUTHERN CALIFORNIA GAS CO	11/29/07		286198	51.51
STANTEC CONSULTING, INC	11/29/07		286199	2,715.59
STATE WATER RESOURCES CONTROL	11/29/07		286200	4,302.00
STRAWBERRY FARMS GOLF CLUB	11/29/07		286201	100.00
SWAN, PEER A	11/29/07		286202	1,177.13
SYCAMORE CANYON APARTMENTS	11/29/07		286203	65.66
TESTAMERICA ANALYTICAL TESTING	11/29/07		286204	157.50
TETRA TECH ISG	11/29/07		286205	30,798.99
TROPICAL PLAZA NURSERY INC	11/29/07		286206	484.43
TRUGREEN LANDCARE	11/29/07		286207	66,452.88
UNITED SITE SERVICE OF CA INC	11/29/07		286208	334.68
VA CONSULTING, INC	11/29/07		286209	47,005.07
VERIZON CALIFORNIA	11/29/07		286210	262.92
VERIZON WIRELESS	11/29/07		286211	11,410.63
WELLS SUPPLY CO	11/29/07		286212	1,310.24
WELLS, JANET	11/29/07		286213	321.63
WEST COAST SAND & GRAVEL INC	11/29/07		286214	1,210.14
ZEE MEDICAL SERVICE CO	11/29/07		286215	694.71
SYCAMORE CANYON APARTMENTS	11/29/07		286216	3,940.00
A/P Check Total				10,993,067.27
SCRMA(WORKERS COMPENSATION)	11/27/07		9110507	2,860.24
SCRMA(WORKERS COMPENSATION)	11/27/07		9111207	5,565.21
SCRMA(WORKERS COMPENSATION)	11/28/07		9111907	6,658.39
SCRMA(WORKERS COMPENSATION)	11/27/07		9112607	3,069.35
Workers Compensation Total				18,153.19
COSTA MESA CITY OF	3/01/07	11/19/07	278363	245.00-
BANK OF AMERICA	4/19/07	11/19/07	279707	1,412.50-
ASRANI FAL	6/28/07	11/20/07	281693	226.92-
FRED PRYOR SEMINARS	10/04/07	11/27/07	284507	179.00-
LEAL, ELIBERTO	10/18/07	11/06/07	284961	161.00-
MANGHAIS DYLAN	10/25/07	11/20/07	285067	49.18-
PMC INC &	10/25/07	11/07/07	285071	27,543.00-
PMC INC &	10/25/07	11/07/07	285072	5,768.30-
PMC INC &	10/25/07	11/07/07	285073	11,227.00-
PMC INC &	10/25/07	11/07/07	285074	13,273.00-
PMC INC &	10/25/07	11/07/07	285075	37,119.00-
PMC INC &	10/25/07	11/07/07	285076	238.65-
PMC INC &	10/25/07	11/07/07	285077	73,354.00-
PMC INC &	10/25/07	11/07/07	285078	13,835.35-
PMC INC &	10/25/07	11/07/07	285079	2,723.08-
PMC INC &	10/25/07	11/07/07	285080	17,000.00-
PMC INC &	10/25/07	11/07/07	285081	750.00-
PMC INC &	10/25/07	11/07/07	285187	233.97-
TUSTIN LEGACY	10/25/07	11/20/07	285213	405.68-
ORANGE, COUNTY OF	11/01/07	11/02/07	285344	13,776.00-
GRAY I.C.E. BUILDERS	11/08/07	11/08/07	285427	878.95-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285439	27,543.00-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285440	5,768.30-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285441	11,227.00-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285442	13,273.00-

11/30/2007
14:17:30

IRVINE RANCH WATER DISTRICT
Accounts Payable Report to Treasury
Acct'g Period 2008/05 Ended 11/30/2007

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Vendor Name	Issued	Voided	Check#	Check Amount
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285443	37,119.00-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285444	233.97-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285445	73,354.00-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285446	13,835.35-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285447	2,723.08-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285448	17,000.00-
KATIE OSUMI ENTERPRISES, INC	11/08/07	11/16/07	285449	750.00-
BRENNTAG PACIFIC INC	11/15/07	11/16/07	285713	12,976.04-
FRED PRYOR SEMINARS	11/29/07	11/29/07	286117	179.00-
				<hr/>
		Total Voids		436,381.32-
				<hr/>
		Report Total		<u>10,574,839.14</u>

Report Includes Checks numbers from 285228 to 286216



December 17, 2007
Prepared by: A. Arant S. Malloy
Submitted by: G. P. Heiertz
Approved by: Paul Jones

OB
SDM
GPH
PJ

CONSENT CALENDAR

IRWD INTERCONNECTION TO SOUTH ORANGE COUNTY WATER TRANSMISSION MAINS PHASE A – REDUCTION OF RETENTION

SUMMARY:

In October 2006 Paulus Engineering, Inc. was awarded a construction contract for \$1,680,759 to construct the Irvine Ranch Water District Interconnection to South Orange County Water Transmission Mains. The work is 97% complete. The contractor has requested and staff agrees that the retention being withheld by Irvine Ranch Water District be reduced from 10% to 5% of the contract amount.

BACKGROUND:

In October 2006, the Board awarded the construction contract to Paulus Engineering, Inc. for \$1,680,759 for the emergency interconnection to Irvine Ranch Water District's (IRWD) water system to convey excess water to the South Orange County Water Agencies. A location map is included as Exhibit "A". Work consisted of tie-in to IRWD's Zone 3 48-inch diameter domestic water pipeline in Sand Canyon Avenue, modification of the Zone 3 discharge and Zone 1 suction pipelines at the Zone 1 Domestic Water Reservoir on Sand Canyon Avenue, and installation of permanent piping, two vaults, valves and flow control equipment at the Joint Transmission Main and Aufdenkamp Transmission Main (JTM/ATM) site located near Alton Parkway and Sand Canyon Avenue.

Two Contract Change Orders have been approved totaling \$122,871.05. A Contract Summary is attached as Exhibit "B".

Board approval is required to reduce retention to 5%. The General Provisions state "At any time after 50% of the work has been satisfactorily completed and if the District determines that aggressive progress will continue to a timely completion of the work, the District may pay any of the remaining progress payments in full for actual work completed."

Staff has reviewed the contractor's request. Paulus Engineering, Inc. has worked diligently to complete the contract work despite delays beyond their control. Through October 2007, 97% of the contract work was completed.

FISCAL IMPACTS:

No adjustments are required to the FY 2007-08 Capital Budget and Expenditure Authorization for the IRWD Interconnection to South Orange County Water Transmission Mains, Phase A, Project 11159.

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15004 and 15303. A Notice of Exemption was filed with the County of Orange on August 3, 2006.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZES THE REDUCTION OF RETENTION FROM 10% TO 5% OF THE CONTRACT AMOUNT AND RELEASE OF FUNDS IN EXCESS OF 5% OF THE CONTRACT AMOUNT FROM RETENTION CURRENTLY HELD FOR THE IRWD INTERCONNECTION TO SOUTH ORANGE COUNTY WATER TRANSMISSION MAINS, PHASE A, PROJECT 11159.

LIST OF EXHIBITS:

Exhibit "A" – Location Map
Exhibit "B" – Construction Contract Summary

EXHIBIT "A"

LOCATION MAP

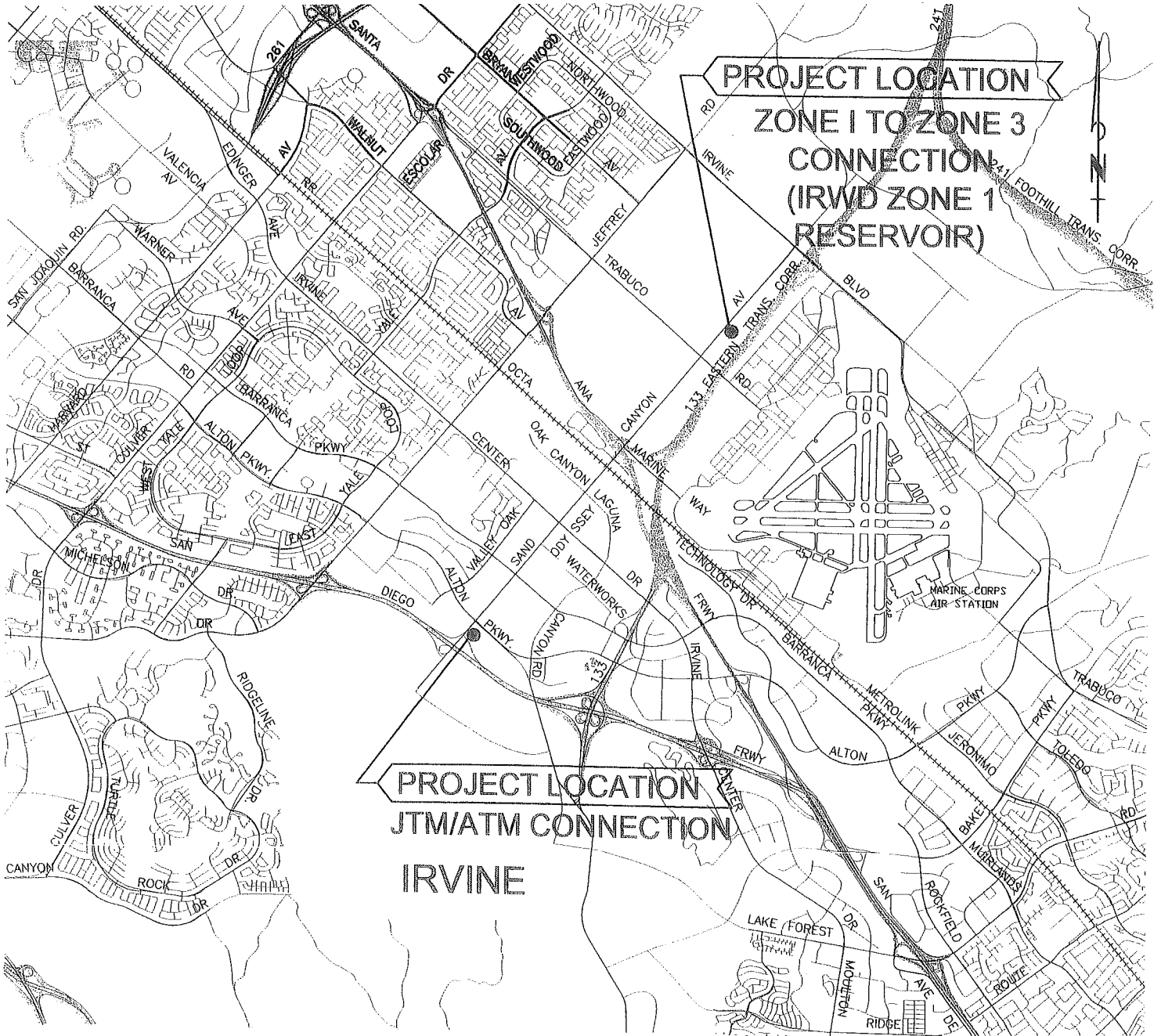


EXHIBIT "B"

Contract Summary
IRWD Interconnection to South Orange County
Water Transmission Mains, Phase A, Project 11159

Original Contract Amount	\$1,680,759.00
Change Order No. 1 Cost for various piping and valving modifications at IRWD's Zone 1 Reservoir location associated with meeting the deadline of the Diemer Filtration Plant shutdown.	\$ 72,362.25
Change Order No. 2 Costs associated with work at the JTM/ATM site.	\$ 50,508.80
	<hr/>
Total Revised Contract	\$1,803,630.05

December 17, 2007

Prepared by: A. Arant/S. Malloy

Submitted by: G. P. Heiertz

Approved by: Paul Jones

CONSENT CALENDAR

RESERVOIR LADDER AND SAFETY IMPROVEMENTS –
REDUCTION OF RETENTION AND FINAL ACCEPTANCE

SUMMARY:

Watson Mechanical, Inc. completed construction of the Reservoir Ladder and Safety Improvements. Staff conducted a final inspection of the work and recommends acceptance of the project.

Staff recommends the Board:

- Authorize the reduction of retention being held from 10% to 5% of the contract amount and release of funds in excess of 5% of the contract amount from retention currently held;
- Accept construction of the reservoir ladder and safety improvements as complete;
- Authorize the General Manager to file a Notice of Completion;
- Authorize the release of retention to Watson Mechanical, Inc. 35 days after the filing of the Notice of Completion;

BACKGROUND:

The Reservoir Ladder and Safety Improvement project consisted of installing steel ladders, safety-climb devices, gate climb prevention shields, and/or handrails at various reservoirs. A Reservoir Ladder Improvement List is attached as Exhibit "A". Six reservoirs were located in the Santiago Canyon Area. Three reservoirs were located in other areas of Irvine Ranch Water District.

Watson Mechanical, Inc. was awarded and completed the construction contract for \$263,660. The project is ready for final acceptance by the Board. A project summary is attached as Exhibit "B".

FISCAL IMPACTS:

No adjustments are required to the FY 2007-08 Capital Budget and Expenditure Authorization for the Reservoir Ladder and Safety Improvements, project 10819.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 and 15302.

RECOMMENDATION:

THAT THE BOARD AUTHORIZES THE REDUCTION OF RETENTION FROM 10% TO 5% OF THE CONTRACT AMOUNT AND RELEASE OF FUNDS IN EXCESS OF 5% OF THE CONTRACT AMOUNT FROM RETENTION CURRENTLY HELD; ACCEPT CONSTRUCTION OF THE RESERVOIR LADDER AND SAFETY IMPROVEMENTS, PROJECT 10819; AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE RELEASE OF RETENTION 35 DAYS AFTER FILING OF THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

Exhibit "A" – Reservoir Ladder Improvement List
Exhibit "B" – Project Summary

EXHIBIT "A"

Reservoir Ladder Improvement List

Benner Reservoir:

1. Installation of a permanent steel ladder.
2. Installation of a Saf-T-Climb fall prevention system.
3. Installation of a ladder gate climb preventive shield.
4. Installation of 6-feet of aluminum handrail on each side of ladder on top of reservoir.

Chapman Reservoir:

1. Removal of exterior lead based paint prior to welding.
2. Removal and disposal off-site of existing ladder remnants with lead based paint.
3. Installation of a permanent steel ladder.
4. Installation of a Saf-T-Climb fall prevention system.
5. Installation of a ladder gate climb preventive shield.
6. Installation of 6-feet of aluminum handrail on each side of ladder on top of reservoir.

Fleming Reservoir:

1. Removal of exterior lead based paint prior to welding.
2. Removal and disposal off-site of existing ladder with lead based paint.
3. Installation of a permanent steel ladder.
4. Installation of a Saf-T-Climb fall prevention system.
5. Installation of a ladder gate climb preventive shield.
6. Installation of 6-feet of aluminum handrail on each side of ladder on top of reservoir.

Read Reservoir:

1. Installation of 6-feet of aluminum handrail on each side of ladder on top of reservoir.

Shaw Reservoir:

1. Removal and disposal off-site of existing ladder, cage and gate system.
2. Installation of permanent steel ladder.
3. Installation of a Saf-T-Climb fall prevention system.
4. Installation of a ladder gate climb preventive shield.
5. Installation of 6-feet of aluminum handrail on each side of ladder on top of reservoir.

Williams Canyon Reservoir:

1. Removal of exterior lead based paint prior to welding.
2. Installation of 6-feet of aluminum handrail on one side of ladder on top of reservoir.
3. Extend the existing ladder to place first rung less than 14-inches from the ground.

Portola Zone 8 Reservoir:

1. Removal and disposal off-site of existing cage and gate system.
2. Installation of a Saf-T-Climb fall prevention system.
3. Installation of a ladder gate climb preventive shield.

Reservoir Ladder Improvement List (continued)

Lake Forest Zone A #1 Reservoir:

1. Removal of exterior lead based paint prior to welding.
2. Removal and disposal off-site of existing cage and gate system with lead based paint.
3. Extend the existing ladder to place first rung less than 14-inches from the ground.
4. Installation of a Saf-T-Climb fall prevention system.
5. Installation of a ladder gate climb preventive shield.

Lake Forest Zone A #2 Reservoir:

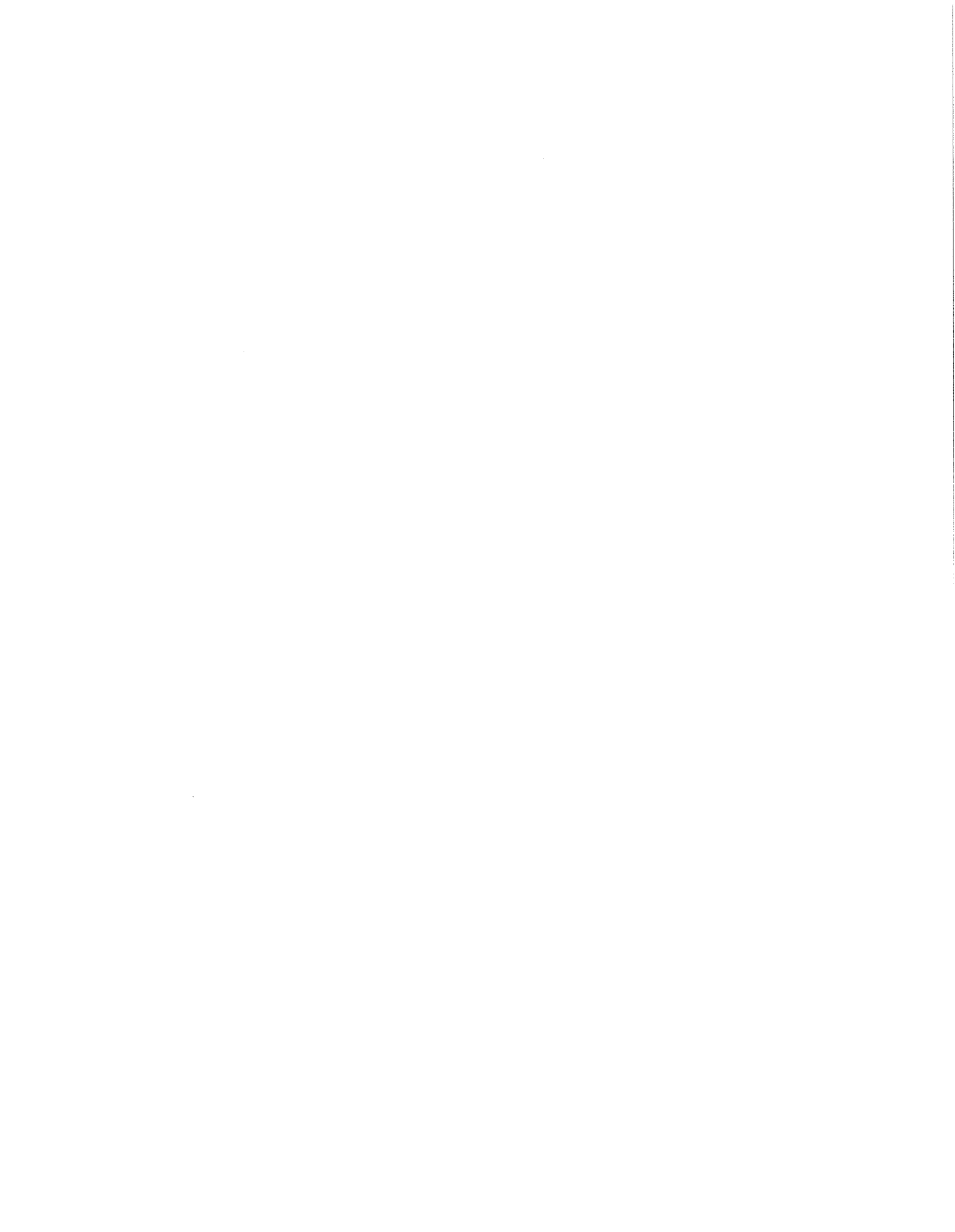
1. Removal and disposal off-site of existing cage and gate system.
2. Installation of a Saf-T-Climb fall prevention system.
3. Installation of a ladder gate climb preventive shield.

EXHIBIT "B"

Reservoir Ladder and Safety Improvements, PR 10819

PROJECT SUMMARY:

Project Title:	Reservoir Ladder and Safety Improvements
Project No.:	11146
Design Engineer:	Cho Design Associates
Construction Management by:	IRWD Staff
Contractor:	Watson Mechanical, Inc.
Original Contract Cost:	\$263,660
Final Contract Cost:	\$263,660
Original Contract Days:	150
Substantial Completion Days:	159
Final Contract Days:	169
Total Budget:	\$429,900
Total Project Cost (Estimate):	\$342,180
Final Change Order Approved On:	December 1, 2007



OB
December 17, 2007 *mc SKM*
Prepared by: R. Crim/S. Malloy
Submitted by: G. P. Heiertz *GA*
Approved by: Paul Jones *PMJ*

CONSENT CALENDAR

DYER ROAD WELL FIELD STARTER REPLACEMENT PROJECT - FINAL ACCEPTANCE

SUMMARY:

Action Electric, Inc. completed construction of the Dyer Road Well Field Starter Replacement Project. Staff conducted a final inspection of the work and recommends the Board:

- Accept construction of the Dyer Road Well Field Starter Replacement Project as complete;
- Authorize the General Manager to file a Notice of Completion; and
- Authorize the release of retention to Action Electric, Inc. 35 days after the filing of the Notice of Completion.

BACKGROUND:

The original six well field sites constructed in Santa Ana in 1985 had motor starting systems requiring replacement. This included well sites 1, 2, 4, 12, 13, and 18. The open style, reduced voltage auto transformer starting systems were replaced with enclosed, solid state, smart motor starting systems.

Action Electric, Inc. was awarded and completed the construction contract for \$288,416.59. The project is ready for final acceptance by the Board. A project summary is included as Exhibit "A" and a contract summary is provided as Exhibit "B".

FISCAL IMPACTS:

No adjustments are required to the FY 2007-08 Capital Budget and Expenditure Authorization for the Dyer Road Well Field Starter Replacement, Project 10534.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 and 15302.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE DYER ROAD WELL FIELD STARTER REPLACEMENT, PROJECT 10534; AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE RELEASE OF RETENTION 35 DAYS AFTER FILING OF THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

Exhibit “A” – Project Summary
Exhibit “B” – Contract Summary

EXHIBIT "A"

Dyer Road Well Field Starter Replacement Project
Project 10534

PROJECT SUMMARY:





Project Title:	Dyer Road Well Field Starter Replacement Project
Project No.:	10534
Design Engineer:	Sun Engineering
Construction Management by:	IRWD Staff
Contractor:	Action Electric, Inc.
Original Contract Cost:	\$276,305
Final Contract Cost:	\$288,416
Original Contract Days:	190
Substantial Completion Days:	326
Final Contract Days:	474
Total Budget:	\$374,000
Total Project Cost (Estimate):	\$304,000
Final Change Order Approved On:	September 28, 2007

EXHIBIT "B"

Dyer Road Well Field Starter Replacement Project,
Project 10534

CONTRACT SUMMARY:

Original Contract Amount	\$ 276,305.28
Change Order No. 1 Modify air conditioning controls, change terminal blocks, relocate selector switches, install fused links.	\$ 2,765.17
Change Order No. 2 Replace damaged flexible conduit and fittings found broken at the motor connection box at well site 1.	\$ 471.53
Change Order No. 3 Install new three position selectro switches for hand and remote control. Install current transformers and potential transformers for power protection and measurement.	\$ 8,963.36
Total Revised Contract	<u>\$ 288,416.59</u>

December 17, 2007 HC  
Prepared by: H. Cho/K. Burton
Submitted by: G. P. Heiertz 
Approved by: Paul Jones 

CONSENT CALENDAR

SAN JOAQUIN RESERVOIR ACCESS ROAD REPAIR PROJECT –
FINAL ACCEPTANCE

SUMMARY:

The San Joaquin Reservoir Access Road Repair project repaved the Ford and Chambord access roads to San Joaquin Reservoir and constructed two low flow crossings, an asphalt v-ditch, and asphalt curb to improve the drainage around the roads. Concrete at the Ford access gate and a small section of the reservoir perimeter road were also replaced. The San Joaquin Reservoir Access Road project received a final inspection by the IRWD Engineering Department and acceptance is recommended.

BACKGROUND:

Project Title:	San Joaquin Reservoir Access Road Repair
Project No.:	30277
Design Engineer:	LaBelle Marvin, Inc.
Construction Management by:	IRWD Staff
Contractor:	A&Y Company, Inc.
Original Contract Cost:	\$235,196.00
Final Contract Cost:	\$263,276.00
Original Contract Days:	120
Substantial Completion Days:	149
Final Contract Days:	149
Total Budget:	\$587,400
Total Project Cost:	\$410,900
Final Change Order Approved On:	November 19, 2007

FISCAL IMPACTS:

Project 30277 is included in the FY 2007-08 Capital Budget. A Project Summary is shown in Exhibit "B".

Project No.	Current Budget	Addition <Reduction>	Total Budget	Exist EA	This EA Request	Total EA Request
30277	\$587,400	\$ -0-	\$587,400	\$ 410,900	\$-0-	\$ 410,900

ENVIRONMENTAL COMPLIANCE:

The activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 (class 1) and 15302 (class 2) which provide exclusions for minor alteration and replacement/reconstruction of public facilities.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDED MOTION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE SAN JOAQUIN RESERVOIR ACCESS ROAD REPAIR, PROJECT 30277; AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Project Summary

EXHIBIT "A"

San Joaquin Reservoir Access Roads

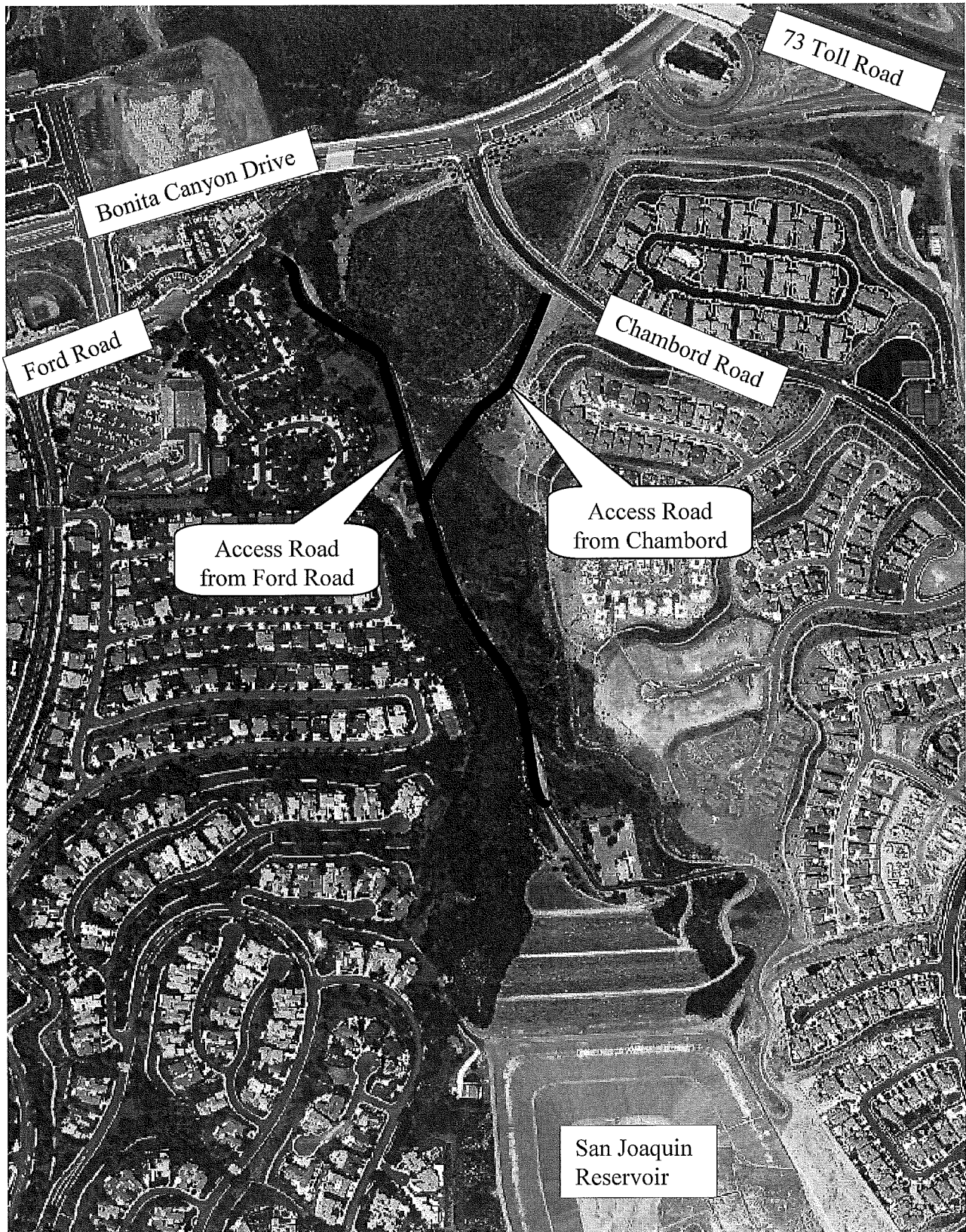


EXHIBIT "B"

PM341R
12/03/07

**IRVINE RANCH WATER DISTRICT
ENGINEERING PROJECT MANAGEMENT SYSTEM (EPMS)**

Project Summary

30277 SAN JOAQUIN RESERVOIR LINER AND ROAD REPAIR

Manager: BURTON, KEVIN **Contingency Percentage (%):** 10.00 **Project Status:** ACTIVE/PENDING
Engineer: CHO, HARRY **G/A Percentage (%):** 175.00 **Last EA Date:** 5/30/2007
Area: San Joaquin Reservoir **Class:** Regional Nonpotable

Phase	Current Budget	Current Ea's	Expended To Date	Open Commitment	Amount Remaining	Percent EA' Committee
ENGINEERING - PLANNING OUTSIDE	0	0	82		(82)	
ENGINEERING DESIGN - IRWD	18,000	18,000	20,942		(2,942)	116.34
ENGINEERING DESIGN - OUTSIDE	55,000	55,000	40,130	15,063	(193)	100.35
DESIGN STAFF FIELD SUPPORT	1,000	1,000	0		1,000	
ENGINEERING - CA&I IRWD	10,000	10,000	6,219		3,781	62.19
ENGINEERING - CA&I OUTSIDE	24,000	24,000	9,847	76	14,077	41.35
CONSTRUCTION FIELD SUPPORT	2,000	2,000	0		2,000	
CONSTRUCTION	422,000	261,500	291,437	15,315	(45,252)	117.30
LEGAL	2,000	2,000	612		1,388	30.60
WATER QUALITY	0	0	15		(15)	
CAPITAL PROJECTS REIMBURSEMENT	0	0	(100)		100	
CONTINGENCY	53,400	37,400	0		37,400	
Direct Cost:	587,400	410,900	369,184	30,454	11,262	97.26
ADMINISTRATIVE & GENERAL EXPENSE	54,300	54,300	46,177		8,123	85.04
Totals:	641,700	465,200	415,361	30,454	19,385	95.83

Comments:

December 17, 2007

Prepared by: B. Stewart/S. Malloy

Submitted by: G. P. Heiertz

Approved by: Paul Jones

CONSENT CALENDAR

CULVER DRIVE WATER MAIN REPLACEMENT – FINAL ACCEPTANCE

SUMMARY:

Paulus Engineering, Inc. has completed construction of the Culver Drive Water Main Replacement from Campus Drive to Bonita Canyon Drive. Staff conducted a final inspection of the work and recommends acceptance of the project.

Staff recommends the Board:

- Accept construction of the Culver Drive Water Main Replacement from Campus Drive to Bonita Canyon Drive as complete,
- Authorize the General Manager to file a Notice of Completion, and
- Authorize the release of retention to Watson Mechanical, Inc. 35 days after the filing of the Notice of Completion.

BACKGROUND:

The City of Irvine widened and realigned the portion of Culver Drive between Campus Drive and Bonita Canyon, adjacent to the Village of Turtle Rock. A location map is included as Exhibit "A". The City made commitments to the Turtle Rock homeowners to provide landscaping between the backyards and the roadway. The water lines were realigned and placed outside the densely landscaped area and bike path. In September 2005, Paulus Engineering was awarded a construction contract for \$1,193,591 to relocate the waterlines. Seven Contract Change Orders have been approved totaling \$191,710.63. A Contract Summary is attached as Exhibit "B". A Project Summary is attached as Exhibit "C". Construction is complete and the project is ready for final acceptance by the Board.

FISCAL IMPACTS:

No adjustments are required to the FY 2007-08 Capital Budget and Expenditure Authorization for the Culver Drive Water Main Replacement from Campus Drive to Bonita Canyon Drive, Project 10569.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). In conformance with provisions in CEQA (Public Resources Code, Division 13, Chapter 2.6, Section 21083.5) an Expanded Initial Study/Environmental Assessment was certified by the City of Irvine on July 23, 2002. A Notice of Determination was filed with the County of Orange on July 24, 2002. Relocation of the

IRWD water line is addressed in Section 3.12.1 Affected Environment-Utilities in the Environmental Assessment and a copy of that Section is available in the project file.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPTS CONSTRUCTION OF THE CULVER DRIVE WATER MAIN REPLACEMENT FROM CAMPUS DRIVE TO BONITA CANYON DRIVE, PROJECT 10569; AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE RELEASE OF RETENTION 35 DAYS AFTER FILING OF THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

Exhibit "A" – Location Map

Exhibit "B" – Contract Summary

Exhibit "C" – Project Summary

EXHIBIT "A"

LOCATION MAP

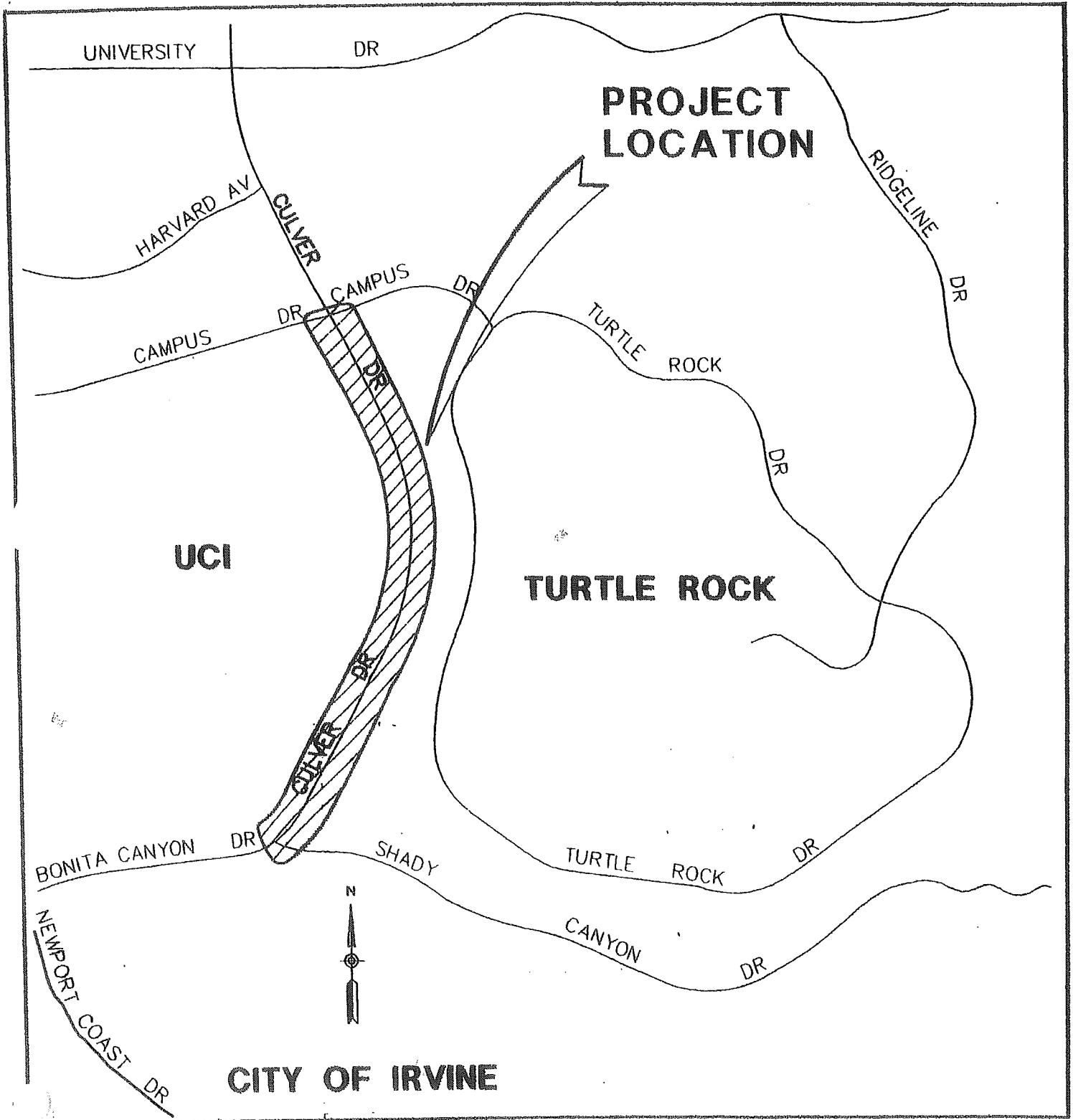


EXHIBIT "B"

Contract Summary
Culver Drive Water Main Replacement, PR 10569

Original Contract Amount	\$1,193,591.00
Change Order No. 1 Manufacturer's price increase for PVC pipe (16-inch and 12-inch) due to an increase in production pipe as a result of Hurricane Katrina.	\$ 18,400.00
Change Order No. 2 Cost to provide and install one vault at the relocated 10-inch University of California at Irvine's meter.	\$ 3,215.12
Change Order No. 3 Cost to adjust 21 existing manholes to rough and final grades, repair t-lock lining in the sewer manholes, and provide a reduced pressure principle device.	\$ 89,137.58
Change Order No. 4 Cost to install a one-inch irrigation water meter with backflow and hot tap an existing main on Hiram Lane	\$ 15,428.00
Change Order No. 5 Additional costs to: (a) Raise manholes to grade a second time in the bike trail due to changes in the City of Irvine's grading plans; (b) Delete the relocation of one fire hydrant (Bid Item 14); (c) Install one fire hydrant and blow-off; (d) Non-compensatory time delay of 385 days due to sequencing work with the City of Irvine.	\$ 20,730.56
Change Order No. 6 Additional cost to complete tie-ins at seven locations. The contractor provided assistance to IRWD Operations staff by providing labor, assistance, equipment, materials, and accrued standby time in order to accomplish the shutdowns and manage excessive water due to leaky old valves that would not close.	\$ 29,674.83
Change Order No. 7 Additional cost to provide additional traffic control to raise valves and manholes after final cap paving. Traffic control was not included as part of the contract work. One manhole, located in the landscaped area, was raised and a retaining wall constructed around it.	\$ 15,124.54
Total Revised Contract	<hr/> \$1,385,301.63

EXHIBIT "C"

Project Summary Culver Drive Water Main Replacement, PR 10569

PROJECT SUMMARY:

Project Title:	Culver Drive Water Main Replacement from Drive to Bonita Canyon Drive
Project No.:	10569
Design Engineer:	TRC
Construction Management by:	IRWD Staff
Contractor:	Paulus Engineering, Inc.
Original Contract Cost:	\$1,193,591
Final Contract Cost:	\$1,385,302
Original Contract Days:	375
Substantial Completion Days:	777
Final Contract Days:	784
Total Budget:	\$2,155,500
Total Project Cost (Estimate):	\$1,686,000
Final Change Order Approved On:	December 2, 2007



December 17, 2007

Prepared by: E. Akiyoshi

Submitted by: G. Heiertz

Approved by: Paul Jones

Handwritten signatures and initials: E.A., G.H., P.J., and others.

CONSENT CALENDAR

BUDGET INCREASE AND EXPENDITURE AUTHORIZATION
FOR THE ANNEXATION OF IRWD INTO OCWD

SUMMARY:

Staff requests the Board approve a budget increase for Project 19420 in the amount of \$277,300 and an Expenditure Authorization for Project 19420 in the amount of \$387,300 for the Orange County Water District (OCWD) Annexation.

BACKGROUND:

Irvine Ranch Water District has been working with OCWD to annex the remainder of the eligible lands of IRWD into OCWD. Staff and legal counsel are actively engaged in overseeing these efforts. This oversight has and will continue to require significant staff and consultant resources. IRWD expenditures include the District's share of the Long Term Facilities Plan Program Environmental Impact Report and consultants such as legal counsel and advocacy services. Staff is recommending that the project budget and Expenditure Authorization be increased so efforts to complete the annexation process can continue.

FISCAL IMPACTS:

Project 19420 (OCWD Annexation) is included in the FY 2007-08 Capital Budget. A budget increase and Expenditure Authorization, provided as Exhibit "A", are requested to fund previously approved and ongoing consultant services and staff time as presented below:

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
19420	\$715,000	\$ 277,300	\$ 992,300	\$ 605,000	\$ 387,300	\$ 992,300

ENVIRONMENTAL COMPLIANCE:

OCWD has prepared a Draft PEIR addressing the environmental impacts of annexation of additional territory to OCWD. The schedule for certification of the PEIR unknown.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications Committee meeting on December 10, 2007.

Consent Calendar: Budget Increase and Expenditure Authorization for the Annexation of IRWD
into OCWD

December 17, 2007

Page 2

RECOMMENDATION:

THAT THE BOARD APPROVE A BUDGET INCREASE FOR PROJECT 19420 BY \$277,300, FROM \$715,000 TO \$992,300, AND APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$387,300 FOR THE ANNEXATION OF IRWD AREAS INTO THE ORANGE COUNTY WATER DISTRICT.

LIST OF EXHIBITS:

Exhibit "A" – Expenditure Authorization

Irvine Ranch Water District
Expenditure Authorization

EXHIBIT "A"

Project Name: OCWD ANNEXATION
Project No: 19420 **EA No:** 2
Project Manager: HOOLIHAN, MICHAEL
Project Engineer: SAMUEL, RICHARD
Request Date: November 30, 2007

ID Split: Regional DW w/LAWD w/ Enhance (7/07)

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
112	.7	BONDS YET TO BE SOLD**
113	1.1	BONDS YET TO BE SOLD**
121	3.4	BONDS YET TO BE SOLD**
130	2.3	BONDS YET TO BE SOLD**
135	4.8	PREVIOUSLY SOLD BONDS
140	.9	BONDS YET TO BE SOLD**
150	7.5	BONDS YET TO BE SOLD**
161	1.7	BONDS YET TO BE SOLD**
182	.6	BONDS YET TO BE SOLD**
184	.8	BONDS YET TO BE SOLD**
186	.2	BONDS YET TO BE SOLD**
188	.1	BONDS YET TO BE SOLD**
190	.3	PREVIOUSLY SOLD BONDS
199	75.6	CAPITAL FUND ENHANCEMENT**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$605,000
This Request:	\$387,300
Total EA Requests:	\$992,300
Previously Approved Budget:	\$715,000
Budget Adjustment Requested this EA:	\$277,300
Updated Budget:	\$992,300
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	25,000	50,000	75,000	0	75,000	75,000	1/99	12/08
ENGINEERING - PLANNING OUTSIDE	270,000	200,000	470,000	220,000	250,000	470,000	1/99	12/08
LEGAL	100,000	300,000	400,000	75,000	325,000	400,000	1/99	12/08
Contingency - 5.00% Subtotal	(\$7,700)	\$55,000	\$47,300	(\$17,700)	\$65,000	\$47,300		
Subtotal (Direct Costs)	\$387,300	\$605,000	\$992,300	\$277,300	\$715,000	\$992,300		
Estimated G/A - 175.00% of direct labor*	\$46,300	\$85,000	\$131,300	\$0	\$131,300	\$131,300		
Total	\$433,600	\$690,000	\$1,123,600	\$277,300	\$846,300	\$1,123,600		
*Direct Labor	\$25,000	\$50,000	\$75,000	\$0	\$75,000	\$75,000		

EA Originator:

Eric Holman _____ 12-3-07

Department Director:

Richard Samuel _____ 12/3/07

Finance:

Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$1,147,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.

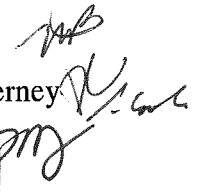


December 17, 2007

Prepared by: Mike Bray

Submitted by: Debby Cherney

Approved by: Paul Jones



CONSENT CALENDAR

SANTIAGO FIRE DAMAGE – REPAIR AND REPLACEMENT FUNDING

SUMMARY:

As result of the Santiago Fire, the District has incurred significant damages to several facilities as well as emergency response costs. Staff is currently working with its property insurance carrier and the Federal Emergency Management Agency and State Office of Emergency Services (FEMA/OES) to obtain reimbursement of approximately \$1.7 million of the estimated \$1.9 million of costs incurred. Staff recommends approval of a resolution designating specific District staff positions as authorized agents for purposes of working with the State Office of Emergency Services.

BACKGROUND:

An estimate of the damages and emergency response costs incurred by the District as result of the Santiago Fire is attached as Exhibit "A". Of the \$1.9 million estimated costs incurred, the District anticipates collecting approximately \$1.5 million from the District's property insurance carrier and \$264,000 from FEMA/OES. Estimated funding is based upon an inspection performed by claims adjusters for the District's property insurance carrier, preliminary meetings with representatives of FEMA/OES, and staff's prior experience with FEMA/OES determination of eligible cost. Of the remaining \$205,000 to be funded by the District, \$187,000 represents the difference between the District's applied labor overhead rate of 175% and that estimated to be determined eligible by both FEMA/OES and the District's property insurance carrier (50%). The remaining \$18,000 reflects the District's 6.75% share of costs under the Public Assistance Program; FEMA/OES fund only 93.25% of eligible costs.

At the November 12, 2007 IRWD Board meeting, staff discussed the necessity for sole source design and construction contracts to expedite the replacement of the Portola Zone 9 Pump Station. This facility is needed back in service by June 2008 in order to meet peak flow demands. This need was discussed with the insurance carrier's claims adjusters, and they recognized this as reasonable under the circumstances. Staff will submit the associated \$50,000 insurance deductible to FEMA/OES for reimbursement. FEMA/OES typically requires competitive bids for permanent replacement construction, but does allow for sole sourcing of design and construction work when appropriate and when done in compliance with the procurement policies of the District.

Resolution Designating Authorized Agents:

To receive FEMA/OES funding, the District must submit a resolution identifying the District's authorized agents. Authorized agents are the primary contacts between FEMA/OES and the District and are authorized to submit required applications for reimbursement. The three staff positions identified on District Resolution 1998-2 are no longer included on the District's

organizational chart, therefore staff requests that the Committee recommend that the Board rescind Resolution 1998-2 and adopt the resolution attached as Exhibit “B” identifying the District’s Director of Finance, Assistant General Manager, and Director of Water Operations as the District’s authorized agents.

FISCAL IMPACTS:

As described above.

ENVIRONMENTAL COMPLIANCE:

This is a ministerial activity and is statutorily exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15268.

COMMITTEE STATUS:

This item was reviewed at the Finance and Personnel Committee on December 4, 2007.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT,
RESCINDING RESOLUTION NO. 1998 – 2
AND AUTHORIZING ITS AGENTS TO PROVIDE TO
THE STATE OFFICE OF EMERGENCY SERVICES ALL
MATTERS PERTAINING TO SUCH STATE DISASTER
ASSISTANCE THE ASSURANCES AND AGREEMENTS REQUIRED

LIST OF EXHIBITS:

- Exhibit “A” – Cost Estimate of Damages Incurred by IRWD
- Exhibit “B” – Resolution Designating Authorized Agents to Work with the State Office of Emergency Services

Exhibit "A"

Irvine Ranch Water District
Santiago Fire - Cost of Damages & Source of Funding

Site	Estimated Costs			Estimated Funding ¹		
	Contract	District	Total	Insurance	FEMA/OES	District
Portola Zone 8-9 Pump Station	\$ 1,366,960	\$ 262,647	\$ 1,629,607	\$ 1,326,238	\$ 177,621	\$ 125,748
Rattlesnake Reservoir Facility	103,517	236	103,753	103,517	128	108
Foothill Weather Station	30,000	-	30,000	30,000	-	-
Fleming & Manning Pump Stations & Other Canyon Facilities	4,100	211,854	215,954	47,966	85,919	82,069
Total	\$ 1,504,577	\$ 474,736	\$ 1,979,313	\$ 1,507,721	\$ 263,668	\$ 207,925

1) Funding Eligibility	Insurance		FEMA/OES*	
	Yes	No	Yes	No
Outside Contracts				
Labor:				
Emergency Operations				
RT	No	No	No	No
OT	Yes	Yes	Yes	Yes
Emergency Repairs				
RT	No	No	Yes	Yes
OT	Yes	Yes	No	No
Permanent Work				
RT	No	No	Yes	Yes
OT	Yes	Yes	Yes	Yes
Overhead (employee benefits only +/- 50%)	Yes	Yes	Yes	Yes
Water used to fight fires	No	No	Yes	Yes

*Net of insurance proceeds. FEMA share 75%; OES share 18.75%



EXHIBIT "B"

RESOLUTION NO. 2007 -

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT,
RESCINDING RESOLUTION NO. 1998-2
AND AUTHORIZING ITS AGENTS TO PROVIDE TO
THE STATE OFFICE OF EMERGENCY SERVICES ALL
MATTERS PERTAINING TO SUCH STATE DISASTER
ASSISTANCE THE ASSURANCES AND AGREEMENTS REQUIRED

WHEREAS, the Irvine Ranch Water District is a California Water District organized and existing under the California Water District Law; and

WHEREAS, the Office of Emergency Services has requested that a resolution be approved for the purpose of authorizing the Irvine Ranch Water District's agents for providing to the State Office of Emergency Services all matters pertaining to such state disaster assistance the assurances and agreements required; and

WHEREAS, the Board of Directors of Irvine Ranch Water District, by adoption of Resolution No. 1998-2 on January 26, 1998, authorized such agents; and

WHEREAS, the Board of Directors has reviewed the list of authorized agents and desires to make revisions thereto;

NOW, THEREFORE, the Board of Directors of Irvine Ranch Water District does hereby resolve, determine and order as follows:

Section 1. That the authorization of agents adopted by Resolution No. 1998-2 on January 26, 1998 is hereby rescinded.

Section 2. That the Irvine Ranch Water District authorizes the following positions to execute on behalf of the Irvine Ranch Water District an application and to file it with the Office of Emergency Services for the purpose of obtaining certain federal financial assistance under P.L. 93-288 as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, and/or state financial assistance under the Natural Disaster Assistance Act:

Assistant General Manager
Director of Finance
Director of Water Operations

Section 3. Directs the District Secretary to send a certified copy of this resolution to the State Office of Emergency Services.

ADOPTED, SIGNED and APPROVED this 17th day of December 2007.

President, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

Secretary, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

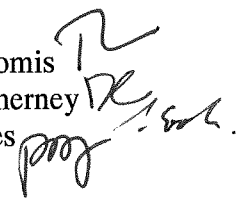
APPROVED AS TO FORM:
BOWIE, ARNESON, WILES & GIANNONE

December 17, 2007

Prepared by: Terry Loomis

Submitted by: Debby Cherney

Approved by: Paul Jones



CONSENT CALENDAR

REIMBURSEMENT TO MERRILL LYNCH FOR RATING AGENCY SERVICES

SUMMARY:

Merrill Lynch has requested an advisory fee for its efforts related to analyzing credit enhancement options and preparing a presentation to the rating agencies to upgrade the rating on IRWD's 2002 Certificates of Participation. Staff has reviewed Merrill Lynch's request and supporting documentation, and believes compensation of \$78,850 plus reimbursement of out-of-pocket costs of \$8,777.51 is appropriate for the time and expenses involved.

BACKGROUND:

2007 Bond Sale:

In December 2006, staff solicited proposals from Merrill Lynch, Citigroup, and Lehman Brothers to act as underwriters for the 2007 general obligation (GO) bond sale. At that time, it was anticipated that the proposed bond sale would be similar to the 2006 bond sale, which was structured as a somewhat standard consolidated sale with the bonds being issued in a variable rate mode. As in past variable rate GO bond issues, the underwriter's scope included recommending the variable rate structure for the bonds, obtaining bids from letter of credit banks or insurance companies, managing the bond document process, and marketing the bonds.

In February 2007, the Finance and Personnel Committee (Committee) and Board of Directors approved retaining Merrill Lynch as the underwriter based on its lowest fee proposal, past performance in setting variable rates, and overall excellent service. The Merrill Lynch fee proposal contained \$2.50/bond marketing fee totaling \$250,000 and an estimated \$94,000 for reimbursement of out-of-pocket expenses. There was no management fee for staff time related to the bond sale in Merrill Lynch's proposal.

Subsequently, the Finance and Personnel Committee requested that staff explore the possibility of issuing the 2007 bonds based on the District's own credit, instead of obtaining some form of credit enhancement or liquidity from a third-party. Staff worked with Merrill Lynch and bond counsel on this issue and reported back to the Board with the conclusions at a public hearing on the bonds on April 9, 2007. At that time, the credit enhancement issue for the bonds was referred back to the Committee for further discussion, and the public hearing was continued to April 30.

Staff, Merrill Lynch and bond counsel made a presentation at a special Committee meeting on April 26 regarding credit enhancement for the bonds. As a result of these discussions, the Committee requested staff and Merrill Lynch to prepare presentations to the rating agencies to request a rating upgrade on the existing 2002 Certificates of Participation (COPs), which, if successful, would provide some options for using the District's own credit on future bond sales.

Merrill Lynch Request for Reimbursement for Supplemental Services:

Merrill Lynch assisted IRWD staff in preparing materials on the credit enhancement issue and on preparing a comprehensive presentation for each of the three rating agencies (Moody's, Standard & Poor's, and Fitch) to request a rating upgrade on the 2002 Certificates of Participation. Normally, rating requests are made to the rating agencies in conjunction with specific bond issues that are coming to market. As such, the underwriter would be aware of this intent and would adjust its fees to accommodate the additional effort required to prepare for and meet with the rating agencies. In regard to the 2007 bonds, no rating was expected to be requested on the bond issue at the time the underwriting proposals were made, and Merrill Lynch did not include any additional fees to cover expenses for meetings with the rating agencies.

Merrill Lynch has submitted a request for \$100,000 as an advisory fee for its work on preparing the supplemental credit enhancement materials and the rating agency presentations, and meetings with staff and Board members in preparation for the rating agency meetings last August. In addition, Merrill Lynch prepared a matrix of the substantial efforts and staff time involved for the meetings. These documents are attached as Exhibit "A" and Exhibit "B", respectively. Notably, the rating agency presentation materials prepared by Merrill Lynch were far more comprehensive and detailed than similar materials prepared for the initial rating request on the 2002 COPs.

Staff has reviewed Merrill Lynch's request and documentation, and believes the activities and time expended are reasonable estimates. Merrill Lynch did not provide hourly rates for its work because it bills on a value basis, not a time and expense basis. In order to attach a cost to the hours provided by Merrill Lynch and evaluate the reasonableness of the request, staff worked with Merrill Lynch and estimated the hours spent. To verify the estimate, staff contacted two financial advisory firms to determine their hourly billing rates at the senior, intermediate and lower staff levels. The hourly fee amounts were \$275-\$300 at the director level, \$175-\$250 at the vice-president level and \$160-\$200 at the associate level. In determining the advisory fee amount, \$300 was used for the director level, \$240 for the vice-president level and \$190 for the associate level based on the experience of the Merrill Lynch staff involved.

Based on the analysis shown on Exhibit "C", staff believes a fee of \$78,850, plus out-of-pocket expenses of \$8,777.51 for a total of \$87,627.51 is appropriate compensation to Merrill Lynch for its work related to the credit enhancement analysis and requesting an upgrade from the rating agencies on the 2002 COPs. Approximately \$6,700 of the fee is related to the credit enhancement issue while the remainder is for the rating agency presentations. Staff has spoken with Merrill Lynch regarding this revised reimbursement amount and they find staff's methodology and the revised reimbursement amount acceptable.

FISCAL IMPACTS:

The recommended compensation to Merrill Lynch consists of an advisory fee of \$78,850 and out-of-pocket expenses of \$8,777.51 for a total of \$87,627.51.

Based on staff discussions subsequent to the Committee meeting on December 4, 2007, staff believes that since the ratings on the 2002 COPs benefit the District's overall debt program, this cost should be funded from the Capital Funds based on the water and sewer regional splits, instead of costs of issuance related to the 2007 bond sale.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act (CEQA), Code of Regulations, Title 14, Chapter 3, Section 15378.

COMMITTEE STATUS:

This item was reviewed at the Finance and Personnel Committee meeting on December 4, 2007.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE PAYMENT OF \$87,627.51 TO MERRILL LYNCH TO REIMBURSE STAFF TIME AND EXPENSES RELATED TO MEETINGS WITH THE RATING AGENCIES TO UPGRADE THE RATINGS ON THE 2002 CERTIFICATES OF PARTICIPATION.

LIST OF EXHIBITS:

- Exhibit "A" – Merrill Lynch Letter Requesting an Advisory Fee
- Exhibit "B" – Summary of Merrill Lynch Meetings, Teleconferences and Work Product
- Exhibit "C" – Summary of Estimated Merrill Lynch Personnel Expenses

Exhibit "A"



Global Markets & Investment Banking

October 22, 2007

Mr. Paul Jones
General Manager
Mr. Terry Loomis
Treasurer
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618

Dear Paul and Terry:

2007 was another year of successful cooperation between the Irvine Ranch Water District and Merrill Lynch. The highlight of the year was the District's \$100 million GO bond issue that closed on July 19th. In addition to documenting, executing, pricing and closing the GO bond issue, the District also retained Merrill Lynch to opine on whether it could reduce variable rate bond issuance costs by using self-liquidity and to serve as rating agency advisor, with the objective of securing an upgrade on the District's 2002 Certificates of Participation from the rating agencies. These services performed by Merrill Lynch were separate and apart from the GO bond issue transaction, and entailed a significant dedication of time and effort by the Merrill Lynch team over the course of six months, as described below.

In March, the District's Board requested that Merrill Lynch evaluate structural options for issuing variable rate bonds based on the District's own credit. Merrill Lynch consulted with internal resources and researched recent self-liquidity issues in the municipal market. The Merrill Lynch banking team, as well as our credit specialist from New York, John Hallacy, presented our findings at a special meeting of the District's Finance and Personnel Committee in April.

In May, at the Board's direction, Merrill Lynch commenced drafting a rating agency presentation. Our efforts between May and the final meetings on August 28th and 29th were extensive and exhaustive. Our ratings expert, John Hallacy, guided our efforts throughout the process. Mr. Hallacy and the banking team participated in at least four conference calls with senior District management to discuss the presentation. In addition, there were numerous calls each week between various members of the Merrill Lynch banking team and District staff. Merrill Lynch produced over 20 versions of the 50-page PowerPoint presentation, including the draft presented to the Board on August 7th. After incorporating the Board's comments, Merrill Lynch developed three final versions of the presentation, tailored for each of the rating agencies, as well as overhead versions of the presentations.

Mr. Paul Jones
Mr. Terry Loomis
October 22, 2007
Page 2

Merrill Lynch balanced the schedules of District staff and Board members, as well as rating agency analysts, to organize three meetings over a 1½ day period at our San Francisco offices. Our efforts included coordinating air travel, booking hotel rooms and arranging for meals and transportation for the District's group. By employing Merrill Lynch's San Francisco facilities, we reduced the logistical complications that Board members and staff would have otherwise faced and ensured a problem-free multi-media presentation to the rating agencies.

Merrill Lynch coordinated follow-up activities to the meetings, managing information flow and drafting letters to each agency to support further the District's case. We maintained contact with each agency on behalf of the District to ensure that their needs were met and that they moved their analyses of the District forward.

Merrill Lynch applauds the District's proactive approach with the rating agencies, for, as you know, their analyses are typically undertaken only in connection with bond offerings. Accordingly, it is customary that underwriter compensation for a bond issue include a component for rating agency services. In this case, we had raised the possibility of incorporating a rating advisory fee into the 2007 GO bond sale. However, the group concluded that our efforts as ratings advisor were outside the context of the current GO bond issue and that a separate invoice was more appropriate and equitable. We believe an advisory fee of \$100,000 is fair compensation for the substantial time and effort undertaken by Merrill Lynch in this assignment. If you have any questions regarding the activities described in this letter, or any other matters related to our efforts on behalf of the District, please do not hesitate to call me.

Sincerely,



Bryon Rockwell
Director
(213) 217-4509

cc: Grace Barvin, Merrill Lynch

Exhibit "B"

**Irvine Ranch Water District
Summary of Meetings, Teleconferences and Work Product
Self-Liquidity Analysis & Rating Agencies Presentation**



Dates	Tasks	Merrill Lynch Participants	Approximate Time Spent (Hours)	Additional Comments
April 2 - April 13	<ul style="list-style-type: none"> - Researched recent municipal self-liquidity issuers - Discussed self-liquidity structures with internal experts - Discussed variable rate pricing with underwriters - Developed self-liquidity presentation - Distributed draft presentation to District staff - Discussed presentation with District staff 	<p>James Duckman , Associate; <i>Bondy Lau</i> , Analyst</p> <p>Bryon Rockwell, Director; <i>Grace Barvin</i> , Vice President; <i>John Hallacy</i> , Managing Director</p> <p><i>Grace Barvin</i> , Vice President; Merrill Lynch underwriters</p> <p><i>Bryon Rockwell</i> , Director; <i>Grace Barvin</i> , Vice President; <i>John Hallacy</i> , Managing Director; <i>James Duckman</i> , Associate; <i>Bondy Lau</i> , Analyst</p> <p><i>Grace Barvin</i> , Vice President</p> <p><i>Bryon Rockwell</i> , Director; <i>Grace Barvin</i> , Vice President</p>	<p>10</p> <p>2</p> <p>0.5</p> <p>12</p> <p>N/A</p> <p>2</p>	<p>At the request of the District Board, Merrill Lynch investigated structural alternatives that would allow the District to issue variable rate bonds on its own credit, without liquidity facilities or letters of credit.</p> <p>Exchanged an estimated 3-5 phone calls with Terry Loomis and/or Tanja Fournier over course of two week period</p>
Total Estimated Hours			26.5	
April 16 - April 27	<ul style="list-style-type: none"> - April 20th conference call to discuss presentation - Further developed presentation based on conference call - Discussed presentation with District staff - Finalized presentation for Finance Committee Meeting - April 26th Finance Committee Meeting 	<p><i>Bryon Rockwell</i> , Director; <i>Grace Barvin</i> , Vice President; <i>John Hallacy</i> , Managing Director; <i>James Duckman</i> , Associate; <i>Bondy Lau</i> , Analyst</p> <p><i>Grace Barvin</i> , Vice President</p> <p><i>Bryon Rockwell</i> , Director; <i>Grace Barvin</i> , Vice President</p> <p><i>Bryon Rockwell</i> , Director; <i>Grace Barvin</i> , Vice President; <i>John Hallacy</i> , Managing Director; <i>James Duckman</i> , Associate; <i>Bondy Lau</i> , Analyst</p> <p><i>Bryon Rockwell</i> , Director; <i>Grace Barvin</i> , Vice President; <i>John Hallacy</i> , Managing Director</p>	<p>5</p> <p>4</p> <p>3</p> <p>5</p> <p>9</p>	<p>Initial Merrill Lynch version reduced from 15-20 slides to 5-6</p> <p>Exchanged an estimated 5-7 phone calls with Terry Loomis and/or Tanja Fournier over course of two week period</p> <p>Merrill Lynch, including credit specialist, John Hallacy, who flew from New York, attended meeting. In the meeting, the Board directed District staff and Merrill Lynch to prepare a presentation to the rating agencies supporting an upgrade of the 2002 COPs</p>
Total Estimated Hours			26	

Dates	Tasks	Merrill Lynch Participants	Approximate Time Spent (Hours)	Additional Comments
April 30 - May 11	<ul style="list-style-type: none"> - Discussed ratings goals with IRWD management following Finance Committee Meeting 	Bryon Rockwell, Director; Grace Barvin, Vice President	2	Exchanged an estimated 2-3 phone calls with Terry Loomis and/or Tanja Fournier over course of two week period
May 14 - May 25	<ul style="list-style-type: none"> - Reviewed presentation materials provided by Tanja Fournier - Internal discussions about developing rating agency presentation 	Grace Barvin, Vice President; James Duckman, Associate Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director; James Duckman, Associate	2 5	
May 28 - Jun 8	<ul style="list-style-type: none"> - Reviewed 2002 rating agency presentation - Reviewed 2006 IRWD CAFR - Gathered demographic data about the District 	Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director; James Duckman, Associate James Duckman, Associate James Duckman, Associate	4 3 2	Merrill Lynch noted that substantially greater detail was necessary than was in the 2002 presentation
June 11 - June 22	<ul style="list-style-type: none"> - Developed first draft of presentation - Reviewed presentation internally - 6/19 Conference call to discuss first draft of presentation 	James Duckman, Associate Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director; James Duckman, Associate	9 20 3 5	
			Total Estimated Hours	28

Dates	Tasks	Merrill Lynch Participants	Approximate Time Spent (Hours)	Additional Comments
June 25 - July 6	<ul style="list-style-type: none"> - Reviewed 6/19 call with District staff and engaged in further discussion of the presentation - Formatted and incorporated data from District staff - Developed versions 2-4 of the presentation - Reviewed presentation internally - Emailed draft #4 to District - 6/27 conference call to discuss 4th draft of presentation 	<p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>James Duckman</i>, Associate</p> <p><i>James Duckman</i>, Associate</p> <p><i>James Duckman</i>, Associate</p> <p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>John Hallacy</i>, Managing Director</p> <p><i>James Duckman</i>, Associate</p> <p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>John Hallacy</i>, Managing Director; <i>James Duckman</i>, Associate</p>	<p>5</p> <p>5</p> <p>10</p> <p>5</p> <p>N/A</p> <p>5</p>	<p>Exchanged an estimated 5 phone calls with Terry Loomis and/or Tanja Fournier over course of two week period</p>
Total Estimated Hours				30
July 9 - July 20	<ul style="list-style-type: none"> - Reviewed 6/27 call with District staff and engaged in further discussion of the presentation - Formatted and incorporated data from District staff - Developed versions 5-7 of the presentation - Reviewed presentation internally - Emailed draft #6 to District - Emailed draft #7 to District - 7/11 conference call to discuss 7th draft of presentation - Emailed draft #8 to District - Began coordinating schedules with rating agencies - Gathered additional demographic data about the District 	<p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>James Duckman</i>, Associate</p> <p><i>James Duckman</i>, Associate</p> <p><i>James Duckman</i>, Associate</p> <p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>John Hallacy</i>, Managing Director</p> <p><i>James Duckman</i>, Associate</p> <p><i>James Duckman</i>, Associate</p> <p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>John Hallacy</i>, Managing Director; <i>James Duckman</i>, Associate</p> <p><i>James Duckman</i>, Associate</p> <p><i>Grace Barvin</i>, Vice President</p> <p><i>James Duckman</i>, Associate; <i>Derek Kuwahara</i>, Intern</p>	<p>5</p> <p>3</p> <p>8</p> <p>3</p> <p>N/A</p> <p>N/A</p> <p>12</p> <p>N/A</p> <p>2</p> <p>2</p>	<p>Exchanged an estimated 5 phone calls with Terry Loomis and/or Tanja Fournier over course of two week period</p> <p>Balancing the schedules of the rating agency analysts, the Board of Directors, District staff and Merrill Lynch and finding two consecutive days for a meeting in San Francisco was logistically challenging</p>
Total Estimated Hours				35

Dates	Tasks	Merrill Lynch Participants	Approximate Time Spent (Hours)	Additional Comments
July 23 - August 3	<ul style="list-style-type: none"> - Reviewed 7/11 call with District staff and engaged in further discussion of the presentation - Formatted and incorporated data and pictures from District staff - Developed versions 8-12 of the presentation - Reviewed presentation internally - Finalized meeting dates with rating agencies - Began coordinating travel schedules for Board of Directors, District staff and Merrill Lynch - Drafted letter to rating agencies on behalf of the District 	<p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>James Duckman</i>, Associate</p> <p><i>Grace Barvin</i>, Vice President; <i>James Duckman</i>, Associate</p> <p><i>Grace Barvin</i>, Vice President; <i>James Duckman</i>, Associate</p> <p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>John Hallacy</i>, Managing Director</p> <p><i>Grace Barvin</i>, Vice President</p> <p><i>Grace Barvin</i>, Vice President; <i>Gia Brewer</i>, Assistant</p> <p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>James Duckman</i>, Associate</p>	<p>6</p> <p>2</p> <p>20</p> <p>3</p> <p>1</p> <p>2</p> <p>3</p>	<p>Exchanged an estimated 10 phone calls with Terry Loomis and/or Tanja Fournier over course of two week period</p>
Total Estimated Hours				37
August 6 - August 17	<ul style="list-style-type: none"> - Finalized travel and lodging for board of directors, District staff and Merrill Lynch - Began coordinating meals and entertainment for Board of Directors and District staff - Developed versions 13-14 of the presentation - Emailed draft #14 to District - 8/7 Finance Committee Meeting - Reviewed 8/7 call with District staff and engaged in further discussion of the presentation - Emailed draft #15 to District - Researched and analyzed comparable AAA-rated water issuers 	<p><i>Grace Barvin</i>, Vice President; <i>Gia Brewer</i>, Assistant</p> <p><i>Grace Barvin</i>, Vice President; <i>Gia Brewer</i>, Assistant; <i>Maureen McKenna</i>, Assistant</p> <p><i>James Duckman</i>, Associate</p> <p><i>James Duckman</i>, Associate</p> <p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>John Hallacy</i>, Managing Director; <i>James Duckman</i>, Associate</p> <p><i>Bryon Rockwell</i>, Director; <i>Grace Barvin</i>, Vice President; <i>James Duckman</i>, Associate</p> <p><i>James Duckman</i>, Associate</p> <p><i>John Hallacy</i>, Managing Director; <i>Grace Barvin</i>, Vice President; <i>James Duckman</i>, Associate</p>	<p>1</p> <p>2</p> <p>10</p> <p>N/A</p> <p>13</p> <p>5</p> <p>N/A</p> <p>10</p>	<p>Arrangements included air travel and travel between the airport and hotel</p> <p>Bryon Rockwell, Grace Barvin and James Duckman attended meeting in person; John Hallacy and Bondy Lau participated telephonically.</p> <p>Exchanged an estimated 10 phone calls with District staff over course of two week period</p> <p>Research included placing phone calls to S&P</p>
Total Estimated Hours				41

Irvine Ranch Water District
 Summary of Meetings, Teleconferences and Work Product
 Self-liquidity Analysis & Rating Agencies Presentation



Dates	Tasks	Merrill Lynch Participants	Approximate Time Spent (Hours)	Additional Comments
August 20 - August 31	<ul style="list-style-type: none"> - Engaged in further discussion of the presentation and District staff - Finalized meals and entertainment for Board of Directors including off-the-record discussions with S&P water specialist - Researched and created matrix describing characteristics of AAA-rated water issuers nationwide - Formatted and incorporated data from District staff - Reviewed presentation internally - Finalized presentation after ~20 drafts 	<p>Bryon Rockwell, Director; Grace Barvin, Vice President; James Duckman, Associate</p> <p>Grace Barvin, Vice President; Gia Brewer, Assistant</p> <p>Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director</p> <p>James Duckman, Associate</p> <p>James Duckman, Associate</p> <p>Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director</p> <p>Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director; James Duckman, Associate</p> <p>James Duckman, Associate</p> <p>James Duckman, Associate</p> <p>Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director; James Duckman, Associate</p>	<p>4</p> <p>1</p> <p>3</p> <p>10</p> <p>3</p> <p>5</p> <p>12</p> <p>0.5</p> <p>8</p> <p>40</p>	<p>Exchanged an estimated 10 phone calls with Terry Loomis and/or Tanja Fournier over course of two week period</p>
September 3 - September 14	<ul style="list-style-type: none"> - Confirmed additional information required by rating agencies - Drafted follow-up letter to rating agencies; forwarded draft to Terry Loomis 	<p>Bryon Rockwell, Director; Grace Barvin, Vice President</p> <p>Grace Barvin, Vice President</p>	<p>1</p> <p>2</p>	<p>Three meetings over two days, plus on-site prep time. Merrill Lynch, including credit specialist John Hallacy, attended and provided feedback through each meeting. Employing Merrill Lynch office conference center reduced the logistical challenges of multiple meeting locations</p>
Total Estimated Hours			86.5	
Total Estimated Hours			3	

Irvine Ranch Water District
 Summary of Meetings, Teleconferences and Work Product
 Self-liquidity Analysis & Rating Agencies Presentation



Dates	Tasks	Merrill Lynch Participants	Approximate Time Spent (Hours)	Additional Comments
September 17 - September 28	<ul style="list-style-type: none"> - Maintained contact with rating agencies to ensure that their needs were met and to push their analysis forward - Coordinated follow-up conference call with Fitch 	Grace Barvin, Vice President Grace Barvin, Vice President	2 1	
Total Estimated Hours				3
October 1 - October 12	<ul style="list-style-type: none"> - Maintained contact with rating agencies to ensure that their needs were met and to push their analysis forward - Discussed Fitch rating with rating analyst and internally - Reviewed and commented on draft Fitch report 	Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director Bryon Rockwell, Director; Grace Barvin, Vice President	1 1 1	
Total Estimated Hours				3
October 15 - October 26	<ul style="list-style-type: none"> - Sent follow-up email to S&P rating analysts - Discussed Moody's rating with rating analyst and internally - Reviewed and commented on draft Moody's report - Participated in conference calls with Moody's rating analyst and Terry Loomis to review draft report and discuss comments/issues 	Grace Barvin, Vice President Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director Bryon Rockwell, Director; Grace Barvin, Vice President; John Hallacy, Managing Director Bryon Rockwell, Director; Grace Barvin, Vice President	- 1 2 2	
Total Estimated Hours				5
GRAND TOTAL ESTIMATED HOURS			342	
MERRILL LYNCH EXPENSES			\$8,777.51	Meals, hotels, ground transportation and travel to and from meetings with rating agencies in August for Board, staff and Merrill Lynch; late night meals while working on rating agency presentation; travel by John Hallacy from New York to board meeting

Exhibit "C"

SUMMARY OF ESTIMATED PERSONNEL EXPENSES BY MERRILL LYNCH

Hourly Rate	Managing Director/Director		Vice President		Associate	
	Hours	Cost	Hours	Cost	Hours	Cost
		\$ 300		\$ 240		\$ 190
Two-Week Period						
April 2 - April 13	4.3	1,299	3.2	761	19.0	3,610
April 16 - April 27	11.5	3,450	10.5	2,520	4.0	760
April 30 - May 11	1.0	300	1.0	240	0.0	-
May 14 - 25	2.0	600	3.0	720	2.0	380
May 28 - June 8	2.0	600	1.0	240	6.0	1,140
June 11 - June 22	4.0	1,200	2.0	480	22.0	4,180
June 25 - July 6	7.0	2,094	4.3	1,042	18.7	3,549
July 9 - July 20	9.7	2,898	7.7	1,838	17.7	3,359
July 23 - August 3	4.5	1,350	12.0	2,880	20.5	3,895
August 6 - August 17	8.9	2,658	7.3	1,742	24.9	4,727
August 20 - August 31	30.7	9,198	17.0	4,080	38.8	7,380
September 3 - September 14	0.5	150	2.5	600	0.0	-
September 17 - September 28	0.0	-	3.0	720	0.0	-
October 1 - October 12	1.8	552	1.2	278	0.0	-
October 15 - October 28	2.99	897	2.01	482	0	-
	90.8	27,246	77.6	18,624	173.6	32,980
Total Hours and Fee	342.0	78,850.00				
Expenses		8,777.51				
Total Compensation		87,627.51				

December 17, 2007

Prepared By: F. Sanchez

Submitted by: G. Heiertz

Approved by: Paul Jones

Handwritten signatures and initials: F. Sanchez, G. Heiertz, Paul Jones

CONSENT CALENDAR

PROPOSITION 50 GRANT AGREEMENT WITH DEPARTMENT OF WATER RESOURCES FOR DEVELOPMENT OF STATEWIDE ET DATA PROTOCOL

SUMMARY:

Staff is requesting that the Board of Directors authorize the General Manager to execute an agreement with the Department of Water Resources (DWR) that will allow Irvine Ranch Water District to receive \$156,300 in Prop. 50 grant funding. Acceptance of the grant funds by IRWD obligates IRWD to provide a total \$105,045 in matching funds for the Statewide Evapotranspiration (ET) Data Protocol project. IRWD has already secured \$100,000 in funding commitments for the required match from other participating agencies, and therefore IRWD's direct cost share obligation for the grant is \$5,045.

BACKGROUND:

IRWD submitted a water use efficiency grant application in April 2007 for development of a Statewide ET Data Protocol that was selected for Prop. 50 funding by the State Department of Water Resources (DWR). The project will complete the work on the development of a standard data protocol for the transmission of ET data as an enhancement to the California Irrigation Management Information System (CIMIS) program operated by DWR. Providing easily accessible ET data in a standardized format is intended to reduce ET data costs and foster adoption of ET-based irrigation technology, which has proven water conservation and runoff reduction benefits. The proposed project is also designed to test prototype irrigation controllers using the standard data protocol.

The total project cost is \$261,345. IRWD's direct cost share is \$5,045, in addition to staff time to manage and administer the project, estimated at \$48,500. The Prop. 50 grant and funding break-down is as follows:

Project Title	Total Project Cost	Grant Amount	IRWD Share	Other Participating Agency Cost-Share
Statewide ET Data Protocol	\$261,345	\$156,300	\$5,045	\$100,000

IRWD is the lead agency for this project with a total of nine other water agencies participating and providing \$100,000 in co-funding as indicated in Table 1. Staff is coordinating the funding participation agreements with the other water agencies. The agreement with DWR is included as Exhibit "A".

Table 1: Participating Agency Funding Commitments

Agency	Funding	Funding Status
Santa Clara Valley Water District	\$10,000	Paid
Eastern MWD	\$10,000	Board Approved
Sonoma County Water Agency	\$5,000	Board Approved
San Francisco PUC	\$5,000	Letter of Commitment
East Bay MUD	\$5,000	Letter of Commitment
Los Angeles DWP	\$5,000	Letter of Commitment
MWDOC	\$15,000	Paid
Redwood City	\$5,000	Letter of Commitment
Metropolitan Water District	\$40,000	Enhanced Conservation Grant
Total	\$100,000	

FISCAL IMPACTS:

The total cost of the Statewide ET Data Protocol Project is \$261,345. A cost of \$156,300 is reimbursable through the DWR Prop. 50 Grant, and an additional \$100,000 is reimbursable from other participating agency contributions, which includes a \$40,000 grant from Metropolitan. The net IRWD direct contribution to the Project is \$5,045. Staff and legal costs, plus contingency, are estimated at \$48,500. Funding for the Project is included in capital budget Project 10553.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications Committee meeting on December 10, 2007.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO ENTER INTO AN AGREEMENT WITH THE DEPARTMENT OF WATER RESOURCES TO RECEIVE \$156,300 IN PROP 50 GRANT FUNDING FOR THE DEVELOPMENT OF A STATEWIDE EVAPOTRANSPIRATION (ET) DATA PROTOCOL.

LIST OF EXHIBITS:

Exhibit "A" – Agreement with DWR for Prop 50 Grant Funding for the Development of a Statewide Evapotranspiration (ET) Data Protocol.

EXHIBIT "A"

Agreement 4600007867
Irvine Ranch Water District
Development of Statewide ET Data Protocol

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

AGREEMENT BETWEEN THE STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

AND

IRVINE RANCH WATER DISTRICT

FOR A WATER USE EFFICIENCY GRANT UNDER
PROPOSITION 50, THE WATER SECURITY, CLEAN DRINKING WATER,
COASTAL AND BEACH PROTECTION ACT OF 2002

This agreement is entered into between the State of California, acting by and through the Department of Water Resources, (State) and Irvine Ranch Water District,(Grantee).

The State and Grantee agree as follows:

SECTION 1 PURPOSE OF GRANT

This State Grant is made by the State to the Grantee to assist in financing a Water Conservation Project pursuant to the California Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002. This Grant program implements Water Code Chapter 7, Section 79550(g) of Proposition 50.

Grant funds may be used only as provided in this Agreement for such Eligible Project Costs as set forth in the Project description and Budget, copies of which are incorporated herein as reference. Exhibit B, "Statement of Work" and Exhibit C, "Budget" which describe tasks to be accomplished and costs associated with those tasks under this Agreement.

SECTION 2 TERM OF STATE GRANT

The term of this Agreement is from January 1, 2008 through April 15, 2010.

SECTION 3 PROJECT COSTS

The Total Project Costs (identified in Exhibit C) are estimated to be \$261,344.00.

SECTION 4 STATE GRANT

Subject to the availability of funds, the State will grant to the Grantee in accordance with the terms of this Agreement an amount not to exceed \$156,299.00, as State Share, as identified in Exhibit C, for Eligible Project Costs.

SECTION 5 GRANTEE'S COST SHARE AMOUNT

The Grantee agrees to fund the difference, if any, between the estimated Project Cost (Section 3) and the State Grant (Section 4). Grantee's Costs are estimated to be \$105,045.00, as identified in Exhibit C.

SECTION 6 INCORPORATION OF STANDARD CONDITIONS AND GRANTEE COMMITMENTS

In addition to Exhibits B and C, this agreement incorporates Exhibit A, "Standard Terms". The Grantee accepts and agrees to comply with all terms, provisions, conditions, and commitments of this Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations and statements made by the Grantee in the Application, documents, amendments and communications filed in support of its request for financing.

SECTION 7 CONDITIONS FOR DISBURSEMENT

The Grantee shall meet all conditions for disbursement of money under this Agreement, including the provisions of Exhibit A-6. Failure by Grantee to comply may, at the option of the State, result in termination of the Agreement.

SECTION 8 PROGRESS REPORTS AND STATEMENT OF COSTS

The Grantee shall submit quarterly progress reports, starting April 15, 2008, or as detailed in the Exhibit B; B7 "Schedule of Progress Reports and Payments" on the status of the Project and a Statement of Costs to the Department of Water Resources. The submittal and approval by the State of these reports is a requirement for continued disbursement of State Grant funds. Progress reports shall summarize the work completed during the reporting period, include a statement of progress toward completion compared to the Project schedule, and provide a comparison of costs to date compared to the approved scope of work and Project budget. Quarterly Reports will follow the format requirements set forth in Exhibit B; Attachment 1.

SECTION 9 FINAL REPORTS

The Grantee shall submit a Draft Final Report on Project completion or termination and expenditures for the State's review and comment. The Draft Final Report shall be modified to incorporate the State's comments, if any, and resubmitted, as Final Report within sixty (60) days of the Grantee's receipt of the State's comments. The Grantee shall also submit Post-Completion Annual Reports and updates. Reporting will follow the format requirements set in Exhibit B, Attachments 2 and 3.

SECTION 10 OPERATIONS AND MAINTENANCE OF "CONSTRUCTION" PROJECT

In consideration of the State Grant, the Grantee agrees, for the useful life of the Project to expeditiously commence and to continue operation of the Project and shall cause the Project to be operated in an efficient and economical manner; shall provide for all repairs, renewals, and replacements necessary to the efficient operation of the Project; and shall cause the Project to be maintained in as good and efficient condition as upon its construction, ordinary and reasonable wear and depreciation excepted. Refusal of the Grantee to operate and maintain the Project in accordance with this provision may, at the option of the State, be considered a material breach of Agreement and may be treated as default under default provisions Exhibit A-25.

SECTION 11 RELATIONSHIPS OF PARTIES

The Grantee, its contractors, subcontractors, and their respective agents and employees required for performing any work under this Agreement shall act in an independent capacity and not as officers, employees, or agents of the State.

The Grantee is solely responsible for planning and implementation of the Project. Review or approval of plans, specifications, bid documents or other construction documents by the State is solely for the purpose of proper administration of State Grant funds and shall not be deemed to relieve or restrict the Grantee's responsibility.

SECTION 12 PERMITS, LICENSES, APPROVALS AND LEGAL OBLIGATIONS

The Grantee shall be responsible for obtaining any and all permits, licenses and approvals required for performing any work under this Agreement, including those necessary for planning and implementing the Project. The Grantee shall be responsible for complying with all applicable federal, State and local laws, rules or regulations affecting any such work, specifically including, but not limited to, environmental, labor, procurement and safety laws, rules, regulations and ordinances.

SECTION 13 GRANTEE'S RESPONSIBILITIES FOR WORK

The Grantee shall be responsible for work and for persons or entities engaged in work, including, but not limited to, subcontractors, suppliers and providers of services. The Grantee shall give personal supervision to any work required under this Agreement or employ a competent representative, satisfactory to the State, with the authority to act for the Grantee. The Grantee or its authorized representative shall be present while work is in progress. The Grantee shall be responsible for any and all disputes arising out of its contracts for work on the Project, including but not limited to bid disputes and payment disputes with the Grantee's contractors and subcontractors. The State will not mediate disputes between the Grantee and any other entity concerning responsibility for performance of work.

SECTION 14 PROJECT OFFICIALS AND NOTICES

The Chief, Office of Water Use Efficiency and Transfers, Department of Water Resources shall be the State's representative and shall have the authority to sign Agreement and amendments to the Agreement if needed, and to make determinations with respect to each controversy or discrepancy arising under or in connection with the interpretation, performance, or payment for work performed under this Agreement.

The Grantee Project Director shall be Fiona Sanchez. The Grantee Project Director shall be the Grantee's representative for the administration of the Agreement and shall have full authority to act on behalf of the Grantee, including authority to execute all payment requests. All communications given to the Project Director shall be as binding as if given to the Grantee.

Either party may change its representative upon written notice to the other party.

Notices required to be given to the State in writing by the Grantee under this Agreement shall be sent to:

Baryohay Davidoff, Water Use Efficiency Project Manager
State of California
Department of Water Resources
Office of Water Use Efficiency and Transfers
901 P Street, Room 313A
Post Office Box 942836
Sacramento, CA 94236-0001

Notices required to be given to the Grantee in writing by the State under this Agreement shall be sent to:

Fiona Sanchez
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

A change of address for delivery or notice may be made by either party by written notice of such change of address to the other party.

All such notices shall be enclosed in a properly addressed, postage prepaid envelope and deposited in a United States Post Office for delivery by registered or certified mail.

Approved as to Legal Form and Sufficiency:

By _____
Date
David A. Sandino, Chief Counsel
Department of Water Resources

IRVINE RANCH WATER DISTRICT

Approved as to Legal Form and Sufficiency:

By _____ 11-27-07
Date
Grantee's Attorney (if applicable)

By _____
Date
Signatory

Paul Jones
15600 Sand Canyon Avenue
Irvine, CA 92618

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

By _____
Richard Soehren, Chief, Office of Water Use Efficiency and Transfers

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on

Date

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

EXHIBIT A
STANDARD TERMS

- A-1. **GOVERNING LAW:** This Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.
- A-2. **TIMELINESS:** Time is of the essence in this Agreement.
- A-3. **AMENDMENT:** This Agreement may be amended at any time by mutual agreement of the parties, except insofar as any proposed amendments are in any way contrary to applicable law. Requests by the Grantee for amendments must be in writing stating the amendment request and the reason for the request.
- A-4. **SUCCESSORS AND ASSIGNS:** This Agreement and all of its provisions shall apply to and bind the successors and assigns of the parties hereto. No assignment or transfer of this Agreement or any part thereof, rights hereunder, or interest herein by the Grantee shall be valid unless and until it is approved by the State and made subject to such reasonable terms and conditions as the State may impose.
- A-5. **ELIGIBLE PROJECT COSTS:** Grantee shall apply State Grant funds received only to Eligible Project Costs, as identified in Exhibit C.
- A-6. **CONDITIONS FOR DISBURSEMENT:** The State shall have no obligation to disburse money under this Agreement unless and until the Grantee has satisfied the State that the disbursement is in accordance with the requirements of the Water Code Chapter (7), Section 79550(g) of Proposition 50, and the following:
- (a) For Construction Projects, the Grantee submits to the State, final plans and specifications certified by a California Registered Civil Engineer or equivalent documentation as to compliance with the approved Project.
 - (b) The Grantee submits a written statement by an authorized representative that it has obtained all necessary permits, easements, rights-of-way and approvals as may be required by other state, federal, and/or local agencies, as specified in Section 12 of this Agreement.

- (c) The Grantee demonstrates compliance with the California Environmental Quality Act and the National Environmental Policy Act by submitting copies of any environmental documents, including environmental impact reports, environmental impact statements, negative declarations, mitigation agreements, legal notices and environmental permits as may be required prior to beginning the Project.
- (d) The Grantee submits timely quarterly progress reports, draft final and final reports, and post-completion annual reports on benefits and costs updates as required by Sections 8 and 9 of this Agreement.
- (e) The Grantee demonstrates continuing availability of sufficient funds to complete the Project.

A-7. STATE GRANT DISBURSEMENTS:

- (a) Cost Statements: After the Conditions for Disbursement, Section A-6, are met, the State will disburse the whole or portions of the State Grant commitment to the Grantee following receipt from the Grantee of a statement or statements of incurred Eligible Project Costs, reviewed by the Grantee's designated representative, and timely progress reports as required by Section 8 of this Agreement. Requests for State Grant funds shall be filed quarterly or for such periods as the State and the Grantee may mutually agree. The Grantee shall provide the following information:
 - 1. A statement of the incurred Eligible Project Costs for work performed under the Agreement during the period identified in the particular statement and which matches the Budget in Exhibit C and tasks in Exhibit B.
 - 2. A statement of the cost of any interests in real property (land or easements) that have been necessarily acquired for the Project during the period identified in the particular statement for the implementation of the Project.

Agreement 4600007867
Irvine Ranch Water District
Development of Statewide ET Data Protocol

The Grantee shall submit two (2) copies of quarterly progress reports and (2) copies of invoice (along with supporting documents for expenditures) associated with work accomplished during that quarter to:

Baryohay Davidoff, Water Use Efficiency Project Manager
Department of Water Resources
Office of Water Use Efficiency and Transfers
901 P Street, Room 313A
P.O. Box 942836
Sacramento, CA 94236-0001

The invoice must be detailed and provide supporting documentation for both State and Local Share of costs for each quarterly progress report. Invoice shall be submitted in arrears, bearing the Agreement number.

The Grantee must also submit one (1) original copy of each invoice simultaneously to:

DWR Accounting Office
Contracts Payable Unit
P.O. Box 942836
Sacramento, CA 94236

All reports and invoices must be on the Grantee's letterhead, have name, project title, Agreement number, invoice number, and the quarter and tasks for which progress reports and invoices cover.

- (b) Disbursement: Following the review and approval of each invoice, the State will disburse to the Grantee the amount approved, subject to the availability of funds through the State's normal procedures. Funds will be disbursed by the State in response to each approved invoice on a pro rata basis in accordance with the relative payment obligations of the Grantee, Sections 3, 4, and 5 of this Agreement. Any and all money disbursed to the Grantee under this Agreement and any and all interest earned by the Grantee on such money shall be used solely to pay Eligible Project Costs.

Along with submittal of Draft and Final Report and satisfactory completion of the project, Grantee shall submit to the State a final invoice for incurred Eligible Project Costs and request release of retention/withholding, as identified in Exhibit A-8(a) of this agreement.

A-8. WITHHOLDING OF GRANT DISBURSEMENTS BY STATE:

- (a) Withholding Clause: The State, at its discretion, may withhold ten percent (10%) of the funds requested by the Grantee for reimbursement of eligible Project Costs until the Project is completed and Final Report is received.
- (b) Additional Conditions for Withholding: If the State determines that the Project is not being completed substantially in accordance with the provisions of this Agreement or that the Grantee has failed in any other respect to comply substantially with the provisions of this Agreement, and if the Grantee does not remedy any such failure to the State's satisfaction, the State may withhold from the Grantee all or any portion of the State Grant commitment and take any other action that it deems necessary to protect its interests.
- (c) Withholding Entire State Grant Commitment: If the State notifies the Grantee of its decision to withhold all of the State Grant commitment from the Grantee pursuant to Subdivision (b) of this Article, this Agreement shall terminate upon receipt of such notice by the Grantee and shall no longer be binding on either party.
- (d) Withholding Balance of State Grant Commitment: Where a portion of the State Grant commitment has been disbursed to the Grantee and the State notifies the Grantee of its decision to withhold the balance of the State Grant, the portion that has been disbursed shall thereafter be repaid immediately with interest, as directed by the State. Refusal of the Grantee to so repay may, at the option of the State, be considered a material breach of Agreement and may be treated as default under Default Provisions, Exhibit 25.

- A-9. DOCUMENTATION OF PROJECT BENEFITS AND COSTS: Actual Water Savings and Other Benefits and Costs: The Grantee shall submit Annual Reports of Benefits and Costs after the first operational year has elapsed and report any updates and other benefits such as water savings, water quality, flow and timing, energy savings, and any other/additional benefits and costs resulting from the Project, as detailed in the Exhibit B (B-2, Benefits). These reports must be submitted on schedule as identified in Exhibit B (B-7, Schedule for Progress Reports and Payments) to the Project Manager. If appropriate, the Grantee shall revise the estimate of water savings based on records of each consecutive year for five years. Estimates shall include total annual water savings, net annual water savings, and costs. The report shall also include a description of how the water produced by the Project is being utilized. This recording and reporting process shall be subsequently repeated for a total of five (5) consecutive operational years.

A-10. TIMING AND MANNER OF PROJECT UNDERTAKING:

- (a) Project Undertaking Pursuant to Agreement: The Project shall be undertaken in strict accordance with this Agreement.
- (b) Determination of Project Completion: For the purposes of this Agreement, the Project shall be considered to be completed or to be terminated when so determined by the State.
- (c) Acknowledgement of Credit: The Grantee shall include appropriate acknowledgement of credit to the State and to all cost-sharing partners for their support when promoting the Project or using any data and/or information developed under the Agreement.
- (d) Audit Requirement: Pursuant to Government Code Section 8546.7, the contracting parties shall be subject to the examination and audit of the State for a period of three (3) years after final payment under this Agreement with respect to all matters connected with the performance of this Agreement, including but not limited to, the cost of administering this Agreement. All records of the Grantee or subcontractors shall be preserved for this purpose for at least three (3) years after completion of the Project.
- (e) Competitive Bidding of Contracts and Procurements: Grantee shall comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations in Grantee's contracts with other entities for acquisition of goods, and services and construction of public works with funds provided by the State under this Agreement.
- (f) Final Inspection and Certification of Registered Civil Engineer (Construction Projects): Upon completion of the Project the Grantee shall provide for a final inspection and certification by a California Registered Civil Engineer that the Project has been completed in accordance with submitted final plans and specifications and any modifications thereto and in accordance with this Agreement. The Grantee shall notify the Office of Water Use Efficiency and Transfers of the Department of Water Resources of the inspection date at least 10 days prior to the inspection in order to provide the State the opportunity to participate in the inspection.

A-11. ACCOUNTING AND DEPOSIT OF GRANT DISBURSEMENT:

- (a) Separate Accounting of State Grant Disbursements and Interest Records: The Grantee shall account for the money disbursed pursuant to this Agreement separately from all other Grantee's funds. The Grantee shall maintain audit and accounting procedures that are in accordance with generally accepted accounting principles and practices, consistently applied. The Grantee shall keep complete and accurate records of all receipts, disbursements, and interest earned on expenditures of such funds. The Grantee shall require its contractors or subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices. Records are subject to inspection by the State at any and all reasonable times.
- (b) Disposition of Money Disbursed: All money disbursed pursuant to this Agreement shall be deposited, administered, and accounted for pursuant to the provisions of applicable law.
- (c) Remittance of Unexpended Funds: The Grantee, within a period of thirty (30) days from the final disbursement from the State to the Grantee of State Grant funds, shall remit to the State any unexpended funds that were disbursed to the Grantee under this Agreement and were not needed to pay Eligible Project Costs.
- (d) Interim and Final Audits: The State reserves the right to conduct an audit at any time between the execution of this Agreement and the completion of the Project, with the costs of such audit borne by the State. After completion of the Project, the State may require the Grantee to conduct a final audit, at the Grantee's expense, such audit to be conducted by and a report prepared by an independent Certified Public Accountant.

Failure or refusal by the Grantee to comply with this provision shall be considered a substantial failure to comply with this Agreement, and the State may elect to pursue any remedies provided in Article A-5 or take any other action it deems necessary to protect its interests.

A-12. CLAIMS DISPUTE CLAUSE: Any claim that the Grantee may have regarding the performance of this agreement including, but not limited to, claims for additional compensation or extension of time, shall be submitted to the Project Manager, Department of Water Resources, within thirty (30) days of the Grantee's knowledge of the claim. Project Manager and Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to this Agreement to implement the terms of any such resolution.

- A-13. **REMEDIES NOT EXCLUSIVE:** The use by either party of any remedy specified herein for the enforcement of this agreement is not exclusive and shall not deprive the party using such remedy of, or limit the application of any other remedy provided by law.
- A-14. **STATE TO BE HELD HARMLESS:** The Grantee agrees to indemnify the State and its officers, agents, and employees against and to hold the same free and harmless from any and all claims, demands, damages, losses, costs, expenses, or liability due or incident to, either in whole or in part, and whether directly or indirectly, arising out of the Project.
- A-15. **INSPECTION OF BOOKS, RECORDS, AND REPORTS:** During regular office hours, each of the parties hereto and their duly authorized representatives shall have the right to inspect and to make copies of any books, records, or reports of either party pertaining to this Agreement or matters related hereto. Each of the parties hereto shall maintain and shall make available at all times for such inspection accurate records of all its costs, disbursements, and receipts with respect to its activities under this Agreement. Failure or refusal by the Grantee to comply with this provision shall be considered a substantial failure to comply with this Agreement and the State may withhold disbursements to the Grantee or take any other action it deems necessary to protect its interests.
- A-16. **INSPECTIONS OF PROJECT BY STATE:** The State shall have the right to inspect the work being performed at any and all reasonable times during the term of the Agreement. This right shall extend to any subcontracts, and the Grantee shall include provisions ensuring such access in all its contracts or subcontracts entered into pursuant to its Agreement with the State.
- A-17. **PROHIBITION AGAINST DISPOSAL OF PROPERTY WITHOUT STATE PERMISSION:** The Grantee shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the Project, without prior permission of the State. The Grantee shall not take any action, including but not limited to actions relating to user fees, charges, and assessments that could adversely affect the ability of the Grantee to meet its obligations under this Agreement, without prior written permission of the State. The State may require that the proceeds from the disposition of any real or personal property be remitted to the State to be applied to the Grantee's indebtedness under this Agreement.
- A-18. **NO THIRD PARTY RIGHTS:** The parties to this Agreement do not intend to create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or of any duty, covenant, obligation or undertaking established herein.

- A-19. NOTICES: All notices that are required either expressly or by implications to be given by one party to the other under this Agreement shall be signed for the Program Manager and for the Grantee by such officers, as from time to time, it may authorize in writing to so act. All such notices shall be deemed to have been given if delivered personally or if enclosed in a properly addressed postage-prepaid envelope and deposited in a United States Post Office for delivery by registered or certified mail.
- A-20. PERFORMANCE AND ASSURANCES: Grantee agrees to faithfully and expeditiously perform or cause to be performed all Project work as described in the final plans and specifications as submitted or as later amended and approved by the State under this Agreement and to apply State funds received only to Eligible Project Costs and to operate and maintain the Project in accordance with applicable provisions of the law. In the event the State finds it necessary to enforce this provision or any right or power under this Agreement in the manner provided by law, Grantee agrees to pay all costs incurred by the State including, but not limited to, reasonable attorneys' fees, legal expenses, and costs. The State reserves the right to seek further written assurances from the grantee that the work of the Project under this Agreement will be performed consistent with the terms of this Agreement.
- A-21. SEVERABILITY: In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.
- A-22. WAIVER OF RIGHTS: None of the provisions of this Agreement shall be deemed waived unless expressly waived in writing. It is the intention of the parties hereto that from time to time either party may waive any of its rights under this Agreement unless contrary to law. Any waiver by either party hereto of rights arising in connection with this Agreement shall not be deemed to be a waiver with respect to any other rights or matters, and such provisions shall continue in full force and effect.
- A-23. TERMINATION WITHOUT CAUSE: The State may terminate this Agreement without cause on 30 days advance written notice. The Grantee shall be reimbursed for all reasonable expenses incurred up to the date of termination.
- A-24. TERMINATION FOR CAUSE: The State may terminate this Agreement and be relieved of any payments should the Grantee fail to perform the requirements of this Agreement at the time and in the manner herein provided including but not limited to reasons of default under A-25.

A-25. DEFAULT PROVISIONS:

- (a) The grantee will be in default under this agreement if any of the following occur:
1. Substantial breach of this Agreement, or any supplement or amendment to it;
 2. Making any false warranty, representation, or statement with respect to this Agreement;
 3. Failure to make any remittance required by this Agreement.
- (b) Should an event of default occur, the State may do any or all of the following:
1. Demand the State Grant be immediately repaid, with interest, which shall be equal to the State of California general obligation bond interest rate in effect at the time of the default;
 2. Terminate any obligation to make future payments to the Grantee;
 3. Terminate the Agreement; and
 4. Take any other action that it deems necessary to protect its interests.
- (c) The Grantee agrees that any remedy provided in this Agreement is in addition to and not in derogation of any other legal or equitable remedy available to the State as a result of a breach of this Agreement by the Grantee, whether such breach occurs before or after completion of the Project.
- (d) No waiver by the State of any breach or default will be a waiver of any breach or default occurring later. A waiver will be valid only if signed by the State or its authorized agent.

A-26. CONFLICT OF INTEREST:

(a) Current State Employees:

1. No State officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity or enterprise is required as a condition of regular State employment.
2. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.

(b) Former State Employees:

1. For the two year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the Agreement while employed in any capacity by any State agency.
2. For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed Agreement within the twelve-month period prior to his or her leaving State service.

A-27. WORKERS' COMPENSATION CLAUSE: The Grantee affirms that it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and the Grantee affirms that it will comply with such provisions before commencing the performance of the work under this Agreement and will make its contractors and subcontractors aware of this provision.

A-28. AMERICANS WITH DISABILITIES ACT: By signing this Agreement, Grantee assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

A-29. DRUG-FREE WORKPLACE CERTIFICATION:

(a) Certification of Compliance

By signing this Agreement, the Grantee, its contractors or subcontractors hereby certify under penalty of perjury under the laws of the State of California compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 et seq.) and have or will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees, contractors and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors or subcontractors for violations, as required by Government Code Section 8355(a).
2. Establish a Drug-Free Awareness Program, as required by Government Code Section 8355(b) to inform employees, contractors and subcontractors about all of the following:
 - a. The dangers of drug abuse in the workplace,
 - b. The Grantee's policy of maintaining a drug-free workplace,
 - c. Any available counseling, rehabilitation and employee assistance programs, and
 - d. Penalties that may be imposed upon employees, contractors or subcontractors for drug abuse violations.
3. Provide, as required by Government Code Section 8355(c), that every employee, contractor and subcontractor who works under this Agreement:
 - a. Will receive a copy of the Grantee's drug-free policy statement, and
 - b. Will agree to abide by terms of the Grantee's condition of employment, contract or subcontract.

(b) Suspension of Payments

This Agreement or State Grant may be subject to suspension of payments or termination, or both, and the Grantee may be subject to debarment if the Department determines that:

1. The Grantee, its contractors or subcontractors have made a false certification, or;
2. Grantee, its contractors or subcontractors violates the certification by failing to carry out the requirements noted above.

A-30. **NON DISCRIMINATION CLAUSE:** During the performance of this Agreement, the Grantee, its contractors and subcontractors shall not deny the Contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age, or sex. The Grantee shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination.

The Grantee, its contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code, Section 12900 et seq.), the regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code, Sections 11135-11139.5) and the regulations or standards adopted by the awarding State Agency to implement such article.

The Grantee, its contractors and subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

The Grantee shall include the nondiscrimination and compliance provisions of this clause in all contracts and subcontracts to perform work under the Agreement.

The Grantee's signature on this Agreement shall constitute a certification under the penalty of perjury under the laws of the State of California that the Grantee has, unless exempted, complied with the nondiscrimination program requirements of Government Code, Section 12990, and Title 2, California Code of Regulations, Section 8103.

A-31. UNION ORGANIZING: No State funds disbursed by this State Grant will be used to assist, promote, or deter union organizing. If Grantee makes expenditures to assist, promote, or deter union organizing, Grantee will maintain records sufficient to show that no State funds were used for those expenditures and that Grantee shall provide those records to the Attorney General upon request.

EXHIBIT B

STATEMENT OF WORK IRVINE RANCH WATER DISTRICT PIN 10170

B-1 Project Goals and Objectives

The Irvine Ranch Water District (IRWD), Grantee, will develop a standard data protocol for the transmission of evapotranspiration (ET) data. The objective of the project is to provide ET triangulated data for a 2 square km grid in an easily assessable, standard usable format through the entire State. ET is a measure of plant water loss through evaporation and transpiration based on a reference crop, such as cool-season turf grass. It indicates how much irrigation water should be applied to the crop or plant to replace the loss and maintain plant health. The publicly available ET data will be provided as an enhancement to the California Irrigation Management Information System (CIMIS). It will be made available in a standard data format (ET-XML) that can be used by irrigation controllers. The ET data can also be accessed using a window-based software application and, therefore, has broader application than just weather-based irrigation controllers. For example, it can be used to develop landscape water budgets. This expansion of data will enhance ET data accuracy and coverage, such that the system will ultimately be able to deliver ET data based on Global Positioning System (GPS) coordinates. This will greatly improve landscape management abilities and irrigation scheduling practices, which rely on ET data.

B-2 Project Description

The Grantee will work with collaborating water agencies and shall complete the work on the development of a standard data protocol for the transmission of ET data. This project will provide ET as an enhancement to the CIMIS program in an easily accessible, standard usable format. This project will be integrated with the Geostationary Operations Environmental Satellite (GOES) Project being developed by the University of California, Davis and the CIMIS project that provide triangulated ET data for a 2 square km grid throughout the State.

Providing easily accessible ET data in a standardized format will help to foster the adoption of ET-based irrigation technology. Greater application of the technology will improve landscape water use efficiency and runoff reduction throughout the State.

The ET data can also be accessed using windows-based application and, therefore, has broader application than just weather-based irrigation controllers. For example, it can be used to develop landscape water budgets and irrigation management programs. The proposed project is not subject to California Environmental Quality Act (CEQA) or National Environmental Policy Act (NEPA).

Project Tasks:

Task 1: Administration and Project Coordination

This task includes general project management, and includes the overall coordination of the project with Department of Water Resources (DWR), participating agencies, consultants, manufacturers and the CIMIS Program. Update meetings will be held, on at least a quarterly basis and more frequently as dictated by the work phase.

Task 2: Coordination with Manufacturers

Coordination with the ET controller manufacturers will happen in conjunction with many of the tasks in the project. This includes inviting the manufacturers to participate in the project advisory committee (PAC), submit a needs-analysis questionnaire and develop prototype products for testing. The Grantee will work closely with the manufacturers to ensure that their concerns and needs are met in this project.

Task 3: Development

There are many technical development steps required to create a final protocol and develop the web-services software applications as follows:

Subtask 3.1 Data Protocol and Website Development

The various steps required in this subtask are detailed below:

- Revise the draft standardized ET data protocol
- Smart Controller Evaluation
- Evaluation of Communication Methods
- ET by Coordinates
- Statistical Usage Analysis Feature
- Website Development

Subtask 3.2 Internet Hosting

Internet hosting will be set during the development of this demonstration web-services project. The requirements include:

- Server housing
- Administration
- Static internet provider (IP) with high speed broadband capability

Task 4: Deployment

Activities include:

- Deploying the application to the production server
- Functional testing in the production environment
- Hardware tests for system recovery
- User acceptance testing and any adjustments to the application as a result of testing feedback

- The deliverable at the end of deployment is a functional system operating in a production environment
- An archived copy of the source code
- The system documentation

Task 5: Prototype Testing

This Task includes:

- Prototype development
- Data Testing
- Field Testing, which includes the product, installation and monitoring cost to field test prototype irrigation controllers with the proposed data protocol system.

Task 6: Monitoring

Monitoring will include providing periodic progress reports on project implementation. A key element will be the statistical reports that will show end user usage of the proposed system. The statistical reports can be analyzed to derive estimates of ET controller installations and associated water savings and runoff reduction benefits.

Task 7: Project Review

A project review showcase and demonstration with all of the stakeholders will be held at the conclusion of the project. It will include product, application demonstration and accomplishments. Feedback from the final showcase will be incorporated into the final project report.

Task 8: Reporting

IRWD will provide interim quarterly reports documenting project milestones, accomplishments and progress to DWR. In addition, IRWD will submit a final project summarizing the entire project, stakeholders feedback, results of the monitoring and project benefits at the conclusion of the project.

Permits

As set forth in Exhibit A; Grantee is responsible to obtain all necessary permits, licenses, and approvals, including CEQA, the California Endangered Species Act, and all applicable engineering and design permits.

Schedule

Task 1: Administration/Project Coordination	Start Date	End Date
Execute agreement with DWR	Dec 2007	Ongoing
Coordination with CIMIS program	Dec 2007	Ongoing
Program management	Dec 2007	Ongoing
Task 2: Coordination with Manufacturers		
Outreach and planning	July 2007	Ongoing
Task 3: Development		
Data protocol and website*	Aug 2007	May 2008
Internet hosting	Aug 2007	Ongoing
Task 4: Deployment		
Roll-out and testing	Mar 2008	May 2008
Task 5: Prototype testing		
Prototype development	Sept 2007	May 2008
Data and field testing	June 2008	Oct 2008
Task 6: Monitoring		
Monitoring and data analysis	Oct 2008	Nov 2008
Task 7: Project Review		
Final project showcase	Dec 2008	Dec 2008
Task 8: Reporting		
Interim reports – quarterly throughout project	Apr 2008	Jan 2010
Final project report (includes draft final report)	Dec 2008	May 2010

Project Anticipated Benefits

This project addresses multiple priorities. The use of ET data for irrigation scheduling has been proven to result in water savings and run-off reduction. Studies have shown savings of 37 gpd for residential irrigation, 545 gpd for nonresidential irrigation and runoff reduction of up to 50% from weather-based irrigation controllers that use ET data. This will result in reduced diversions from the Bay-Delta watershed for agencies with direct linkages to the Bay-Delta System. It will result increased local water supply reliability for agencies in areas with direct linkages to the Bay-Delta system. A reduction in landscape irrigation water application will reduce evaporative loss. Finally, a reduction in urban runoff can result in improved water quality.

Project Deliverables:

- Final standardized ET data protocol, source code and documentation
- Functional web-server operating production mode, integrated with the CIMIS
- Statistical usage analysis monitoring and reporting capability

- Quarterly Progress Reports which document progress, task completion and project success
- Draft Final Report and associated data due by agreement end date
- Annual Report of Benefits and Costs due one year after the agreement end date and for the next consecutive 5 years
- Projected benefits will be validated through data analysis and as reported in B-3 Monitoring and Evaluation Plan

Water-Derived Energy Efficiency Impacts

The energy efficiency impacts are derived from reduced pumping, which results from less demand for irrigation water during peak summer months due to improved, optimized irrigation scheduling. This assumes energy savings of 4,000 kWh per million gallons saved in Northern California and 12,700 kWh per million gallons saved in Southern California based on the November 2005 California Energy Commission Water Energy Relationship report.

B-3 Project Monitoring and Evaluation Plan

Baseline Data and Assumptions

This project intends to provide ET data in a standardized format (protocol) throughout the State. ET based irrigation technology originated in the agricultural sector. The CIMIS system currently has approximately 6,000 registered users, and receives about 70,000 requests for data each year. This information will provide baseline data for usage of the CIMIS system and ET data. Statistical reports from the proposed system will be used for comparison purposes.

Estimates of ET controllers using the standard protocol data can be derived from the system statistical usage reports and from information gathered from participating manufacturers. This information will be used to estimate the water saving associated with the project using the following assumptions. Water savings will be estimated based on previous study data from ET controllers showing 37 gpd or 18% of outdoor use for residential customers. Studies have also shown 545 gpd savings for nonresidential applications.

Performance Measures for Project Outputs and Results

Project performance measures will be consistent with the project milestones and remain on schedule. They include:

- Development of the final ET data protocol
- Release of the software and web-services application in production mode
- Prototype product development by at least two irrigation controller manufacturers
- Field testing of up to sixty prototype controllers and evaluation
- Statistical reports showing usage data as discussed above

Performance Measures for Verification of Benefits

Statistical usage data will be available through program reports provided by the CIMIS program. The usage data can show how many users are accessing the data. Since the website will require user registration, we can also document how many ET controller manufacturers are accessing the data. Information provided by ET controller manufacturers on market penetration, as well as data collected from water agencies implementing ET controller programs, can also be used to estimate the number of actual controllers using the data. From that basis, we can assume an average of 37 gpd for residential models, and 545 gpd day savings for nonresidential type applications.

External Factors

The project provides fast access and improved ET data coverage throughout the State, and is intended to help address changes in weather, which frequently requires an adjustment in irrigation schedules. The ET data can be used to support technologies such as weather-based irrigation controller, which automatically adjust irrigation and associated water savings and runoff reduction.

Information Management

Statistical usage data will be stored on a secure web-server, which will be integrated into the existing CIMIS system. The usage data can show how many users are accessing the data. Since the website will require user registration, we can also document how many ET controller manufacturers are accessing the data.

Estimated Cost for Monitoring Evaluation

The estimated costs for monitoring and evaluating are included in the project budget, and primarily are associated with the development and analysis of the statistical usage reports from the proposed system.

In addition to the quantitative monitoring, there will also be on-going monitoring associated with the roll-out of the system, manufacturer feedback, and prototype testing and customer feedback. This type of monitoring will be integrated into the project and modification made as necessary to improve the overall deliverable.

B-4 Qualification of Applicants and Cooperators

External Cooperators

External cooperators for this project include the technical consultant Enterprise Information Systems (EIS) and participating irrigation controller manufacturers. The Project will be coordinated with CIMIS program staff. There is broad support for this project from water agencies throughout the State that recognize the potential water savings and runoff reduction benefits through increased adoption of ET based irrigation control technology. These agencies collectively serve water to approximately 27 million people, and include Metropolitan Water District of Southern California, City of Redwood City; Municipal Water District of Orange County, Sonoma County Water Agency; San Francisco Public Utilities Commission, Santa Clara Valley Water District; Los Angeles Department of Water and Power; and Eastern Municipal Water District.

Other collaborators include the irrigation controller manufacturers. Meetings with ten companies were held in early 2007 to discuss the proposed standardized data protocol project. There was general consensus support from the manufacturers for the development of the standard protocol and improved access to ET data. Several manufacturers expressed an interest in developing prototype products.

B-5 Outreach, Community Involvement, and Acceptance

Outreach

Outreach for the project will include multiple efforts targeted at different audiences. As previously stated, the Grantee and collaborators have already initiated outreach to irrigation controller manufacturers to assess their support for the project. Meetings with ten manufacturers were held in early 2007, and there is broad support for the development of a standardized ET data protocol. The Grantee will work closely with the manufacturers by forming a technical working group, to finalize the ET data protocol format, and to develop and test prototype ET based irrigation controllers. Additional outreach efforts to manufacturers will include presentations at Irrigation Association meetings and other similar conferences, such as the Landscape Industry Show.

Outreach to water agencies will primarily be through the California Urban Water Conservation Council (Council). Co-funding water agencies will participate in a project advisory committee (PAC). Outreach to irrigators using ET data can be coordinated through the CIMIS Program, including announcements and project updates and website links provided through CIMIS. IRWD, as well as other collaborating agencies, are active members in the Council and participate in the Landscape Subcommittee. Progress reports will be provided to the PAC, and milestones and final project outcomes will be presented at a plenary session to all of the Council's membership. Papers and presentations about the project can also be submitted to American Water Works Association (AWWA) for either its *Water Efficiency Magazine* or other publications targeting the water conservation and irrigation industry.

One of the proposed project tasks is a Final Project Showcase that will include the manufacturers, participating agencies and other collaborators. The Showcase will review the project deliverables, including the final ET data protocol and provide product demonstrations. There will be an opportunity for discussion and feedback at the Final Showcase, all of which will be included into the final project report and will be made available on IRWD's website.

5.1.2 Community Involvement

Every effort will be made to involve irrigation controller manufacturers, water agencies and CIMIS users in the development and testing of the standardized ET data protocol. Results of the project will be published and presented at conferences and posted on the websites. Feedback from participants in the field testing of the prototype controllers will be integrated into the project to improve the overall final products.

5.1.3 Acceptance

Preliminary meetings with water agencies and ET controller manufacturers have resulted in broad support for the project. Prior ET controller studies showed that 97% of customers were satisfied with the ET controller and reported either no change or an improvement in the appearance of their landscape, and all found the product convenient.

B-6 Budget (Exhibit C, attached)

State's funding share will be used as identified in Exhibit C. Total State share expenditures must not exceed \$156,299.

B-7 Schedule for Progress Reports and Payments

The following chart is based on a project start date of January 1, 2008, or as indicated by the start date in Exhibit A, Section 2 Term of State Grant. This project must be completed by the agreement end date April 15, 2010.

SCHEDULE FOR COMPLETION OF PROJECT TASKS AND DELIVERABLES

Project Progress Reports/Invoices/Deliverables	Completion Date
1 st Quarterly Report & Invoice	April-15-2008
2 nd Quarterly Report & Invoice	July-15-2008
3 rd Quarterly Report & Invoice	October-15-2008
4 th Quarterly Report & Invoice	January-15-2009
5 th Quarterly Report & Invoice	April-15-2009
6 th Quarterly Report & Invoice	July-15-2009
7 th Quarterly Report & Invoice	October-15-2009
8 th Quarterly Report & Invoice	January 15, 2010
Agreement End Date	April 15-2010
Draft Final Report & Invoice	April-15-2010
Final Report & Retention Invoice	May-30-2010
Annual Reports of Benefits & Costs	
1 st Annual Report:	April-15-2011
2 nd Annual Report:	April-15-2012
3 rd Annual Report:	April-15-2013
4 th Annual Report:	April-15-2014
5 th Annual Report:	April-15-2015

2007 WUE Prop 50 Grant

Exhibit B: Attachment 1

Quarterly Progress Report

Date:
Contract Number:
Contractor:
Contact Person:
Phone:
Email:

Quarter End Date:

Total State Funds Expended to Date: \$

Signed, Reviewed by Designated Representative

Progress Achieved:

Funds Expended Deliverable	% Complete	(DWR Grant)	(Local Share)	Total
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Task 1
(Description)

Task 2
(Description)

Task 3
(Description)

Task 4
(Description)

Activities Performed:

- Describe the activities and deliverables completed during the reporting period.
- State the progress toward completion of the tasks compared to the Project schedule. Is the project on schedule or are there problems and delays?

Description of Estimated Benefits to Date:

Water Quantity – Local and State (list units in acre feet)

Annual water savings reported as:

- Recoverable (applied water reduction);
- Irrecoverable (real water or net water savings);

Total water savings for the life of the project reported as:

- Recoverable (applied water reduction);
- Irrecoverable (real water or net water savings);

List targeted watershed, rivers and tributaries conveying water to the Bay- Delta.

In-stream Flow – Local and State (list units in acre feet)

Water Quality – Local and State

Energy – Local and State (list units in kilowatts)

- Energy savings

Next Quarter Projections: (Describe planned activities for the next quarter)

Please submit one original and one copy of the progress report.

2007 WUE Prop 50 Grant

Exhibit B: Attachment 2

Draft /Final Reports

Date:
Contract Number:
Grantee:
Contact Person:
Phone:
Email:

Description of the Project:

- Describe the project

Description of Project Goals and Objectives:

- List the original goals and objectives;
- Detail of changes and/or adjustments made during the project;
- Detail of causes to support changes and/or adjustments.

Description of Benefits:

Water Quantity – Local and State (list units in acre feet)

Annual water savings reported as:

- Recoverable (applied water reduction);
- Irrecoverable (real water or net water savings);

Total water savings for the life of the project reported as:

- Recoverable (applied water reduction);
- Irrecoverable (real water or net water savings);

- List targeted watershed, rivers and tributaries conveying water to the Bay-Delta.

In-stream Flow – Local and State (list units in acre feet)

- List targeted watershed, rivers and tributaries conveying water to the Bay-Delta.

Water Quality – Local and State

- List water savings in acre feet;
- List targeted watershed, rivers and tributaries conveying water to the Bay-Delta.

Energy – Local and State (list energy units in kilowatts)

- Energy savings

Other –

- Include economic or environmental benefits if any

Tasks and Statement of Work:

- As identified in the Agreement
- Detail of changes and/or adjustments throughout the project
- Detail of causes to support changes and/or adjustments

Monitoring and Assessment:

- Detail of changes and/or adjustments throughout the project
- Detail of causes to support changes and/or adjustments

Budget:

- Detail of changes and/or adjustments throughout the project
- Detail of causes to support changes and/or adjustments

Deliverables:

- Detail of changes and/or adjustments throughout the project
- Detail of causes to support changes and/or adjustments

Schedule or Timeline for Progress/Payment/Final Report:

- Detail of changes and/or adjustments throughout the project
- Detail of causes to support changes and/or adjustments

Cooperators:

- Description of each cooperator/sub-contractor
- Detail of each cooperators performance
- Detail of each cooperators impact on the project outcome

Final Statement:

- Summary of expected and realized outcome

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Exhibit B: Attachment 3

Post Project Annual Report of Benefits and Costs

Annual reports of benefits and costs are required to be submitted for 5 consecutive years after the Agreement end date.

Date:

Description of Benefits and Costs:

- Was there any revision in benefits and costs since the completion of the project?
- Describe the impacts of the implementation of the project on the Grantee's water management since the project was completed.

Water Quantity – Local and State (list units in acre feet)

Annual water savings reported as:

- Recoverable (applied water reduction);
- Irrecoverable (real water or net water savings).

Total water savings for the life of the project reported as:

- Recoverable (applied water reduction);
- Irrecoverable (real water or net water savings);

List targeted watershed, rivers and tributaries conveying water to the Bay-Delta.

In-stream Flow – Local and State (list units in acre feet)

- List targeted watershed, rivers and tributaries conveying water to the Bay-Delta.

Water Quality – Local and State

- List targeted watershed, rivers and tributaries conveying water to the Bay-Delta.

Energy – Local and State (list units in kilowatts)

- Energy savings

Other –

- Include economic or environmental benefits if any.

EXHIBIT C BUDGET

Irvine Ranch Water District Pin 10170

Tasks/subtasks	Year 1	Year 2	Year 3	Total	Contingency %	Cost + Contingency \$	Applicant cost share, \$	State Share, \$	Life of investment, year	Annualized Costs
(I)	\$	\$	\$	\$	(III)	(IV)	(V)	(VI)	(VII)	(IX)
Task 1-Administration/project coordination¹										
Coordination with CIMIS	\$1,500	\$1,500		\$3,000	5%	\$3,150	\$3,150	\$0	10	\$428
Project management	\$6,000	\$6,000		\$12,000	5%	\$12,600	\$12,600	\$0	10	\$1,712
Subtotal, Administration Costs	\$7,500	\$7,500	--	\$15,000		\$15,750	\$15,750	--		\$2,140
Task 2-Coordination with Manufacturers										
Outreach meetings and planning	\$10,000	\$5,000		\$15,000	5%	\$15,750	\$15,750	\$0	10	\$2,140
Subtotal, Task 2	\$10,000	\$5,000	--	\$15,000		\$15,750	\$15,750	--		\$2,140
Task 3-Development										
Data protocol and website	\$80,000	\$45,000		\$125,000	5%	\$131,250	\$55,000	\$76,250	10	\$17,833
Internet hosting	\$1,200	\$1,200		\$2,400	5%	\$2,520	\$2,520	\$0	10	\$342
Subtotal, Task 3	\$81,200	\$46,200	--	\$127,400		\$133,770	\$57,520	\$76,250		\$18,175
Task 4-Deployment										
Roll-out and testing	\$15,000	\$12,000		\$27,000	5%	\$28,350		\$28,350	10	\$3,852
Subtotal, Task 4	\$15,000	\$12,000	--	\$27,000		\$28,350	--	\$28,350		\$3,852
Task 5-Prototype Testing										
Prototype development	\$10,000	\$10,000		\$20,000	5%	\$21,000		\$21,000	10	\$2,853
Data and field testing	\$13,000	\$13,000		\$26,000	5%	\$27,300	\$5,000	\$22,300	10	\$3,709
Subtotal, Task 5	\$23,000	\$23,000	--	\$46,000		\$48,300	\$5,000	\$43,300		\$6,562
Task 6-Monitoring										
Data analysis		\$4,999		\$4,999	5%	\$5,249		\$5,249	10	\$713
Subtotal, Task 6	--	\$4,999	--	\$4,999		\$5,249	--	\$5,249		\$713
Task 7-Project Review										
Final project showcase		\$3,000		\$3,000	5%	\$3,150		\$3,150	10	\$428
Subtotal, Task 7	--	\$3,000	--	\$3,000		\$3,150	--	\$3,150		\$428
Task 8-Reporting										
Interim reports	\$3,000			\$3,000	5%	\$3,150	\$3,150	\$0	10	\$428
Final project report		\$7,500		\$7,500	5%	\$7,875	\$7,875	\$0	10	\$1,070
Subtotal, Task 8	\$3,000	\$7,500	--	\$10,500		\$11,025	\$11,025	--		\$1,498
Task 9-										
subtask 1-										
subtask 2-										
Subtotal, Task 9	--	--	--	--		--	--	--		\$0
Task 10-										
subtask 1-										
subtask 2-										
Subtotal, Task 10	--	--	--	--		--	--	--		\$0
TOTAL	\$139,700	\$109,199	\$0	\$248,899		\$261,344	\$105,045	\$156,299		\$35,508
Cost Share -Percentage							40%	60%		

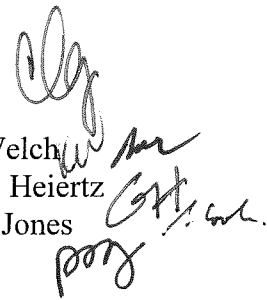
1- excludes administration O&M.

December 17, 2007

Prepared by: K. Welch

Submitted by: G. P. Heiertz

Approved by: Paul Jones



CONSENT CALENDAR

KERN COUNTY WATER AGENCY AGREEMENT TO PURCHASE FEE TITLE AND TEMPORARY CONSTRUCTION EASEMENT

SUMMARY:

The Kern County Water Agency (KCWA) is undergoing a project to expand and improve the Cross Valley Canal (CVC) and previously informed the District that the project will require acquiring a small portion of the District's Strand Ranch property in fee title and a temporary construction easement. Staff recommends approval of an agreement for terms to purchase in fee title and an agreement to provide a temporary construction easement to KCWA.

BACKGROUND:

KCWA began constructing the CVC Expansion Project to increase conveyance capacity between the California Aqueduct on the west side of Bakersfield and the Kern River and Friant-Kern Canal to the east. In 2006, KCWA sent an offer letter to IRWD indicating that the project will require fee title to approximately 0.40 acres of the Strand Ranch, as well as a temporary construction easement for an additional 0.57 acres, both located just west of Enos Lane on the south side of the CVC, within the existing almond orchard.

In August 2006, the Board approved the preliminary terms for KCWA's purchase of .40-acre portion of the property in fee simple title and a .57-acre portion in temporary construction easement for the CVC Expansion and directed staff to work with KCWA in preparing agreement reflecting these terms. The final agreement has been prepared and was approved by KCWA Board approved on November 14, 2007, and is attached as Exhibit "A".

FISCAL IMPACTS:

IRWD will receive compensation from KCWA in the amount of \$20,307 for providing the permanent fee title to .40-acre parcel and \$15,453 for the temporary construction easement.

ENVIRONMENTAL COMPLIANCE:

An Environmental Impact Report for the CVC Expansion Project was certified by KCWA in 2004.

COMMITTEE STATUS:

This item was reviewed at the Water Banking Ad Hoc Committee meeting on December 7, 2007.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT WITH KERN COUNTY WATER AGENCY FOR THE PURCHASE OF FEE SIMPLE TITLE TO .40-ACRE PORTION OF STRAND RANCH AND A TEMPORARY CONSTRUCTION EASEMENT TO .57 ACRE PORTION OF STRAND RANCH.

LIST OF EXHIBITS:

Exhibit "A" – Kern County Water Agency Agreement for Purchase of Fee Simple Parcel and
Temporary Construction Easement

EXHIBIT "A"

AGREEMENT

THIS AGREEMENT is made and entered into on _____, 2007, ("Effective Date"), by and between IRVINE RANCH WATER DISTRICT, a California water district organized and operating under and pursuant to Division 13 (commencing with Section 34000) of the California Water Code ("Seller"), and KERN COUNTY WATER AGENCY, a public agency established by chapter 1003 of the 1961 Statutes of the State of California ("Buyer").

RECITALS

A. Seller is the owner of that certain real property situated in the County of Kern, State of California, more particularly described and depicted in certain exhibits attached hereto, consisting of a 0.97-acre portion of Kern County Assessor's Parcel Number 160-010-03; that portion being referred to herein as the "Property"; and

B. As part of the Cross Valley Canal Expansion Project ("Project"), Buyer requires fee simple title to an approximately 0.40-acre portion of the Property; that portion being referred to herein as the "Fee Simple Parcel" and specifically described on Exhibit 1 and depicted on Exhibit 1A to the Grant Deed attached hereto as Exhibit A; and

C. As part of the Project, Buyer requires a temporary construction easement on and above an approximately 0.57-acre portion of the Property; that portion being referred to herein as the "Temporary Easement Parcel" and specifically described on Exhibit 1 and depicted on Exhibit 1A to the Temporary Construction Easement Agreement attached hereto as Exhibit B;

D. Construction of the Project will cause approximately one-hundred-and-forty-four almond trees to be taken out of production and will affect an existing sixteen-inch irrigation line on the Property;

D. Buyer has offered to purchase the Property from Seller and to compensate Seller (and its lessee) for certain losses caused by the Project; and

D. Buyer now desires to buy and Seller now desires to sell the above-described interests in the Property on certain terms and conditions, which are memorialized herein.

IN CONSIDERATION of the mutual promises contained in this Agreement and of other valuable consideration, the receipt and sufficiency of which both parties hereto expressly acknowledge, it is agreed as follows:

ARTICLE I: **PURCHASE AND SALE OF THE FEE SIMPLE PARCEL**

1.1 **THE PROPERTY.** Seller agrees to sell and Buyer agrees to purchase the Fee Simple Parcel, including (i) all tenements, hereditaments, rights, rights-of-way, easements, privileges and appurtenances thereto or used in connection therewith or as a means of access thereto, (ii) all improvements, appurtenances and permanently attached fixtures now used in connection therewith or constructed or located thereon, including any crops, buildings and other

structures, and (iii) all contracts, licenses, approvals, certificates, permits and warranties relating to the Fee Simple Parcel, if any, and only to the extent assignable.

1.2 PURCHASE PRICE. The "Purchase Price" for the Fee Simple Parcel shall be TWENTY-THOUSAND-THREE-HUNDRED-SEVEN DOLLARS (\$20,307.00). The Purchase Price includes consideration for approximately 27 existing almond trees that will be permanently displaced by the Project.

ARTICLE II: **CONDITIONS TO CLOSE**

2.1 SELLER'S OBLIGATIONS. Within thirty (30) days after the Effective Date of this Agreement, Seller must fulfill the following conditions:

- a) GRANT DEED. Deliver to Buyer a fully-executed copy of a Grant Deed in the form attached hereto as Exhibit A;
- b) TEMPORARY CONSTRUCTION EASEMENT AGREEMENT. Execute and deliver to Buyer a Temporary Construction Easement Agreement in the form attached hereto as Exhibit B; and
- c) OTHER CONDITIONS. Deliver to Buyer any and all other documents reasonably required for completion of this transaction including, but not limited to, documents confirming Seller is not a foreign person as defined in the Internal Revenue Code.

2.2 FAILURE OF SELLER'S CONDITIONS. Should any of the conditions in Section 2.1 fail to occur on or before the thirtieth day after the Effective Date of this Agreement, then, in addition to any other remedy it may have at law or in equity, Buyer shall have the right to rescind this Agreement and be relieved of its obligations under the same, or elect to specifically enforce this Agreement at its sole option.

2.3 BUYER'S OBLIGATIONS.

- a) Within forty-five (45) days after receipt by Buyer of the documents described in Section 2.1. of this Agreement, Buyer must fulfill the following conditions:
 - i) GRANT DEED. Accept and record the Grant Deed;
 - ii) TEMPORARY CONSTRUCTION EASEMENT AGREEMENT. Execute and deliver the Temporary Construction Easement Agreement to Seller; and
 - iii) DISBURSEMENT OF CONSIDERATION. Disburse to Seller the Purchase Price for the Fee Simple Parcel and the monetary consideration described in the Temporary Construction Easement Agreement.
- b) Buyer shall also perform the following obligations in order to facilitate continued irrigation on adjoining property not affected by the Project:

i) Prior to commencing construction of the Project, Buyer shall provide at its cost a temporary irrigation line of similar size/capacity to that now existing on the Property. Buyer may secure from Seller's lessee of the Property a proposal, including cost, for installation of the temporary line. Buyer shall have the option of contracting directly with the lessee to perform the work or of assigning the work to the Buyer's Project contractor.

ii) Prior to commencing construction of the Project, Buyer shall construct at its cost a dirt berm along the southern boundary of the Temporary Easement Parcel.

iii) Prior to completion of the Project, Buyer will replace at its cost the temporary irrigation line with a permanent PVC line of like size/capacity as the presently existing permanent line.

2.4 FAILURE OF BUYER'S CONDITIONS. Should any of the conditions in Section 2.3 fail to occur on or before the time specified, Seller's remedies shall be limited to recovery of damages directly caused by Buyer's breach, and specific performance of this Agreement.

ARTICLE III: REPRESENTATIONS AND WARRANTIES

3.1 SELLER WARRANTIES: Seller represents and warrants to Buyer that the following matters are true and correct as of the execution of this Agreement and will remain true and correct until Buyer has accepted the Grant Deed to the Fee Simple Parcel:

a) GENERAL. This Agreement is, and all the documents executed by Seller which are to be delivered to Buyer will be, duly authorized, executed, and delivered by Seller, and are and will be legal, valid and binding obligations of Seller enforceable against Seller in accordance with their respective terms (except to the extent that such enforcement may be limited by applicable principles relating to or limiting the right of contracting parties generally), and do not and will not violate any provisions of any agreement to which Seller is a party or to which it is subject.

b) LEGAL PROCEEDINGS. To Seller's actual knowledge, there are no pending legal proceedings or administrative actions of any kind or character against the Property or Seller's interest therein.

c) ENVIRONMENTAL CONDITIONS. Seller makes no representation or warranty concerning the environmental conditions at the Property. However, to Seller's actual knowledge, Seller has not received any written notice of action or claim from a government entity alleging violation of environmental laws at, on or under the Property.

d) TITLE. Seller makes no representation as to the condition of title to the Property. Buyer has made its own investigation with respect to the condition of title and shall take title subject to all matters of record or affecting said title.

3.2 BUYER WARRANTIES: Buyer represents and warrants to Seller that the following matters are true and correct as of the execution of this Agreement and will remain true and correct through the duration of the transaction contemplated by this Agreement:

a) GENERAL. This Agreement is, and all the documents executed by Buyer which are to be delivered to Seller will be, duly authorized, executed, and delivered by Buyer, and are and will be legal, valid and binding obligations of Buyer enforceable against Buyer in accordance with their respective terms (except to the extent that such enforcement may be limited by applicable principles relating to or limiting the right of contracting parties generally), and do not and will not violate any provisions of any agreement to which Buyer is a party or to which it is subject.

3.3 LIMITATION OF WARRANTIES. Buyer is familiar with the Fee Simple Parcel and has made or will make such independent investigations as Buyer deems necessary or appropriate concerning: the suitability for Buyer's proposed uses of the Fee Simple Parcel, including but not limited to any desired investigations or analyses of present or future laws, statutes, rules, regulations or ordinances, and the necessity or availability of any governmental permits, approvals or acts; any surface, soil, subsoil, geologic or ground water conditions or other physical conditions of or affecting the Fee Simple Parcel; the extent or condition of title to the Fee Simple Parcel; and all other matters concerning the condition or Buyer's proposed use of the Fee Simple Parcel. Buyer is relying solely upon its own inspection, investigation and analyses of the foregoing matters in entering into this Agreement and is not relying in any way upon any representations, statements, agreements, warranties, studies, reports, descriptions, guidelines or other information or material furnished by Seller or its representatives, whether oral or written, express or implied, of any nature whatsoever regarding any such matters. Buyer will acquire the Property "AS IS," in its present state and condition, without representation by Seller or its representatives as to any matter, whether or not expressly mentioned herein.

ARTICLE IV: **TITLE AND CLOSING**

4.1 CONDITIONS OF TITLE. Title to the Fee Simple Parcel shall be conveyed by Seller to Buyer by the attached Grant Deed (Exhibit A), subject only to any reservations expressly made by Seller within said Grant Deed, taxes and assessments for the then current fiscal year, and any covenants, conditions, restrictions, easements, indebtedness and rights of record prior to the date that Buyer accepts the Grant Deed.

4.2 ESCROW. Buyer and Seller shall consummate this transaction without escrow.

4.3 CLOSING COSTS

a) Preparation and Recordation of Grant Deed. Buyer shall pay the cost of preparing and recording the Grant Deed.

b) Transfer Taxes; Other Costs. Buyer shall pay all documentary and local transfer taxes related to the purchase and sale of the Fee Simple Parcel, costs and fees related to any financing obtained by Buyer, the costs of preparing, filing and/or recording any documents

related thereto, and all costs and premiums associated with any policy of title insurance issued in favor of Buyer.

c) Cancellation Fees. Should any transaction contemplated by this Agreement fail to occur due to the fault or neglect of Buyer or Seller or the failure of Buyer or Seller to perform their respective obligations hereunder, then, as between Buyer and Seller, all costs and fees shall be paid by the defaulting party.

**ARTICLE V:
MISCELLANEOUS PROVISIONS**

5.1 BROKER'S COMMISSIONS. Seller and Buyer each hereby warrant to the other that this transaction has been formulated directly between Buyer and Seller and that no real estate broker has been involved in this transaction acting for or on behalf of either party. Accordingly, neither party is liable for the payment of a broker's fee as a result of this Agreement.

5.2 EXHIBITS; RECITALS. The recitals to this Agreement are deemed to be incorporated by reference and are intended to guide in the interpretation of this Agreement. All exhibits referred to in this Agreement are deemed to be attached and incorporated by reference.

5.3 BINDING EFFECT. This Agreement shall bind and inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the parties hereto, as soon as approved by the Buyer and Seller.

5.4 INTERPRETATION; CAPTIONS. The parties agree that each party and the legal counsel of their own choosing have reviewed this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any amendments or exhibits thereto. The captions of the Sections of this Agreement are for convenience and reference only, and are not intended and shall not be construed to define or limit the provisions to which they relate.

5.5 GOVERNING LAW; VENUE. This Agreement shall be governed by and construed in accordance with the laws of the State of California. Any action commenced under this Agreement shall be brought in the Superior Court of California with venue in the County of Kern.

5.6 COUNTERPARTS. This Agreement may be executed simultaneously or in one or more counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same Agreement.

5.7 NOTICES. Any notices necessary under the terms of this agreement shall be delivered by first class mail, return receipt requested, effective upon receipt as follows:

To Seller: Irvine Ranch Water District
PO Box 57000
Irvine, CA 92618-7000

To Buyer: Kern County Water Agency

PO Box 58
Bakersfield, CA 93302-0058

5.8 COMPUTATION OF TIME. The time in which any act under this Agreement is to be done shall be computed by excluding the first day and including the last day. If the last day of any time period shall fall on a Saturday, Sunday or legal holiday, then the duration of such time period shall be extended so that it shall end on the next succeeding day which is not a Saturday, Sunday or legal holiday. Unless preceded by the word "business," the word "day" shall mean a "calendar" day. The phrase "business" shall mean those days on which the Kern County Superior Court is open for business.

5.9 TIME OF ESSENCE. Time is of the essence in the performance of and compliance with each of the provisions and conditions of this Agreement.

5.10 SEVERABILITY. Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be valid under applicable law, but, if any provision of this Agreement shall be invalid or prohibited thereunder, such invalidity or prohibition shall be construed as if such invalid or prohibited provision had not been inserted herein and shall not affect the remainder of such provision or the remaining provisions of this Agreement.

5.11 ENTIRE AGREEMENT. This Agreement, including the exhibits attached hereto, contains the entire Agreement between the parties relating to the Property. Any oral representations or modifications concerning this Agreement, and/or the Property shall be of no force and effect with the exception of a subsequent modification of this Agreement in writing, signed by all of the parties.

5.12 DUE AUTHORITY. Each person signing this Agreement represents that he has full power and authority to do so, and that his signature is legally sufficient to bind the Party for which he is signing.

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

SELLER:

BUYER:

KERN COUNTY WATER AGENCY

By: _____

By: _____
James M. Beck, General Manager

**EXHIBIT A
GRANT DEED
APN: 160-010-03**

**EXHIBIT B
TEMPORARY CONSTRUCTION EASEMENT AND AGREEMENT
APN: 160-010-03**

**RECORDING REQUESTED BY AND
WHEN RECORDED, MAIL TO:**

Kern County Water Agency
c/o James M. Beck
PO Box 58
Bakersfield, CA 93302-0058

[SPACE ABOVE HERE FOR RECORDER'S USE ONLY]

APN: 160-010-03

Documentary transfer tax is \$-0- pursuant to Section 11922 of the California Revenue and Taxation Code and Section 4.20.050 of the Real Property Transfer Tax Ordinance of the County of Kern.

GRANT DEED

The undersigned grantor declares:

WHEREAS, the KERN COUNTY WATER AGENCY, a public agency established by chapter 1003 of the 1961 Statutes of the State of California ("Grantee"), desires to acquire the real property described herein; and

WHEREAS, IRVINE RANCH WATER DISTRICT, a California water district organized and operating under and pursuant to Division 13 (commencing with Section 34000) of the California Water Code ("Grantor"), is willing to convey said property to Grantee;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, Grantor hereby grants to Grantee all of that certain real property, including any and all improvements thereon, located in the County of Kern, State of California, described in Exhibit 1 and depicted on Exhibit 1A, both of which are attached hereto and incorporated herein by reference;

EXCEPTING AND RESERVING UNTO GRANTOR, its successors and assigns, (1) permanent nonexclusive easements on, over, under and across that portion of the property hereby conveyed that is within twenty (20) feet of any property line bordering on and parallel to the Cross Valley Canal, for the purpose of ingress and egress to the canal, and (2) permanent nonexclusive easements on, over, under and across that portion of the property hereby conveyed that is within twenty (20) feet of any property line bordering on and parallel to the Enos Lane public right-of-way, for the installation, emplacement, operation and maintenance of electric, gas, telephone, cable television, drainage facilities or any other utilities; provided, however, that no facilities shall be installed in such easement areas without the prior written approval of Grantee, which approval shall not be unreasonably withheld or delayed and any improvements, landscaping, driveways, sidewalks or parking areas damaged by the installation, construction or repair of any facilities allowed pursuant to this easement shall be repaired and restored by the entity performing the work which caused the damage, and at no expense to Grantee, as closely as reasonably practicable, to the conditions that existed prior to such installation, construction or repair.

EXCEPTING THEREFROM all oil, gas, and other minerals in, on or thereunder, as reserved in deeds of record.

SUBJECT TO:

- 1. General and special taxes and assessments for the current fiscal tax year and any and all non-delinquent bonds and/or assessments;
- 2. All other covenants, conditions, restrictions, reservations, rights, rights-of-way, easements, dedications, offers of dedications and other matters of record or apparent.

IN WITNESS WHEREOF, Grantor has executed this Grant Deed on this ____ day of _____, 2007.

IRVINE RANCH WATER DISTRICT

By: _____

Its: _____

STATE OF CALIFORNIA)
)ss.
 COUNTY OF _____)

On _____, 2007, before me, _____, Notary Public, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the entity upon behalf of which he acted, executed the instrument.

WITNESS my hand and official seal.

Signature

CERTIFICATE OF ACCEPTANCE
(Government Code Section 27281)

THIS IS TO CERTIFY that the interest in real property conveyed by the Grant Deed dated _____, 2007, from IRVINE RANCH WATER DISTRICT, a California water district organized and operating under and pursuant to Division 13 (commencing with Section 34000) of the California Water Code (“Grantor”), to KERN COUNTY WATER AGENCY, a public agency established by chapter 1003 of the 1961 Statutes of the State of California (“Grantee”), is hereby accepted by the undersigned on behalf of Kern County Water Agency, pursuant to authority conferred by resolution of the Board of Directors of Kern County Water Agency, and the Grantee consents to recordation thereof by its duly authorized agent or officer.

Dated: _____, 2007

By: _____
James M. Beck, General Manager
Kern County Water Agency

CROSS VALLEY CANAL EXPANSION PROJECT
KERN COUNTY WATER AGENCY
PARCEL CVC-ENOS LANE SIPHON - FEE SIMPLE

A fee simple for Cross Valley Canal purposes in that portion of Section 2, Township 30 South, Range 25 East, Mount Diablo Base and Meridian, County of Kern, State of California conveyed to the Irvine Ranch Water District by deed recorded as Document No. 204056837, O.R., in the office of the Kern County Recorder, as said Section 2 is shown on the Record of Survey Map filed May 8, 1973 in Book 10, Page 197 of Record of Survey Maps, more particularly described as follows:

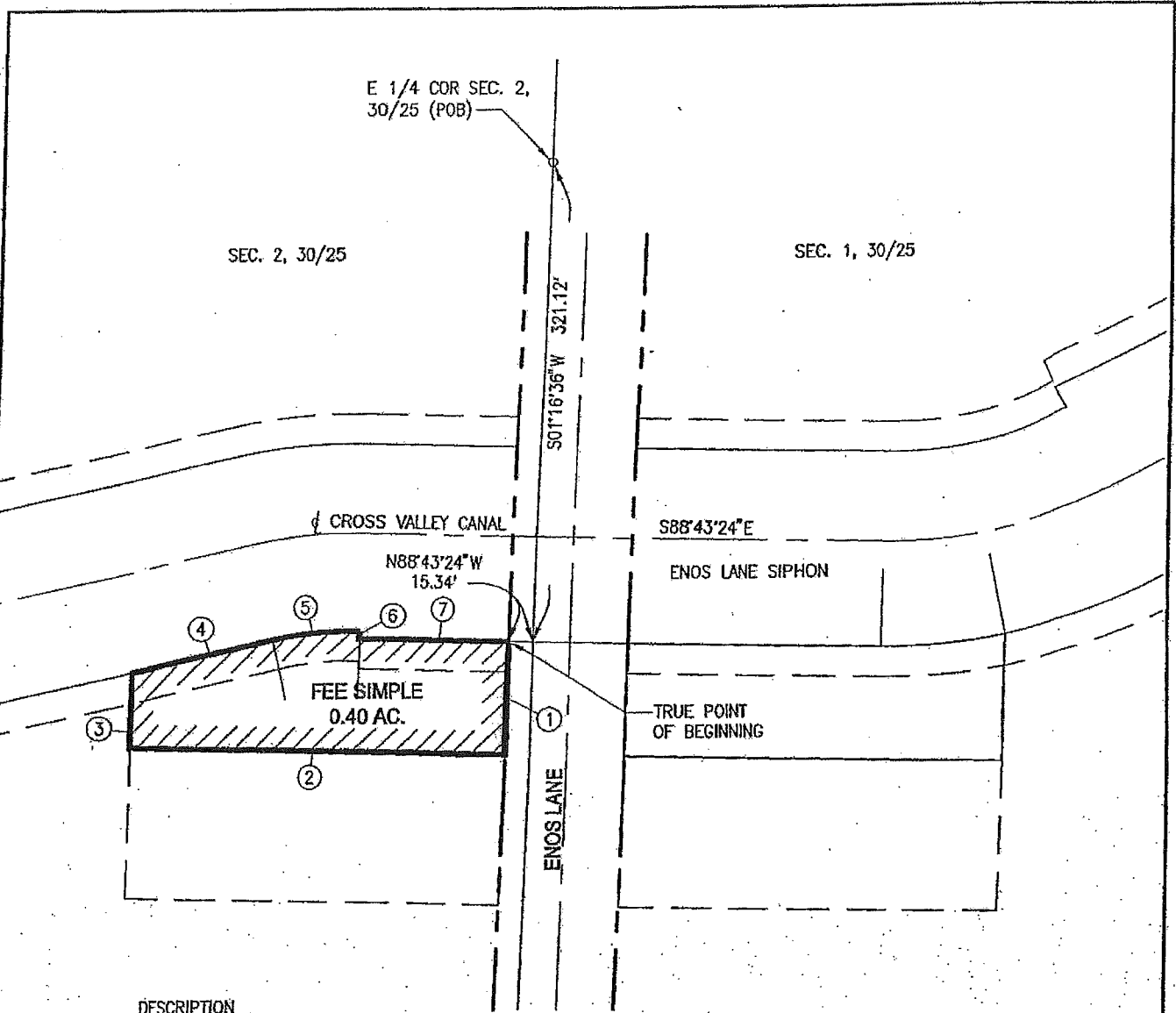
Commencing at the East quarter corner of said Section 2; thence South $01^{\circ} 16' 36''$ West, along the East line of said Section 2, a distance of 321.12 feet, more or less, to a point on the Easterly prolongation of the Southerly Right-of-Way of the Cross Valley Canal, per document recorded in Book 5197, Page 449, O.R. in the office of the Kern County Recorder; thence North $88^{\circ} 43' 24''$ West along said prolongation, a distance of 15.34 feet, more or less, to a point on the Westerly Right-of-Way of Enos Lane (State Route 43) and the True Point of Beginning; thence

1. South $01^{\circ} 16' 36''$ West along said Westerly Right-of-Way, a distance of 75.00 feet; thence
2. North $88^{\circ} 43' 24''$ West departing said Westerly Right-of-Way, a distance of 247.00 feet; thence
3. North $01^{\circ} 16' 36''$ East, a distance of 49.63 feet to a point on the Southerly Right-of-Way of the Cross Valley Canal; thence
4. North $77^{\circ} 11' 45''$ East along said Southerly Right-of-Way, a distance of 95.81 feet to the beginning of a tangent curve concave Southeasterly with a radius of 235.00 feet; thence
5. Northeasterly along the arc of said curve through a central angle of $14^{\circ} 04' 51''$ an arc distance of 57.75 feet; thence
6. South $01^{\circ} 16' 36''$ West, a distance of 5.00 feet; thence
7. South $88^{\circ} 43' 24''$ East, a distance of 96.90 feet, more of less, to the True Point of Beginning.

Containing 0.40 acres, more or less

END OF DESCRIPTION

EXHIBIT 1



E 1/4 COR SEC. 2,
30/25 (POB)

SEC. 2, 30/25

SEC. 1, 30/25

ENOS LANE

CROSS VALLEY CANAL

S88°43'24"E

N88°43'24"W
15.34'

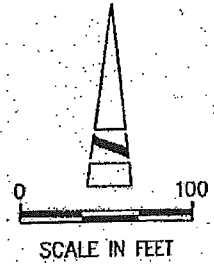
ENOS LANE SIPHON

FEE SIMPLE
0.40 AC.

TRUE POINT
OF BEGINNING

DESCRIPTION

- ① S01°16'36"W 75.00'
- ② N88°43'24"W 247.00'
- ③ N01°16'36"E 49.63'
- ④ N77°11'45"E 95.81'
- ⑤ A=14°04'51", R=235.00',
T=29.02', L=57.75'
- ⑥ S01°16'36"W 5.00'
- ⑦ S88°43'24"E 96.90'



USER: vcampbell

BOYLE ENGINEERS CORPORATION DATE: MAY 2006

KERN COUNTY WATER AGENCY		EXHIBIT 1A
CROSS VALLEY CANAL EXPANSION ENOS LANE SIPHON-FEE SIMPLE		SHEET
ENOS LANE SIPHON		

EXHIBIT "B"
AGREEMENT BETWEEN IRVINE RANCH WATER DISTRICT AND
KERN COUNTY WATER AGENCY
TEMPORARY CONSTRUCTION EASEMENT PARCEL AGREEMENT

TEMPORARY CONSTRUCTION EASEMENT AGREEMENT

This TEMPORARY CONSTRUCTION EASEMENT AGREEMENT ("Agreement") is entered into on this _____ day of _____, 2007, by and between IRVINE RANCH WATER DISTRICT, a California water district organized and operating under and pursuant to Division 13 (commencing with Section 34000) of the California Water Code ("Grantor"), and the KERN COUNTY WATER AGENCY, a public agency established by chapter 1003 of the 1961 Statutes of the State of California ("Grantee"). The signatories of this Agreement are sometimes referred to herein collectively as "parties" and individually as "party."

RECITALS

A. Grantor is the owner of that certain real property situated in the County of Kern, State of California, as more particularly described as Kern County Assessor's Parcel Number 160-010-03 ("Property").

B. Grantor desires to grant and Grantee desires to purchase and accept a temporary construction easement on a portion of the Property ("Easement Area"), which is more particularly described on Exhibit 1 and depicted on Exhibit 1A, both attached hereto and incorporated herein by this reference, for the purposes provided for in this Agreement.

AGREEMENT

IN CONSIDERATION of the mutual promises contained in this Agreement and of other valuable consideration, the receipt and sufficiency of which both parties hereto expressly acknowledge, it is agreed as follows:

1. **Grant of Exclusive Easement; Consideration.** Grantor hereby grants to Grantee an exclusive temporary easement ("Easement") on the Property as hereinafter described. Grantee shall pay to Grantor FIFTEEN-THOUSAND-FOUR-HUNDRED-FIFTY-THREE-DOLLARS (\$15,453) as consideration for the Easement and related damages. This amount includes consideration for approximately 117 almond trees located in the Easement Area that will be permanently displaced by Grantee's activities on the Property.

2. **Description and Purpose of Easement.** The Easement granted in this Agreement is a temporary right to enter upon the Easement Area, to cross over the Easement Area, to place temporary fencing around the easement area, and to deposit and store equipment thereon for the purpose of: (a) constructing a portion of the Cross Valley Canal Expansion Project ("Project") by Grantee on Grantee's property abutting and adjoining the Easement Area; (b) gaining access to said property; and (c) effectuating such other rights and privileges as are reasonably necessary to use and employ the Easement, including ingress and egress over and across the Easement Area by Grantee, and Grantee's employees, agents, contractors and/or subcontractors, during reasonable hours and along reasonably convenient routes, for the purposes of performing grading, surveying, planning, construction, maintenance and any other actions reasonably necessary to the Project.

3. Cooperation. Grantor and Grantee shall cooperate with each other as necessary to accomplish their respective obligations pursuant to this Agreement. This duty of cooperation shall include, but not be limited to, the proper execution and delivery of all necessary applications, statements, licenses, consents and other documents and instruments necessary to carry out the Project.

4. Term. The Easement granted in this Agreement shall terminate and not be of any further force or effect upon the earlier of (a) written notice by Grantee of the completion of the Project in the Easement Area and of all other actions consistent with the purpose of the Easement, or (b) two years after Grantee enters the Easement Area to commence the work contemplated by this Agreement.

5. Other Parties. Grantee shall have no obligations arising from any work, construction, surveying, planning, or any other activities that were not performed or requested by Grantee.

6. Liens; Indemnity.

6.1 Liens Against Easement Area. Grantee shall not permit any mechanics', materialmens', or similar liens to be enforced against the Easement Area where the labor and/or materials giving rise to such lien were performed at the request of Grantee. Grantee shall pay or cause to be paid all such liens or claims of liens before any action is brought to enforce the same against the Easement Area, provided, however that Grantee may contest such liens or claims if Grantee forthwith provides an adequate bond or other form of assurance then permitted by law which has the effect of removing the lien or claim of lien as an encumbrance against title to the Easement Area.

6.2 Indemnity. Grantor and Grantee, respectively, shall each defend, indemnify and generally hold harmless the other from and against any and all claims, actions, damages, liability or losses, including reasonable attorneys' fees and other professional costs, in connection with loss of life, personal injury and/or damage to property arising from or related to the Easement and/or any act or omission of such parties, their respective partners, officers, agents, representatives, contractors, employees or invitees. Provided, however, that neither party shall be required to indemnify the other party for any liability attributable to the fault of the party claiming a right of defense and indemnity, provided such fault is determined by agreement between the parties or the findings of a court of competent jurisdiction.

7. Modification. No modification, waiver, amendment, discharge or change of this Agreement shall be valid unless the same is in writing and signed by the party against which the enforcement of such modification, waiver, amendment, discharge or change is or may be sought.

8. Notices. Any notices necessary under the terms of this agreement shall be delivered by first class mail, return receipt requested, effective upon receipt as follows:

If to Grantor: Irvine Ranch Water District
PO Box 57000
Irvine, CA 92618-7000

If to Grantee: Kern County Water Agency
PO Box 58
Bakersfield, CA 93302-0058

9. Attorneys' Fees. In the event either party commences a judicial proceeding for the interpretation or enforcement of this Agreement, or for damages for the breach of this Agreement, including appeals, the prevailing party shall be entitled to an award or judgment against the other for an amount equal to reasonable attorneys' fees and court and other costs incurred. The prevailing party shall be the party which most nearly prevails as determined by the court.

10. Nonexclusive Easement. The Easement granted in this Agreement is exclusive, provided, however, Grantor retains the right to use and maintain the Easement Area in any manner that does not interfere with Grantee's use of the Easement Area or Grantee's work on the Project. During the term of this Agreement, Grantor shall not grant any right in the Easement Area to any third party.

11. Assignment Clause. This Agreement, including any interest in this Agreement, may be assigned by either party without the consent of the other party.

12. Binding Effect. This Agreement shall bind and inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the parties hereto, and their respective successors on title to the Property.

13. Interpretation. The parties agree that each party and the legal counsel of their own choosing have reviewed this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any amendments or exhibits thereto. The captions of the sections of this Agreement are for convenience and reference only, and are not intended and shall not be construed to define or limit the provisions to which they relate.

14. Governing Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of California. Any action commenced under this Agreement shall be brought in the Superior Court of California with venue in the County of Kern.

15. Counterparts. This Agreement may be executed simultaneously or in one or more counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same Agreement.

16. Integration. This Agreement represents the entire understanding of the Parties as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder.

17. Due Authority. Each person signing this Agreement represents that he has full power and authority to do so, and that his signature is legally sufficient to bind the Party for which he is signing.

IN WITNESS WHEREOF, Grantor and Grantee have executed this Agreement on the date set forth hereinabove.

GRANTOR

IRVINE RANCH WATER DISTRICT

By: _____

Its: _____

GRANTEE

KERN COUNTY WATER AGENCY

By: _____

James M. Beck
Its: General Manager

CROSS VALLEY CANAL EXPANSION PROJECT
KERN COUNTY WATER AGENCY
PARCEL CVC-ENOS LANE SIPHON – TEMPORARY EASEMENT

A temporary easement for Cross Valley Canal purposes in that portion of Section 2, Township 30 South, Range 25 East, Mount Diablo Base and Meridian, County of Kern, State of California conveyed to the Irvine Ranch Water District by deed recorded as Document No. 204056837, O.R., in the office of the Kern County Recorder, as said Section 2 is shown on the Record of Survey Map filed May 8, 1973 in Book 10, Page 197 of Record of Survey Maps, more particularly described as follows:

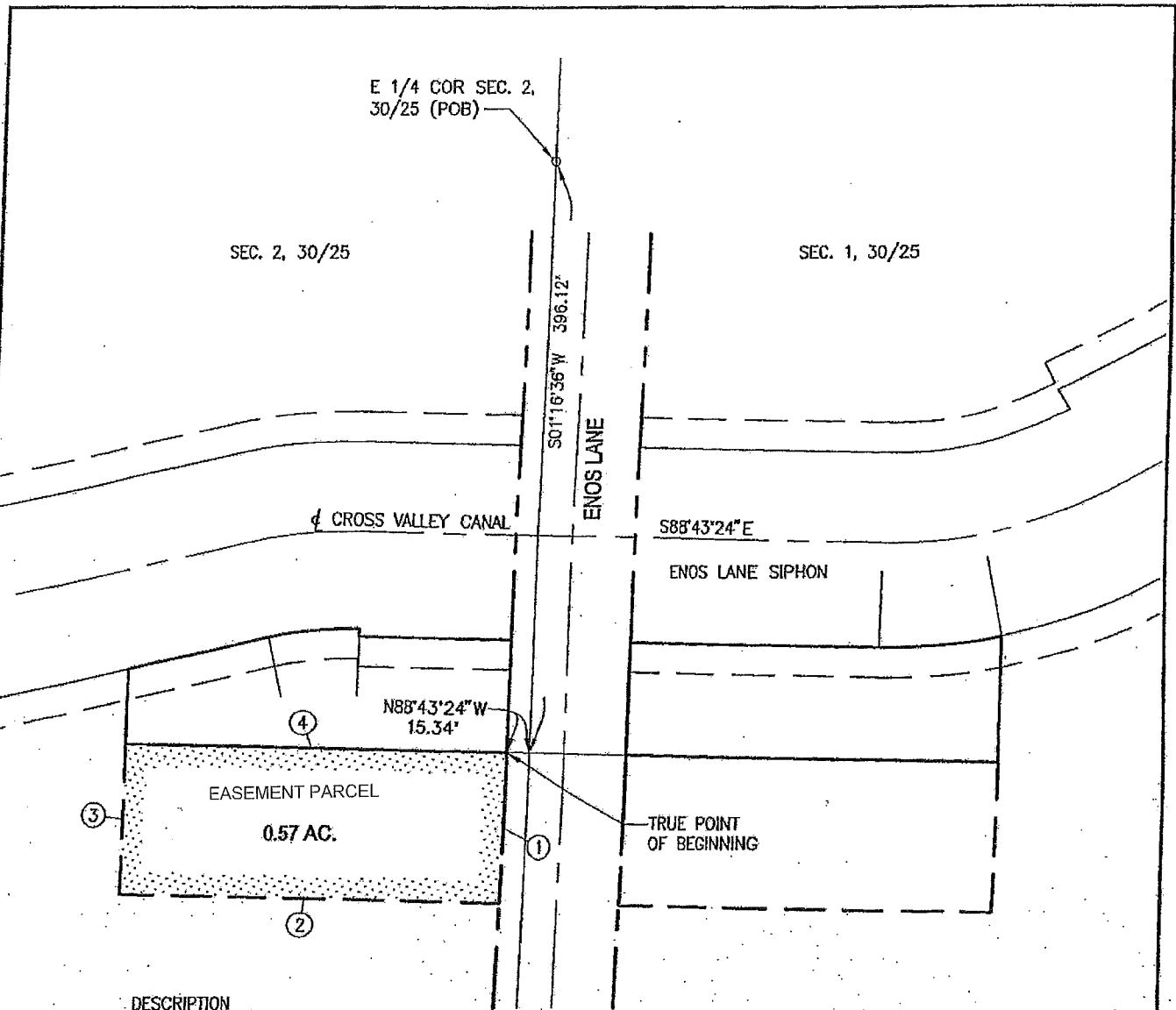
Commencing at the East quarter corner of said Section 2, thence South $01^{\circ} 16' 36''$ West, along the East line of said Section 2, a distance of 396.12 feet, thence North $88^{\circ} 43' 24''$ West, a distance of 15.34 feet, more or less, to a point on the Westerly Right-of-Way of Enos Lane (State Route 43) and the True Point of Beginning; thence

1. South $01^{\circ} 16' 36''$ West along said Westerly Right-of-Way, a distance of 100.00 feet; thence
2. North $88^{\circ} 43' 24''$ West departing said Westerly Right-of-Way, a distance of 247.00 feet; thence
3. North $01^{\circ} 16' 36''$ East, a distance of 100.00 feet; thence
4. South $88^{\circ} 43' 24''$ East, a distance of 247.00 feet, more or less, to the True Point of Beginning.

Containing 0.57 acres, more or less

END OF DESCRIPTION

EXHIBIT 1



E 1/4 COR SEC. 2,
30/25 (POB)

SEC. 2, 30/25

SEC. 1, 30/25

S01°16'36"W 396.12'

ENOS LANE

CROSS VALLEY CANAL

S88°43'24"E

ENOS LANE SIPHON

N88°43'24"W
15.34'

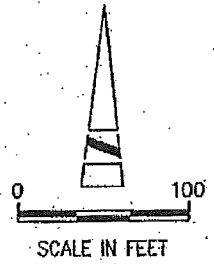
EASEMENT PARCEL

0.57 AC.

TRUE POINT
OF BEGINNING

DESCRIPTION

- ① S01°16'36"W 100.00'
- ② N88°43'24"W 247.00'
- ③ N01°16'36"E 100.00'
- ④ S88°43'24"E 247.00'



BOYLE ENGINEERING CORPORATION

DATE: MAY 2006

KERN COUNTY WATER AGENCY		EXHIBIT 1A
CROSS VALLEY CANAL EXPANSION ENOS LANE SIPHON-TEMPORARY EASEMENT		SHEET
ENOS LANE SIPHON		



December 17, 2007

Prepared by: *W* M. Cortez/J. Staneart *J.S.*

Submitted by: G.P. Heiertz *GH*

Approved by: Paul Jones *proy*

CONSENT CALENDAR

TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN IRWD AND THE CITY OF IRVINE FOR THE INSTALLATION OF MISCELLANEOUS FACILITIES (2008-2009)

SUMMARY:

Staff requests the Board authorize the General Manager to execute a Two-Year Reimbursement Agreement between Irvine Ranch Water District and the City of Irvine for the Installation of Miscellaneous Facilities (2008-2009).

BACKGROUND:

The City of Irvine (City) and Irvine Ranch Water District (IRWD) have had a reimbursement agreement in place since 1995 for managing the City’s various street rehabilitation projects. Typically included in these Capital Improvement Projects are alternate bid items for raising any existing IRWD sewer manhole covers and water valve cans to the new grade. Any project, up to \$100,000 in reimbursable costs, can be authorized by the General Manager as an addendum to this reimbursement agreement.

There were six Capital Improvement Projects that were completed under the annual reimbursement agreement for 2006 and 2007:

- FY 2006-07 Slurry Seal, West Irvine \$ 33,579
- Toledo Way Rehabilitation, Alton to Bake \$ 7,725
- Jamboree Road Rehabilitation, Michelle to I-5 \$ 5,080
- Jeronimo Road Rehabilitation, Alton to Bake \$ 15,220
- Annual Local Street Rehabilitation and Slurry Seal \$ 60,645
- Irvine Business Complex Sidewalk Connection \$ 8,400
- \$130,649

The proposed agreement is attached for reference as Exhibit “A”.

FISCAL IMPACTS:

The City’s projects performed under this reimbursement agreement will be funded by the annual Raise System Valves and Raise Manholes to Grade projects, which are included in each fiscal year’s Capital Budget. An Expenditure Authorization for Project 10889 in the amount of \$39,000 or FY 2007-08 is attached as Exhibit “B”.

Consent Calendar: Two-Year Reimbursement Agreement Between IRWD and the City of Irvine
for the Installation of Miscellaneous Facilities (2008-2009)

December 17, 2007

Page 2

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
10889	\$ 99,000	\$-0-	\$ 99,000	\$ 60,000	\$39,000	\$ 99,000
20889	\$166,200	\$-0-	\$166,200	\$166,200	\$-0-	\$166,200
30889	\$ 49,500	\$-0-	\$ 49,500	\$ 49,500	\$-0-	\$ 49,500
TOTAL	\$314,700	\$-0-	\$314,700	\$314,700	\$39,000	\$314,700

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15302 C, which provides exemption for “replacement or reconstruction... involving negligible or no expansion of capacity”.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee meeting on December 11, 2007.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN IRVINE RANCH WATER DISTRICT AND THE CITY OF IRVINE FOR THE INSTALLATION OF MISCELLANEOUS FACILITIES (2008-2009), AND RECOMMEND APPROVAL OF AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$39,000 FOR PROJECT 10889.

LIST OF EXHIBITS:

Exhibit “A” – Two-Year Reimbursement Agreement (2008-2009)

Exhibit “B” – Expenditure Authorization

EXHIBIT "A"

TWO-YEAR REIMBURSEMENT AGREEMENT
BETWEEN
IRVINE RANCH WATER DISTRICT
AND THE CITY OF IRVINE
FOR THE INSTALLATION OF
MISCELLANEOUS FACILITIES
(2008-2009)

This Agreement is made and entered as of this _____ day of _____, 2007, by and between IRVINE RANCH WATER DISTRICT, a California Water District formed and existing pursuant to California Water District Law, hereinafter referred to as "IRWD," and the CITY OF IRVINE a municipal corporation, hereinafter referred to as "CITY."

WITNESSETH

WHEREAS, City periodically undertakes street improvement projects, a number of which involve concurrent construction, modification or relocation of water, sewer and/or reclaimed water facilities of IRWD in the vicinity of the respective projects; and

WHEREAS, the parties have determined that for certain projects, to be mutually designated by CITY and IRWD staff (each, a "Project" and collectively, the "Projects"), it would be more efficient for CITY, rather than IRWD, to carry out the design construction, modification or relocation of the affected water, sewer and/or reclaimed water facilities of IRWD ("IRWD FACILITIES") due to the particular alignment and construction scheduling of IRWD FACILITIES; and

WHEREAS, the parties desire to enter into a master reimbursement agreement covering all Projects initiated during the term of such master agreement that involve an estimated IRWD FACILITIES construction cost of less than \$100,000 per Project; and

WHEREAS, IRWD is amenable to the construction of IRWD FACILITIES by CITY at CITY's cost, which cost is to be reimbursed to CITY by IRWD as provided herein; and

WHEREAS, all IRWD FACILITIES shall be the property of IRWD in accordance with the terms and conditions hereinafter set forth;

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants hereinafter set forth, DO AGREE AS FOLLOWS:

A. SELECTION OF PROJECTS

SECTION 1. CITY and IRWD shall, by consultation between their respective staffs on an as-needed basis, review all proposed CITY street improvement projects to identify each project which involves the design, construction, modification and/or relocation of IRWD FACILITIES having an estimated construction cost of under \$100,000 and which the staffs concur would be more efficiently accomplished by the CITY than IRWD. The parties agree to identify all such projects in good faith, but the identification of any project shall be subject to mutual approval. IRWD shall prepare the cost estimates for this purpose. For each project so identified and the related IRWD FACILITIES, an Addendum in the form of Exhibit "A", attached hereto and incorporated herein by this reference, shall be executed by authorized representatives of CITY and IRWD, and, upon execution, shall be deemed incorporated in this Agreement. Each project for which an Addendum is executed shall be deemed a "Project" as used herein.

SECTION 2. A Project may be identified at any time so long as the related Addendum is executed prior to the expiration of the term of this Agreement.

SECTION 3. A Project and the related IRWD FACILITIES shall continue to be governed by the terms of this Agreement notwithstanding that actual total costs of items set forth in Section 11 exceed \$100,000 for the Project.

SECTION 4. Any CITY street improvement project which involves the construction, modification and/or relocation of the IRWD FACILITIES with an estimated construction cost over \$100,000 and for which the parties desire to have the IRWD FACILITIES constructed on a reimbursement basis shall be governed by a separate agreement.

SECTION 5. This Agreement shall not alter any other obligations which may exist between the parties relating to the allocation of costs for particular IRWD FACILITIES, such as easement rights. Costs which are the obligation of CITY or any party other than IRWD shall not be considered within the estimates of costs for purposes of identifying Projects under Section 1.

B. CONSTRUCTION AND REIMBURSEMENT

SECTION 6. The provisions of Part B shall apply separately to each individual Project included within this Agreement.

SECTION 7. CITY agrees to initiate and pursue to completion with its construction of the Project, the construction of the IRWD FACILITIES as shown on plans and specifications incorporated by reference in the Addendum for the subject Project, and IRWD agrees to cooperate with CITY with respect to the construction and schedules for completion of IRWD FACILITIES.

SECTION 8. CITY agrees that IRWD FACILITIES shall be completed pursuant to IRWD-approved plans and specifications (the "Plans and Specifications") which shall be supplied by IRWD.

SECTION 9. The parties agree that the construction of IRWD FACILITIES shall be included in CITY's proposed Project plans, and that IRWD FACILITIES shall be bid as an alternate bid item that can be deleted and will not be considered in the base bid and contract award. Upon opening of bids by CITY, CITY will submit a copy of the original bid proposals received for the IRWD FACILITIES to IRWD for review and approval. CITY agrees that the alternate bid prices received shall be subject to the approval of IRWD prior to proceeding with the construction of the IRWD alternate bid item work for the proposed project, and further agrees that in the event IRWD does not approve the prices proposed for such alternate bid item(s), the Addendum may be terminated by either party. IRWD shall have a period of fifteen (15) calendar days for review of the alternate bid prices presented in the low bidder's proposal for the IRWD FACILITIES, and for approval or rejection of the alternate bid prices. The total estimated construction cost for IRWD FACILITIES is as set forth in the Addendum provided, however, that the amount to be reimbursed by IRWD shall be based on the actual construction costs (as set forth in Section 11). Upon transmitting the Notice to Proceed to the Contractor, CITY shall provide IRWD with one (1) original copy of the fully executed contract documents and one (1) copy of each of the bid forms.

SECTION 10. CITY shall promptly furnish IRWD with copies of any proposed change orders to Project contract(s) within five (5) working days of being notified of changed conditions to the contract. Change orders shall be subject to IRWD approval if and to the extent any of the IRWD FACILITIES are affected thereby. IRWD shall have a maximum of ten (10) working days to review and respond to any such change order.

CITY agrees that if any revision during design or construction is requested by CITY to the Plans and Specifications, and would increase the cost thereof, such increased costs shall be borne by CITY, and shall not be reimbursed by IRWD. The cost of any revisions requested by IRWD shall be reimbursed by IRWD as provided herein.

SECTION 11. Within thirty (30) days following receipt from CITY of each invoice for the portion of a design or construction progress payment attributable to IRWD FACILITIES, together with supporting documentation, IRWD shall deposit with CITY the amount of such invoice. CITY shall maintain separate accounts for all amounts expended by CITY in relation to the IRWD FACILITIES. IRWD agrees to accept the IRWD FACILITIES when the Project, which includes the IRWD FACILITIES, has been completed, including any change orders approved by IRWD as provided in Section 10 hereof and accepted by CITY. Within sixty (60) days of CITY's final acceptance of the Project, a final accounting (the "Final Accounting") of the actual costs of all items associated with surveying, compaction testing, permits, construction, administration, accounting, reproductions, and legal costs attributable to the IRWD FACILITIES ("Costs") shall be made by CITY and submitted to IRWD, accompanied by receipts and other supporting documentation. IRWD agrees to pay to CITY, within thirty (30) days of receipt of the Final Accounting, the total amount of the Costs, less the amount previously paid by IRWD pursuant to progress payment invoices. If the amount previously paid by IRWD pursuant to progress payment invoices exceeds the Costs as determined in the Final Accounting, CITY shall refund the difference to IRWD within thirty (30) days following preparation of the Final Accounting.

SECTION 12. IRWD shall have sole and absolute discretion as to all aspects of design and construction of the IRWD FACILITIES, and IRWD shall be entitled to inspect the construction of IRWD FACILITIES as it deems necessary to assure compliance with the Plans and Specifications, including shop drawing review and/or material inspection thereof. IRWD will promptly notify CITY of any portion of the work on IRWD FACILITIES which appears not to conform to the Plans and Specifications. The determination of IRWD as to conformity of IRWD FACILITIES with the Plans and Specifications shall be made in IRWD's sole and absolute discretion. IRWD agrees not to unreasonably withhold its approval as to such conformity. CITY shall require its contractor to construct the IRWD FACILITIES so that the IRWD FACILITIES conform to the Plans and Specifications. CITY agrees to assume full responsibility for certifying or obtaining certification of the compaction of backfill material over the IRWD FACILITIES.

SECTION 13. At the time of completion and acceptance of the IRWD FACILITIES, CITY agrees to furnish IRWD with "as-built" drawings and one (1) copy each of the compaction reports, certificate and cut sheets, as requested by IRWD.

SECTION 14. It is mutually agreed between the parties hereto that notwithstanding the fact that CITY shall accomplish the design or construction of the IRWD FACILITIES subject to reimbursement, IRWD FACILITIES to be completed hereunder, rights-of-way, and other privileges, shall at all times be subject to the applicable rates, rules and regulations of IRWD, as modified or amended from time to time. CITY hereby disclaims any interest in IRWD FACILITIES and by acceptance of the Project which includes the IRWD FACILITIES, transfers and assigns to IRWD any and all right, title, and interest it may have in the IRWD FACILITIES. IRWD shall own, operate and maintain the IRWD FACILITIES following acceptance thereof.

SECTION 15. CITY agrees to cause its contractor for the IRWD FACILITIES to guarantee the IRWD FACILITIES against defects in workmanship and materials for a period of one (1) year from the date of acceptance by IRWD. It is further agreed that CITY shall assume the responsibility for causing the IRWD FACILITIES to be brought or restored to full compliance with the requirements of the Plans and Specifications, including any test requirements, for any portion of the IRWD FACILITIES which during said one (1) year period are found not to be in conformance with the provisions of the Plans and Specifications. This guarantee is in addition to any and all other warranties, expressed or implied, from CITY contractors or material manufacturers with respect to the IRWD FACILITIES. The guarantee and obligations under this section shall in no way be relieved by IRWD inspection and/or approval of the IRWD FACILITIES. This section sets forth the entire agreement of CITY with respect to guarantees and warranties of the IRWD FACILITIES, but this section shall in no way limit any expressed or implied warranties of other persons with respect to the IRWD FACILITIES.

SECTION 16. CITY shall indemnify, defend and hold IRWD, its officers, agents and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen during construction of the IRWD FACILITIES and prior to acceptance by IRWD, as a result of any work or action performed by CITY or on behalf of CITY, save and except to the extent such death, injury, loss, damage or expense is determined by a court of competent jurisdiction to have been proximately caused in whole or in part by any negligence of IRWD, its officers, agents or employees or by any act or omission for which IRWD, its officers, agents or employees are liable without fault.

IRWD shall indemnify, defend and hold CITY, its officers, agents, and employees, harmless from any expense, liability or claim for death, injury, loss, damage or expense to persons or property which may arise or is claimed to have arisen either (i) as a result of any act performed by IRWD, its officers, agents, or employees, with respect to the construction of the IRWD FACILITIES, or (ii) following IRWD acceptance of the IRWD FACILITIES, with

respect to maintenance and operation of the IRWD FACILITIES, save and except to the extent such death, injury, loss, damage or expense is determined by a court of competent jurisdiction to have been proximately caused in whole or in part by any negligence of CITY, its officers, agents or employees, or by any act or omission for which CITY, its officers, agents or employees are liable without fault.

SECTION 17. CITY shall cause its contractors for the construction of IRWD FACILITIES to obtain insurance coverage sufficiently broad to insure the matters set forth in this Agreement and to include IRWD as an additional insured on all insurance policies that CITY requires its contractors to provide. As evidence of such insurance coverage, CITY shall, prior to commencement of construction of the IRWD FACILITIES, provide IRWD with certificates of insurance and insurance endorsements in forms that are acceptable to IRWD.

SECTION 18. Either party shall have the right, upon written notice to the other which shall become effective five (5) days after receipt pursuant to Section 19, to terminate any Addendum and thereby delete the respective Project from this Agreement at any time, subject to the provisions of this section. If at the request or direction of a party other than CITY, including IRWD, the IRWD FACILITIES construction is not accomplished or completed, IRWD shall remain obligated for the actual amount of any Costs incurred by CITY for the items set forth in Section 11 above to the date of termination.

C. MISCELLANEOUS

SECTION 19. Any notice or other written instrument required or permitted by this Agreement to be given to either party shall be deemed received when personally served or twenty-four (24) hours after being deposited in the U.S. Mail, postage prepaid, registered or certified and addressed as follows:

IRWD:

Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618-3102
Attn: General Manager

CITY:
City of Irvine
P.O. Box 19575
Irvine, CA 92623-9575
Attn: Director of Public Works

SECTION 20. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of CITY and IRWD. This Agreement constitutes the entire Agreement between CITY and IRWD and supersedes all prior understandings and Agreements between the parties with respect to the subject hereof. This Agreement may be modified only in writing, signed by both parties hereto.

SECTION 21. In the event of any declaratory or other legal or equitable action instituted between CITY and IRWD in connection with this Agreement, the prevailing party shall be entitled to recover from the losing party all of its costs and expenses, including court costs and reasonable attorneys' fees.

SECTION 22. Any approval required to be given by either party pursuant to this Agreement, shall be deemed given if no response to the party's request for such approval is received by the requesting party within fifteen (15) days following the request for such approval.

SECTION 23. The term of this Agreement shall expire December 31, 2009.

SECTION 24. The provisions of Parts B and C of this Agreement shall survive the expiration of the term hereof with respect to any Project, until the completion of construction and reimbursement of the Costs of the related IRWD FACILITIES. The provisions of Sections 15 and 16 shall survive the expiration or termination of this Agreement or any Addendum.

IN WITNESS WHEREOF, the parties to the Agreement have executed this Agreement on the date hereinabove written.

IRVINE RANCH WATER DISTRICT

By _____
General Manager

Dated _____

ATTEST:

By _____
Secretary/Assistant Secretary

Dated _____

APPROVED AS TO FORM:

By _____
Legal Counsel,
Irvine Ranch Water District

Dated _____

CITY OF IRVINE

By _____
Director, P.W. Department

Dated _____

APPROVED AS TO FORM:

By _____
City Attorney

Dated _____

EXHIBIT A
[Form of Addendum]

ADDENDUM
NO. 2008-2009-____
TO
TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN
IRVINE RANCH WATER DISTRICT AND THE CITY OF IRVINE
FOR THE INSTALLATION OF MISCELLANEOUS FACILITIES
(2008, 2009)

By execution of this Addendum, the parties agree that the following Project has been identified pursuant to Section 1 of the agreement dated _____, 2007, entitled "TWO-YEAR REIMBURSEMENT AGREEMENT BETWEEN IRVINE RANCH WATER DISTRICT AND THE CITY OF IRVINE FOR THE INSTALLATION OF MISCELLANEOUS FACILITIES (2008, 2009)" (the "Agreement") and that such Project and the below-specified IRWD FACILITIES shall be covered by the Agreement.

Project: _____

_____ (depicted on
Exhibit "1" attached and incorporated in this Addendum)

IRWD FACILITIES (type, diameter, approximate linear feet, PR Nos., etc.): _____

_____ (depicted on
the plans and specifications incorporated by reference in this Addendum)

Estimated cost of IRWD FACILITIES: \$ _____

IN WITNESS WHEREOF, the parties to the Agreement have executed this Addendum.

IRVINE RANCH WATER DISTRICT

By _____
General Manager

Dated _____

CITY OF IRVINE

By _____
Project Manager

Dated _____

Irvine Ranch Water District Expenditure Authorization

EXHIBIT "B"

Project Name: RAISE SYSTEM VALVES 07/08
 Project No: 10889 EA No: 2
 Project Manager: KILANI, ABDEL
 Project Engineer: SMYTH, JEFFREY
 Request Date: November 15, 2007

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
101	100.0	REPLACEMENT FUND**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$60,000
This Request:	\$39,000
Total EA Requests:	\$99,000
Previously Approved Budget:	\$99,000
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$99,000
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
CONSTRUCTION FIELD SUPPORT	13,500	1,500	15,000	0	15,000	15,000	7/07	6/08
CONSTRUCTION	22,000	53,000	75,000	0	75,000	75,000	7/07	6/08
Contingency - 10.00% Subtotal	\$3,500	\$5,500	\$9,000	\$0	\$9,000	\$9,000		
Subtotal (Direct Costs)	\$39,000	\$60,000	\$99,000	\$0	\$99,000	\$99,000		
Estimated G/A - 175.00% of direct labor*	\$23,700	\$2,600	\$26,300	\$0	\$26,300	\$26,300		
Total	\$62,700	\$62,600	\$125,300	\$0	\$125,300	\$125,300		
*Direct Labor	\$13,500	\$1,500	\$15,000	\$0	\$15,000	\$15,000		

EA Originator:

Michael A. J. Staneart

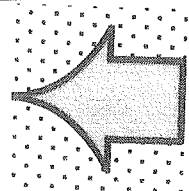
11/20/07

Department Director:

Finance:

Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$128,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.





December 17, 2007

Prepared By: P. Weghorst

Submitted By: Greg Heiertz

Approved By: Paul Jones

ACTION CALENDAR

SHORT-TERM WATER STORAGE PARTNERSHIP WITH CARPINTERIA VALLEY WATER DISTRICT

SUMMARY:

Staff has been working with the Carpinteria Valley Water District (CVWD) in developing a short-term water storage partnership that would allow IRWD to store a portion of CVWD's unused State Water Project (SWP) entitlement (through the Central Coast Water Authority) under IRWD's Interim Water Banking Program in Kern County. A draft letter agreement has been prepared between IRWD and CVWD that would facilitate this short-term partnership. Staff requests that the Board authorize the General Manager to execute the letter agreement with CVWD subject to non-substantive changes approved by the General Manager and legal counsel.

BACKGROUND:

CVWD and IRWD have entered into discussions regarding a possible "long-term" water banking partnership under the IRWD/Rosedale Rio-Bravo (Rosedale) water banking program. As a precursor to the potential long-term-partnership, CVWD is interested in storing a portion of its 2007 and 2008 SWP allocation under the IRWD/Rosedale interim recharge project. The interim recharge project involves use of interim recharge ponds on a portion of the Strand Ranch property in Kern County.

The terms of the interim project allow IRWD to store up to 10,000 af of water. IRWD is allowed to recharge water until May 1, 2008, with water (less losses) being recovered by May 1, 2013. Under the "interim program" all recovery must be by SWP entitlement exchange. The terms of the letter agreement with CVWD are consistent with the interim recharge project agreement. By May 1, 2008 (or May 1, 2009 should the interim project be extended as provided for in the interim recharge project agreement) CVWD would provide up to 1,000 af of SWP water for delivery into storage. The water put into storage would be subject to losses that will range from 11% to 15 % for evaporation and migration. IRWD and CVWD will each be entitled to recovery of 50 % percent of the water recharged (after losses) under the short-term agreement. If CVWD does not recover its 50% share of stored water by May 1, 2013, all such water shall be transferred to IRWD.

It should be noted that the proposed letter agreement provides a short-term opportunity for CVWD to place water into storage under IRWD's interim program with Rosedale. It is anticipated that CVWD may want to store additional water under IRWD's proposed long-term program with Rosedale that is currently undergoing environmental review. Staff will continue to work with CVWD (and other potential partners) to develop terms for a long-term storage arrangement and will bring these terms and draft agreements back to the Committee and Board for future consideration.

FISCAL IMPACTS:

IRWD would reimburse CVWD for all variable costs associated with the delivery of all SWP water into storage in Kern County. CVWD would be responsible for all fixed SWP costs. For all water recovered by CVWD, CVWD would reimburse IRWD for all variable costs of the delivery of water into storage. Therefore, the net cost to IRWD would be approximately 50% percent of the variable costs of delivering the recoverable water into storage plus the variable costs associated with delivering the water that will be allocated to the 11 to 15 percent losses. The estimated cost of delivering water into storage will be approximately \$30 per acre-feet. Assuming that losses will be 15 %, IRWD's net share of the total cost of delivery of water into storage will be approximately \$17,250.

ENVIRONMENTAL COMPLIANCE:

CEQA has been completed for the IRWD/Rosedale interim recharge project. A Notice of Exemption has been prepared for the proposed short-term water storage program with CVWD.

COMMITTEE STATUS:

This item was reviewed at the Water Banking Ad Hoc Committee meeting on December 7, 2007.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE LETTER AGREEMENT WITH CARPINTERIA VALLEY WATER DISTRICT SUBJECT TO NON-SUBSTANTIVE CHANGES APPROVED BY THE GENERAL MANAGER AND LEGAL COUNSEL.

EXHIBITS:

Exhibit "A" – Letter Agreement for a Short-Term Water Storage Partnership Between Carpinteria Valley Water District and Irvine Ranch Water District

EXHIBIT "A"

[DRAFT]

[date]

Honorable Board of Directors
Carpinteria Valley Water District
1301 Santa Ynez Avenue
Carpinteria, CA 93014

Re: Short-Term Water Storage Partnership

Dear Board Members:

Please be advised that the Board of Directors of Irvine Ranch Water District ("IRWD") has determined to proceed with the Short-Term Water Storage Partnership ("Project") with Carpinteria Valley Water District ("CVWD") (IRWD and CVWD collectively are referred to as the "Parties" and each individually may be referred to as a "Party"). The Project will be governed by the terms and conditions of the "**Final Term Sheet - Water Storage Project Terms**" ("Final Term Sheet") which is attached hereto as Exhibit 1 and incorporated herein by this reference. In addition, the Project will be governed by the following terms and conditions of this letter agreement, each and all of which terms and conditions are intended to supplement said Final Term Sheet and, to the extent inconsistent therewith, are intended to amend and replace said Final Term Sheet:

1. **Mediation**: The Parties agree that any and all disputes, claims or controversies regarding the Project, the Final Term Sheet, or this letter agreement, shall be submitted to mediation in a mutually agreeable venue and if the matter is not resolved through mediation, then it may be submitted to any court of competent jurisdiction. Any affected Party may commence mediation by providing the other Party a written request for mediation, setting forth the subject of the dispute and the relief requested. The Parties shall cooperate with one another in selecting a mediator and in scheduling the mediation proceedings. The Parties covenant that they shall participate in the mediation in good faith, and that they shall share equally in costs charged by the mediator. All offers, promises, conduct and statements, whether oral or written, made in the course of the mediation by any of the Parties, their agents, employees, experts and attorneys, and by the mediator or any of the mediator's employees, are confidential, privileged and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the Parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the mediation. The provisions of this letter agreement with respect to mediation may be enforced by any Court of competent jurisdiction, and the Party seeking such enforcement shall be entitled to an award of all costs, fees and expenses, including attorneys' fees, to be paid by the Party against whom such enforcement is ordered.

2. Indemnity:

(a) CVWD shall at all times indemnify, defend and save IRWD, its Board of Directors, officers, representatives, consultants, contractors, agents and employees free and harmless from, and pay in full, any and all claims, demands, losses, damages or expenses, including reasonable attorney fees and costs that IRWD, its Board of Directors, officers, representatives, consultants, contractors, agents and/or employees may sustain or incur in any manner relating to CVWD's performance under the Final Term Sheet or this letter agreement, including claims made by landowners in the CVWD service area, excepting any loss, damage or expense and claims for loss, damage or expense resulting in any manner from the negligent act or acts of IRWD, its Board of Directors, officers, representatives, consultants, contractors, agents or employees.

(b) IRWD shall at all times indemnify, defend and save CVWD, its Board of Directors, officers, representatives, consultants, contractors, agents and employees free and harmless from, and pay in full, any and all claims, demands, losses, damages or expenses, including reasonable attorney fees and costs that CVWD, its Board of Directors, officers, representatives, consultants, contractors, agents and/or employees may sustain or incur in any manner resulting from or related to IRWD's performance under the Final Term Sheet or this letter agreement, excepting any loss, damage or expense and claims for loss, damage or expense resulting in any manner from the negligent act or acts of CVWD, its Board of Directors, officers, representatives, consultants, contractors, agents or employees.

4. Notices: All written notices required to be given pursuant to the terms of the Final Term Sheet or this letter agreement shall be either (i) personally delivered, (ii) deposited in the United States express mail or first class mail, registered or certified, return receipt requested, postage prepaid, (iii) delivered by overnight courier service, or (iv) delivered by facsimile transmission, provided that the original of such notice is sent by certified United States mail, postage prepaid, no later than one (1) business day following such facsimile transmission. All such notices shall be deemed delivered upon actual receipt (or upon first attempt at delivery pursuant to the methods specified in clauses (i), (ii) or (iii) above if the intended recipient refuses to accept delivery). All such notices shall be delivered to the addresses shown in this letter agreement or to such other address as the receiving Party may from time to time specify by written notice to the other Party given in the manner provided herein.

5. Authority: In signing below, each of the Parties represents and warrants to the other Party that each is a duly organized or constituted entity, with all requisite power to carry out its obligations under the Final Term Sheet and this letter agreement, and that the execution, delivery and performance of these documents have been duly authorized by all necessary action of the board of directors or other governing body of such Party, and shall not result in a violation of such Party's organizational documents.

6. Governing Law: The Final Term Sheet and this letter agreement shall be construed and enforced in accordance with the laws of the State of California.

7. Amendments: No amendment of the Final Term Sheet or this letter agreement shall be binding upon the Parties unless it is in writing and executed by both of the Parties.

8. Further Action: The Parties agree to and shall take such further action and execute and deliver such additional documents as may be reasonably required to effectuate the Project, consistent with each and all of the terms and conditions of the Final Term Sheet and this letter agreement.

9. Assignment: No Party shall assign or otherwise transfer its rights or obligations in, under or to the Project, the Final Term Sheet, or this letter agreement, in whole or in part, without the prior written consent of all of the other Parties. All covenants and agreements contained in the Final Term Sheet and this letter agreement shall bind and inure to the benefit of the Parties' respective successors and permitted assigns.

10. Joint Drafting and Negotiation: The Final Term Sheet and this letter agreement have been jointly negotiated and drafted. The language of each shall be construed as a whole according to its fair meaning and without regard to or aid of Civil Code Section 1654 or similar judicial rules of construction. Each Party acknowledges that it has had the opportunity to seek the advice of experts and legal counsel prior to executing said documents and that it is fully aware of and understands all of their respective terms and the legal consequences thereof.

By its signature hereon, IRWD accepts the Final Term Sheet as amended and supplemented by the terms and provisions contained in this letter agreement. Please indicate the acceptance of CVWD by signing and returning the enclosed copy. Thank you for your cooperation.

The Parties intend that this letter agreement and the Final Term Sheet are consistent with, and are entered into by IRWD pursuant to, that certain interim project agreement between Rosedale-Rio Bravo Water Storage District (RRBWS) and IRWD dated as of May 22, 2006. IRWD will request Rosedale-Rio Bravo Water Storage District's acknowledgement of this letter agreement and the Final Term Sheet. By its signature hereon, RRBWS acknowledges but assumes no liability for this letter agreement and the Final Term Sheet.

Very truly yours,

IRVINE RANCH WATER DISTRICT

By: _____
General Manager

By: _____
Secretary

READ, APPROVED AND ACCEPTED:

CARPINTERIA VALLEY WATER DISTRICT

By: _____
Title:

By: _____
Secretary

ACKNOWLEDGED:

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

By: _____
Title:

By: _____
Secretary

Short-Term Water Storage Partnership

**CARPINTERIA VALLEY WATER DISTRICT
AND IRVINE RANCH WATER DISTRICT
Final Term Sheet - Water Storage Project Terms**

GENERAL

- Parties:** IRWD and CVWD
- IRWD:** Irvine Ranch Water District
- CVWD:** Carpinteria Valley Water District. CVWD has Table “A” SWP entitlement of 2,000 acre-feet per year (AFY) held by CVWD through and as a member unit of Central Coast Water Authority (“CCWA”).
- Operator:** Rosedale-Rio Bravo Water Storage District (“Operator”). Operator is a member unit of Kern County Water Agency (“KCWA”) and through KCWA has Table “A” State Water Project (SWP) entitlement of 29,900 AFY.
- Purpose:** IRWD and Operator have developed an “interim recharge project” (the “Interim Project”) on a portion of IRWD’s property in Kern County. IRWD seeks to acquire up to 10,000 acre-feet (AF) of exportable or exchangeable water to store within the interim project. CVWD seeks to store a portion of its unused SWP entitlement, up to 1,000 AF.
- Effective Date:** _____, 2007
- Term:** Through May 1, 2008, extended automatically in additional one (1) year increments to be concurrent with extensions of the term of IRWD and Operator’s Interim Project agreement (defined below). Thereafter, the term may be extended on mutual agreement of IRWD and CVWD, upon the completion of a final agreement between IRWD and Operator for a long term-banking program, consistent with the provisions of that agreement. Recovery of stored water must occur by May 1, 2013.

PROJECT DESCRIPTION

- Partnership** The objective of the parties is to provide a mutually beneficial short-term partnership utilizing IRWD’s Interim Project. IRWD

will store a portion of CVWD's unused SWP entitlement (through CCWA) in IRWD's Interim Project, allowing IRWD to secure a source of water for banking in its Interim Project. CVWD will thereby receive a storage opportunity, allowing it to optimize its investment in the SWP and develop cost effective emergency/drought storage. In exchange, IRWD will retain fifty percent (50%) of the water stored by CVWD. The short-term partnership would utilize a portion of CVWD's 2007 and 2008 SWP allocations and the Interim Project. This would also serve as a framework for a potential long-term partnership that could be developed by CVWD and IRWD, should an opportunity to do so be found mutually acceptable to the parties within the long term-banking project currently proposed by IRWD and Operator.

Project Facilities

Recharge facilities on and off Strand Ranch to be used in the Interim Project, as described in the Interim Project agreement between Operator and IRWD dated as of May 22, 2006, a copy of which is attached to this term sheet as **Exhibit "A"** (the "Interim Project Agreement").

IRWD's Interim Recharge Rights

Storage under this agreement is subject to IRWD's rights and obligations as described in the Interim Project Agreement.

Delivery and Storage By CVWD

By May 1, 2008 (or May 1, 2009 should the Interim Project Agreement be extended to said date), CVWD would provide up to 1,000 AF of SWP water for delivery into storage and could accumulate a storage balance up to 500 AF (based on IRWD acquiring 50% of the water as outlined below)

Recovery Amount

After application of losses as described herein, CVWD shall have the right to recover fifty percent (50%) of CVWD's SWP entitlement water delivered and stored.

Transfer to IRWD

The remaining fifty percent (50%) of CVWD's SWP entitlement water delivered and stored will be deemed transferred to IRWD. Any water that CVWD has the right to recover but does not recover before May 1, 2013 shall be deemed transferred to IRWD, and CVWD shall have no further right to recover such water.

Recovery Method

The Interim Project Agreement requires that stored water be

recovered and delivered by exchange of SWP entitlement. In addition, such method is required because the Coastal Branch of the California Aqueduct, used to deliver SWP entitlement water to CVWD, is upstream of the Interim Project facilities. Accordingly, CVWD's recovery of stored water shall be by means of exchange of SWP entitlement for banked water. The schedule for recovery shall be subject to any limitations contained in the Interim Project Agreement, including operator's ability to exchange water in any given year given contractual or other obligations.

Losses

IRWD and CVWD agree that water stored shall be subject to the loss provisions of any applicable "Memorandum of Understanding" between Operator and adjoining entities applicable to or affecting the Interim Project. Losses for banking operations currently range from eleven percent (11%) to fifteen percent (15%), for evaporation, migration and out-of County use. IRWD and CVWD further agree that these losses will be shared equally.

DELIVERY

Delivery Points

As specified by operator.

Delivery Schedule

CVWD shall deliver the water it elects to store, up to 1,000 AF, by May 1, 2008 (May 1, 2009, if the Interim Project is extended by Operator and IRWD).

PAYMENTS

Delivery and Recharge Costs

IRWD shall reimburse CVWD all variable costs actually incurred by CVWD in connection with the initial purchase, transport and recharge of CVWD's SWP water delivered to Kern County for banking in the Interim Project. CVWD shall be responsible for all fixed SWP costs.

Recovery Costs

For all water recovered by CVWD, CVWD shall reimburse IRWD for all variable costs paid or reimbursed by IRWD in connection with CVWD's initial purchase, transport and recharge of the recovered water. Said costs include, without

limitation, Cross-Valley Canal charges and other charges imposed by Operator.

Fees and Expenses

Each party shall be responsible for its own fees and expenses incurred in connection with the negotiation and execution of this agreement, or of related agreements, or in connection with negotiating and obtaining necessary approvals of third parties, compliance with CEQA, and the like.

Permit Costs

Any and all permit costs in connection with this agreement shall be shared 50-50.

MISCELLANEOUS

CEQA Compliance and Permits

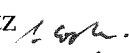
CEQA compliance has been completed by IRWD and Operator for the Interim Project. Each party will have responsibility for any CEQA compliance necessary to implement the proposed partnership within its respective service area. The parties agree to cooperate with regard to any additional CEQA compliance, permits, or agreements necessary to implement the proposed partnership program.

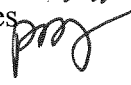
Termination

If the Interim Project Agreement is terminated for any reason, including expiration of the original and/or any extended term, this agreement shall terminate concurrently. The effect of such termination upon recovery of stored water by CVWD shall be as provided above in "Transfer to IRWD."

December 17, 2007

Prepared by: K. Burton

Submitted by: G. P. Heiertz 

Approved by: Paul Jones 

ACTION CALENDAR

MWRP PRIMARY CLARIFIERS COATING REPLACEMENT CONSTRUCTION AWARD

SUMMARY:

The protective concrete coating in the five primary clarifiers at the Michelson Water Reclamation Plant (MWRP) has reached the end of its useful life due to the harsh environment. Staff investigated coating replacement options and recommends the Board:

- Increase the budget for Project 20433, MWRP Primary Clarifiers Coating Replacement, to a total of \$1,293,600;
- Approve an Expenditure Authorization for Project 20433 for \$842,600; and
- Authorize execution of a construction contract with Zebron Contracting, Inc. in the amount of \$725,088.

BACKGROUND:

The Michelson Water Reclamation Plant's (MWRP) five primary clarifiers were rehabilitated in 1996 as part of the Phase IIA Design-Build Improvements. The rehabilitation included installation of skimmer units manufactured by EIMCO Water Technologies, LLC and application of a polyurethane concrete coating manufactured by Sancon Engineering Inc. Staff is very satisfied with the skimmer and coating performance, but the harsh primary clarifier environment has caused severe corrosion of the non-stainless steel skimmer components and deterioration of the concrete coating. In 2006 during the annual MWRP primary clarifier inspection, staff noted that the corrosion damage had reached a level where several structural components of the skimmer units needed replacement to avoid structural failure. In addition, staff noted that several large areas of the concrete protective coating had cracked and separated from the concrete leaving it exposed to the harsh clarifier environment.

The Board awarded a contract to EIMCO in May 2007 for five replacement skimmers and the new equipment will be delivered in March 2008. In summer 2007 staff invited two specialty coating contractors, Zebron Coating Inc. and Sancon Engineering Inc. to perform tank coating inspections along with District staff and Harper Engineering Associates, the District's coating consultant. Based on the inspection results and input from the contractors, staff determined the best option for long term protection of the clarifiers is to completely remove the existing coating system, resurface the concrete, and then apply a new coating system.

Design and Construction Bid Process:

A design was developed by staff to implement the rehabilitation of the concrete surfaces above the water level within the five primary clarifiers. The project was advertised for bidding in November 2007 to the two specialty coating contractors that participated in the tank inspection

process. Two bids for the project were received and opened on December 5, 2007. A summary of the bids is provided in Exhibit "A". The apparent low bidder is Zebron Coating Inc. with a total bid amount of \$725,088. Zebron successfully completed the re-coating the MWRP Headworks in 2001 and in 2007 successfully completed the re-coating of approximately 200 manholes in the Irvine Business Center. In both installations staff found their coating product and workmanship to be of very good quality.

The engineer's estimate was \$534,750, a difference of about 35%. A review of the engineer's estimate and discussion with Zebron identified that staff severely underestimated the level of effort required to remove the existing coating system and therefore the engineer's estimate was very low for that portion of the project. Though the price received from the low bidder exceeded the engineer's estimate, staff believes the price quoted for the work is fair because the two bids were within 8% of each other. Staff recommends award of the project to Zebron Coating Inc. for the amount of \$725,088.

FISCAL IMPACTS:

Project 20433 is included in the FY 2007-08 Capital Budget. A project summary is shown in Exhibit "B". Staff is requesting a budget adjustment and an additional Expenditure Authorization, see Exhibit "C", as follows.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Exist EA	This EA Request	Total EA Request
20433	\$629,200	\$664,400	\$1,293,600	\$408,100	\$842,600	\$1,250,700

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 and 15302.

COMMITTEE STATUS:

Construction awards are not routinely taken to Committee prior to submittal to the Board.

RECOMMENDED MOTION:

THAT THE BOARD APPROVE A BUDGET INCREASE TO THE FY 2007-08 CAPITAL BUDGET FOR PROJECT 20433 BY \$664,400, FROM \$629,200 TO \$1,293,600; APPROVE AN EXPENDITURE AUTHORIZATION FOR \$842,600 FOR PROJECT 20433; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONTRACT WITH ZEBRON COATING, INC. FOR \$725,088 FOR THE MWRP PRIMARY CLARIFIERS COATING REPLACEMENT, PROJECT 20433.

LIST OF EXHIBITS:

Exhibit "A" – Bid Summary

Exhibit "B" – Project Summary

Exhibit "C" – Expenditure Authorization



EXHIBIT "A"

Prepared by: T Bonkowski
Checked By:

Irvine Ranch Water District
Bid Summary For
MWRP Primary Clarifiers Coating Replacement
Project 20433

Bid Opening: December 5, 2007 @ 10:00 a.m.

Item No.	Description	Unit	Qty.	Unit		Bid		1		2	
				Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
								Zebron Contracting, Inc P O Box 2874 Newport Beach, CA 92659 800-924-4214		Sancon Engineering, Inc 5841 Engineer Drive Huntington Beach, CA 92649 714-891-2323	
1	Mobilization / Demobilization / Cleanup	EA	5	\$2,500.00	\$12,500.00	\$3,570.00	\$17,850.00	\$2,250.00	\$11,250.00		
2	Project Safety Measures	EA	5	\$1,000.00	\$5,000.00	\$2,500.00	\$12,500.00	\$500.00	\$2,500.00		
3	Remove existing coating, surface prep and application of coating at all 5 clarifiers and 2 pump wetwell	SF	12,250	\$30.00	\$367,500.00	\$46.50	\$569,625.00	\$50.00	\$612,500.00		
4	Resurface concrete prior to coating application of coating at all 5 clarifiers and 2 pump wetwell	SF	12,250	\$3.00	\$36,750.00	\$1.16	\$14,210.00	\$2.00	\$24,500.00		
5	Clean uncoated concrete surfaces in all 5 clarifiers	LF	20,900	\$2.00	\$41,800.00	\$2.17	\$45,353.00	\$2.00	\$41,800.00		
6	Repair random spalled areas on concrete surfaces at all 5 clarifiers and 2 pump wetwell	EA	500	\$100.00	\$50,000.00	\$60.00	\$30,000.00	\$100.00	\$50,000.00		
7	Remove existing sealants from all joints, clean joints and apply specified sealants in Clarifier No. 4 & No. 5	LF	850	\$22.00	\$18,700.00	\$33.00	\$28,050.00	\$28.00	\$23,800.00		
8	Repair damaged areas of new coating in all 5 clarifiers after installation of new skimmers, including separate mobilization and demobilization for each clarifier	SF	100	\$25.00	\$2,500.00	\$75.00	\$7,500.00	\$150.00	\$15,000.00		
	Subtotal, Base Bid Items				\$534,750.00		\$725,088.00		\$781,350.00		
	Total Amount of Bid Schedule				\$534,750.00		\$725,088.00		\$781,350.00		

**IRVINE RANCH WATER DISTRICT
ENGINEERING PROJECT MANAGEMENT SYSTEM (EPMS)**

PM34IR
12/10/07

Project Summary

20433 MWRP PRIMARY CLARIFIER CORROSION REHAB

Manager: BURTON, KEVIN **Contingency Percentage (%):** 10.00 **Project Status:** ACTIVE/PENDING
Engineer: BURTON, KEVIN **G/A Percentage (%):** 175.00 **Last EA Date:** 5/10/2007
Area: MWRP **Class:** Repair/Restoration

Phase	Current Budget	Current Ea's	Expended To Date	Open Commitment	Amount Remaining	Percent EA's Committed
ENGINEERING DESIGN - IRWD	15,000	10,000	9,522		478	95.22
ENGINEERING DESIGN - OUTSIDE	35,000	0	3,954	6,281	(10,235)	
DESIGN STAFF FIELD SUPPORT	5,000	5,000	1,270		3,730	25.40
ENGINEERING - CA&I IRWD	20,000	5,000	785		4,215	15.70
ENGINEERING - CA&I OUTSIDE	5,000	0	27		(27)	
CONSTRUCTION FIELD SUPPORT	5,000	0	0		0	
CONSTRUCTION	486,000	350,000	23,871	343,039	(16,910)	104.83
LEGAL	1,000	1,000	2,364		(1,364)	236.40
CONTINGENCY	57,200	37,100	0		37,100	
Direct Cost:	629,200	408,100	41,793	349,320	16,987	95.84
ADMINISTRATIVE & GENERAL EXPENSE	78,900	35,100	21,906		13,194	62.41
Totals:	708,100	443,200	63,699	349,320	30,181	93.19

Comments:

EXHIBIT "B"

Irvine Ranch Water District
Expenditure Authorization

EXHIBIT "C"

Project Name: MWRP PRIMARY CLARIFIER CORROSION REHAB
Project No: 20433 **EA No:** 3
Project Manager: BURTON, KEVIN
Project Engineer: BURTON, KEVIN
Request Date: December 9, 2007

ID Split: Miscellaneous

<u>Improvement District (ID) Allocations</u>		
<u>ID No.</u>	<u>Allocation %</u>	<u>Source of Funds</u>
210	100.0	REPLACEMENT FUND**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$408,100
This Request:	\$842,600
Total EA Requests:	\$1,250,700
Previously Approved Budget:	\$629,200
Budget Adjustment Requested this EA:	\$664,400
Updated Budget:	\$1,293,600
Budget Remaining After This EA	\$42,900

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	5,000	10,000	15,000	0	15,000	15,000	1/07	12/07
ENGINEERING DESIGN - OUTSIDE	10,000	0	10,000	(25,000)	35,000	10,000	1/07	12/07
DESIGN STAFF FIELD SUPPORT	0	5,000	5,000	0	5,000	5,000	1/07	12/07
ENGINEERING - CA&I IRWD	5,000	5,000	10,000	0	20,000	20,000	1/08	8/08
ENGINEERING - CA&I OUTSIDE	10,000	0	10,000	10,000	5,000	15,000	1/08	8/08
CONSTRUCTION FIELD SUPPORT	10,000	0	10,000	5,000	5,000	10,000	1/08	8/08
CONSTRUCTION	726,000	350,000	1,076,000	614,000	486,000	1,100,000	1/08	8/08
LEGAL	0	1,000	1,000	0	1,000	1,000	1/07	8/08
Contingency - 10.00% Subtotal	\$76,600	\$37,100	\$113,700	\$60,400	\$57,200	\$117,600		
Subtotal (Direct Costs)	\$842,600	\$408,100	\$1,250,700	\$664,400	\$629,200	\$1,293,600		
Estimated G/A - 175.00% of direct labor*	\$35,000	\$35,100	\$70,100	\$8,700	\$78,900	\$87,600		
Total	\$877,600	\$443,200	\$1,320,800	\$673,100	\$708,100	\$1,381,200		
*Direct Labor	\$20,000	\$20,000	\$40,000	\$5,000	\$45,000	\$50,000		

EA Originator:

Kevin J. Burton 12/10/07

Department Director:

[Signature] 12/12/07

Finance:

Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$1,409,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.

December 17, 2007, *RM/SLM*

Prepared by: R. Mori/S. Malloy

Submitted by: G.P. Heiertz *GPH*

Approved by: Paul Jones *PJ*

ACTION CALENDAR

HARVARD AVENUE TRUNK SEWER DIVERSION TO MICHELSON WATER RECLAMATION PLANT – CONTRACT CHANGE ORDER NO. 2

SUMMARY:

Staff has negotiated Contract Change Order No. 2 (CCO No. 2) for the Harvard Avenue Trunk Sewer (HATS) Diversion to Michelson Water Reclamation Plant (MWRP). Staff is requesting the Board:

- Authorize a budget increase for Project 20400 in the amount of \$414,800 from \$9,009,100 to \$9,423,900;
- Approve an Expenditure Authorization for Project 20400 in the amount of \$414,800; and
- Authorize the General Manager to execute CCO No. 2 in the amount of \$394,894 to CDM Constructors, Inc. (CDM).

BACKGROUND:

The HATS Diversion to the MWRP Project will be capable of diverting wastewater flows ranging from a minimum of 2.0-mgd to a maximum of 16.5-mgd with an average flow of 8.0-mgd. The project location is presented in Exhibit "A".

In March 2007, the Board awarded a construction contract to CDM in the amount of \$7,839,000 for the construction of the project utilizing a design-build delivery approach. The project is currently under construction with substantial completion expected in May 2008.

Contract Change Order No. 2:

CCO No. 2, in the amount of \$394,894 to CDM, is being submitted for approval. It consists of two negotiated contract change requests and generally includes the following items:

- Odor Control System – Add the design and construction of a granular activated carbon foul air scrubbing system for the lift station wet well for \$183,000, and
- Shoring Modification – Revise the shoring system installation method at the Lift Station to include pre-drilling along the perimeter of the excavation to loosen the soils thereby reducing the driving force necessary to install the shoring for \$211,894.

The detailed staff report that summarizes the proposed change request items is attached as Exhibit "B". Staff recommends Board approval of CCO No. 2 in the amount of \$394,894, as provided in Exhibit "C".

FISCAL IMPACTS:

Project 20400 is included in the FY 2007-08 Capital Budget. Staff is requesting a budget adjustment and an Expenditure Authorization as shown in the table below and in Exhibit “D”. A project summary is presented as Exhibit “E”.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
20400	\$9,009,100	\$414,800	\$9,423,900	\$9,009,100	\$414,800	\$9,423,900

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act and is in conformance with the California Code of Regulations Title 14, Chapter 3, Article 6, an Environmental Impact Report was prepared and circulated for public review, State Clearinghouse No. 2006051087.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee meeting on December 11, 2007.

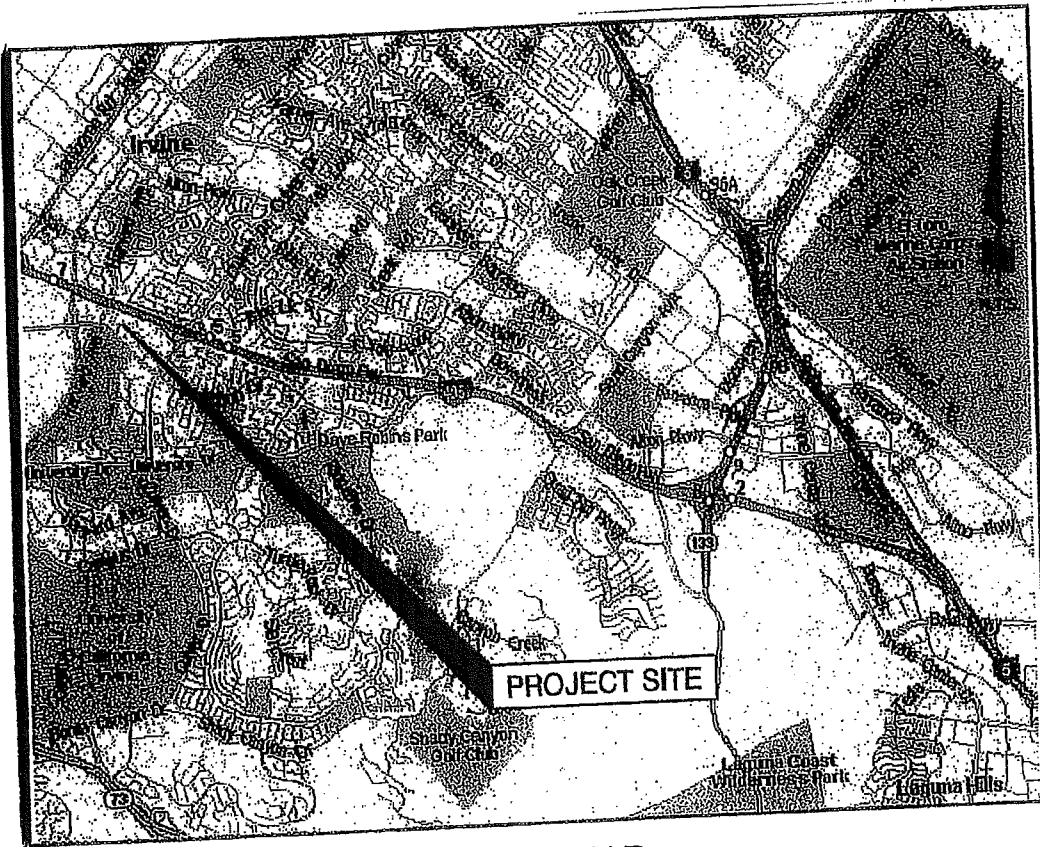
RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE FOR PROJECT 20400 IN THE AMOUNT OF \$414,800, FROM \$9,009,100 TO \$9,423,900; APPROVE AN EXPENDITURE AUTHORIZATION FOR PROJECT 20400 IN THE AMOUNT OF \$414,800; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 2 FOR PROJECT 20400 IN THE AMOUNT OF \$394,894 TO CDM CONSTRUCTORS, INC. FOR CONSTRUCTION OF THE HARVARD AVENUE TRUNK SEWER DIVERSION TO MICHELSON WATER RECLAMATION PLANT, PROJECT 20400.

LIST OF EXHIBITS:

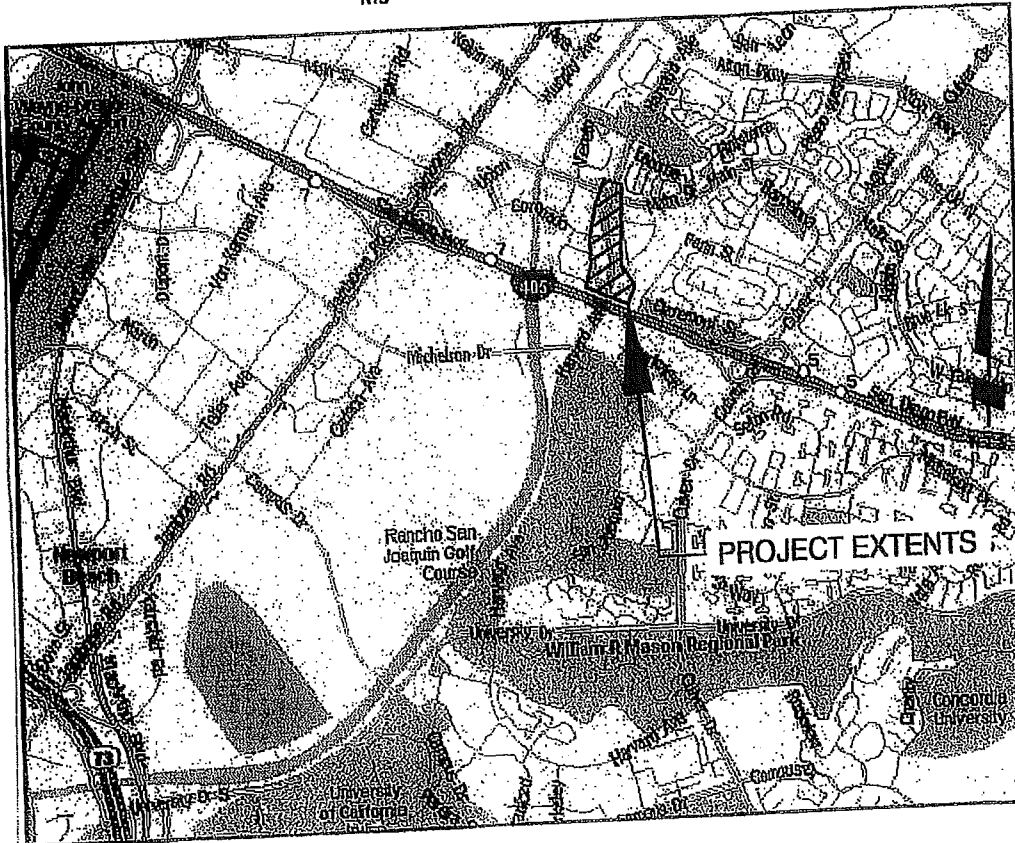
- Exhibit “A” – Location Map
- Exhibit “B” – Staff Report: Contract Change Order No. 2
- Exhibit “C” – Contract Change Order No. 2
- Exhibit “D” – Expenditure Authorization
- Exhibit “E” – EPMS Project Summary

EXHIBIT "A"



VICINITY MAP

NTS



LOCATION MAP

NTS

EXHIBIT "B"

Staff Report

HATS Diversion to MWRP
CDM Constructors, Inc.
Purchase Order 108491, Project 20400
Contract Change Order No. 2

Contract Change Order No. 2, in the amount of \$394,894, consists of Contract Change Request Nos. 1 and 6 and is for the following work items and time extensions:

1. Odor Control System – During contract negotiations with CDM, the design and construction of a granular activated carbon (GAC) foul air scrubbing system for the Lift Station wet well was deleted from the scope of work. However, after several subsequent discussions between District staff and CDM, it was decided to add this facility back into the project.

In an effort to reduce the implementation cost of the odor control system, a passive odor control system was evaluated as an alternative to the proposed system. The evaluation, which is attached, confirmed that a passive system for a facility of this size would be incapable of providing the level of protection necessary to minimize the potential for fugitive odor emissions from the facility. Given the potential risks associated with a pressurized head space in the wet well, the frequency of carbon change-out, the proximity of the project to the general public, the corrosion potential of the project facilities, and the desire to place all facilities below grade, CDM recommends the implementation of the proposed GAC foul air scrubbing system over a passive system. The proposed cost for this item is \$183,000 and no additional contract time was requested.

2. Shoring Modification – Manhole No. 1 and the Lift Station are very deep excavations that require shoring. The contractor is allowed to select the shoring method that will best accommodate the site conditions. Due to the groundwater elevation and geotechnical characteristics of the project area shared with the contractor during the bidding period, the contractor selected a driven (vibratory) sheet pile shoring system for the excavations at Manhole No. 1 and the Lift Station. Prior experience by the contractor with this shoring system has shown that keeping ground accelerations caused by vibration below 0.5 inches/sec/sec will prevent structural damage to nearby homes.

Although the vibration was kept below this threshold, during the shoring installation at Manhole No. 1 several complaints were received from adjacent homeowners regarding the level of vibrations being felt in their homes. Upon completion of the shoring at Manhole No. 1, staff requested the contractor to evaluate other potential shoring methods for the Lift Station excavation in an effort to reduce the construction impact on the nearby residents.

Several options with varying schedule, cost, and probability of successful installation while minimizing the vibration impacts were considered. The evaluation resulted in the

recommendation to pre-drill the perimeter of the excavation to loosen the soils prior to driving the sheet piles. As this option was implemented at the direction of IRWD to accommodate the neighboring customers, the pre-drilling cost of the work is included in Change Order No. 2 and is recommended for approval.

The alternative shoring evaluation was conducted from October 15, 2007 through November 2, 2007, during which time the contractor and its subcontractors incurred equipment standby costs. The proposed cost to implement the modified shoring approach, including the associated standby costs, is \$211,894. CDM is requesting a contract time extension of 20 calendar days to both the substantial and final completion dates for this item.

Summary. Staff has carefully reviewed the costs and negotiated changes with CDM Constructors for CCO No. 2. This item recommends that the E&O Committee recommend that the Board approve CCO No. 2 in the additive amount of \$394,894 to CDM's construction contract for the Harvard Avenue Trunk Sewer Diversion to Michelson Water Reclamation Plant, Project 20400.

CCO No. 2 will also increase the contract time for both substantial and final completion by an additional 20 calendar days. The substantial completion date will change from April 23, 2008 to May 13, 2008. The final completion date will change from May 22, 2008 to June 11, 2008.

CDM

Memorandum

To: IRWD

From: CDM

Date: December 3, 2007

Subject: HATS Pump Station Odor Control Evaluation

Purpose and Summary

IRWD requested that CDM consider the use of a passive carbon canister in lieu of the proposed 600 cfm carbon odor control system. CDM understands that IRWD currently uses passive systems at other lift station locations.

Based on our evaluation, a passive system would likely result in excessive pressures at the pump station and an increased potential for fugitive emissions. The proposed carbon odor control system would also provide additional project benefits as described below. CDM recommends proceeding with the proposed 600 cfm carbon odor control system for the HATS pump station.

Evaluation

Pressurized space. The proposed odor control system includes a fan designed to evacuate the headspace at 6 air changes per hour, resulting in a negative pressure within the wetwell. If the fan is eliminated, the wetwell headspace will become pressurized when the water level rises in the wetwell. This pressure would impact the integrity of the hatches. CDM's standard design criteria prescribes that the pressure within the pumping station should not be allowed to exceed 0.25 in w.g.

The potential pressure rise was estimated to be 51 in w.g. if exhaust pathways were to be blocked off. This equates to a pressure of 265 psf. The dead weight of the H20 rated aluminum hatches is only 20 psf, which means that the net pressure will raise the hatches and force air around the edges and gaps. Extrapolating pressure loss through the carbon results in pressures of 36 in w.g or 188 psf. This is a more likely maximum value because it allows for ventilation, rather than a plugged inlet; however, it is still excessive.

Passive Carbon Contactors. Although there are other carbon systems designed for passive control, these are contactors with high surface areas and only a few inches of carbon. This is similar to a filter in a duct. Based on the contactor sizing criteria, a 20 square foot area, or 4-

foot by 5-foot filter section would be required. However, it would contain only 1.66 cu ft, or about 50 lb of carbon. By comparison, the 600 cfm system currently specified contains about 37 cu ft, or 1110 lb carbon.

The difference in the amount of carbon for each system is a significant consideration as the amount of available carbon determines the frequency of carbon change out. For example, the carbon for the proposed 600 cfm carbon system would need to be changed out about every 12 to 18 months, whereas the carbon for the passive system would need to be changed out one to two times per month. Carbon change out for the passive system would be about 22 times more frequent than that of the proposed system. The carbon change out frequencies described above represent the worst case scenarios as they do not take into consideration the impact of the Biomagic feed system since it is challenging to accurately anticipate the effect that Biomagic will have on the odor generation potential.

Close proximity to nearby residence. This pump station is in close proximity to the Westpark Las Palmas community. The strategy of controlling odors in both the liquid phase and the vapor phase is an effective means for reducing the potential for odor complaints. CDM maintains that the most effective means for controlling odors is at the source of emission, which in this case is the pump station wetwell.

Although IRWD is feeding Biomagic upstream of the manhole, the carbon odor control system further reduces the potential for odorous emissions by treating H₂S in the vapor phase. A passive system also reduces H₂S in the vapor phase, but not to the same extent as an active system. Without the fan, the air will take the path of least resistance. Foul air will leak out of the pumping station around the cover periphery, between leaves, through the sleeves for the handles, and any other openings.

Corrosion in wetwell and influent pipe. In addition to achieving 6 air changes per hour, the odor control system also evacuates the headspace of the influent sewer, reducing corrosion potential and prolonging the life of the influent sewer, wetwell coating and concrete, access hatches, pumps and motors.

Above grade facilities. The pump station facilities are located in the highly visible landscaped area adjacent the Westpark development and therefore have been designed as below grade structures. Additional above grade equipment would require a City of Irvine permit amendment and associated review and approval process.

Conclusion

As described above, a passive odor control system for a facility of this size is incapable of providing the level of protection necessary to eliminate the potential for fugitive emissions from the facility. Given the potential risks associated with a pressurized head space in the wet well, the frequency of carbon change-out, the proximity of the project to the general

HATS, Odor Control
December 3, 2007
Page 3

public, the corrosion potential of the project facilities, and the desire to place all facilities below grade, CDM recommends the implementation of the 600 cfm carbon odor control system.

IRVINE RANCH WATER DISTRICT
 15600 Sand Canyon Avenue
 Irvine, California 92618
 (949) 453-5300



C.O. No. 2
 Final
 Project No. 20400

Harvard Avenue Trunk Sewer Diversion to MWRP
 Project Title

Date: November 30, 2007

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
Contract Change Request No. 1 – Add the design and construction of a granular activated carbon foul air scrubbing system for the lift station wet well	\$183,000		0-cd
Contract Change Request No. 6 – Revise the shoring system installation method at the Lift Station to include pre-drilling along the perimeter of the excavation to loosen the soils thereby reducing the driving force necessary to install the shoring	\$211,894		20-cd
Revised completion dates as a result of this Change Order: Substantial Completion (+20-cd): May 13, 2008 Final Completion (+20-cd): June 11, 2008			
TOTAL	\$394,894		20-cd

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	\$394,894	20-cd
2. ORIGINAL CONTRACT AMOUNT	=	\$7,839,000	384-cd
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$203,255	32-cd
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=	\$8,042,255	416-cd
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$8,437,149	436-cd

We hereby agree to make the above change subject to the terms of this change order for the sum of: Three Hundred Ninety Four Thousand Eight Hundred Ninety Four Dollars

12/5/07
 Date

CDM Constructors, Inc.
 Contractor

By:

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
	<u>11/30/07</u> Date	Department Director Approval Required <input type="checkbox"/>
	<u>12-3-07</u> Date	General Manager Approval Required <input type="checkbox"/>
	<u>12/12/07</u> Date	Committee Approval Required <input type="checkbox"/>
General Manager	Date	Board Approval Required <input checked="" type="checkbox"/>
		By _____ Date _____
		Purchase Order No. _____

NOTE: The documents supporting this Change Order, including any drawings and estimates of cost, if required are attached hereto and made a part hereof. This Change Order shall not be considered as such until it has been signed by the Owner and the Contractor. Upon final approval, distribution of copies will be made as required. The parties mutually agree the pricing set forth in this Change Order are complete and fair compensation for the entirety of the work authorized under this Change Order and that no additional compensation is warranted nor shall it be allowed.

CHANGES: All workmanship and materials called for by this Order shall be fully in accord with the original Contract Documents insofar as the same may be applied without conflict to the conditions set forth by this Order. The time for completing the contract will not be extended unless expressly provided for in this Change Order.

Appendix

Revised 08/06

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**Irvine Ranch Water District
Expenditure Authorization**

EXHIBIT "D"

Project Name: HATS SEWER DIVERSION TO MWRP
 Project No: 20400 EA No: 5
 Project Manager: SPANGENBERG, CARL
 Project Engineer: MORI, RICHARD
 Request Date: November 30, 2007

ID Split: Sewer Tributary to MWRP (7/05)

Improvement District (ID) Allocations

ID No. Allocation % Source of Funds

ID No.	Allocation %	Source of Funds
211	9.2	CAPITAL FUND
212	3.9	BONDS YET TO BE SOLD**
213	.3	BONDS YET TO BE SOLD**
221	21.3	BONDS YET TO BE SOLD**
230	12.9	BONDS YET TO BE SOLD**
250	38.2	BONDS YET TO BE SOLD**
261	8.6	BONDS YET TO BE SOLD**
282	2.0	BONDS YET TO BE SOLD**
284	3.0	BONDS YET TO BE SOLD**
290	.6	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$9,009,100
This Request:	\$414,800
Total EA Requests:	\$9,423,900
Previously Approved Budget:	\$9,009,100
Budget Adjustment Requested this EA:	\$414,800
Updated Budget:	\$9,423,900
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING OUTSIDE	0	0	0	0	0	0	4/06	3/08
ENGINEERING DESIGN - IRWD	0	60,000	60,000	0	60,000	60,000	4/06	3/08
ENGINEERING DESIGN - OUTSIDE	0	840,000	840,000	0	840,000	840,000	4/06	3/08
DESIGN STAFF FIELD SUPPORT	0	30,000	30,000	0	30,000	30,000	4/06	3/08
ENGINEERING - CA&I IRWD	0	200,000	200,000	0	200,000	200,000	4/07	3/08
ENGINEERING - CA&I OUTSIDE	0	400,000	400,000	0	400,000	400,000	4/07	3/08
CONSTRUCTION FIELD SUPPORT	0	25,000	25,000	0	25,000	25,000	4/07	3/08
CONSTRUCTION	395,000	7,000,000	7,395,000	395,000	7,000,000	7,395,000	4/07	3/08
LEGAL	0	20,000	20,000	0	20,000	20,000	4/07	3/08
ENGINEERING ENVIRONMENTAL-OUTS	0	5,000	5,000	0	5,000	5,000	4/06	3/08
Contingency - 5.00% Subtotal	\$19,800	\$429,100	\$448,900	\$19,800	\$429,100	\$448,900		
Subtotal (Direct Costs)	\$414,800	\$9,009,100	\$9,423,900	\$414,800	\$9,009,100	\$9,423,900		
Estimated G/A - 175.00% of direct labor*	\$0	\$551,300	\$551,300	\$0	\$551,300	\$551,300		
Total	\$414,800	\$9,560,400	\$9,975,200	\$414,800	\$9,560,400	\$9,975,200		
*Direct Labor	\$0	\$315,000	\$315,000	\$0	\$315,000	\$315,000		

EA Originator: *R Mori 5/21* 11/30/07
 Department Director: *G Spencer* 12/4/07
 Finance: _____
 Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$10,175,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.

**IRVINE RANCH WATER DISTRICT
ENGINEERING PROJECT MANAGEMENT SYSTEM (EPMS)**

PM341R
11/30/07

Project Summary

20400 HATS SEWER DIVERSION TO MWRP

Manager: SPANGENBERG, CARL **Contingency Percentage (%):** 5.00 **Project Status:** ACTIVE/PENDING
Engineer: MORI, RICHARD **G/A Percentage (%):** 175.00 **Last EA Date:** 3/22/2007
Area: MWRP **Class:** Regional Sewer

EXHIBIT "E"

Phase	Current Budget	Current Ea's	Expended To Date	Open Commitment	Amount Remaining	Percent EA Committe
ENGINEERING - PLANNING OUTSIDE	0	0	1,609		(1,609)	
ENGINEERING DESIGN - IRWD	60,000	60,000	63,181		(3,181)	105.30
ENGINEERING DESIGN - OUTSIDE	840,000	840,000	484,051	636,060	(280,111)	133.35
DESIGN STAFF FIELD SUPPORT	30,000	30,000	221	264	29,515	1.62
ENGINEERING - CA.&I IRWD	200,000	200,000	13,433		186,567	6.72
ENGINEERING - CA.&I OUTSIDE	400,000	400,000	87,269	51,836	260,895	34.78
CONSTRUCTION FIELD SUPPORT	25,000	25,000	5,615	715	18,670	25.32
CONSTRUCTION	7,000,000	7,000,000	1,433,629	5,724,523	(158,152)	102.26
LEGAL	20,000	20,000	0		20,000	
ENGINEERING ENVIRONMENTAL-OUTSIDE	5,000	5,000	785	1,250	2,965	40.70
CAPITAL PROJECTS REIMBURSEMENT	0	0	(46)		46	
CONTINGENCY	429,100	429,100	0		429,100	
Direct Cost:	9,009,100	9,009,100	2,089,747	6,414,648	504,705	94.40
ADMINISTRATIVE & GENERAL EXPENSE	551,300	551,300	132,075		419,225	23.96
Totals:	9,560,400	9,560,400	2,221,822	6,414,648	923,930	90.34

Comments:

December 17, 2007

Prepared by: C. Spangenberg/S. Malloy

Submitted by: G. P. Heiertz

Approved by: Paul Jones

C. Spangenberg
S. Malloy
G. P. Heiertz
Paul Jones

ACTION CALENDAR

WELLS 21 AND 22 REHABILITATION AND PRELIMINARY DESIGN

SUMMARY:

Wells 21 and 22 have the potential for producing 6,100 acre-feet of groundwater. As the two wells have not been operated for over 15 years, well rehabilitation and preliminary design is needed to determine how to best put this water into the domestic water system. Staff solicited proposals to complete the work and recommends that the Board:

- Authorize the addition of Project 10285 in the amount of \$1,225,400 be added to the FY 2007-08 Capital Budget;
- Approve an Expenditure Authorization in the amount of \$1,167,700 for Project 10285; and
- Award RBF Consulting the Wells 21 and 22 Rehabilitation and Preliminary Design in the amount of \$801,809.

BACKGROUND:

Staff has investigated the feasibility of using two existing groundwater wells to supplement the domestic water system. Wells 21 and 22, located in the City of Tustin and shown in the map attached as Exhibit "A", were constructed in 1992 and have been inactive for 15 years. Both wells had nitrate levels that exceeded the primary drinking water standard and total dissolved solids (TDS) levels in excess of the secondary standard. In order to further develop IRWD's groundwater resources, staff recommends that these two wells be evaluated again to determine how they could be incorporated into the IRWD domestic water system. In addition, nearby Well 14 needs to be abandoned due to substandard well construction techniques used in 1928 and the wellhead facilities should be demolished in compliance with state standards.

A previous study entitled "Frances Mutual Groundwater Desalter Project" completed in July 1993 evaluated various treatment process options and recommended reverse osmosis. There is some indication that the nitrate levels within the Tustin area have dropped since 1992 which may allow blending of the two wells with imported or local groundwater to meet water quality goals prior to introduction to IRWD's domestic water system. The evaluation of treatment process options and blending will be assessed as part of the preliminary design. Blending would yield an additional 6,100 acre-feet per year (AFY) of groundwater production. Reverse osmosis would yield 5,700 AFY, but it produces a brine flow that would require disposal.

Consultant Selection:

The consultant's scope of work stipulated in the request for proposal includes the following tasks:

- Assessment and rehabilitation of Wells 21 and 22.

- Assistance in Well 14 abandonment. The actual abandonment will be performed by a well drilling contractor under a separate construction contract.
- Evaluating water treatment and conveyance options.
- Preparing cost estimates and a project schedule.

Proposals were received from EarthTech and RBF Consulting. CDM, URS, and Malcolm-Pirnie declined to submit proposals due to the heavy workload of its key engineers. Staff recommends RBF Consulting be awarded the preliminary design of this project, as indicated in Exhibit "B", for the following reasons:

- RBF's project manager has extensive experience in groundwater development projects;
- RBF demonstrated a comprehensive understanding of the key issues for implementing the project including well rehabilitation, blending, and treatment;
- RBF's proposed team includes of Carollo Engineers, Geoscience, and Bakersfield have extensive experience in water quality and groundwater projects; and
- RBF identified and defined critical design criteria such as noise, designing safeguards to minimize impacts on the surrounding neighborhood, and methods for maintaining compliance with regulatory and District goals.

FISCAL IMPACTS:

Staff is requesting that Project 10285 be added to the FY 2007-08 Capital Budget. At this time, the budget only includes cost for the well rehabilitation and preliminary design. Capital costs for water treatment and conveyance will be estimated during preliminary design and additional budget will be requested at a later date. The total preliminary design phase services fee for RBF is \$801,809, as shown in Exhibit "C". Exhibit "D" contains the Expenditure Authorization and the estimated capital costs for treatment of Wells 21 and 22.

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
10285	-\$0-	\$1,225,400	\$1,225,400	-\$0-	\$1,167,700	\$1,167,700

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, the appropriate environmental document will be prepared when "meaningful information" becomes available.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee meeting on December 11, 2007.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 10285 FOR \$1,225,400 TO THE FY 2007-08 CAPITAL BUDGET; APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$1,167,700 FOR PROJECT 10285; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN ENGINEERING SERVICES AGREEMENT WITH RBF CONSULTING FOR PROJECT 10285 FOR WELLS 21 AND 22 REHABILITATION AND PRELIMINARY DESIGN IN THE AMOUNT OF \$801,809.

LIST OF EXHIBITS:

- Exhibit "A" - Project Location Map
- Exhibit "B" - Engineering Rating Form
- Exhibit "C" - Scope and Fee Schedule
- Exhibit "D" - Expenditure Authorization

EXHIBIT "A"

Wells 21 & 22 Location Map

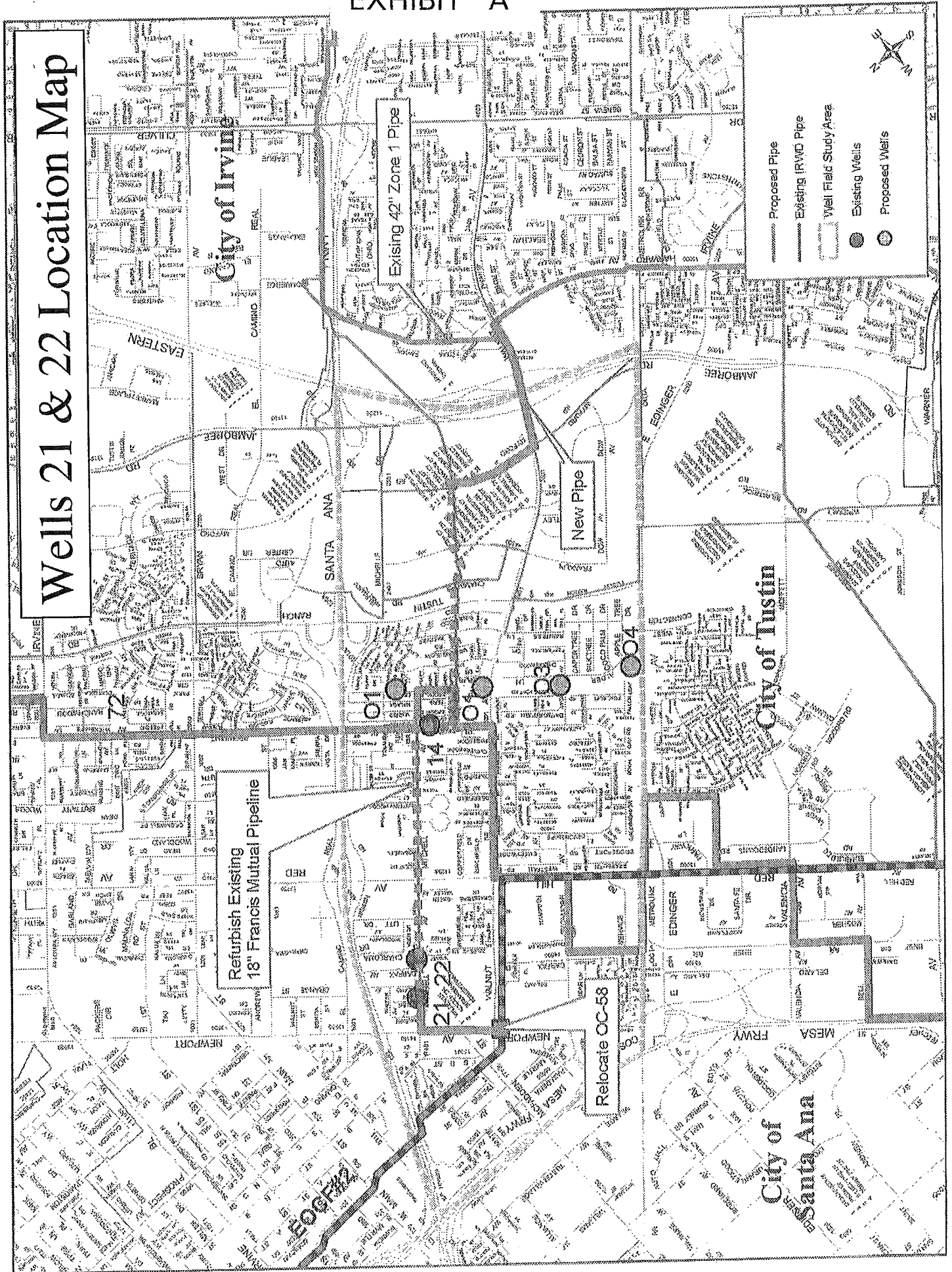


EXHIBIT "B"

Well 21 and 22 PDR Proposal Rating Sheet.xls

	Weights	EarthTech	RBF/Carollo
TECHNICAL APPROACH	60%		
Project Understanding	30%	2	1
Project Approach	40%	2	1
Scope of Work/Schedule	30%	2	1
Weighted Score (Technical Approach)		2.00	1.00
EXPERIENCE	40%		
Firm/Team	20%	2	1
Project Manager	40%	2	1
Project Engineer	20%	2	1
Well Rehabilitation Specialists/Contractor	20%	2	1
Weighted Score (Experience)		2.00	1.00
		Yrs	Yrs
Project Manager		Shahriar Eftekharzadeh, PhD., PE 25	Cindy Miller, PE 14
Project Engineer (pipelines)		Mark Riley, PE 18	John Harris, PE 28 Mark Hill, PE 11
Well Rehabilitation Specialists (hydrogeologists)		Jeff Stanek, PG, CHG, CEGSally Drinkard, PG, CHG Greg Tessier, CHMM 19	Tom Harder, Geoscience Dennis Williams, Geoscience 35
Principal-in-Charge		Eric Peterson, PE ?	Michael Rudinica, PE 31 Bakersfield Well Pump Pacific Surveys
Well Rehabilitation Contractor		General Pump Company, Inc.	
Water Quality Specialists		Chris Barr, CQA, CQM 24	Paul Findley, PE
Water Treatment/Blending Specialists		Doug Rolf, PG, CHG, CEG, REA 24 Matt Wemer, PHD, PG, CHG, CEG 34	Gil Crozes, PhD, Carollo 18 Thomas Seacord, Carollo 11 Joon Min, PhD, Carollo 16 Sarp Sekeroglu, PE 4 Ian Watson, PE, Rostek Associates 35
Wellhead Facility		Same folks as above.	Steven Conner, PE 14 Kevin Gustorf, PE
Distribution System Modeling		Charles Linders, EIT 25	Barkev Messerlian 8
Permits, ROW and Environmental		Sally Drinkyard, PG, CHG 13	David Brandt 24 Clifford Moriyama
Grant Coordination & Support		Melissa Ingalsbe, PE 10	Keith N. Dunn (Capitol Dynamics) 17
Electrical and Instrumentation		None Listed	Bruce Cooke, PE 36
Structural		None Listed	Paul Young, SE, PE 28 Sal Sheikh, PE 32
COMBINED WEIGHTED SCORE		2.00	1.00
		Man-hours	Man-hours
Task 1-10 (excluding other direct costs)		4,807	3,773
Man-hours			
Task 1 - Project Management		507	422
Task 2- Well Assessment, Rehab, W14 Aband.		767	1047
Task 3- Water Quality Evaluation		190	180
Task 4- Wellhead, Treatment, Blending Evaluation		1679	816
Task 5- Distribution System Modeling		649	382
Task 6- Economic Evaluation & Cost Estimates		138	124
Task 7- Grant Coordination & Support		172	207
Task 8- Permits, ROW, & Environmental		279	260
Task 9- Implementation Schedule		82	32
Task 10- PDR		348	263
Total Man-hours		4807	3733
FEE			
Task 1 - Project Management		\$64,782	\$70,637
Task 2- Well Assessment, Rehab, W14 Aband.		\$99,230	\$130,676
Task 3- Water Quality Evaluation		\$23,659	\$43,106
Task 4- Wellhead, Treatment, Blending Evaluation		\$203,995	\$128,038
Task 5- Distribution System Modeling		\$79,896	\$55,226
Task 6- Economic Evaluation & Cost Estimates		\$16,916	\$20,434
Task 7- Grant Coordination & Support		\$22,754	\$37,222
Task 8- Permits, ROW, & Environmental		\$34,361	\$37,350
Task 9- Implementation Schedule		\$12,468	\$4,580
Task 10- PDR		\$41,113	\$41,540
Fee Subtotal		\$599,174	\$568,809
Average Rate (\$/hr)		125	152
Subconsultant/Subcontractor Fees			
Rehabilitation of Wells 21 and 22, and Well 14 Demolition and Abandonment		\$260,470	\$233,000
Fee Total		\$859,644	\$801,809
Professional Liability Insurance		YES	YES
General Liability Insurance		YES	YES
FORCED RANKINGS:		2 - Second	1-First



Section 2: Scope of Work

Scope of Work

This Scope of Work comprises the planning, engineering, and geohydrologic services, as well as drilling services necessary for the rehabilitation of Irvine Ranch Water District's (IRWD's) Wells 21 and 22, and the planning, engineering, and geohydrologic services for the destruction of IRWD's Well 14. In addition, this Scope of Work comprises the planning and engineering services necessary for preliminary design of blending and/or treatment facilities, well equipping, pipe rehabilitation, and new transmission pipelines for development and conveyance of potable water from Wells 21 and 22 into IRWD's Zone 1 distribution system. Encompassed in the Scope of Work are the following general elements:

- Overall Coordination of the Project with IRWD and Project Team, Project Management, and Scheduling
- Hydrogeologic Reviews and Specifications Preparation
- Wells 21 and 22 Rehabilitation Services, based upon Mechanical Cleaning
- Supervision for Well 14 Abandonment
- Water Quality Sampling and Laboratory Analysis
- Water Quality Evaluation
- Treatment Technology Evaluation
- Blending Analysis
- Pipeline Rehabilitation Analysis
- Turnout Facility Siting Analysis
- Alternative Pipeline Alignments Analysis
- Economic Evaluation of Alternatives
- Grant Coordination and Support
- Permitting, Easements, and Public Agency Coordination
- Environmental Reviews
- Preliminary Design
- Report Preparation

Our proposed Scope of Work is as follows:

TASK 1 PROJECT MANAGEMENT

Task 1.1 Project Management Methods

RBF's proposed Project Manager, Cindy Miller, will be responsible for establishing the project management methods to be utilized in the project. Upon project commencement, Ms. Miller will identify to IRWD proposed staff allocation for major activities, including but not limited to, conducting team meetings, preparing meeting agendas, minutes and action items. On a monthly basis as a minimum, Ms. Miller will track project progress in terms of both cost and schedule by utilizing an Earned Value Management System (EVMS). The EVMS includes preparing a Work Breakdown Structure (WBS), tracking actual expenditures, and calculating tracking indices (such as Cost Performance Index, Schedule Performance Index, and Earned at



Completion) to compare anticipated versus actual performance in order to determine whether the project is on schedule and within budget.

Task 1.2 *Preparation of Project Status Reports*

Each week throughout the project duration, Ms. Miller will prepare and submit to IRWD's Project Manager a short written summary report, which identifies the work recently completed for the project and anticipated upcoming work. Reports will be prepared utilizing a standard template developed by RBF and approved by IRWD at the onset of the project. Reports will be prepared in Microsoft Word, version 2000, and will be e-mailed in .pdf format to IRWD's Project Manager each Monday, for the duration of the project. For those weeks where Monday is a holiday, the weekly status report will be delivered to IRWD on the next business day. Based upon the identified schedule, a total of 26 reports will be prepared for IRWD, starting on December 3, 2007 and ending on May 26, 2008. The estimated level of effort by Ms. Miller for status report preparation is 2 hours per report, plus clerical time.

Task 1.3 *Meetings and Workshops*

RBF will conduct bi-weekly meetings with IRWD's Project Team throughout the project duration to assure that all planning, design, construction, public affairs, water quality, safety, operations, and maintenance issues are being addressed in each task identified in this Scope of Work. Based upon the identified schedule, a total of fourteen (14) coordination meetings will be conducted, with the first meeting being held on December 10, 2007 and the last coordination meeting being held on June 2, 2008. For budgeting purposes, the meeting duration is assumed to be two (2) hours per meeting, with attendance at each meeting by the Project Manager. In addition, RBF will conduct one 4-hour workshop with IRWD's Project Team. RBF project team members will attend meetings as necessary, as identified in the sample meeting agendas provided herein. The total estimated hours includes travel time plus meeting time for certain team members. The actual meeting time will be tracked as part of Task 1.1. Should actual meeting time for individual project team members require adjustment, RBF will identify proposed staff time adjustments to IRWD's Project Manager.

TASK 2 **WELL ASSESSMENT, REHABILITATION AND WELL 14
ABANDONMENT**

Task 2.1 *Obtain and Review Background Hydrogeologic Data*

Tasks 2.1.1 -Tasks 2.1.6

As RBF's geohydrologic subconsultant, GEOSCIENCE will obtain and review relevant background hydrogeologic data regarding Wells 21, 22, and 14. Well completion reports from Wells 21 and 22 have been obtained and will be reviewed to provide a basis for the well rehabilitation work (Task 2.1.1 of the RFP). GEOSCIENCE will also obtain and review hydrogeologic data for wells in the surrounding area to assess ground water level and water quality trends in the area. Other data to be obtained and reviewed will include:



- ❑ Lithologic and geophysical logs from area wells (Task 2.1.2);
- ❑ Aquifer test data from Wells 21 and 22 and area wells (Task 2.1.3);
- ❑ Historical ground water elevation data (since 1991) (Task 2.1.4); and
- ❑ Ground water production history in the vicinity of Wells 21 and 22 (Task 2.1.5).

In addition to the above data, GEOSCIENCE will review ground water quality data from the area to assess potential ground water quality issues such as nitrate, total dissolved solids (TDS), and color. GEOSCIENCE has isolated aquifer zone testing data from the City of Tustin's Pasadena Well, drilled in 2006, which shows that the shallower aquifer zones have higher nitrate and TDS concentrations and that the deeper zones have colored water. The general ground water quality from other wells in the area will also provide information for use in developing an effective rehabilitation program for Wells 21 and 22.

Task 2.1.6 Develop Well Rehabilitation Recommendation

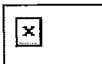
GEOSCIENCE will obtain and analyze the data necessary to develop a recommended well rehabilitation approach for Wells 21 and 22. As part of this task, downhole "dual-cam" video logs will be obtained from each well to assess their physical condition and the types of encrustation/corrosion visible on the perforations. If enough encrustation/scale is visible on the perforations, GEOSCIENCE will also coordinate the collection of sidewall samples from each well for submittal to a laboratory to assess the types of corrosion byproducts and/or biological fowling that may be present. These data, in conjunction with the data obtained and reviewed from Tasks 2.1.1 to 2.1.5, will provide a basis for developing a well rehabilitation program specific to Wells 21 and 22. **The recommended rehabilitation approach will be presented to RBF and IRWD in the form of a letter that includes a revised cost estimate (if necessary) to conduct the rehabilitation work.**

Note that the budget provided by Bakersfield Well & Pump Co. for the well rehabilitation work is based upon certain assumptions, which are outlined in their Table No. 1, and Packer Testing and Water Quality Sampling table (attached as an appendix), which corresponds to a driller's fee (without markup) of \$233,000 for the rehabilitation work for wells 21 and 22. A contingency for chemical cleaning, should it be required, is also noted at an estimated cost of \$190,000 as a separate budget. Should the recommended rehabilitation approach differ from what was identified in these tables, a revised scope of work and fee for the recommended approach will be provided to IRWD.

Task 2.1.7 Prepare Plans and Specifications for Well 21 and 22 Rehabilitation and Well 14 Abandonment

GEOSCIENCE will prepare detailed technical specifications for the rehabilitation of Wells 21 and 22. The document will also include technical specifications for the abandonment of Well 14, which is addressed in Task 2.2 below.

The Well 21 and 22 rehabilitation specifications will be developed based on the recommendations from Task 2.1.6. GEOSCIENCE will produce one draft set of technical specifications for the work, which will be incorporated by RBF into the





appropriate front-end contract documents. Upon review by IRWD and RBF, the technical specifications will be updated with comments received and submitted to the Contractor for obtaining revised cost estimates for the rehabilitation of Wells 21 and 22.

The technical specifications will include (but will not necessarily be limited to) the following:

- Well locations, depths and dimensions,
- Permits to be acquired by the Contractor,
- Compliance with NPDES requirements,
- Job conditions (e.g. runoff and waste management, power supply, lighting, water source, security, sanitation),
- Noise suppression methods and requirements,
- Equipment, materials and records to be furnished by the Contractor,
- Records to be kept by the driller,
- Mobilization, demobilization and site cleanup,
- Mechanical rehabilitation methods and equipment
 - Brushing of well casing and screen
 - Bailing of sediments from the well
- Well redevelopment:
 - Well redevelopment by airlifting and swabbing,
 - Redevelopment by pumping
- Pumping and recovery tests,
- Spinner (flowmeter) surveys,
- Post-rehabilitation "dual-cam" downhole video survey,
- Final well disinfection and temporary capping.

Task 2.1.8 Well Rehabilitation / Abandonment Contractor Procurement

The RBF/GEOSCIENCE team will obtain the services of a qualified well rehabilitation Contractor to perform both the well rehabilitation work and well abandonment work. For budget purposes, we have included Contractor cost estimates for Well 21 and 22 rehabilitation. This cost estimate assumes that IRWD will be responsible for obtaining temporary power at both Well 21 and Well 22 sites. After reviewing cost estimates from two Contractors, we are recommending Bakersfield Well & Pump Co. As per the RFP, the rehabilitation cost estimate includes mechanical rehabilitation only. The cost estimate will be revised when the results of the pre-rehabilitation video and sidewall sample analysis have been conducted per Task 2.1.6. Note that included in this task are estimated hours for administration of the driller's contract with RBF.

Task 2.2 Well 14 Abandonment

GEOSCIENCE will prepare detailed technical specifications for the proper abandonment (i.e. destruction) of Well 14. It is our understanding that this well is approximately 250 ft deep and is perforated from approximately 220 to 250 ft below ground surface. Further, the original pump, motor and associated piping are still in place and will have to be removed. Finally, the enclosing structure and adjacent



cement structures will have to be removed as well as a large tree located near the well. The specifications will describe the following:

- Necessary pre-abandonment site preparation work (structure removal, tree removal, pump removal, etc.),
- Pre-destruction "dual-cam" downhole video survey,
- Appropriate well preparations (brushing and bailing of sediment from the well),
- Downhole perforating,
- Backfill material requirements,
- Method and sequence of backfill emplacement in the well, and
- Methods and requirements for removal of near surface well casing and backfilling of the upper portion of the well.

The technical specifications will provide a basis for obtaining Contractor costs to perform the work and will serve as the work plan for carrying out the work. All well destruction work will meet or exceed the requirements of California Department of Water Resources Bulletin 74-81 and 74-90 as well as requirements of the Orange County Health Care Agency.

The Well 14 destruction specifications will be included within the detailed technical specifications for the rehabilitation of Wells 21 and 22 and be presented as one singular document. Our cost estimate to develop the technical specifications for Well 14 is included in Task 2.1.7.

RBF and Geoscience will assist IRWD with public bidding of the Well 14 destruction contract.

Abandonment of the well by the driller is not included in this scope.

Task 2.3 *Field Inspection and Contractor Management Services*

Prior to commencing field work, the RBF/GEOSCIENCE team will coordinate with the selected Contractor and IRWD to discuss the well redevelopment and well abandonment program and to address any issues which may arise. GEOSCIENCE will work with the Contractor to ensure that equipment requirements for the work are met prior to mobilization.

Task 2.3.1 Wells 21 and 22 Rehabilitation

Task 2.3.1.1 *Supervision of Contractor Compliance with NPDES Requirements*

GEOSCIENCE will coordinate with the Contractor and provide field inspection to ensure compliance with appropriate NPDES waste discharge requirements, as necessary.

Task 2.3.1.2 *Pre-Rehabilitation Video Surveys and Sidewall Sampling*

As a basis for developing a program for the rehabilitation of Wells 21 and 22, GEOSCIENCE personnel will witness downhole "dual-cam" video surveys in order to assess the pre-rehabilitation condition of the wells. The video surveys will be



conducted throughout the entire length of installed well casing and screen. Prior to conducting the video surveys, GEOSCIENCE will recommend that the wells be “flushed” or otherwise conditioned to ensure that the water column within each well is sufficiently clear to allow effective interpretation.

In the event that significant encrustation/scale is visible from the video log, GEOSCIENCE will provide full-time inspection during the collection of sidewall samples from Wells 21 and 22 and will submit the samples to a laboratory for analysis (see Task 2.1.6). For budget purposes, it is assumed that three (3) sidewall samples will be collected from each well.

Task 2.3.1.3 Cleaning of Well Casing and Screen by Brushing

In order to loosen and dislodge a maximum amount of encrusting and/or biofilm materials in Wells 21 and 22, GEOSCIENCE recommends implementing a mechanical brushing procedure. Brushing of the casing and screen will be conducted in such a way as to provide effective removal of scale and biofilm, as well as to exert stresses within the annulus and the near-well zone, without causing damage to the well. Following initial brushing, all sediment and scale that have accumulated at the bottom of the well will be removed by bailing, as completely as is considered practical.

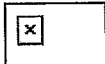
GEOSCIENCE will provide full-time inspection during brushing and bailing of the wells to monitor the progress of the task and to ensure that the proper methods and equipment are employed.

2.3.1.4 Redevelopment by Airlifting and Swabbing

Initial redevelopment of Wells 21 and 22 by airlifting and swabbing is considered an extremely important component of well redevelopment. The wells will benefit significantly from both airlifting and swabbing to optimize well efficiency and performance. The initial redevelopment process will be closely monitored and will be accomplished by airlift pumping and swabbing in stages opposite the entire screened intervals. Tests for sand content will be performed frequently to measure advancement of the redevelopment process, and to ensure that each well has benefited fully before proceeding with final development. Following airlifting and swabbing, any sediment that has accumulated at the bottom of the well will be removed by bailing. GEOSCIENCE will provide part-time inspection during airlifting and swabbing of the wells to monitor progress and to ensure that the proper method is being used.

2.3.1.5 Redevelopment by Pumping

Final redevelopment by pumping is a particularly important part of the redevelopment process and requires close monitoring of water level and discharge data as well as sand content. Tests for sand content and specific capacity will be performed frequently to measure advancement of the redevelopment process, and to ensure that the well is fully redeveloped before proceeding with pumping tests. GEOSCIENCE recommends that the final development by pumping be at least 60 hours in duration per well.





2.3.1.6 Step-Drawdown and Constant Rate Pumping Tests

Once the final development is determined to be complete, pumping tests will be performed on the well to determine well and aquifer characteristics so that the permanent pump can be designed. GEOSCIENCE will provide full-time inspection during step drawdown testing and part time inspection during constant rate testing to ensure that quality data and information is being collected. The recommended pumping tests are:

- ❑ Step Drawdown Pumping Tests – to determine specific capacity and well efficiency relationships that are necessary to calculate the optimal production rate, as well as the pump setting for the well. Typically three to four rates are selected for pumping, beginning at the lowest rate and working up to the highest.
- ❑ Constant Rate Interference Pumping Test & Recovery Test – time drawdown and recovery measurements will be made to determine aquifer parameters such as transmissivity, storativity, and leakance, which are necessary to estimate any long-term influences which might affect well performance. GEOSCIENCE recommends that the constant rate test be conducted for 24 hours with 4 hours of recovery measurements.

Toward the end of each constant rate test, ground water samples will be collected by GEOSCIENCE and delivered to the State of California certified laboratory for Title 22 analysis, plus additional testing as identified in Task 3.1 for water quality evaluation. Additionally, general parameters such as measurement of electrical conductivity, pH, turbidity, TDS, and temperature will be measured in the field.

2.3.1.7 Inspection During Zone Isolation Testing

Upon completion of the 24-hr constant rate pumping test on each well, GEOSCIENCE will provide inspection of isolated aquifer zone testing (i.e. packer testing) of specific zones selected from Task 2.1.6. The purpose of this testing is to assess if the water quality of the discharge water can be improved by packing off depth-specific aquifer zones while maintaining relatively high discharge rates. For budget purposes, it is assumed that two zones will be conducted per well, each pumped for a 6-hr period to obtain ground water quality data. One zone would be at a pump setting of approximately 500 ft (packer interval to be determined) and one zone would be with the pump set at approximately 700 ft. GEOSCIENCE will monitor water quality parameters (pH, electrical conductivity, and temperature) during the test. Upon completion of pumping, GEOSCIENCE will collect ground water samples from the discharge for submittal to a laboratory for water quality testing.

2.3.1.8 Preparation of Letter Providing Pump Design Recommendations

GEOSCIENCE will analyze all pumping test data and will provide letters outlining design parameters for proper selection and optimal operation of the permanent well pumps. Recommendations will be made for the ideal discharge rate and optimum pump depth setting, while taking any long-term impacts into consideration. Specific



capacity and efficiency diagrams will be prepared for each well. The total dynamic head (minus the system head) will be calculated based on the design drawdown, static water level, and seasonal variations in regional ground water levels.

2.3.1.9 Post-Rehabilitation Video Surveys, Final Disinfection and Capping of Wells

Following removal of the test pumping equipment and bailing of the bottom of each well, GEOSCIENCE personnel will witness downhole "dual-cam" video surveys of Wells 21 and 22 throughout the entire length of the installed well casing and screen. The video surveys will provide an indication of the effectiveness of the rehabilitation process and will serve as a record of the post-rehabilitation condition of the wells.

Following the downhole video surveys, GEOSCIENCE will be onsite while the Contractor disinfects each well and secures the wellheads with a temporary cap.

2.3.2 Well 14 Abandonment

The subtasks provided herein describe the anticipated activities for abandonment of Well 14. Geoscience's level of effort is identified for each subtask. Note that work performed by the driller for abandonment of Well 14 is not part of this scope of work and RBF has assumed that IRWD will publicly bid and award a separate drilling contract for this work.

2.3.2.1 Site Preparation and Demolition

GEOSCIENCE will provide part-time inspection during site demolition activities at Well 14 to ensure that the work is progressing smoothly and to provide a record of the work being performed.

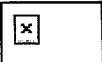
2.3.2.2 Initial Video Survey

Prior to proceeding with destruction of Well 14, GEOSCIENCE personnel will witness a downhole "dual-cam" video survey of the well. The video survey will be conducted throughout the entire length of installed well casing and screen and will be reviewed to verify that plans for well destruction are appropriate for the current condition of the well. Prior to conducting the video survey, GEOSCIENCE will recommend that the well be "flushed" or otherwise conditioned to ensure that the water column within the well is sufficiently clear to allow effective interpretation.

2.3.2.3 Brushing and Bailing

Following the video survey, Well 14 will be brushed in order to dislodge any encrusting materials from the casing and screen in preparation for backfilling of the well. Following brushing, all sediment that has accumulated at the bottom of the well will be removed by bailing, as completely as is considered practical. GEOSCIENCE will provide full-time inspection during brushing and bailing of the well.

2.3.2.4 Backfilling the Well Casing and Screen





The screened portion of Well 14 will be backfilled with the appropriate sealing material prior to perforating the blank portion of the well casing using a downhole mechanical perforating tool. As Well 14 was constructed in 1928, extreme care should be taken during this portion of the well destruction process to ensure that well casing failure does not occur. Information gathered from the downhole video survey will be instrumental in assessing the structural integrity of the well prior to performing this task. Once the well casing has been perforated, a second downhole "dual cam" video survey of the well will be conducted to evaluate the results of the perforating process.

The remaining portion of well casing will be backfilled under pressure with the appropriate sealing materials to within 10 ft of the ground surface. Volumes of sealing materials will be monitored and recorded in the field by GEOSCIENCE personnel and will be compared to theoretical volume calculations. The upper portion of the well casing (i.e. 5 ft) will be excavated, removed, finished with a "mushroom cap", and the excavation backfilled and compacted.

GEOSCIENCE will provide full-time inspection during this portion of the destruction process to ensure that the work is conducted in accordance with the technical specifications, California Department of Water Resources Bulletins 74-81 and 74-90, and requirements of the Orange County Health Care Agency.

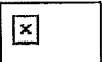
2.3.3 Preparation of Summary Reports

A summary of all work completed during the rehabilitation and testing of Wells 21 and 22 and the abandonment of Well 14 will be fully documented in two separate summary reports. The Well 21 and 22 rehabilitation report will incorporate all data, analysis, and results from the well rehabilitation work, including well cleaning, redevelopment and test pumping results. Recommendations for the optimal operating rate, total dynamic head (less system head) for the permanent well pump, and pump bowl depth setting will also be included. The report will include the following:

- Chronology of activities,
- Pre-rehabilitation well condition,
- Description of methods used during well rehabilitation,
- Well rehabilitation results and post-rehabilitation well condition,
- Analysis and results of pump design recommendations,
- Ground water quality (laboratory) analysis, and
- Other pertinent data, analytical results, recommendations and conclusions.

The Well 14 destruction report will document the methods and results of work related to site preparation and abandonment of Well 14. The report will include a summary and chronology of all work performed and methods employed and will serve as a record of the well abandonment process.

A total of three copies of each report will be submitted to IRWD upon completion. The cost estimated for this task is based on the assumption that a draft version of these reports will not be necessary. Copies of the report will also be provided in .pdf format on CD.





TASK 3 WATER QUALITY EVALUATION

Task 3.1 Test Protocol and Water Quality Analysis

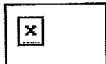
RBF /GEOSCIENCE/Carollo will work cooperatively to prepare a well testing protocol for sampling and analytical testing of each well. The water quality test protocol will be sufficient to provide adequate water quality data necessary to evaluate blending opportunities, as well as treatment alternatives to include Cation Exchange, Anion Exchange, Nanofiltration, and Reverse Osmosis. Prior to commencing well rehabilitation activities for Wells 21 and 22, a draft well testing protocol will be submitted to IRWD for review and comments. GEOSCIENCE will implement the final testing protocol, by collecting samples from the well and delivering these samples to a State of California certified laboratory. For budget purposes, it is assumed that a total of six (6) samples will be collected (3 from each well), for General Mineral and Physical (2 samples per well) and Title 22 analysis (1 sample per well), as well as tests for Silt Density Index (SDI) and silica. A budget of \$10,000 has been allocated for laboratory testing.

Once lab results are received, Carollo and RBF will analyze the water quality laboratory data for compliance with current and anticipated future drinking water standards, for individual well flows, combined well flows, blended well flows with OC-58, and blended well flows with IRWD Zone 1 water. The analysis will be in a spreadsheet format (Microsoft Excel), with easy-to-read formatting utilizing tables, charts, and graphs. For budget purposes, a total of five (5) different scenarios will be analyzed. This task excludes performing additional blending runs that may be required by CDPH for their review and approval of a blending regime in lieu of treatment. RBF can provide this service at an additional cost if requested by the District.

Task 3.2 Historical Water Quality and Prediction Analysis

RBF has already collected some water quality data for certain wells in the vicinity of IRWD's Wells 21 and 22. Some wells indicate that more favorable water quality may be found in IRWD's Wells 21 and 22, while others do not. In particular, one of the City of Tustin's wells (T-WALN), located near the northeast corner of Walnut Avenue and Red Hill Avenue shows very favorable water quality conditions with respect to TDS, Nitrate, and Total Hardness (470 mg/L, 18-33 mg/L, and 245 mg/L, respectively). On the other hand, another City of Tustin well (T-MS3), located due north of IRWD's Wells 21 and 22, shows less favorable water quality (TDS 850 mg/L, Nitrate 55-75 mg/L, and Total Hardness 620 mg/L). Under this task, RBF will gather additional well data from both the City of Tustin and Orange County Water District in order to perform a prediction analysis of water quality in Wells 21 and 22. In addition to water quality, RBF will attempt to gather well completion data, depth-specific water quality information, and dynamic flowmeter survey.

Task 3.3 Hydrogeology and Water Quality Report





Upon completion of Tasks 3.1 and 3.2, RBF will deliver to IRWD ten sets of the hydrogeology report and the water quality evaluation and comparison for IRWD's review and comment.

TASK 4 WELLHEAD AND TREATMENT FACILITY AND BLENDING REQUIREMENTS

Task 4.1 Treatment Technology Evaluation

From initial review of historic water quality data from Wells 21 and 22, recent water quality data from surrounding wells, and water quality and flow information for the OC-58 turnout, RBF has identified three (3) treatment technologies that, used alone or potentially in combination, will meet or exceed IRWD's finished water quality goals, which are 30-mg/L nitrate, 420-mg/L TDS, and total hardness less than 250 mg/L, as well as compliance with all Primary and Secondary Drinking Water Standards.

RBF and Carollo (RBF Team) will screen alternative treatment technologies and identify those that are applicable to the source water, based upon actual water quality testing described in Task 3.1. However, for budgeting purposes, the treatment technologies that are assumed best suited for the anticipated water quality profile are: Reverse Osmosis for TDS, nitrate, and total hardness reduction, Nanofiltration for total hardness reduction and some TDS reduction, Cation Exchange for hardness reduction and some TDS reduction. All of these proposed treatment technologies have a proven track record and have been approved by the California State Department of Public Health (CDPH) for use in producing potable water. It should be noted that CDPH may require piloting should ion exchange be selected as the treatment process, to demonstrate that the proposed resin will not form Nitrosodimethylamine (NDMA) as a bi-product of the treatment process. However, numerous ion exchange systems are permitted by CDPH throughout California and are currently in operation for removal of these target constituents.

RBF Team will identify the required disinfection requirements for the wells and/or blends using chloramines. For budgeting purposes, RBF has assumed two alternative disinfection methods: bulk chemical storage and on-site sodium hypochlorite generation with ammonia.

RBF Team will review the technology screen results with IRWD and make recommendations for the preferred treatment technology for the treatment of Wells 21 and 22. Based upon this recommended treatment technology, the RBF Team will develop conceptual design criteria for the selected treatment alternative, including target removal efficiencies, recovery rates, chemicals, preferred equipment lists, operational requirements, etc.

RBF Team will also investigate brine disposal requirements, assuming that brine generated will be disposed of to the Orange county Sanitation District (OCSD). RBF will identify brine treatment requirements (such as acid addition for ion exchange brine) necessary to comply with OCSD requirements. RBF's focus will be primarily on methods to reduce the volume of brine generated from the candidate treatment processes being evaluated. Investigation of zero-brine discharge alternatives is excluded from this scope of work.



RBF Team will conduct two meetings with CDPH with IRWD staff for to review the proposed treatment alternatives.

Task 4.2 *Blending Alternative Evaluation*

As an alternative to treatment options identified in Task 4.1, RBF Team will evaluate the option of blending disinfected water from Wells 21 and 22 with water from OC-58 and/or water from IRWD's Zone 1 system. This task assumes that IRWD will provide water quality data from OC-58, as well as its Zone 1 system.

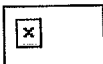
A blending analysis will be performed to determine the feasibility of blending versus wellhead treatment for TDS, nitrate, and total hardness. For this project, a blending analysis model based on the mass balance will be set up in Excel spreadsheets. The models use mass balance equations (for conservative parameters) to calculate the required flow for blending, flow for treatment, and total flow to the distribution system. Based on the results from the blending analysis, the best combination of alternatives can be selected for the project. This task excludes performing additional blending runs that may be required by CDPH for their review and approval of a blending regime in lieu of treatment. RBF can provide this service at an additional cost if requested by the District.

As part of this task the RBF Team will evaluate the best location to relocate turnout OC-58 with respect to the proposed blending plan. A schematic layout of the new OC-58 turnout will be prepared in exhibit format, based upon design criteria identified by IRWD. This task assumes OC-58 will be relocated either within public right-of-way or IRWD-owned property. For budgeting purposes, two schematic layouts for OC-58 will be prepared: one at the Walnut Avenue/Newport Avenue intersection and one at either Well 21 or 22 site. Exhibits will be prepared utilizing commercially available aerial photography. Survey of the proposed sites is excluded from this scope of work.

In addition to blending with water from OC-58, RBF will investigate blending with water from IRWD's Zone 1 system. For budgeting purposes, it's assumed that the blending location would be at the Harvard Community Athletic Park, located at the corner of Walnut Avenue and Harvard Avenue in the City of Irvine. One site layout will be prepared for this alternative. This exhibit will be prepared utilizing commercially available aerial photography as a background. Survey of the proposed site is excluded from this scope of work.

Task 4.3 *Water Quality Compatibility*

RBF Team will determine the stability and compatibility of the blended product waters for the treatment alternatives identified in Tasks 4.1 and 4.2. This evaluation includes considering corrosivity and scaling potential [e.g. Langlier Saturation Index (LSI), Ryznar Stability Index (RSI), etc.], physical and chemical properties of the product waters (e.g. odor, color, etc.) as a result of the treatment and/or blending to prevent potential nuisance effects according to Secondary Standards MCL. The goal of treatment and blending would be to maintain an LSI level within a range of -0.50 to +0.50 to prevent any corrosion and scaling potential in the distribution system.





Task 4.4 Preliminary Design

Based upon the results of the analyses performed in Tasks 4.1 through 4.3, and coordination with IRWD on the results of these analyses, the RBF Team will identify the preferred treatment option and preferred blending option and advance these alternatives to preliminary design for the purpose of preparing cost estimates of sufficient detail to compare alternatives and determine a recommended project. For budgeting purposes, two treatment alternatives (reverse osmosis and ion exchange) and one blending alternative (blending with OC-58 water) have been assumed. For each of these alternatives, RBF will prepare the following preliminary design drawings and information lists:

- Wellhead Equipping Piping Plan (Wells 21 and 22)
- Well Site Layout (including Building footprint, if applicable)

Treatment Alternative 1: Reverse Osmosis

- Overall Treatment Plant Site Layout, including building footprint, electrical service pads, site improvements, etc.
- Treatment Plant Equipment Layout Plan
 - Pretreatment (assumes acid and threshold inhibitor)
 - RO Trains
 - Brine Discharge
 - Decarbonators
 - Chemical Post Treatment (stabilization and chloramination)
 - Electrical and Instrumentation Facilities
- Transfer Storage and Pumping Plan
- Brine Discharge Piping Layout
- Discharge Piping Plan
- P&ID's
- Major Equipment List

Treatment Alternative 2: Cation Exchange for Softening

- Overall Treatment Plant Site Layout, including building footprint, electrical service pads, site improvements, etc.
- Treatment Plant Equipment Layout Plan
 - Pre-treatment filters (bag filters)
 - Ion Exchange Vessels
 - Brine Saturator
 - Reclaim Tank
 - Chemical Post Treatment (stabilization and chloramination)
 - Electrical and Instrumentation Facilities
- Brine Discharge Piping Layout
- Discharge Piping Plan
- P&IDs
- Major Equipment List



Blending Alternative: OC-58 and Wells 21 and 22

- OC-58 relocation piping plan
- Piping to Well 21
- Overall Blending Station Site Plan
- Blending Station Details
- Chemical Addition for Disinfection
- Electrical and Instrumentation
- P&IDs
- Major Equipment List

4.5 Electrical Services

RBF will estimate the power requirements to determine SCE service requirements for both wellhead and treatment facilities for the alternatives identified in Task 4.4. RBF's Electrical Engineer will meet with SCE to discuss the future application for service. For budgeting purposes, one meeting with SCE has been assumed.

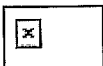
TASK 5 DISTRIBUTION SYSTEM MODELING

Task 5.1 Distribution System Modeling

RBF will perform system modeling for IRWD's Zone 1 System to determine the preferred tie-in location for potable water produced from Wells 21 and 22. IRWD will provide its most recent version of the Info Water model for RBF's use. For budgeting purposes, 40 hours have been allocated to the system modeler for initial setup of the model, and 40 hours have been allocated for performing four alternative modeling runs. Surge and transient analysis is excluded from this scope of work.

Task 5.1.1 Pipeline Alignments

RBF will evaluate the preferred pipeline alignment identified by IRWD. This preferred alignment includes re-use of the 18-inch Francis Mutual Pipeline, as well as new pipeline. RBF will evaluate the rehabilitation of the Francis Mutual Pipeline. This pipe may be undersized for the project, in particular if blending with OC-58 occurs, increasing the overall flowrate that would need to be delivered. RBF will investigate alternative rehabilitation methods, including pipe bursting, sliplining, and possibly pipe reaming. Pipe bursting and pipe reaming provide opportunities to increase the size of the pipeline, if necessary. Sliplining is a more common rehabilitation method, but may reduce the effective inside diameter of the pipeline. RBF will investigate each of these alternatives, including hydraulic requirements, pipe access requirements, constructability issues (such as noise, laydown area requirements, construction outside of right-of-way through private residential properties, etc.), and cost. Pipe video inspection is excluded from this scope of work. As an alternative to the rehabilitation of the Francis Mutual Pipeline, RBF will also investigate constructing a new pipeline within Mitchell Avenue and Walnut Avenue.





RBF will investigate the proposed new pipeline alignments identified in IRWD's preferred alignment, as well as a new pipeline in Mitchell Avenue and Walnut Avenue. RBF will perform utility and right-of-way research to determine a proposed horizontal alignment of the new pipeline. RBF will investigate availability of space within the bridge cell(s) of the Walnut Avenue Bridge over State Route 261 and the Peter's Canyon Bridge. From review of the record drawings for these facilities and initial investigation with Dig Alert, it appears there is room inside both bridges for the proposed waterline. However, the pipeline may need to be reduced in size to fit within the Peters Canyon bridge. RBF will identify critical facility and utility crossings that pose a risk in constructing the pipeline and appurtenances as part of this task.

Task 5.2 *Alternatives System Mapping*

RBF will prepare system graphic maps for the preferred alternative, and two alternative alignments (assumed to be a new pipeline in Mitchell Avenue or new pipeline in Walnut Avenue instead of re-using the Francis Mutual Pipeline). The alternatives will show pipe size, horizontal locations, treatment facility location, proposed OC-58 turnout location, and existing domestic water pipelines. For budgeting purposes, the graphic maps are assumed to be GIS maps. RBF will present and review all supporting documentation collected as part of the alternative pipeline alignments investigation with IRWD staff and make a recommendation for the pipeline routing, sizing, and tie-in location. RBF has assumed that eight (8) different maps will be prepared as part of this task.

TASK 6 **ECONOMIC EVALUATION AND PREPARATION OF COST ESTIMATES**

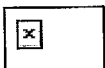
Task 6.1 *Economic Evaluation and Preparation of Cost Estimates*

RBF Team will perform life-cycle cost estimates for the alternatives identified in Tasks 4 and 5. RBF will prepare preliminary estimates of capacity facility costs. Capital facility costs include cost of construction, construction management, inspection, engineering, administrative costs, and contingency. O&M costs will include estimated annual costs for facilities, including labor, energy, chemicals, major equipment replacement funds, brine disposal costs, and OCWD charges. RBF will compare the groundwater costs for Wells 21 and 22 to that of purchasing imported water. RBF will prepare a unit cost analysis of the options for comparison with other groundwater production projects under consideration by IRWD.

TASK 7 **GRANT COORDINATION AND SUPPORT**

Task 7.1 *Identification of Grant Sources and Application Procedures*

RBF will identify grant funding opportunities, procedures, contacts and deadlines for the design and construction of the Well 21 and 22 facilities. Potential grant funding sources include, but are not limited to, local project funds from the Metropolitan





Water District of Southern California as well as California water bond funds administered by the Department of Water Resources and California Department of Public Health.

Task 7.2 Grant Application Preparation

RBF will prepare and submit up to two (2) grant applications for IRWD processing. Ten draft copies will be submitted to IRWD for review and comment for each application, with five final copies delivered to IRWD.

TASK 8 PERMITS, RIGHT-OF-WAY, AND ENVIRONMENTAL SUPPORT

Task 8.1 Permits

Beginning at the outset of the project, RBF will begin to compile a list of all permits known to be required to implement the project. The first permits to be obtained will be for the well rehabilitation and well destruction activities. Other permits required to implement the project will be identified as preferred alternatives become known. RBF will maintain a detailed list of permits required, including identification of the agency, contact information (name, address, phone numbers, and e-mail address), key agency personnel for decision making, anticipated fees (if determinable), and type of permits, estimated permit processing time and requirements needed for obtaining approval. The permitting agencies anticipated include:

- California Department of Public Health,
- California Regional Water Quality Control Board,
- Orange County Health Care Agency,
- Orange County Regional Development and Management,
- City of Irvine,
- City of Tustin,
- Metropolitan Water District of Southern California, and
- Orange County Water District.
- Southern California Edison

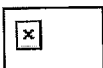
RBF will also identify any interagency agreements that may be required.

Task 8.2 Public Agency Meetings

RBF will attend up to 8 meetings with public agencies to discuss the proposed project. RBF's Project Manager and permits coordinator will attend the meetings with IRWD. Meetings times are assumed to be 4 hours per meeting, including travel time.

Task 8.3 Right of Entry / Easements

Based upon the preferred project alternative, RBF will identify existing and required rights of entry and easements necessary for implementation of the project based upon assessor parcel map information and other public records data. This includes work at each site involved in the study: relocated OC-58, Well 21, Well 22, Well 14,





treatment plant site (1 site) and pipeline routes (up to three routes). RBF has assumed that IRWD will provide Title Reports, if necessary, for this task.

Task 8.4 *Environmental Documentation*

Task 8.4.1 – Environmental Technical Memorandum

RBF Environmental Services Department will identify the environmental considerations and issues associated with the proposed project through the preparation of an Environmental Technical Memorandum. This memorandum will provide an overview of existing environmental conditions at each of the well sites and pipeline alignments, in addition to qualitative analysis of potential environmental constraints and opportunities. The memorandum will take into account air quality, noise, land use/zoning consistency, aesthetics, hazardous materials, and additional considerations required under the California Environmental Quality Act (CEQA). The document will also be utilized during the preliminary design process in determining the appropriate site layout, treatment process, and pipeline alignments, in an effort to minimize impacts to existing sensitive receptors. A recommendation section will also be included within the memorandum that will recommend the type of CEQA document anticipated to be necessary for the project.

Preparation of the Environmental Technical Memorandum excludes the preparation of any formal CEQA documentation or supporting formal technical studies.

Task 8.4.2 – CEQA Assistance

RBF will provide assistance to IRWD staff during preparation of the CEQA document for the proposed project. In consultation with engineering staff, RBF will assist IRWD in identifying appropriate mitigation measures for incorporation within the CEQA document. Although it is assumed that IRWD will prepare and process the CEQA documentation for the project, RBF will provide ongoing assistance to IRWD staff relative to the CEQA process. This ongoing assistance is anticipated to include input regarding the CEQA process and/or requirements, technical clarifications regarding project impacts (air quality, noise, etc.), and/or responding to questions on the Environmental Technical Memorandum. This task is limited to a maximum of 30 hours.

This task excludes the preparation of CEQA documentation, associated formal technical studies, or portions thereof. RBF is available to provide these services on a time and materials basis, if required.

TASK 9 IMPLEMENTATION SCHEDULE

Task 9.1 *Implementation Schedule*

RBF will prepare an implementation schedule in GANTT format using MS-Project for all phases of the work necessary to complete the permitting, design, bidding, construction, and startup, of the facilities. RBF will include two alternative schedule



options to expedite the completion of the project. RBF understands that IRWD has put this project on a fast track schedule. As such, RBF will investigate methods for design and construction that may result in completing the project in the shortest, but realistic, time schedule possible. Alternative methods to expedite the schedule may include design/build, pre-ordering long-lead item equipment, and preparing performance-based plans and specifications to shorten the design duration.

TASK 10 PRELIMINARY DESIGN REPORT (PDR)

Task 10.1 Workshop

RBF will conduct a workshop with IRWD staff to present the analyses and conclusions of Tasks 1 through 9. At this workshop, RBF will present its recommended option for introducing the Wells 21 and 22 groundwater into IRWD's domestic water system. Note that budget for workshop attendance is included in the budget for Task 1.3. Preparation time for this workshop is included under this task's budget.

Task 10.2 Draft PDR

RBF will document analyses, conclusions, and recommendations of all nine tasks in a Draft PDR. The Draft PDR will include an Executive Summary, a chapter for each task, and appropriate appendices. Ten draft reports shall be delivered for review and comment by IRWD staff.

Task 10.3 Presentation

RBF will prepare a presentation in Microsoft Power Point and other materials on the analyses, conclusions, and recommendations of the project for the IRWD Engineering and Operations Committee. Five hard copies and one electronic copy of the presentation will be provided to IRWD.

Task 10.4 Final PDR

After receiving IRWD review comments on the draft PDR, RBF will incorporate the review comments and submit fifteen (15) hard copies and one electronic copy (in .pdf format) of the Final PDR, spreadsheets, and appendices to IRWD. The PDR will be comprehensive to allow the project to go into final design once completed.

EXCLUSIONS

- Topographic and Field Survey
- Geotechnical Investigations
- Purchase of Title Reports
- SCE Temporary Service Coordination
- Preparation of Environmental Documents
- Surge Analysis
- Appraisal Services
- CCTV Inspection
- Potholing
- Final Design Services

**Irvine Ranch Water District
Wells 21 and 22 Preliminary Design
Person-Hours and Fee Estimate
Revised 12/06/2007**

Task		TOTALS
Task 1	Project Management	\$70,637
Task 2	Well Rehabilitation and Assessment and Well 14 Abandonment	\$363,076
Task 3	Water Quality Evaluation	\$43,106
Task 4	Wellhead and Treatment Facility and Blending Evaluation	\$126,038
Task 5	Distribution System Modeling	\$55,226
Task 6	Economic Evaluation and Preparation of Cost Estimates	\$20,434
Task 7	Grant Coordination and Support	\$37,222
Task 8	Permits, Right-of Way, and Environmental Support	\$37,350
Task 9	Implementation Schedule	\$4,580
Task 10	Preliminary Design Report	\$41,540
TOTAL		\$801,809
C-1	Contingency for Well 21/22 Chemical Cleaning [5]	\$100,000

- [1] Hours and Budget for this task are included in Task 2.3.2.
- [2] Inspection During Zone Isolation Testing - Assume 2 Zones per well (4 total zones); 6 hrs per zone test; collect and submit water quality samples for testing.
- [3] Hours and Budget for Workshop attendance by Project Team members are included in Task 1.3. Hours shown under this task are for workshop preparation.
- [4] Subcontractor's Fees shown herein are direct a pass-through cost to IRWD. Should subcontractor costs change from this estimate, costs would be passed through to IRWD.
- [5] Represents a budgetary number in case chemical cleaning is required. Excludes hydrogeologist's time for supervision of chemical cleaning and associated activities.
- [6] Cell Shading: Orange = Task Summary Level 1; Green = Subtask Summary Level 1.1; Blue = Subtask Summary Level 1.1.1; Yellow = Project Total

Irvine Ranch Water District
Wells 21 and 22 Preliminary Design
Person-Hours and Fee Estimate
Revised 12/06/2007

Task	Title	Product/In-Charge	Project Manager		Technical Advisors		Well Rehab/Hydrogeology		Year Quality/Forecast		Well Drilling/Construction		Distribution System Modeling		Permit Submittals		O&M Mapping		Grant Coordination/Support		Environmental		Structural		Specialty/Instrumentation		Easements/ROW		Senior Engineer		Critical/Lead		Subcontractors		TOTALS		
			Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost					
Task 1	Project Management	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 2	Well Rehabilitation and Assessment/Well #4	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 3	Water Quality Evaluation	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 4	Wellhead and Treatment Facility and Bidding	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 5	Distribution System Modeling	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 6	Economic Evaluation and Preparation of Cost Estimates	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 7	Grant Coordination and Support	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 8	Permits, Right-of-Way, and Support	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 9	Implementation Schedule	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
Task 10	Preliminary Design	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000	100%	2,000	\$1,000
TOTAL			20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	20,000	\$10,000	
Contingency for Well 21/22 Chemical Cleaning [5]			100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	100	\$50	

[1] Hours used budget for each task are included in Task 1.3.2.
 [2] Inspection During Zone Isolation - Testing - Assume 2 Zones per well (1 well zone) & this per-zone test; collect and submit water quality samples for testing.
 [3] Hours and Budget for Workshop assistance by Project Team members are included in Task 1.1. Hours shown under this task are for workshop preparation.
 [4] Subcontractor's Fee shown herein are direct pass-through costs to RWD. Shared subcontractor costs change from this estimate, costs would be passed through to RWD.
 [5] Represents a budgetary number to ease chemical cleaning is required. Includes hydrogeologist's time for preparation of chemical cleaning and associated activities.
 [6] Cost including Design + Task Summary Level 1; Other - Subtask Summary Level 1.1; Vehicle - Project Total



HOURLY RATE SCHEDULE
Effective January 2008 through December 2008

<u>RBF PERSONNEL</u>	<u>\$ / hr.</u>
Principal	250.00
Technical Advisor	230.00
Project Manager	200.00
Senior Structural Engineer	195.00
Senior Electrical Engineer	195.00
Senior Environmental Specialist	195.00
Structural Engineer	170.00
Senior Engineer/Senior Planner	160.00
Senior GIS Analyst	160.00
Senior Geo-Hydrologist	155.00
Project Engineer/Project Planner	140.00
Environmental Specialist	140.00
Electrical Engineer	130.00
Design Engineer/Senior Designer/Mapper	125.00
Project Geo-Hydrologist	120.00
Assistant Engineer/Planner	120.00
GIS Analyst	112.00
Designer/Planner	98.00
Staff Geo-Hydrologist	94.00
Graphic Artist	94.00
Environmental Analyst/Staff Planner	94.00
Design Technician	92.00
Engineering Aid/Planning Aid	72.00

<u>OTHER SERVICES AND FEES</u>	
Permit Processor	115.00
Project Coordinator	\$104.00
Clerical/Word Processing	70.00
Consultation Relative to Legal Actions	350.00
Vehicle Mileage	0.60/Mile

Note:
Blueprinting, reproduction, messenger service and other direct expenses will be charged as an additional cost plus 15%. A Sub-consultant Management Fee of fifteen-percent (15%) will be added to the direct cost of all sub-consultant services to provide for the cost of administration, sub-consultant consultation and insurance.



Irvine Ranch Water District
Expenditure Authorization

EXHIBIT "D"

Project Name: WELLS 21 & 22 REHABILITATION & PRELIMINARY DESIGN
 Project No: 10285 EA No: 1 ID Split: Regional Potable Water Splits (7/05)
 Project Manager: SPANGENBERG, CARL
 Project Engineer: MORI, RICHARD
 Request Date: December 6, 2007

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
112	3.7	BONDS YET TO BE SOLD**
113	5.9	BONDS YET TO BE SOLD**
121	17.5	BONDS YET TO BE SOLD**
130	11.5	BONDS YET TO BE SOLD**
140	4.6	BONDS YET TO BE SOLD**
150	38.0	BONDS YET TO BE SOLD**
161	8.7	BONDS YET TO BE SOLD**
182	3.0	BONDS YET TO BE SOLD**
184	4.0	BONDS YET TO BE SOLD**
186	1.2	BONDS YET TO BE SOLD**
188	.6	BONDS YET TO BE SOLD**
190	1.3	PREVIOUSLY SOLD BONDS
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$1,167,700
Total EA Requests:	\$1,167,700
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$1,225,400
Updated Budget:	\$1,225,400
Budget Remaining After This EA	\$57,700

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	45,000	0	45,000	100,000	0	100,000	12/07	6/08
ENGINEERING DESIGN - OUTSIDE	1,000,000	0	1,000,000	1,000,000	0	1,000,000	12/07	6/08
DESIGN STAFF FIELD SUPPORT	5,000	0	5,000	5,000	0	5,000	12/07	6/08
ENGINEERING - CA&I IRWD	0	0	0	0	0	0	4/09	6/10
ENGINEERING - CA&I OUTSIDE	0	0	0	0	0	0	4/09	6/10
CONSTRUCTION	50,000	0	50,000	50,000	0	50,000	12/07	6/08
LEGAL	2,000	0	2,000	2,000	0	2,000	12/07	6/08
LAND	0	0	0	0	0	0	12/07	6/08
WATER QUALITY	10,000	0	10,000	10,000	0	10,000	12/07	6/08
Contingency - 5.00% Subtotal	\$55,700	\$0	\$55,700	\$58,400	\$0	\$58,400		
Subtotal (Direct Costs)	\$1,167,700	\$0	\$1,167,700	\$1,225,400	\$0	\$1,225,400		
Estimated G/A - 175.00% of direct labor*	\$105,100	\$0	\$105,100	\$201,300	\$0	\$201,300		
Total	\$1,272,800	\$0	\$1,272,800	\$1,426,700	\$0	\$1,426,700		
*Direct Labor	\$60,000	\$0	\$60,000	\$115,000	\$0	\$115,000		

EA Originator:  SLM 12/06/07

Department Director: _____

Finance: _____

Board/General Manager: _____

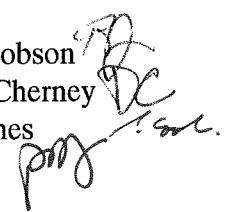
** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$1,456,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.

December 17, 2007

Prepared by: Rob Jacobson

Submitted by: Debby Cherney

Approved by: Paul Jones



ACTION CALENDAR

ASSET OPTIMIZATION – WATERWORKS WAY BUSINESS PARK CONSTRUCTION AWARD AND EXPENDITURE AUTHORIZATION

SUMMARY:

Staff and the project manager for the Waterworks Way Business Park project (Project #11117), Newport Real Estate Services, received three general contractor proposals for construction services related to the office project. Based on the proposals received, staff recommends that the Board authorize the General Manager to execute a construction contract with WL Butler Construction, Inc. in the amount of \$4,703,354.15, and approve an Expenditure Authorization in the amount of \$5,432,300 for Project 11117.

BACKGROUND:

In September 2004, the District purchased 4.25 acres of land on Waterworks Way from Irvine Community Development Company (ICDC). The site was purchased with the primary intent to build the central treatment facility for the Irvine Desalter Project (IDP) on a portion of the property (approximately 1.81 acres). The purchase agreement with ICDC also included a “Requirement for Specific Facilities” that provided for construction of research and development office buildings on the remaining portion of the site fronting on Waterworks Way (approximately 2.44 acres).

In July 2007, the Board approved an increase to the 2007/08 Capital Budget for construction of the Waterworks Way Business Park on the site. When completed, the Waterworks Way Business Park will consist of two separate buildings with ten for-lease units, totaling approximately 37,250 square feet. A conceptual drawing of the completed project is attached as Exhibit “A”. Also in July 2007, the Board approved the retention of Newport Real Estate Services (NRES) as project/construction manager for the project.

Construction Award:

NRES distributed plans and specifications to three pre-qualified general contractors on November 1, 2007. As required in the bid request guidelines, all proposals were received by the November 27, 2007 deadline. The three general contractors submitting proposals included WL Butler Construction, Inc., Miller Construction and Gentosi Builders. The cost variance of the submitted proposals was minimal with a range in price from \$4,703,354 to \$4,880,794.

Based on their competitive bid proposal of \$4,703,354, as well as their experience with similar commercial office construction projects, staff is recommending WL Butler Construction, Inc. to provide general contractor services for the project. A complete bid summary of the general contractor proposals is attached as Exhibit “B”.

FISCAL IMPACTS:

The Waterworks Way Business Park project (Project No.11117) was approved and added to the District's 2006/07 Capital Budget in October 2006. The 2007/08 Capital Budget included an increase to the project budget of \$5,384,500. The total capital expenditure budget for the project is \$6,275,500 (excludes original land cost of \$2,420,000).

Staff is requesting an Expenditure Authorization (Exhibit "C") for \$5,432,300 to provide for project construction expenses. The table below provides the related budget and expenditure authorization details:

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
11117	\$ 6,275,500	\$ 0	\$ 6,275,500	\$ 843,200	\$ 5,432,300	\$ 6,275,500

Stabilized net operating income in Year-3 is estimated at \$646,000/year, or a Return on Costs (including land) of approximately 7.63%.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, the appropriate environmental document will be prepared when meaningful information becomes available.

COMMITTEE STATUS:

The Asset Management Committee has reviewed this project on a number of occasions, most recently at their meeting on September 12, 2007. Construction awards are not typically reviewed by Committee.

RECOMMENDED MOTION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH WL BUTLER CONSTRUCTION, INC. IN THE AMOUNT OF \$4,703,354.15 AND APPROVE AN EXPENDITURE AUTHORIZATION FOR \$5,432,300 FOR PROJECT 11117.

LIST OF EXHIBITS:

Exhibit "A" – Waterworks Way Business Park Conceptual Drawing

Exhibit "B" – General Contractor Bid Proposal Summary

Exhibit "C" – Expenditure Authorization

Exhibit "A"

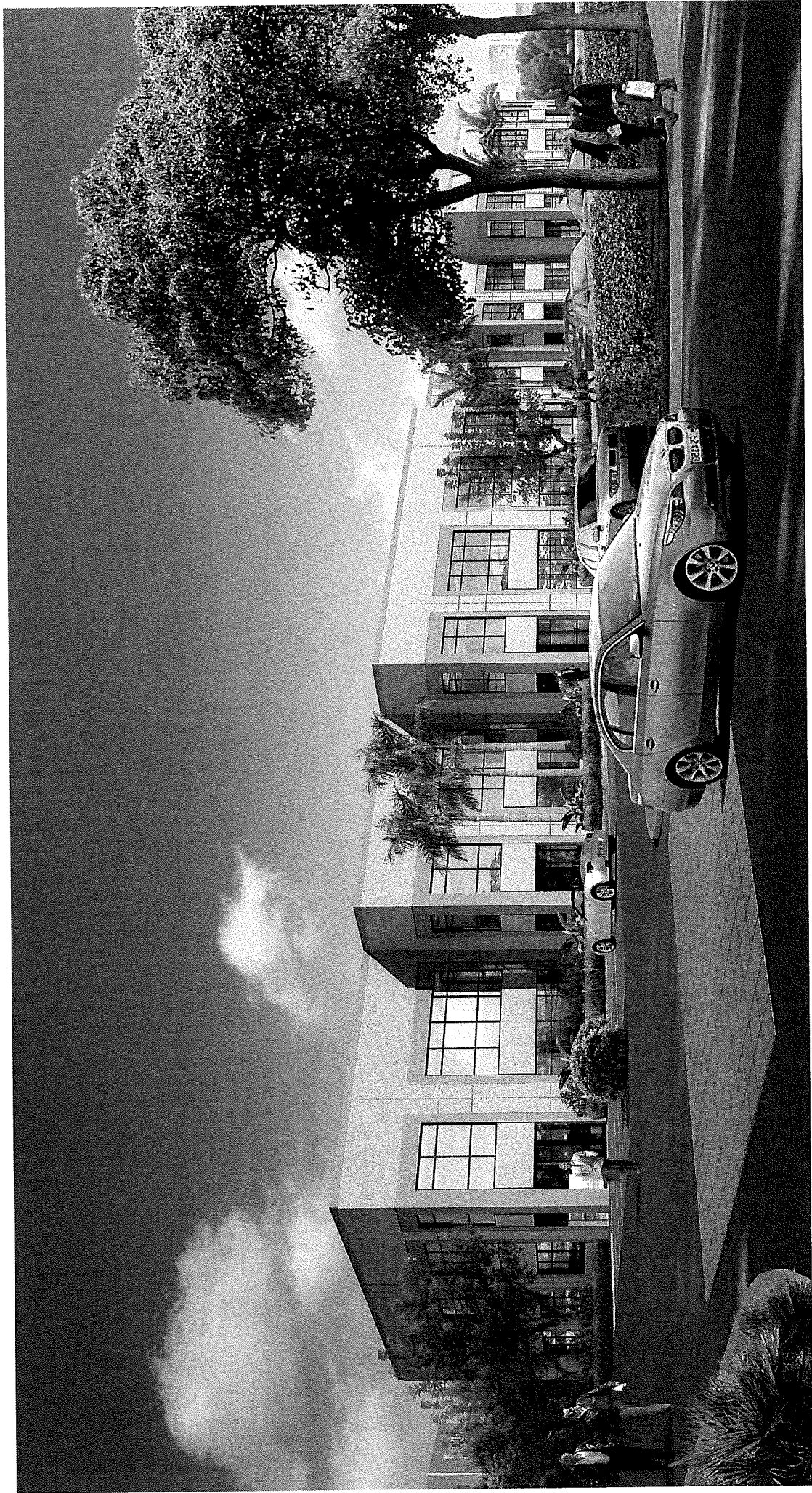




Exhibit "B"

BID FORM



Waterworks Business Park
26 Waterworks Way
Irvine



December 5, 2007

	DESCRIPTION	W.L. Butler	Miller Contracting	Gentosi Builders
1	Surveying	27,700.00	26,500.00	21,700.00
2	Earthwork	98,858.00	88,000.00	80,245.00
3	Underground Utilities (Wet and Dry)	375,413.00	344,141.00	271,288.00
4	Site Concrete	185,708.00	168,278.00	163,436.00
5	Asphalt Paving and Striping	106,332.00	113,500.00	137,462.00
6	Landscaping & Irrigation	157,735.00	272,694.00	267,694.00
7	Reinforcing Steel	inc	inc	inc
8	Building Concrete	830,450.00	799,775.00	809,492.16
9	Gypsum Lt. Wt. Concrete	13,700.00	11,100.00	10,000.00
10	Structural Steel / Misc. Iron	155,800.00	167,062.00	186,880.00
11	Rough Carpentry/Roof Structure	382,500.00	339,051.00	353,724.00
12	Millwork	43,450.00	37,850.00	30,040.00
13	Building Insulation	34,000.00	43,960.00	32,126.00
14	Roofing and Waterproofing	122,000.00	79,500.00	101,280.00
15	Sheetmetal and Skylights	51,596.00	54,128.00	47,480.00
16	Doors, Frames & Hardware and OH Doors	77,666.00	77,315.00	87,500.00
17	Glass & Glazing	152,000.00	152,000.00	152,000.00
18	Drywall	212,000.00	267,692.00	259,072.00
19	Ceramic Tile	25,020.00	36,680.00	24,800.00
20	FRP	0.00	0.00	0.00
22	Acoustical Ceilings	64,000.00	56,600.00	51,757.00
23	Metal Soffit	inc	13,500.00	inc
24	Floor Covering	68,309.00	55,352.00	66,731.00
25	Painting	72,814.00	66,158.00	59,500.00
26	Toilet Partitions & Accessories	12,465.00	16,563.00	16,563.00
27	Fire Extinguishers	11,500.00	2,800.00	0.00
28	Fire Sprinklers	107,000.00	99,900.00	118,668.00
29	Plumbing	183,000.00	192,000.00	199,950.00
30	HVAC	188,800.00	188,700.00	168,488.00
31	Electrical	409,776.00	492,000.00	484,700.00
32	Final Clean-up	0.00	8,700.00	inc
33	Signage	0.00	0.00	3,000.00
	Floor Sealer		3,700.00	
	Caulking @ sidewalks and drains		3,600.00	
	Erosion Control		7,500.00	
	Subtotal	\$ 4,169,592.00	\$ 4,286,299.00	\$ 4,205,576.16
	Insurance	39,431.83	\$ 48,000.00	\$ 53,824.00
	General Conditions	260,950.72	\$ 176,715.00	\$ 333,044.92
	Fee	202,536.78	\$ 225,550.70	\$ 229,622.00
	Bond	30,842.82	\$ 75,000.00	\$ 58,727.00
	TOTAL	\$ 4,703,354.15	\$ 4,811,564.70	\$ 4,880,794.08
Additional Information				
	Cost Per Square Foot	\$ 126.30	\$ 129.20	\$ 131.06
	Total of GC's, Fee and Insurance	\$ 502,919.33	\$ 450,265.70	\$ 616,490.92
ALTERNATES (incl. fee & ins.)				
	Builders Risk Insurance	inc.	18,000	inc
	Security Guard		11,500	
	Increase FDC from 6" to 8"		21,000	0
	Subtotal	0.00	50,500.00	0.00
	GRAND TOTAL	\$ 4,703,354.15	4,862,064.70	4,880,794.08

Irvine Ranch Water District

Expenditure Authorization

Exhibit "C"

Project Name: ASSET OPTIMIZATION - WATERWORKS WAY DEVELOPMENT
 Project No: 11117 EA No: 3 ID Split: Miscellaneous
 Project Manager: JACOBSON, ROBERT
 Project Engineer: FOURNIER, TANJA
 Request Date: December 11, 2007

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
101	100.0	REPLACEMENT FUND
Total	100.0%	

Summary of Direct Cost Authorizations

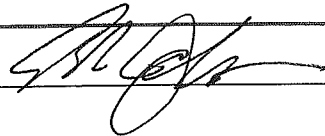
Previously Approved EA Requests:	\$843,200
This Request:	\$5,432,300
Total EA Requests:	\$6,275,500
Previously Approved Budget:	\$6,275,500
Budget Adjustment Requested this EA:	\$0
Updated Budget:	\$6,275,500
Budget Remaining After This EA	\$0

Comments: IRWD Planning & Design (Staff Time) \$75,000
 (Arch/Eng./Envir. Fees) \$710,000 Legal (\$25,000)

Outside Planning/Design

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING - PLANNING IRWD	25,000	25,000	50,000	0	50,000	50,000	7/06	12/07
ENGINEERING - PLANNING OUTSIDE	151,500	158,500	310,000	0	310,000	310,000	7/06	12/07
ENGINEERING DESIGN - IRWD	0	25,000	25,000	0	25,000	25,000	12/07	12/08
ENGINEERING DESIGN - OUTSIDE	242,000	158,000	400,000	0	400,000	400,000	12/07	12/08
DESIGN STAFF FIELD SUPPORT	0	0	0	0	0	0	12/07	12/08
ENGINEERING - CA&I IRWD	0	0	0	0	0	0	1/09	12/10
ENGINEERING - CA&I OUTSIDE	0	400,000	400,000	0	400,000	400,000	1/09	12/10
CONSTRUCTION FIELD SUPPORT	0	0	0	0	0	0	1/09	12/10
CONSTRUCTION	4,495,000	0	4,495,000	0	4,495,000	4,495,000	1/09	12/10
LEGAL	25,000	0	25,000	0	25,000	25,000	7/06	12/10
Contingency - 10.00% Subtotal	\$493,800	\$76,700	\$570,500	\$0	\$570,500	\$570,500		
Subtotal (Direct Costs)	\$5,432,300	\$843,200	\$6,275,500	\$0	\$6,275,500	\$6,275,500		
Estimated G/A - 175.00% of direct labor*	\$43,700	\$87,600	\$131,300	\$0	\$131,300	\$131,300		
Total	\$5,476,000	\$930,800	\$6,406,800	\$0	\$6,406,800	\$6,406,800		
*Direct Labor	\$25,000	\$50,000	\$75,000	\$0	\$75,000	\$75,000		

EA Originator: _____



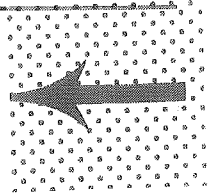
12/10/07

Department Director: _____

Finance: _____

Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$6,535,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.



December 17, 2007

Prepared by: K. Welch M. Hoolihan

Submitted by: G. P. Heiertz

Approved by: Paul Jones

ACTION CALENDAR

ASSESSMENT OF WATER SUPPLY FOR PLANNING AREA 40/12 GENERAL PLAN AMENDMENT, ZONE CHANGE AND ENVIRONMENTAL IMPACT REPORT

SUMMARY:

In October 2007, staff approved a request by the City of Irvine to complete a water supply assessment for Planning Area 40/12 for a General Plan Amendment, Zone Change and Environmental Impact Report. Staff has completed the water supply assessment for the project and is requesting Board approval of this assessment.

BACKGROUND:

On November 25, 2002, IRWD approved a water supply assessment ("WSA") for Planning Area 40 as requested by the City of Irvine in accordance with SB 610. In January 2003, the Board approved a Supplement to the WSA, which documented the (then) current imported water supply situation pursuant to the unsigned Quantification Settlement Agreement. In August 2007, the City requested a new WSA for a General Plan Amendment and Zone Change which includes substantial changes to the previously proposed development in Planning Area 40 and adds in a portion of Planning Area 12.

The Planning Area (PA) 40 project portion consists of 649 acres generally located at the southeast corner of Jeffrey and Trabuco Roads; bounded by Jeffrey Road to the northwest, Trabuco Road to the northeast, Interstate I-5 freeway to the southwest and Planning Area 51 to the southeast (the future Orange County Great Park and Heritage Fields). The PA 12 portion comprises 39 acres located southwest of PA 40 and I-5, and northwest of Sand Canyon Avenue. The current land use for PA 40 is medical and science and industrial (currently under agricultural production) and PA 12's primary current use is a recreational vehicle sales and service complex.

The original PA 40 project consisted of 1,312,352 square feet of industrial and 8,900,000 sq. ft. of medical science. Within the revised PA 40 portion of the project, the City's proposes a reduction of 8,550,000 square feet of medical and science to allow for the development of 3,918 dwelling units. The 3,918 units include the intensity transfer of 1,533 previously entitled units from Planning Areas 1 (222 du) and PA 9 (1,311 du) and 2,385 new dwelling units. In addition, the PA 40-portion of the project includes a maximum of 1,540,000 sq. ft. of multi-use and 205,000 sq. ft of commercial. The General Plan Amendment and Zone Change will facilitate the redevelopment of the 36-acre PA 12 site. This project portion will consist of redeveloping existing vehicle-related commercial to allow for up to 575,000 sq. ft. of medical science.

The City's proposed project is substantially different from the previous project in the approved WSA therefore staff has completed a new WSA, provided as Exhibit "A", which supersedes the

prior WSA. The WSA for the proposed project is based on information from the IRWD Water Resources Master Plan (WRMP), which was last updated in January 2003. Specific tables in the WRMP will be updated to include new demand projections for this project. Preliminary estimates associated with this land use change show an overall net increase in potable water demands for this project of 1,426 AF/Y and a net decrease of 1,084 AF/Y non-potable (due to conversion of agricultural use).

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

None.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications Committee meeting on December 10, 2007.

RECOMMENDATION:

STAFF REQUESTS THE BOARD APPROVE THE ASSESSMENT OF WATER SUPPLY FOR PLANNING AREA 40/12 GENERAL PLAN AMENDMENT, ZONE CHANGE AND ENVIRONMENTAL IMPACT REPORT.

LIST OF EXHIBITS:

Exhibit "A" - Assessment of Water Supply for Planning Area 40/12 General Plan Amendment, Zone Change and Environmental Impact Report

EXHIBIT "A"

**IRVINE RANCH WATER DISTRICT
ASSESSMENT OF WATER SUPPLY**
Water Code §10910 *et seq.*

To: (Lead Agency)
City of Irvine
P.O. Box 19575
Irvine, CA 92623-9575

(Applicant)
The Irvine Community Development Co.
550 Newport Center Drive
Newport Beach, CA 92660

Project Information

Project Title: Planning Area 40/12 General Plan Amendment, Zone Change and EIR (Exhibit A)

- Residential: No. of dwelling units: _____
- Shopping center or business: No. of employees _____ Sq. ft. of floor space _____
- Commercial office: No. of employees _____ Sq. ft. of floor space _____
- Hotel or motel: No. of rooms _____
- Industrial, manufacturing or processing: No. of employees _____ No. of acres _____
Sq. ft. of floor space _____
- Mixed use (check and complete all above that apply) (see Exhibit B)
- Other: _____

Assessment of Availability of Water Supply

On _____ the Board of Directors of the Irvine Ranch Water District (IRWD) approved the within assessment and made the following determination regarding the above-described Project:

- The projected water demand for the Project was was not included in IRWD's most recently adopted urban water management plan.¹
- A sufficient water supply is available for the Project.
The total water supplies available to IRWD during normal, single-dry and multiple-dry years within a 20-year projection will meet the projected water demand of the Project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.
- A sufficient water supply is not available for the Project. [Plan for acquiring and developing sufficient supply attached. Water Code § 10911(a)]

The foregoing determination is based on the following Water Supply Assessment Information and supporting information in the records of IRWD.

Signature	Date	Title
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¹ A water supply assessment for this project was approved in November 2002. However, this revised project is substantially different from the project in the original water supply assessment and this water supply assessment supersedes the previous project's assessment. The originally projected water demand was included in the most recently adopted urban water management plan but the project has changed and the amended water demand were not included.

Water Supply Assessment Information

Purpose of Assessment

Irvine Ranch Water District ("IRWD") has been identified by the City as a public water system that will supply water service (both potable and nonpotable) to the project identified on the cover page of this assessment (the "Project"). As the public water system, IRWD is required by Section 10910 *et seq.* of the Water Code to provide the City with an assessment of water supply availability ("assessment") for defined types of projects. The Project has been found by the City to be a project requiring an assessment. The City is required to include this assessment in the environmental document for the Project, and, based on the record, make a determination whether projected water supplies are sufficient for the Project and existing and planned uses.

Water Code Section 10910 (the "Assessment Law") contains the requirements for the information to be set forth in the assessment.

Prior Water Supply Assessments

IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area. Because of IRWD's aggregation of demands and supplies, each assessment completed by IRWD is expected to be generally similar to the most recent assessment, with changes as needed to take into account changes, if any, in demands and supplies, and any updated and corrected information obtained by IRWD. Previously assessed projects' water demands will be included in the baseline. A newly assessed project's water demand will have been included in previous water supply assessments for other projects (as part of IRWD's "full build-out" demand) to the extent of any land use planning or other water demand information for the project that was available to IRWD.

The Project's water demand was included (as part of IRWD's "full build-out" demand) in previous water supply assessments performed by IRWD, based on land use planning information then available to IRWD. In this water supply assessment, the Project demand will be revised in accordance with updated information provided by the applicant and included in the "with project" demand.

Supporting Documentation

IRWD prepares two planning documents to guide water supply decision-making. IRWD's principal planning document is IRWD's "Water Resources Master Plan" ("WRMP"). The WRMP is a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs. IRWD also prepares an Urban Water Management Plan ("UWMP"), a document required by statute. The UWMP is based on the WRMP, but contains defined elements as listed in the statute (Water Code Section 10631, *et seq.*), and as a result, is more limited than the WRMP in the treatment of supply and demand issues. Therefore, IRWD primarily relies on its most recent WRMP. (The UWMP is required to be updated in years ending with "five" and "zero," and IRWD's next update of that document is anticipated in 2010.

In addition to the WRMP and the 2005 UWMP mentioned above, other supporting documentation referenced herein is found in Section 6 of this assessment.

Due to the number of contracts, statutes and other documents comprising IRWD's written proof of entitlement to its water supplies, in lieu of attachment of such items, they are identified by title and summarized in Section 2(b) of this assessment (written contracts/proof of entitlement). Copies of the summarized items have been provided to the City and can be obtained from IRWD.

Assessment Methodology

Water use factors; dry-year increases. IRWD employs water use factors to enable it to assign water demands to the various land use types and aggregate the demands. The water use factors are based on average water use and incorporate the effect of IRWD's tiered-rate conservation pricing and its other water conservation programs. The factors are derived from historical usage (billing data) and a detailed review of water use factors within the IRWD service areas conducted as a part of the WRMP. Water demands also reflect normal hydrologic conditions (precipitation). Lower levels of precipitation and higher temperatures will result in higher water demands, due primarily to the need for additional water for irrigation. To reflect this, base (normal) WRMP water demands have been increased 7% in the assessment during both "single-dry" and "multiple-dry" years. This is consistent with IRWD's 2005 UWMP and historical regional demand variation as documented in the Metropolitan Water District of Southern California's ("MWD's") Integrated Resources Plan (1996) (Volume 1, page 2-10).

Planning horizon. For consistency with IRWD's WRMP, the assessment reviews demands and supplies through the year 2027, which is considered to represent build-out or "ultimate development".

Assessment of demands. Water demands are reviewed in this assessment for three development projections (to 2027):

- Existing and committed demand (without the Project) ("baseline"). This provides a baseline condition as of the date of this assessment, consisting of demand from existing development, plus demand from development that has both approved zoning and (if required by the Assessment Law) an adopted water supply assessment.
- Existing and committed demand, plus the Project ("with-project"). This projection adds the Project water demands to the baseline demands.
- Full WRMP build-out ("full build-out"). In addition to the Project, this projection adds potential demands for all presently undeveloped areas of IRWD based on current general plan information, modified by more specific information available to IRWD, as more fully described in Chapter 2 of the WRMP.

Assessment of supplies. For comparison with demands, water supplies are classified as *currently available* or *under development*:

- *Currently available* supplies include those that are presently operational, and those that will be operational within the next several years. Supplies expected to be operational in the next several years are those having completed or substantially completed the environmental and regulatory review process, as well as having necessary contracts (if any) in place to move forward. These supplies are in various stages of planning, design, or construction.

- In general, supplies *under development* may necessitate the preparation and completion of environmental documents, regulatory approvals, and/or contracts prior to full construction and implementation.

IRWD is also evaluating the development of additional supplies that are not included in either *currently available* or *under-development* supplies for purposes of this assessment. As outlined in the WRMP, prudent water supply and financial planning dictates that development of supplies be phased over time consistent with the growth in demand.

Water supplies available to IRWD include several sources: groundwater pumped from the Orange County groundwater basin (including the Irvine Subbasin); captured local (native) surface water; reclaimed wastewater, and supplemental imported water supplied by MWD through the Municipal Water District of Orange County (“MWD OC”). The supply-demand comparisons in this assessment are broken down among the various sources, and are further separated into potable and nonpotable water sources.

Comparison of demand and supply. The three demand projections noted above (baseline, with-project and full build-out) are compared with supplies in the following ways:

- On a total *annual* quantity basis (stated in acre-feet per year (AFY)).
- On a *peak-flow* (maximum day) basis (stated in cubic feet per second (cfs)).
- Under three climate conditions: base (normal) conditions and single-dry and multiple-dry year conditions. (Note: These conditions are compared for *annual* demands and not for *peak-flow* demands. *Peak-flow* is a measure of a water delivery system’s ability to meet the highest day’s demand of the fluctuating demands that will be experienced in a year’s time. Peak demands occur during the hot, dry season and as a result are not appreciably changed by dry-year conditions; dry-year conditions do affect *annual* demand by increasing the quantity of water needed to supplement normal wet-season precipitation.)

Summary of Results of Demand-Supply Comparisons

Listed below are Figures provided in this assessment, comparing projected potable and nonpotable water supplies and demands under the three development projections:

- Figure 1: Normal Year Supply and Demand – Potable Water
- Figure 2: Single Dry-Year Supply and Demand – Potable Water
- Figure 3: Multiple Dry-Year Supply and Demand – Potable Water
- Figure 4: Maximum-Day Supply and Demand – Potable Water
- Figure 5: Normal Year Supply and Demand – Nonpotable Water
- Figure 6: Single Dry-Year Supply and Demand – Nonpotable Water
- Figure 7: Multiple Dry-Year Supply and Demand – Nonpotable Water
- Figure 8: Maximum-Day Supply and Demand – Nonpotable Water

It can be observed in the Figures that IRWD’s *supplies* remain essentially constant between normal, single-dry and multiple-dry years. This result is due to the fact that groundwater and MWD imported water account for all of IRWD’s potable supply, and reclaimed water, groundwater and imported water comprise most of IRWD’s nonpotable supply. Groundwater production typically remains constant or increases in cycles of dry years, even if overdraft of the basin temporarily increases, as groundwater producers reduce their demand on

imported supplies to secure reliability. (See Section 4 herein.) As to imported water, MWD's 2005 reliability analysis shows that MWD can maintain reliable supplies under the conditions that have existed in past dry periods through 2030, including a repeat of the 1990-1992 multiple dry-year hydrology and the 1977 single dry-year hydrology. (See Section 2(b)(1) "IMPORTED SUPPLY - ADDITIONAL INFORMATION," below, for a summary of information provided by MWD.) Reclaimed water production also remains constant, and is considered "drought-proof" as a result of the fact that sewage flows remain virtually unaffected by dry years. Only a small portion of IRWD's nonpotable supply, native water captured in Irvine Lake, is reduced in single-dry and multiple-dry years. The foregoing factors also serve to explain why there is no difference in IRWD's supplies between single-dry and multiple-dry years.

A review of the Figures indicates the following:

- Sufficient *currently available* potable supplies are available to meet annual *full build-out* demands under normal conditions through the year 2015. (Figure 1.)
- *Currently available* supplies of potable water are adequate to meet projected annual demands for both the *baseline* and *with-project* demand projections under the normal and both dry-year conditions through the year 2010. (Figures 1, 2 and 3.)
- Meeting both single- and multiple-dry-year annual demands for *full build-out* will require the completion of *under-development* supplies. (Figures 2 and 3.)
- Adequate *currently available* potable water supply capacity is available to meet *peak-flow* (maximum day) demands for all demand projections through the year 2015. (Figure 4.)
- With respect to nonpotable water, *currently available* supplies are adequate to meet all demand projections including full build-out, under both annual and peak-flow (maximum day) conditions, in both normal and dry years. IRWD is proceeding with the implementation of *under-development* nonpotable supplies, as shown in the Figures, to improve local reliability during dry-year conditions. (Figures 5, 6, 7 and 8.)

The foregoing Figures provide an overview of IRWD potable and nonpotable water supply capabilities. More detailed information on the anticipated development and use of supplies, which incorporates source costs and reliability issues, is provided in the WRMP.

Margins of safety. The Figures and other information described in this assessment show that IRWD's assessment of supply availability contains several margins of safety or buffers:

- "Reserve" water supplies (excess of supplies over demands) will be available to serve as a buffer against inaccuracies in demand projections, future changes in land use, or alterations in supply availability.
- The potential exists for the treatment and conversion of some reserve nonpotable supplies to potable water.
- Conservative estimates of annual potable and nonpotable *imported* supplies have been made based on connected delivery capacity (by application of peaking factors as described below in Section 2, footnote 1); additional supplies are expected to be

available from these sources, based on legal entitlements, historical uses and information provided by MWD. In addition to MWD's existing regional supply assessments, this assessment has considered MWD information concerning recent events. See "**Recent Actions on Delta Pumping**," below.

- Information provided by MWD, as the imported water supplier, concerning the adequacy of its regional supplies, summarized herein, demonstrates MWD's inclusion of reserves in its regional supply assessments. In addition to MWD's existing regional supply assessments, this assessment has considered MWD information concerning recent events. See "**Recent Actions on Delta Pumping**," below.

- Although groundwater supply amounts shown in this assessment assume production levels within applicable basin production percentages described herein, production of groundwater can exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies.

Recent Actions on Delta Pumping. The Sacramento/San Joaquin Delta (Delta) is a vulnerable component in both the State and Federal systems to convey water from northern portions of California to areas south of the Delta. Issues associated with the Delta have generally been known for years; however, most recently, the continuing decline in the number of endangered Delta smelt resulted in the filing of litigation challenging permits for the operation of the Delta pumping facilities. On August 31, 2007, a Federal court ordered interim protective measures for the endangered Delta smelt, including operational limits on Delta pumping, which will have an effect on 2008 State Water Project (SWP) operations and supplies. At present, several proceedings concerning Delta operations are ongoing to evaluate options to address Delta smelt impacts and other environmental concerns. In addition to the regulatory and judicial proceedings to address immediate environmental concerns, the Delta Vision process and Bay-Delta Conservation Plan process are defining long-term solutions for the Delta (MWD 2007 IRP Implementation Report). Prior to the court decision, MWD's Board approved a Delta Action Plan in May 2007 that that described short, mid and long-term conditions and the actions to mitigate potential supply shortages and to develop and implement long-term solutions.

To comprehensively address the impacts of the SWP cutback on MWD's water supply development targets, MWD plans to bring to its Board a strategy and work plan to update the long-term Integrated Resources Plan (IRP) in December 2007. Through this IRP update process, MWD will identify changes to the long-term plan and establish direction to address the range of potential changes in water supply planning. This will include impacts of global warming and climate change (see additional discussion of these below) as well as actions to protect endangered fisheries. Based on initial estimates by MWD, as stated in the MWD IRP Implementation Report (October 2007), MWD could see as much as up to 22% reduction, on average, of its SWP supplies in 2008 and beyond.

Estimated impacts on MWD Supplies to IRWD: Although MWD is working on the IRP Update, it is not yet available. In the interim, IRWD has compiled information from the "MWD IRP Implementation Report (October 2007) and MWD's RUWMP (November 2005), for the purpose of providing information in this assessment relative to how MWD's evaluation of the effects of recent events on its regional supply assessments could potentially affect IRWD's supplies from MWD. It should be noted that this evaluation provides an interim review of MWD water supplies. When MWD's IRP Update is completed, IRWD will review this report to determine if supplementation of the assessment is appropriate.

Based on IRWD's evaluation of MWD's SWP supplies, IRWD estimates that the 22% used by MWD's October report as a potential reduction of MWD's SWP supplies conservatively translates to approximately 16% reduction in all of MWD's imported supplies over the years 2010 through 2027. For this purpose it is assumed that MWD's total supplies consist only of imported SWP and Colorado deliveries. As shown in MWD's RUWMP (Tables A.3-7), SWP deliveries on average over the 20-year period are 1,752,000 acre-feet and Colorado average supplies are 656,000 acre-feet. A 22% reduction of SWP supplies equates to 385,400 acre-feet which is 16% of MWD's total imported supplies. Based on this estimate, this assessment projects a 16% reduction in MWD supplies available to IRWD for the years 2010 through 2027, using IRWD's connected capacity without any water supply allocation imposed by MWD. This reduction in MWD supplies is reflected in Figures 1, 2, 3, 5, 6, and 7.

As an alternative means of analyzing the 22% stated reduction, Figures 1a, 2a, and 3a show IRWD estimated supplies in all of the 5-year increments (average and single and multiple dry years) under a short-term MWD allocation scenario whereby MWD declares Shortage Stage 2 and a 10% cutback is applied to IRWD's actual usage rather than its connected capacity. However, it is likely that such a scenario would only be temporary. Under these scenarios, IRWD may need to supplement supplies with production of groundwater, which can exceed the applicable basin production percentage on a short-term basis, providing additional reliability during dry years or emergencies.² In addition, if needed IRWD could impose measures under its shortage contingency plan as described in the UWMP. Listed below are Figures provided in this assessment comparing projected potable water supplies and demands in all of the five year increments, under a temporary MWD allocation scenario:

Figure 1a: Normal Year Supply and Demand (MWD Allocated) – Potable Water
Figure 2a: Single Dry-Year Supply and Demand (MWD Allocated) – Potable Water
Figure 3a: Multiple Dry-Year Supply and Demand (MWD Allocated) – Potable Water

It can be noted that IRWD's above approach is conservative, in that MWD reports that it has made significant progress in other water resource categories such as transfers, groundwater storage and developing other local resources, and supplies will be available from these resources over the long-term.

Climate Change. The California Department of Water Resources ("DWR") released a report "Progress on Incorporating Climate Change into Management of California's Water Resources" (July 2006), considering the impacts of climate change on the State's water supply. DWR emphasizes that "the report represents an example of an impacts assessment based on four scenarios defining an expected range of potential climate change impacts." DWR's major goal is to extend the analysis for long-term water resource planning from "assessing impacts" to "assessing risk." The report presents directions for further work in incorporating climate change into the management of California's water resources. Emphasis is placed on associating

² In these scenarios, it is anticipated that other water suppliers who produce water from the Orange County Basin will also experience cutbacks of imported supplies and will increase groundwater production and that Orange County Water District (OCWD) imported replenishment water may also be cutback. The OCWD's "2005-2006 Engineer's Report on the groundwater conditions, water supply and basin utilization" references a report which recommends a basin management strategy that provides general guidelines for annual basin refill or storage decrease based on the level of accumulated overdraft. It states, "an accumulated overdraft of 500,000 AF is only acceptable for short durations due to drought conditions...and an optimal basin management target of 100,000 AF of accumulated overdraft provides sufficient storage space to accommodate increased supplies from one wet year while also providing enough water in storage to offset decreased supplies during a two- to three-year drought." MWD replenishment water is a supplemental source of recharge water and OCWD estimates other main supply sources for recharge are available.

probability estimates with potential climate change scenarios in order to provide policymakers with both ranges of impacts and the likelihoods associated with those impacts. DWR's report acknowledges "that all results presented in this report are preliminary, incorporate several assumptions, reflect a limited number of climate change scenarios, and do not address the likelihood of each scenario. Therefore, these results are not sufficient by themselves to make policy decisions."

MWD summarized its review of DWR's report in a report to the MWD Board (MWD Board Information Report, September 12, 2006). MWD states, "Compared to Metropolitan's current SWP assumptions, average Table A deliveries are lower in three of the four scenarios. The results generally show lower deliveries for wet and normal years. However, for 1977 (the worst-case hydrology) Metropolitan assumes lower SWP deliveries than all four of the climate change scenarios."

Potential climate change impacts on state, regional and local water supplies and relevant information for the Orange County hydrologic basin and Santa Ana Watershed have not been sufficiently developed at this time to permit IRWD to assess and quantify the effect of any such impact on its conclusions in this assessment. In MWD's anticipated IRP Update, MWD will address emerging challenges and questions on the planning approach with regard to global warming and climate change (MWD Board Information Report, October 9, 2007). When MWD's IRP Update is completed, IRWD will review this report to determine if supplementation of the assessment is appropriate.

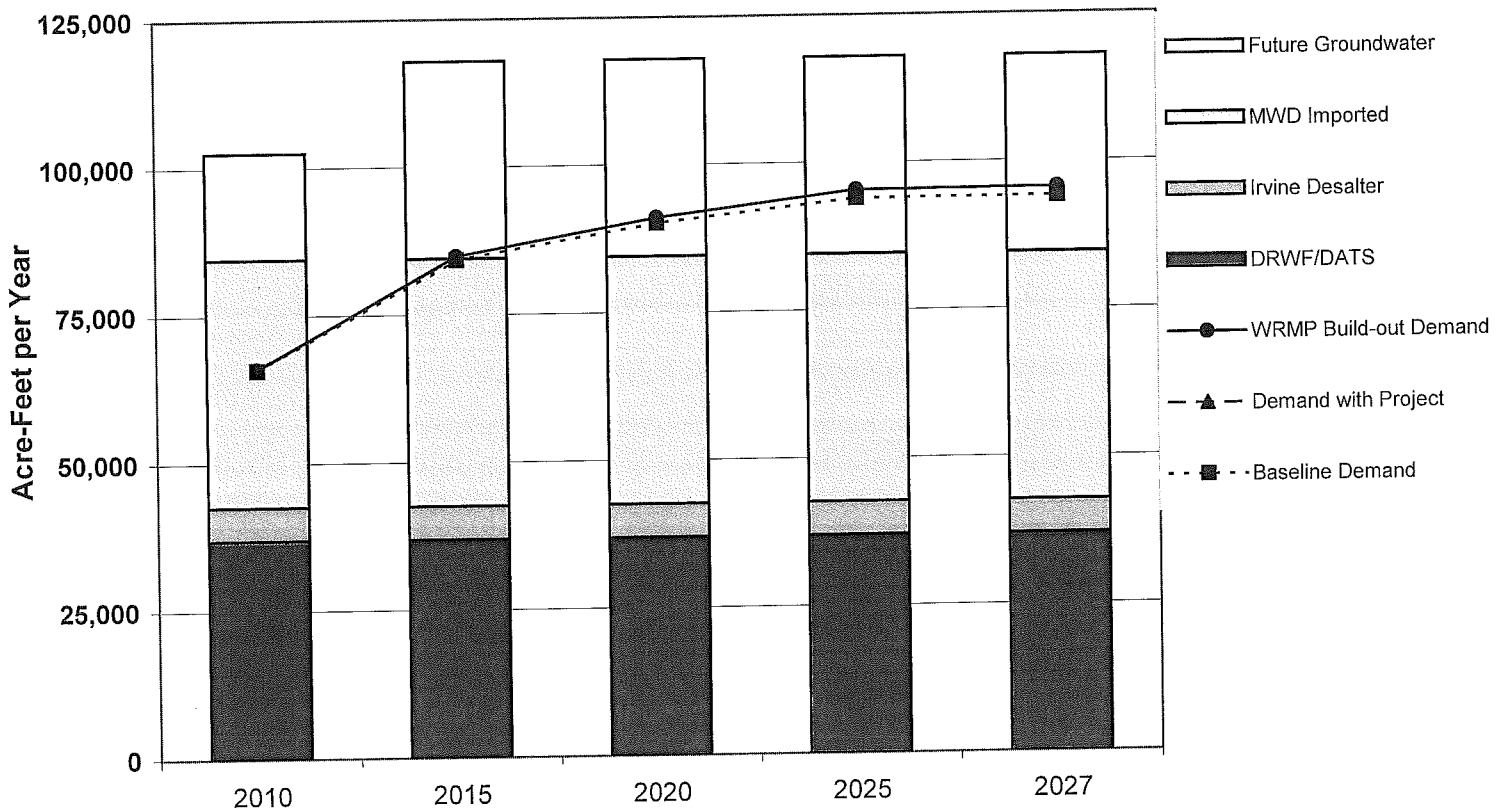
Catastrophic Supply Interruption Planning. MWD cooperated with the DWR in 2005 on a preliminary study of the potential effects of extensive levee failures in the Delta. The study investigated two of a potential range of scenarios and MWD's analysis showed that, due to its investment in local storage and water banking programs south of the Delta, it would be able to supply all firm requirements to its member agencies under both of these scenarios. However, MWD's analysis under more extreme hydrologies (a worst-case situation) showed that MWD might need to reduce firm deliveries to its member agencies by as much as 10 percent. MWD reported this analysis in the Metropolitan Water District of Southern California Regional Urban Water Management Plan, November 2005 ("RUWMP"). IRWD has addressed supply interruption planning in its WRMP and UWMP.

Detailed Assessment

1. Supply and demand comparison

Comparisons of IRWD's average annual and peak (maximum day) demands and supplies, under *baseline* (existing and committed demand, without the Project), *with-project* (baseline plus Project), and *full build-out* development projections, are shown in the following Figures 1 - 4 (potable water) and Figures 5 - 8 (nonpotable water):

**Figure 1
IRWD Normal-Year Supply & Demand - Potable Water**

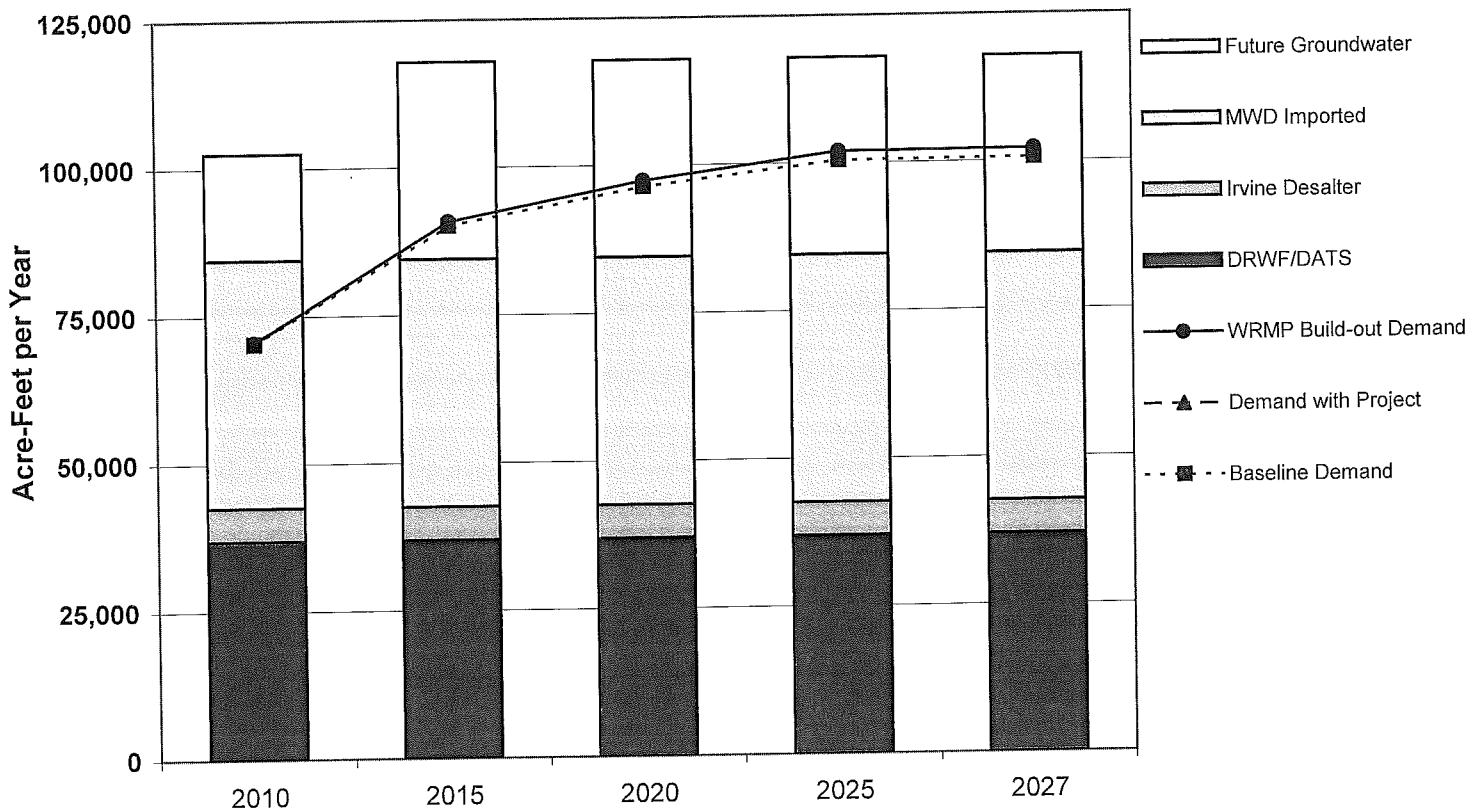


(in acre-feet per year)	2010	2015	2020	2025	2027
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS	36,900	36,900	36,900	36,900	36,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Supplies Under Development					
Future Groundwater	18,000	33,400	33,400	33,400	33,400
Maximum Supply Capability	102,469	117,869	117,869	117,869	117,869
Baseline Demand	65,762	84,227	90,087	93,881	94,004
Demand with Project	65,949	84,860	91,023	95,297	95,440
WRMP Build-out Demand	65,949	84,860	91,023	95,297	95,440
Reserve Supply with Project	36,520	33,009	26,846	22,572	22,430

Notes: By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

Figure 2
IRWD Single Dry-Year Supply & Demand - Potable Water

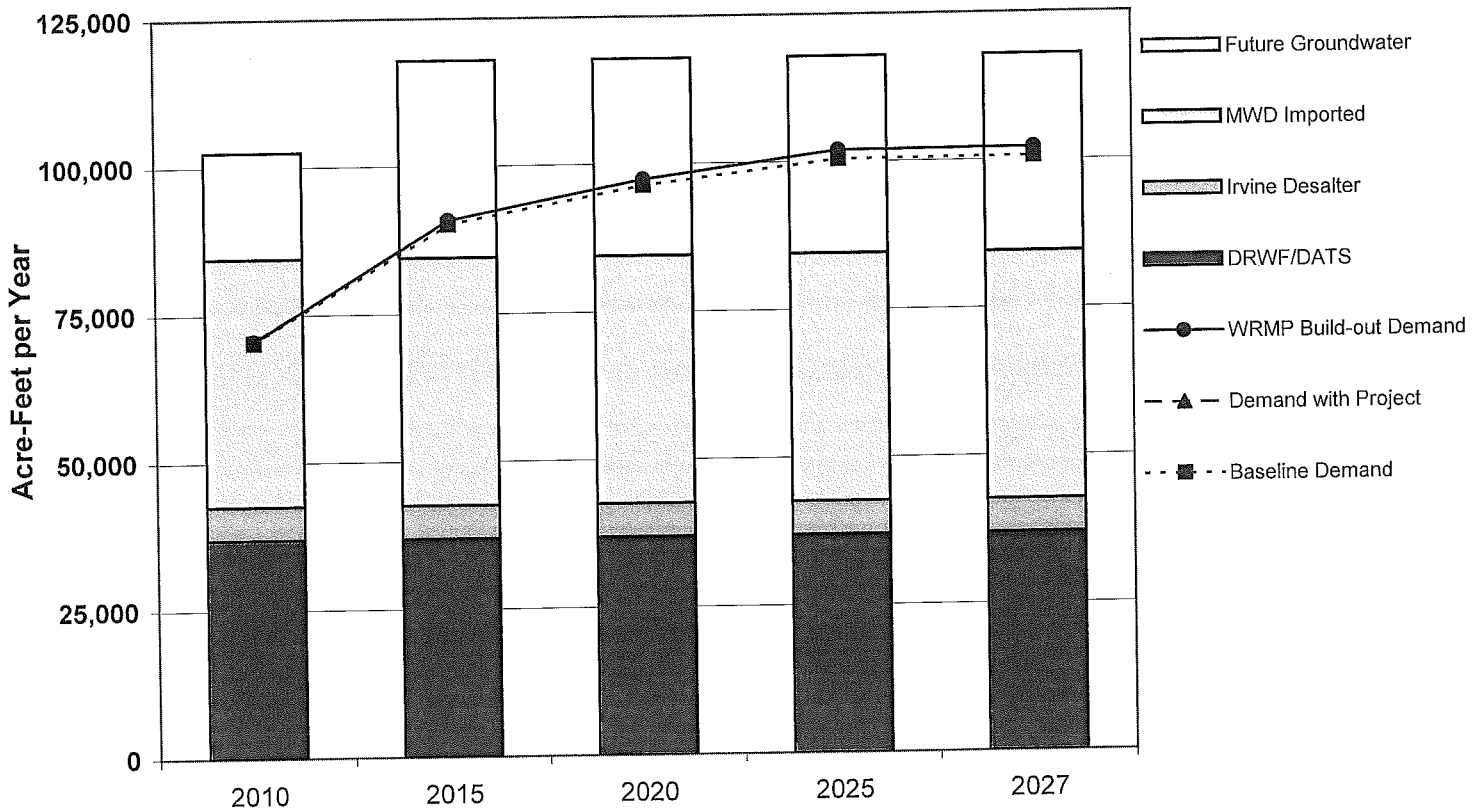


(in acre-feet per year)	2010	2015	2020	2025	2027
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS	36,900	36,900	36,900	36,900	36,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Supplies Under Development					
Future Groundwater	18,000	33,400	33,400	33,400	33,400
Maximum Supply Capability	102,469	117,869	117,869	117,869	117,869
Baseline Demand	70,365	90,123	96,393	100,452	100,585
Demand with Project	70,565	90,801	97,395	101,968	102,120
WRMP Build-out Demand	70,565	90,801	97,395	101,968	102,120
Reserve Supply with Project	31,904	27,069	20,475	15,901	15,749

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 3
IRWD Multiple Dry-Year Supply & Demand - Potable Water**

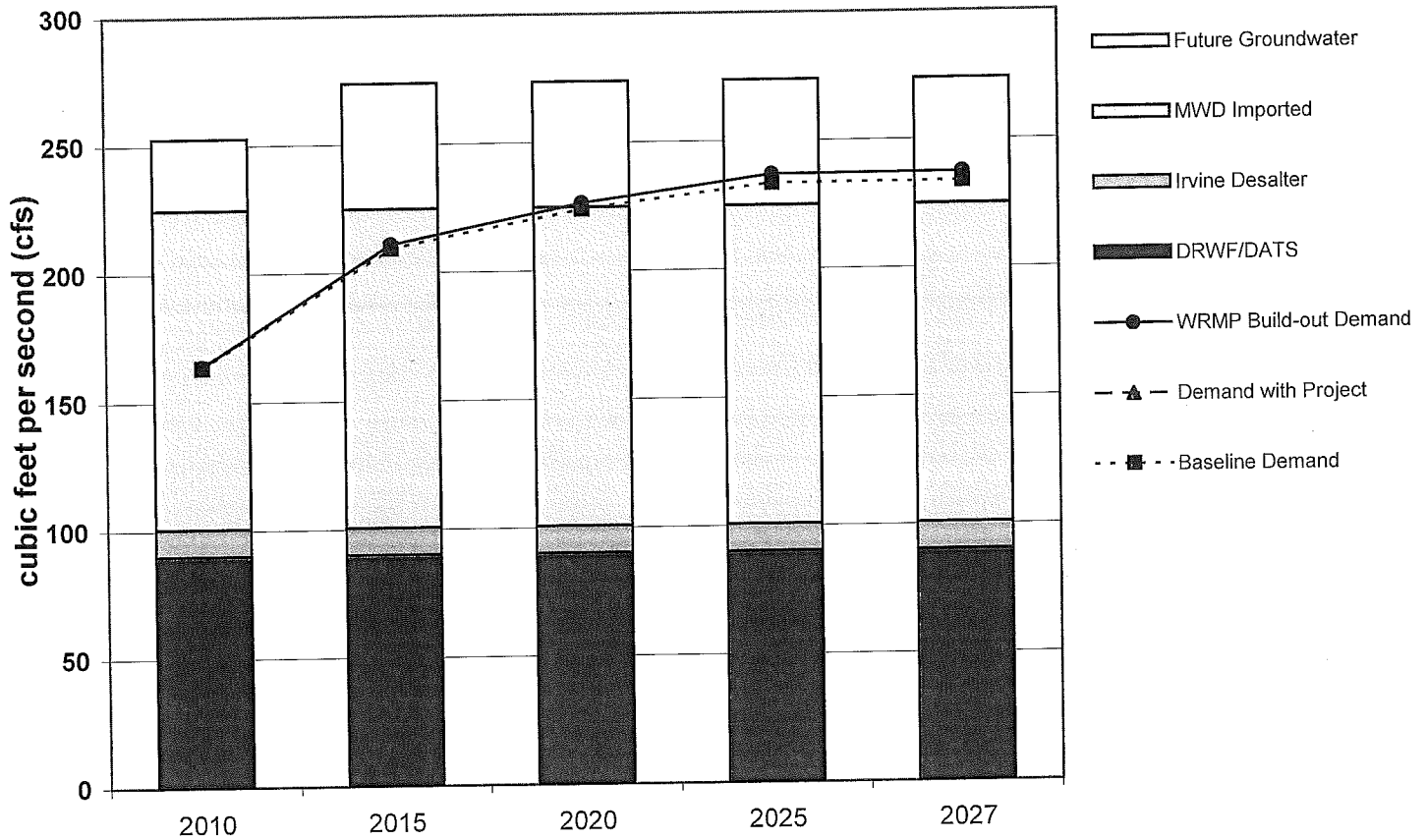


(in acre-feet per year)	2010	2015	2020	2025	2027
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS	36,900	36,900	36,900	36,900	36,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Supplies Under Development					
Future Groundwater	18,000	33,400	33,400	33,400	33,400
Maximum Supply Capability	102,469	117,869	117,869	117,869	117,869
Baseline Demand	70,365	90,123	96,393	100,452	100,585
Demand with Project	70,565	90,801	97,395	101,968	102,120
WRMP Build-out Demand	70,565	90,801	97,395	101,968	102,120
Reserve Supply with Project	31,904	27,069	20,475	15,901	15,749

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

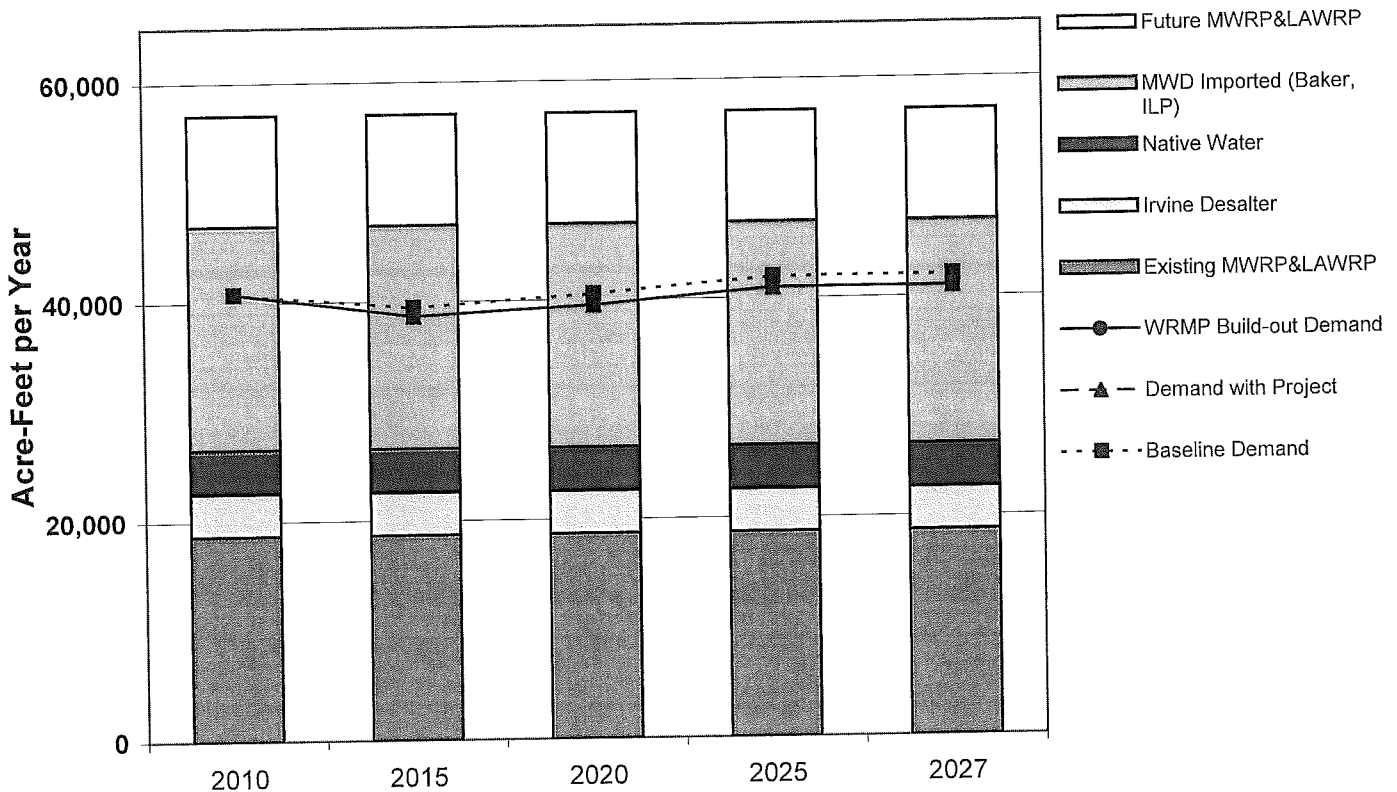
MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

Figure 4
IRWD Maximum-Day Supply & Demand - Potable Water



(in cfs)	2010	2015	2020	2025	2027
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	124.1	124.1	124.1	124.1	124.1
DRWF/DATS	90.0	90.0	90.0	90.0	90.0
Irvine Desalter	10.6	10.6	10.6	10.6	10.6
Supplies Under Development					
Future Groundwater	28.0	49.0	49.0	49.0	49.0
Maximum Supply Capability	252.7	273.7	273.7	273.7	273.7
Baseline Demand	163.5	209.4	224.0	233.4	233.7
Demand with Project	164.0	211.0	226.3	236.9	237.3
WRMP Build-out Demand	164.0	211.0	226.3	236.9	237.3
Reserve Supply with Project	88.7	62.7	47.4	36.8	36.4

Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water

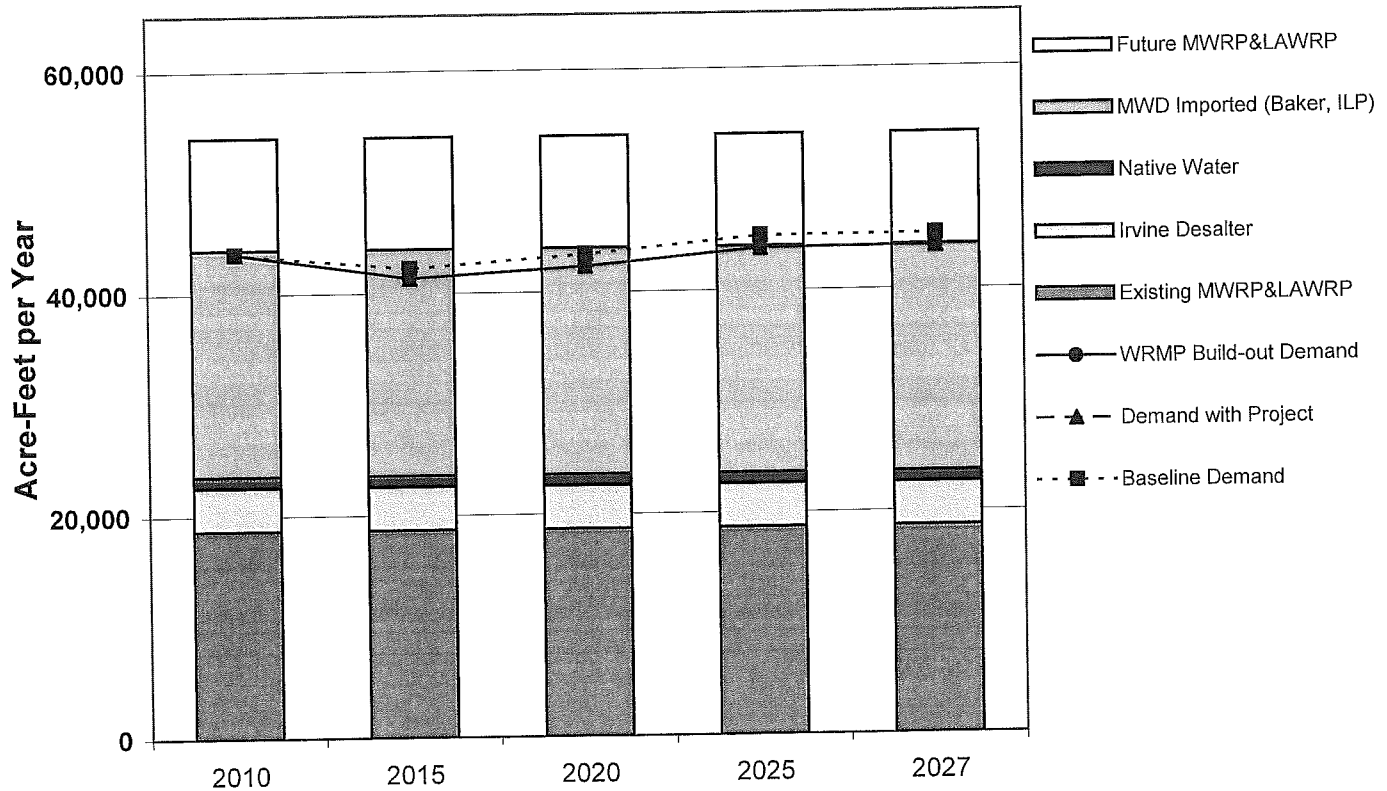


(in acre-feet per year)	2010	2015	2020	2025	2027
Current Nonpotable Supplies					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	4,000	4,000	4,000	4,000	4,000
Supplies Under Development					
Future MWRP&LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	57,035	57,035	57,035	57,035	57,035
Baseline Demand	40,752	39,450	40,541	41,953	42,009
Demand with Project	40,764	38,645	39,527	40,939	40,996
WRMP Build-out Demand	40,764	38,645	39,527	40,939	40,996
Reserve Supply with Project	16,271	16,271	18,390	17,508	16,039

Note: Downward trend reflects reduction in agricultural use over time.

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 6
IRWD Single Dry-Year Supply & Demand - Nonpotable Water**

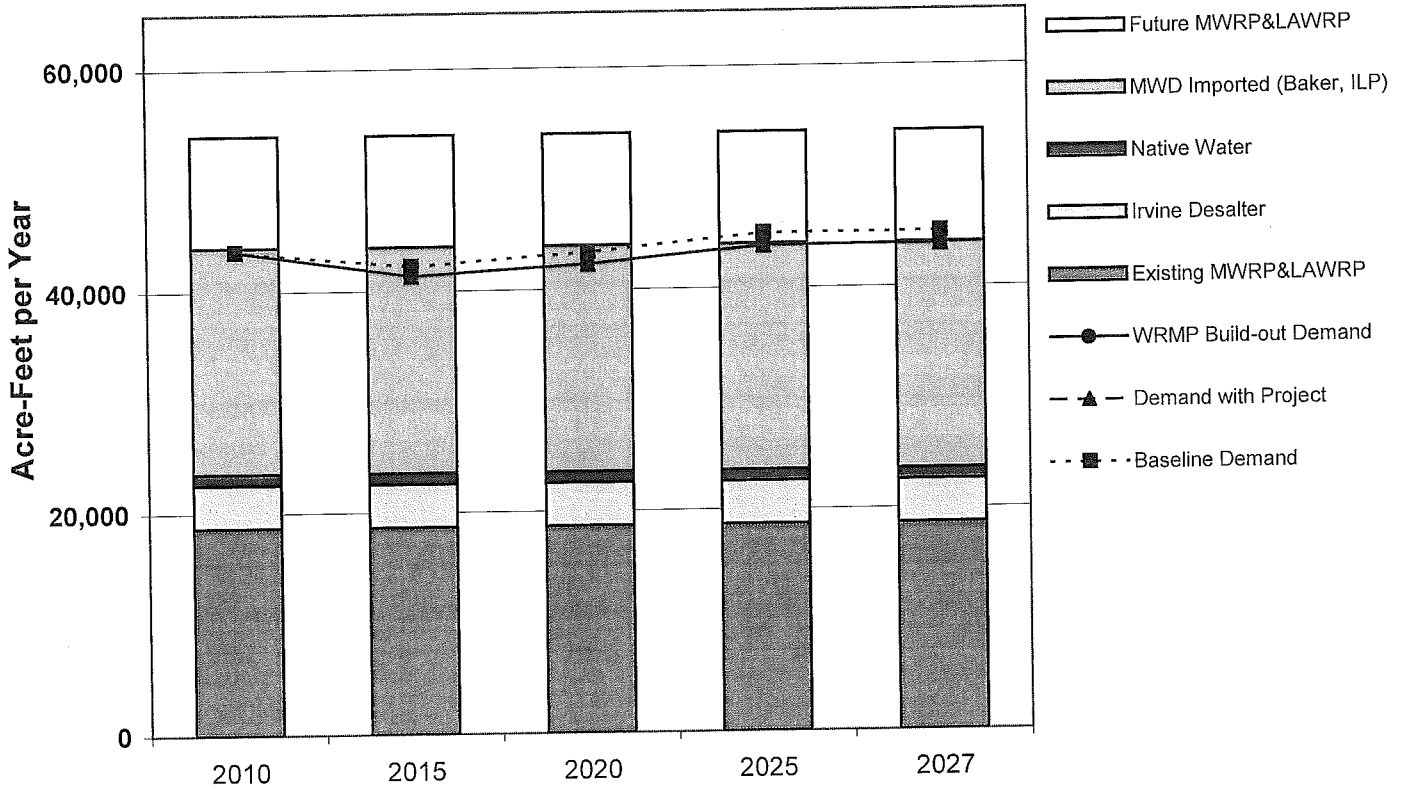


(in acre-feet per year)	2010	2015	2020	2025	2027
Current Nonpotable Supplies					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	1,000	1,000	1,000	1,000	1,000
Supplies Under Development					
Future MWRP&LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	54,035	54,035	54,035	54,035	54,035
Baseline Demand	43,605	42,212	43,378	44,890	44,950
Demand with Project	43,617	41,350	42,294	43,805	43,866
WRMP Build-out Demand	43,617	41,350	42,294	43,805	43,866
Reserve Supply with Project	10,418	12,685	11,741	10,230	10,169

Note: Downward trend reflects reduction in agricultural use over time.

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

Figure 7
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water

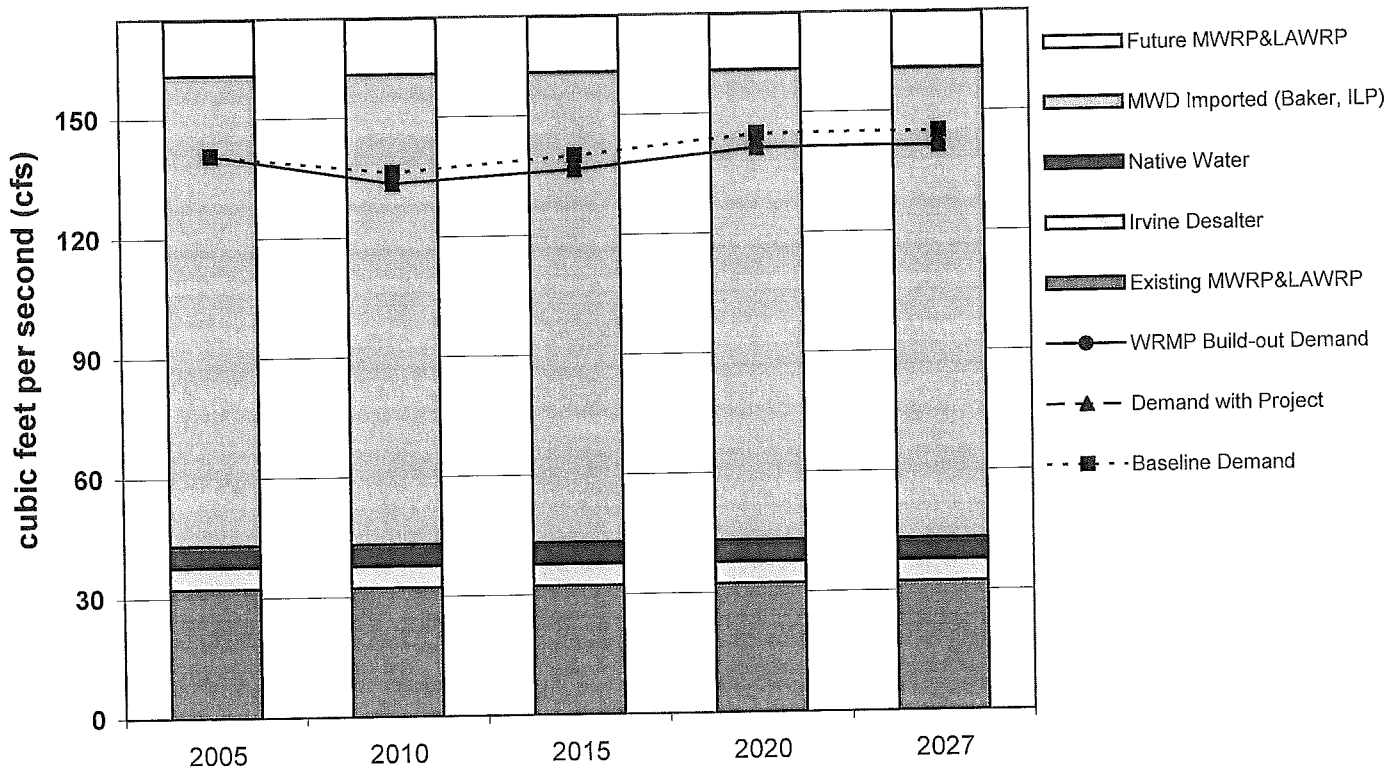


(in acre-feet per year)	2010	2015	2020	2025	2027
<u>Current Nonpotable Supplies</u>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	1,000	1,000	1,000	1,000	1,000
<u>Supplies Under Development</u>					
Future MWRP&LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	54,035	54,035	54,035	54,035	54,035
Baseline Demand	43,605	42,212	43,378	44,890	44,950
Demand with Project	43,617	41,350	42,294	43,805	43,866
WRMP Build-out Demand	43,617	41,350	42,294	43,805	43,866
Reserve Supply with Project	10,418	12,685	11,741	10,230	10,169

Note: Downward trend reflects reduction in agricultural use over time.

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

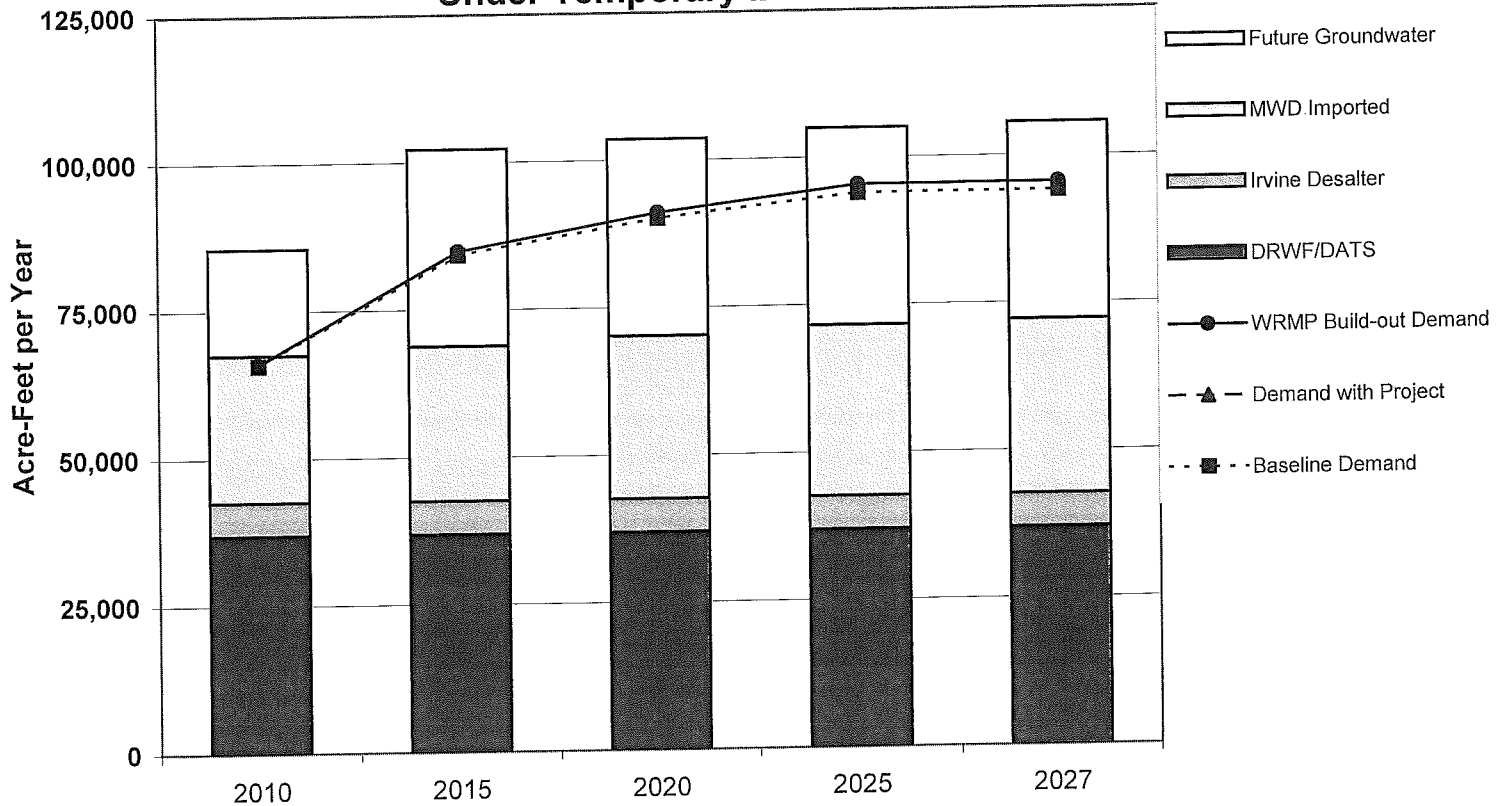
Figure 8
IRWD Maximum-Dry Supply & Demand - Nonpotable Water



(in cfs)	2005	2010	2015	2020	2027
<u>Current Nonpotable Supplies</u>					
Existing MWRP&LAWRP	32.2	32.2	32.2	32.2	32.2
Irvine Desalter	5.4	5.4	5.4	5.4	5.4
Native Water	5.5	5.5	5.5	5.5	5.5
MWD Imported (Baker, ILP)	117.7	117.7	117.7	117.7	117.7
<u>Supplies Under Development</u>					
Future MWRP&LAWRP	14.0	14.0	14.0	14.0	14.0
Maximum Supply Capability	174.7	174.7	174.7	174.7	174.7
Baseline Demand	140.7	136.2	140.0	144.9	145.1
Demand with Project	140.8	133.4	136.5	141.4	141.6
WRMP Build-out Demand	140.8	133.4	136.5	141.4	141.6
Reserve Supply with Project	34.0	41.3	38.2	33.4	33.2

Note: Downward trend reflects reduction in agricultural use over time.

**Figure 1a
IRWD Normal-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation***

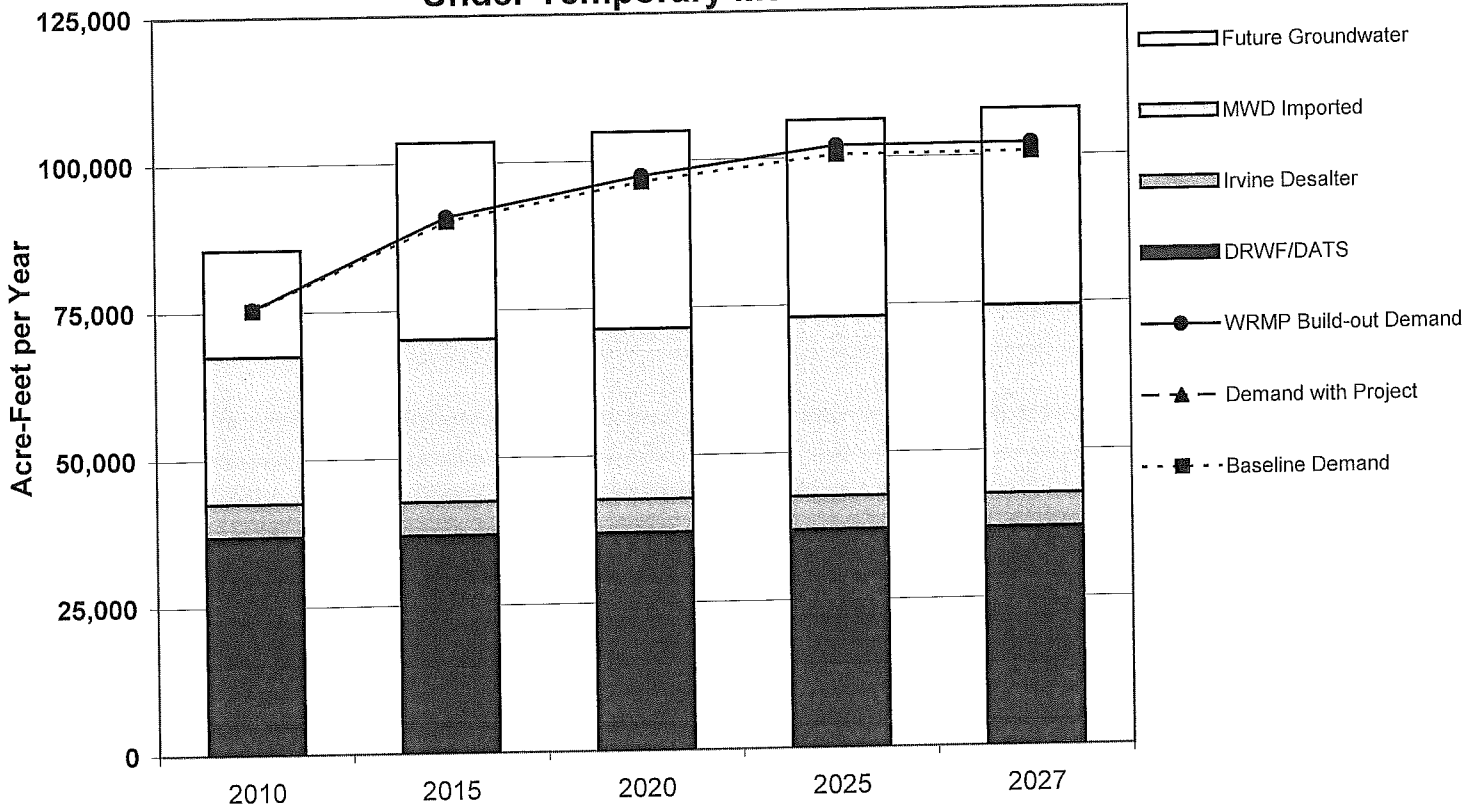


(in acre-feet per year)	2010	2015	2020	2025	2027
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	25,000	26,275	27,616	29,024	29,608
DRWF/DATS	36,900	36,900	36,900	36,900	36,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Supplies Under Development					
Future Groundwater	18,000	33,400	33,400	33,400	33,400
Maximum Supply Capability	85,540	102,215	103,556	104,964	105,548
Demand					
Baseline Demand	65,762	84,227	90,087	93,881	94,004
Demand with Project	65,949	84,860	91,023	95,297	95,440
WRMP Build-out Demand	65,949	84,860	91,023	95,297	95,440
Reserve Supply with Project	19,591	17,355	12,533	9,667	10,108

Notes: By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP.

Figure 2a
IRWD Single Dry-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*

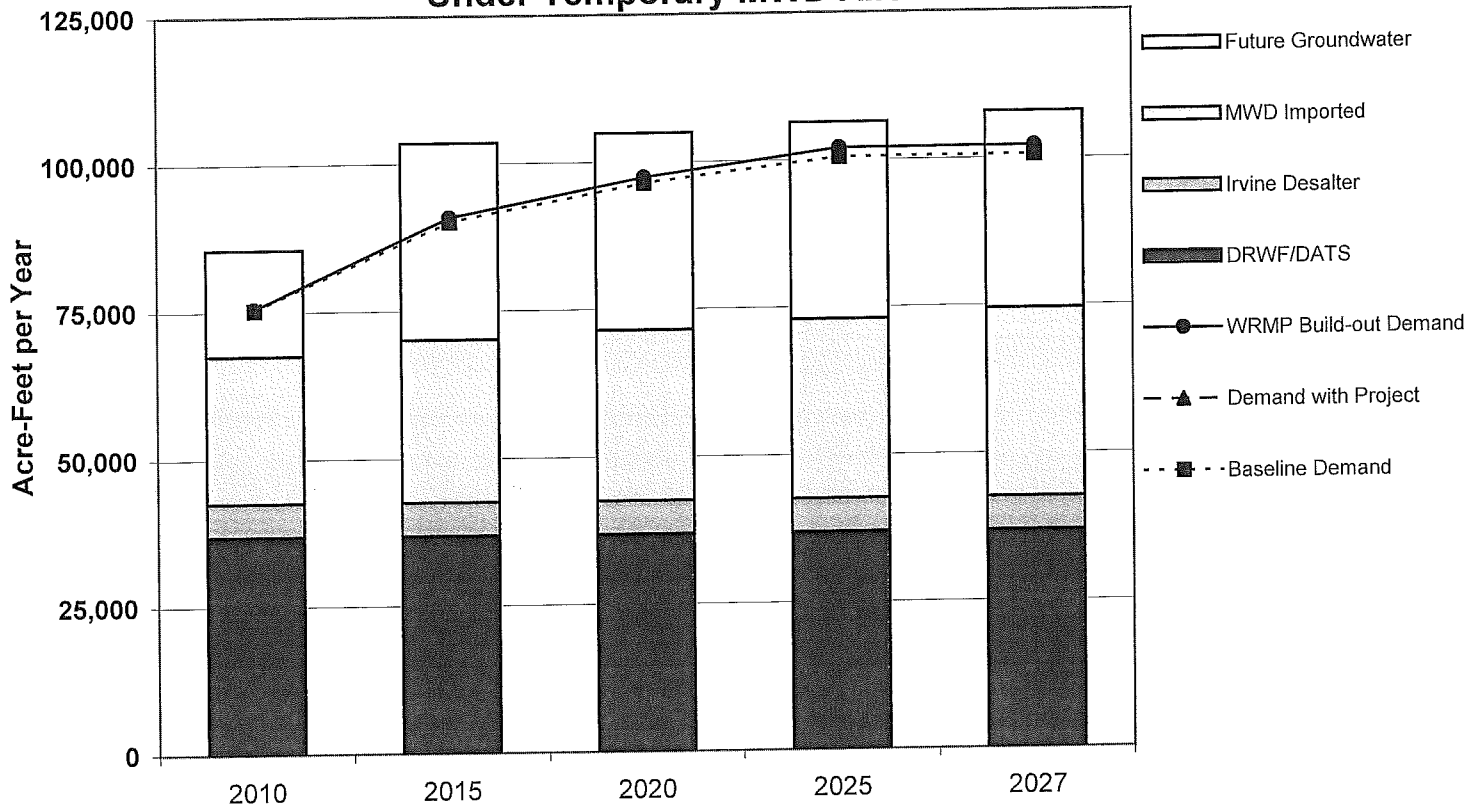


(in acre-feet per year)	2010	2015	2020	2025	2027
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	25,000	27,589	28,968	30,417	31,938
DRWF/DATS	36,900	36,900	36,900	36,900	36,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Supplies Under Development					
Future Groundwater	18,000	33,400	33,400	33,400	33,400
Maximum Supply Capability	85,540	103,529	104,908	106,357	107,878
Demand					
Baseline Demand	75,291	90,123	96,393	100,452	100,585
Demand with Project	75,505	90,801	97,395	101,968	102,120
WRMP Build-out Demand	75,505	90,801	97,395	101,968	102,120
Reserve Supply with Project	10,035	12,729	7,514	4,389	5,757

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP.

Figure 3a
IRWD Multiple Dry-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*



(in acre-feet per year)	2010	2015	2020	2025	2027
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	25,000	27,589	28,968	30,417	31,938
DRWF/DATS	36,900	36,900	36,900	36,900	36,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
<u>Supplies Under Development</u>					
Future Groundwater	18,000	33,400	33,400	33,400	33,400
Maximum Supply Capability	85,540	103,529	104,908	106,357	107,878
Baseline Demand	75,291	90,123	96,393	100,452	100,585
Demand with Project	75,505	90,801	97,395	101,968	102,120
WRMP Build-out Demand	75,505	90,801	97,395	101,968	102,120
Reserve Supply with Project	10,035	12,729	7,514	4,389	5,757

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term 10% allocation, Shortage Stage 2 in all of the 5-year increments. However, it is likely that such a scenario would only be temporary. Under a MWD Allocation, IRWD could supplement supplies with groundwater production which can exceed applicable basin percentages on a short-term basis. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP.

2. Information concerning supplies

(a)(1) Existing sources of identified water supply for the proposed project:

IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area, as shown in the following table:

	Max Day (cfs)	Avg. Annual (AFY)	Annual by Category (AFY)
Current Supplies			
Potable - Imported			
East Orange County Feeder No. 2	41.4	16,652	¹
Allen-McColloch Pipeline*	64.7	26,024	¹
Orange County Feeder	18.0	7,240	¹
			49,916
Potable - Groundwater			
Dyer Road Wellfield	80.0	28,000	²
Deep Aquifer Treatment System-DATS	10.0	8,900	²
Irvine Desalter	10.6	5,640	³
			42,540
Total Potable Current Supplies	224.7		92,456
Nonpotable - Reclaimed Water			
MWRP (18 mgd)	23.9	17,340	⁴
LAWRP (5.5 mgd)	8.3	5,975	⁴
			23,315
Nonpotable - Imported			
Baker Aqueduct	52.7	15,262	⁵
Irvine Lake Pipeline	65.0	9,000	⁶
			24,262
Nonpotable - Groundwater			
Irvine Desalter-Nonpotable	5.4	3,898	⁷
			3,898
Nonpotable Native			
Irvine Lake	5.5	4,000	⁸
			4,000
Total Nonpotable Current Supplies	160.8		55,475
Total Combined Current Supplies	385.5		147,931
Supplies Under Development			
Potable Supplies			
Wells 21 & 22	6.0	5,000	
Wells 51, 52 & 53	12.0	6,500	
Anaheim wellfield	12.0	10,000	
Tustin Legacy wells	9.0	5,400	
Tustin Ranch wells and well 106	10.0	6,500	⁹
			33,400
Total Potable Under Development Supplies	49.0		
Nonpotable Supplies: Future MWRP&LAWRP Reclaimed	20.0	14,450	¹⁰
			14,450
Total Under Development	118.0		47,850
Potable Supplies	273.7		125,856
Nonpotable Supplies	180.7		69,925
Total Supplies (Current and Under Development)	454.5		195,781

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 3, page 22).

2 Contract amount - See Potable Supply-Groundwater(iii).

3 Contract amount - See Potable Supply-Groundwater (iv) and (v). Maximum day well capacity is compatible with contract amount.

4 MWRP 18.0 mgd treatment capacity (17,400 AFY RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 AFY)

5 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 2.5 (see Footnote 3, page 22).

6 Based on IRWD's proportion of Irvine Lake imported water storage; Actual ILP capacity would allow the use of additional imported water from MWD through the Santiago Lateral.

7 Contract amount - See Nonpotable Supply-Groundwater (i) and (ii). Maximum day well capacity (cfs) is compatible with contract amount.

8 Based on 70 years historical average of Santiago Creek Inflow into Irvine Lake.

9 Estimated combined capacity of wells.

10 Future estimated MWRP & LAWRP reclaimed water production.

*64.7 cfs is current assigned capacity; based on increased peak flow, IRWD can purchase 10 cfs more (see page 23 (b)(1)(iii))

(2) Quantities received in prior years from existing sources identified in (a)(1):

Source	1980	1985	1990	1995	2000	2005
Potable - imported	29,510	43,320	44,401	28,397	36,777	19,306
Potable - groundwater	827	38	10,215	20,020	20,919	37,160
Nonpotable - reclaimed	9,196	12,399	11,589	10,518	14,630	15,296
Nonpotable - imported*	9,556	12,260	24,899	2,333	16,343	5,304
Nonpotable - groundwater	-	36	816	1,834	2,890	2,285
Nonpotable - native	11,909	3,587	2,778	5,980	4,949	7,251
Total	60,998	71,639	94,699	69,082	96,508	86,602

*Includes water purchased for delivery to storage in Irvine Lake.

(Source: water purchase and production records.)

(b) Required information concerning currently available and under-development water supply entitlements, water rights and water service contracts:

(1) Written contracts or other proof of entitlement.^{3 4}

• POTABLE SUPPLY - IMPORTED⁵

Potable imported water service connections (currently available).

(i) Potable imported water is delivered to IRWD at various service connections to the imported water delivery system of The Metropolitan Water District of Southern California ("MWD"): service connections CM-01A and OC-7 (Orange County Feeder); CM-10, CM-12, OC-38, OC-39, OC-57, OC-58, OC-63 (East Orange County Feeder No. 2); and OC-68, OC-71, OC-72, OC-73/73A, OC-74, OC-75, OC-83, OC-84, OC-87 (Allen-McColloch Pipeline). IRWD's entitlements regarding service from the MWD delivery system facilities are described in the following paragraphs and summarized in the above Table ((2)(a)(1)). IRWD receives imported water service through Municipal Water District of Orange County ("MWDOC"), a member agency of MWD.

Allen-McColloch Pipeline ("AMP") (currently available).

(ii) Agreement For Sale and Purchase of Allen-McColloch Pipeline, dated as of July 1, 1994 (Metropolitan Water District Agreement No. 4623) ("AMP Sale Agreement"). Under the AMP Sale Agreement, MWD purchased the Allen-McColloch Pipeline (formerly known as the "Diemer Intertie") from MWDOC, the MWDOC Water Facilities Corporation and certain agencies, including IRWD and Los Alisos Water District ("LAWD"),⁶ identified as "Participants" therein. Section 5.02 of the AMP Sale Agreement obligates MWD to meet IRWD's and the other Participants' requests for deliveries and specified minimum hydraulic grade lines at each connection serving a Participant, subject to availability of water. MWD

³ In some instances, the contractual and other legal entitlements referred to in the following descriptions are stated in terms of flow capacities, in cubic feet per second ("cfs"). In such instances, the cfs flows are converted to volumes of AFY for purposes of analyzing supply sufficiency in this assessment, by dividing the capacity by a peaking factor of 1.8 (potable) or 2.5 (nonpotable), consistent with maximum day peaking factors used in the WRMP. The resulting reduction in assumed available annual AFY volumes through the application of these factors recognizes that connected capacity is provided to meet peak demands and that seasonal variation in demand and limitations in local storage prevent these capacities from being utilized at peak capacity on a year-round basis. However, the application of these factors produces a conservatively low estimate of annual AFY volumes from these connections; additional volumes of water are expected to be available from these sources.

⁴ In the following discussion, contractual and other legal entitlements are characterized as either potable or nonpotable, according to the characterization of the source of supply. Some of the nonpotable supplies surplus to nonpotable demand could potentially be rendered potable by the addition of treatment facilities; however, IRWD has no current plans to do so.

⁵ See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

⁶ IRWD has succeeded to LAWD's interests in the AMP and other LAWD water supply facilities and rights mentioned in this assessment, by virtue of the consolidation of IRWD and LAWD on December 31, 2000.

agrees to operate the AMP as any other MWD pipeline. MWD has the right to operate the AMP on a "utility basis," meaning that MWD need not observe capacity allocations of the Participants but may use available capacity to meet demand at any service connection.

The AMP Sale Agreement obligates MWD to monitor and project AMP demands and to construct specified pump facilities or make other provision for augmenting MWD's capacity along the AMP, at MWD's expense, should that be necessary to meet demands of all of the Participants (Section 5.08).

(iii) Agreement For Allocation of Proceeds of Sale of Allen-McColloch Pipeline, dated as of July 1, 1994 ("AMP Allocation Agreement"). This agreement, entered into concurrently with the AMP Sale Agreement, provided each Participant, including IRWD, with a capacity allocation in the AMP, for the purpose of allocating the sale proceeds among the Participants in accordance with their prior contractual capacities adjusted to conform to their respective future demands. IRWD's capacity under the AMP Allocation Agreement (including its capacity as legal successor agency to LAWD) is 64.69 cfs at IRWD's first four AMP connections, 49.69 cfs at IRWD's next five downstream AMP connections and 35.01 and 10.00 cfs, respectively at IRWD's remaining two downstream connections. The AMP Allocation Agreement further provides that if a Participant's peak flow exceeds its capacity, the Participant shall "purchase" additional capacity from the other Participants who are using less than their capacity, until such time as MWD augments the capacity of the AMP. The foregoing notwithstanding, as mentioned in the preceding paragraph, the allocated capacities do not alter MWD's obligation under the AMP Sale Agreement to meet all Participants' demands along the AMP, and to augment the capacity of the AMP if necessary. Accordingly, under these agreements, IRWD can legally increase its use of the AMP beyond the above-stated capacities, but would be required to reimburse other Participants from a portion of the proceeds IRWD received from the sale of the AMP.

(iv) Improvement Subleases (or "FAP" Subleases) [MWDOC and LAWD; MWDOC and IRWD], dated August 1, 1989; 1996 Amended and Restated Allen-McColloch Pipeline Subleases [MWDOC and LAWD; MWDOC and IRWD], dated March 1, 1996. IRWD subleases its AMP capacity, including the capacity it acquired as successor to LAWD. To facilitate bond financing for the construction of the AMP, it was provided that the MWDOC Water Facilities Corporation, and subsequently MWDOC, would have ownership of the pipeline, and the Participants would be sublessees. As is the case with the AMP Sale Agreement, the subleases similarly provide that water is subject to availability.

East Orange County Feeder No. 2 ("EOCF#2") (currently available).

(v) Agreement For Joint Exercise of Powers For Construction, Operation and Maintenance of East Orange County Feeder No. 2, dated July 11, 1961, as amended on July 25, 1962 and April 26, 1965; Agreement Re Capacity Rights In Proposed Water Line, dated September 11, 1961 ("IRWD MWDOC Assignment Agreement"); Agreement Regarding Capacity Rights In the East Orange County Feeder No. 2, dated August 28, 2000 ("IRWD Coastal Assignment Agreement"). East Orange County Feeder No. 2 ("EOCF#2"), a feeder linking Orange County

with MWD's feeder system, was constructed pursuant to a joint powers agreement among MWDOC (then called Orange County Municipal Water District), MWD, Coastal Municipal Water District ("Coastal"), Anaheim and Santa Ana. A portion of IRWD's territory is within MWDOC and the remainder is within the former Coastal (which was consolidated with MWDOC in 2001). Under the IRWD MWDOC Assignment Agreement, MWDOC assigned 41 cfs of capacity to IRWD in the reaches of EOCF#2 upstream of the point known as Coastal Junction (reaches 1 through 3), and 27 cfs in reach 4, downstream of Coastal Junction. Similarly, under the IRWD Coastal Assignment Agreement, prior to Coastal's consolidation with MWDOC, Coastal assigned to IRWD 0.4 cfs of capacity in reaches 1 through 3 and 0.6 cfs in reach 4 of EOCF#2. Delivery of water through EOCF#2 is subject to the rules and regulations of MWD and MWDOC, and is further subject to application and agreement of IRWD respecting turnouts.

Orange County Feeder (currently available)

(vi) Agreement, dated March 13, 1956. This 1956 Agreement between MWDOC's predecessor district and the Santa Ana Heights Water Company ("SAHWC"), provides for delivery of MWD imported supply to the former SAHWC service area. SAHWC's interests were acquired on behalf of IRWD through a stock purchase and IRWD annexation of the SAHWC service area in 1997. The supply is delivered through a connection to MWD's Orange County Feeder designated as OC-7.

(vii) Agreement For Transfer of Interest In Pacific Coast Highway Water Transmission and Storage Facilities From The Irvine Company To the Irvine Ranch Water District, dated April 23, 1984; Joint Powers Agreement For the Construction, Operation and Maintenance of Sections 1a, 1b and 2 of the Coast Supply Line, dated June 9, 1989; Agreement, dated January 13, 1955 ("1955 Agreement"). The jointly constructed facility known as the Coast Supply Line ("CSL"), extending southward from a connection with MWD's Orange County Feeder at Fernleaf Street in Newport Beach, was originally constructed pursuant to a 1952 agreement among Laguna Beach County Water District ("LBCWD"), The Irvine Company (TIC) and South Coast County Water District. Portions were later reconstructed. Under the above-referenced transfer agreement in 1984, IRWD succeeded to TIC's interests in the CSL. The CSL is presently operated under the above-referenced 1989 joint powers agreement, which reflects IRWD's ownership of 10 cfs of capacity. The 1989 agreement obligates LBCWD, as the managing agent and trustee for the CSL, to purchase water and deliver it into the CSL for IRWD. LBCWD purchases such supply, delivered by MWD to the Fernleaf connection, pursuant to the 1955 Agreement with Coastal (now MWDOC).

POTABLE SUPPLY - GROUNDWATER

(i) Orange County Water District Act, Water Code App., Ch. 40 ("Act"). IRWD is an operator of groundwater-producing facilities in the Orange County Groundwater Basin (the "Basin"). Although the rights of the producers within the Basin vis a vis one another have not been adjudicated, they nevertheless exist and have not been abrogated by the Act (§40-77). The rights consist of

municipal appropriators' rights and may include overlying and riparian rights. The Basin is managed by OCWD under the Act, which functions as a statutorily-imposed physical solution. The Act empowers OCWD to impose replenishment assessments and basin equity assessments on production and to require registration of water-producing facilities and the filing of certain reports; however, OCWD is expressly prohibited from limiting extraction unless a producer agrees (§ 40-2(6)(c)) and from impairing vested rights to the use of water (§ 40-77). Thus, producers may install and operate production facilities under the Act; OCWD approval is not required. OCWD is required to annually investigate the condition of the Basin, assess overdraft and accumulated overdraft, and determine the amount of water necessary for replenishment (§40-26). OCWD has studied the Basin replenishment needs and potential projects to address growth in demand until 2020. This is described in detail in the OCWD Master Plan Report, dated April, 1999. OCWD's analysis has been expanded and updated through 2025 in its Final Draft Long-Term Facilities Plan (January, 2006), which is expected to be considered for adoption in 2007.

(ii) Irvine Ranch Water District v. Orange County Water District, OCSC No. 795827. A portion of IRWD is outside the jurisdictional boundary of OCWD. IRWD is eligible to annex the Santa Ana River Watershed portion of this territory to OCWD, under OCWD's current annexation policy (Resolution No. 86-2-15, adopted on February 19, 1986 and reaffirmed on June 2, 1999), and anticipates doing so. However, this September 29, 1998, Superior Court ruling indicates that IRWD is entitled to deliver groundwater from the Basin to the IRWD service area irrespective of whether such area is also within OCWD.

***Dyer Road Wellfield (DWRF) / Deep Aquifer Treatment System (DATS)
(currently available)***

(iii) Agreement For Water Production and Transmission Facilities, dated March 18, 1981, as amended May 2, 1984, September 19, 1990 and November 3, 1999 (the "DRWF Agreement"). The DRWF Agreement, among IRWD, OCWD and Santa Ana, concerns the development of IRWD's Dyer Road Wellfield ("DRWF"), within the Basin. The DRWF consists of 16 wells pumping from the non-colored water zone of the Basin and 2 wells (with colored-water treatment facilities) pumping from the deep, colored-water zone of the Basin (the colored-water portion of the DRWF is sometimes referred to as the Deep Aquifer Treatment System or "DATS".) Under the DRWF Agreement, an "equivalent" basin production percentage (BPP) has been established for the DRWF, currently 28,000 AFY of non-colored water and 8,000 AFY of colored water, provided any amount of the latter 8,000 AFY not produced results in a matching reduction of the 28,000 AFY BPP. Although typically IRWD production from the DRWF does not materially exceed the equivalent BPP, the equivalent BPP is not an extraction limitation; it results in imposition of monetary assessments on the excess production. The DRWF Agreement also establishes monthly pumping amounts for the DRWF. With the addition of the Concentrated Treatment System (CATS), IRWD has increased the yield of DATS.

Irvine Desalter (currently available)

(iv) First Amended and Restated Agreement, dated March 11, 2002, as

amended June 15, 2006, restating May 5, 1988 agreement ("Irvine Subbasin Agreement"). TIC has historically pumped agricultural water from the Irvine Subbasin. (As in the rest of the Basin of which this subbasin is a part, the groundwater rights have not been adjudicated, and OCWD provides governance and management under the Act.) The 1988 agreement between IRWD and TIC provided for the joint use and management of the Irvine Subbasin. The 1988 agreement further provided that the 13,000 AFY annual yield of the Irvine Subbasin would be allocated 1,000 AFY to IRWD and 12,000 AFY to TIC. Under the restated Irvine Subbasin Agreement, the foregoing allocations were superseded as a result of TIC's commencement of the building its Northern Sphere Area project, with the effect that the Subbasin production capability, wells and other facilities, and associated rights have been transferred from TIC to IRWD, and IRWD has assumed the production from the Subbasin. In consideration of the transfer, IRWD is required to count the supplies attributable to the transferred Subbasin production in calculating available supplies for the Northern Sphere Area project and other TIC development and has agreed that they will not be counted toward non-TIC development.

A portion of the existing Subbasin water production facilities produce water which is of potable quality. IRWD could treat some of the water produced from the Subbasin for potable use, by means of the Desalter and other projects. Although, as noted above, the Subbasin has not been adjudicated and is managed by OCWD, TIC reserved water rights from conveyances of its lands as development over the Subbasin has occurred, and under the Irvine Subbasin Agreement TIC has transferred its rights to IRWD.

(v) Second Amended and Restated Agreement Between Orange County Water District and Irvine Ranch Water District Regarding the Irvine Desalter Project, dated June 11, 2001, and other agreements referenced therein. This agreement provides for the extraction and treatment of subpotable groundwater from the Irvine Subbasin, a portion of the Basin. As is the case with the remainder of the Basin, IRWD's entitlement to extract this water is not adjudicated, but the use of the entitlement is governed by the OCWD Act. (See also, discussion of Irvine Subbasin in the preceding paragraph.) A portion of the product water has been delivered into the IRWD potable system, and the remainder has been delivered into the IRWD nonpotable system.

Potable Groundwater (under development)

(vi) IRWD is pursuing the installation of production facilities in the west Irvine, Anaheim, Tustin Legacy and Tustin Ranch portions of the Basin. These groundwater supplies are considered to be under development; however, four wells have been drilled and have previously produced groundwater, three wells have been drilled but have not been used as production wells to date, a site for an additional well and treatment facility has been acquired by IRWD. The production facilities can be constructed and operated under the Act; no statutory or contractual approval is required to do so. An agreement with the City of Anaheim would be developed for production within Anaheim. Appropriate environmental review would be conducted for each facility. See discussion of the Act under Potable Supply - Groundwater, paragraph (i), above.

• NONPOTABLE SUPPLY - RECLAIMED

Water Reclamation Plants (currently available)

Water Code Section 1210. IRWD supplies its own reclaimed water from wastewater collected by IRWD and delivered to IRWD's Michelson Water Reclamation Plant (MWRP) and Los Alisos Water Reclamation Plant (LAWRP). MWRP currently has a permitted capacity of 18 million gallons per day (MGD) and LAWRP currently has a permitted capacity of 5.5 MGD. Water Code Section 1210 provides that the owner of a wastewater treatment plant operated for the purposes of treating wastes from a sanitary sewer system holds the exclusive right to the treated effluent as against anyone who has supplied the water discharged into the sewer system. IRWD's permits for the operation of MWRP and LAWRP allow only irrigation and other customer uses of reclaimed water, and do not permit stream discharge of reclaimed water; thus, no issue of downstream appropriation arises, and IRWD is entitled to deliver all of the effluent to meet contractual and customer demands.

Water Reclamation Plant Expansion (under development)

IRWD has prepared a Final Environmental Impact Report for the Michelson Water Reclamation Plant Phase 2 and 3 Capacity Expansion Project (February, 2006). With this expansion, IRWD plans to increase its capacity on the existing MWRP site to produce sufficient reclaimed water to meet the projected demand in the year 2027. (Initial upgrades that are within existing permit authorizations and CEQA compliance are underway.) Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

• NONPOTABLE SUPPLY - IMPORTED⁷

Baker Pipeline (currently available)

Santiago Aqueduct Commission Joint Powers Agreement, dated September 11, 1961, as amended December 20, 1974, January 13, 1978, November 1, 1978, September 1, 1981, October 22, 1986, and July 8, 1999 (the "SAC Agreement"); Agreement Between Irvine Ranch Water District and Carma-Whiting Joint Venture Relative to Proposed Annexation of Certain Property to Irvine Ranch Water District, dated May 26, 1981 (the "Whiting Annexation Agreement"). Service connections OC-13/13A, OC-33/33A. The imported untreated water pipeline initially known as the Santiago Aqueduct and now known as the Baker Pipeline was constructed under the SAC Agreement, a joint powers agreement. The Baker Pipeline is connected to MWD's Santiago Lateral. IRWD's capacity in the Baker Pipeline includes the capacity it subleases as successor to LAWD, as well as capacity rights IRWD acquired through the Whiting Annexation Agreement. (To finance the construction of AMP parallel untreated reaches which were incorporated into the Baker Pipeline, replacing original SAC

⁷ See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

untreated reaches that were made a part of the AMP potable system, it was provided that the MWDOC Water Facilities Corporation, and subsequently MWDOC, would have ownership, and the participants would be sublessees.) IRWD has 52.70 cfs in the first reach, 12.50 cfs in each of the second, third and fourth reaches and 7.51 cfs in the fifth reach of the Baker Pipeline. Water is subject to availability from MWD.

• NONPOTABLE SUPPLY - NATIVE

Irvine Lake (currently available)

(i) Permit For Diversion and Use of Water (Permit No. 19306) issued pursuant to Application No. 27503; License For Diversion and Use of Water (License 2347) resulting from Application No. 4302 and Permit No. 3238; License For Diversion and Use of Water (License 2348) resulting from Application No. 9005 and Permit No. 5202. The foregoing permit and licenses, jointly held by IRWD (as successor to The Irvine Company (TIC) and Carpenter Irrigation District (CID)) and Serrano Water District (SWD), secure appropriative rights to the flows of Santiago Creek. Under Licenses 2347 and 2348, IRWD and SWD have the right to diversion by storage at Santiago Dam (Irvine Lake) and a submerged dam, of a total of 25,000 AFY. Under Permit No. 19306, IRWD and SWD have the right to diversion by storage of an additional 3,000 AFY by flashboards at Santiago Dam (Irvine Lake). (Rights under Permit No. 19306 may be junior to an OCWD permit to divert up to 35,000 AFY of Santiago Creek flows to spreading pits downstream of Santiago Dam.) The combined total of native water that may be diverted to storage under these licenses and permit is 28,000 AFY. A 1996 amendment to License Nos. 2347, 2348 and 2349 [replaced by Permit No. 19306 in 1984] limits the withdrawal of water from the Lake to 15,483 AFY under the licenses. This limitation specifically references the licenses and doesn't reference water stored pursuant to other legal entitlements. The use and allocation of the native water is governed by the agreements described in the next paragraph.

(ii) Agreement, dated February 6, 1928 ("1928 Agreement"); Agreement, dated May 15, 1956, as amended November 12, 1973 ("1956 Agreement"); Agreement, dated as of December 21, 1970 ("1970 Agreement"); Agreement Between Irvine Ranch Water District and The Irvine Company Relative to Irvine Lake and the Acquisition of Water Rights In and To Santiago Creek, As Well As Additional Storage Capacity in Irvine Lake, dated as of May 31, 1974 ("1974 Agreement"). The 1928 Agreement was entered into among SWD, CID and TIC, providing for the use and allocation of native water in Irvine Lake. Through the 1970 Agreement and the 1974 Agreement, IRWD acquired the interests of CID and TIC, leaving IRWD and SWD as the two co-owners. TIC retains certain reserved rights. The 1928 Agreement divides the stored native water by a formula which allocates to IRWD one-half of the first 1,000 AF, plus increments that generally yield three-fourths of the amount over 1,000 AF.⁸ The agreements also provide for evaporation and spill losses and carryover water remaining in the Lake at the annual allocation dates. Given the dependence of native water on rainfall, for purposes of this assessment only a small portion of IRWD's share of the 28,000 AFY of native water rights (4,000 AFY in normal years and 1,000 AFY in single and multiple-dry years) is shown in currently available supplies, based on averaging of historical data. However, IRWD's ability to supplement Irvine Lake storage with its imported untreated water supplies, described herein, offsets the uncertainty associated with the native water supply.

⁸ The 1956 Agreement provides for facilities to deliver MWD imported water into the Lake, and grants storage capacity for the imported water. By succession, IRWD owns 9,000 AFY of this 12,000 AFY imported water storage capacity. This storage capacity does not affect availability of the imported supply, which can be either stored or delivered for direct use by customers.

• NONPOTABLE SUPPLY - GROUNDWATER

Irvine Desalter (currently available)

(i) IRWD's entitlement to produce nonpotable water from the Irvine Subbasin is included within the Irvine Subbasin Agreement. See discussion of the Irvine Subbasin Agreement under Potable Supply - Groundwater, paragraph (iv), above.

(ii) See discussion of the Irvine Desalter project under Potable Supply - Groundwater, paragraph (v), above. The Irvine Desalter project will produce nonpotable as well as potable water.

• IMPORTED SUPPLY - ADDITIONAL INFORMATION

As described above, the imported supply from MWD is contractually subject to availability. To assist local water providers in assessing the adequacy of local water supplies that are reliant in whole or in part on MWD's imported supply, MWD has provided information concerning the availability of the supplies to its entire service area. In its most recently adopted RUWMP, MWD has extended its planning timeframe out through 2030 to ensure that MWD's 2005 RUWMP may be used as a source document for meeting requirements for sufficient supplies. In addition, the RUWMP includes "Justifications for Supply Projections" (Appendix A-3) that details the planning, legal, financial, and regulatory basis for including each source of supply in the plan. The RUWMP summarizes MWD's planning initiatives over the past ten years, which includes the Integrated Resources Plan (IRP), the IRP Update, the Water Surplus and Drought Management Plan, Strategic Plan and Rate Structure. The reliability analysis in MWD's IRP Update (July 2004) showed that MWD can maintain reliable supplies under the conditions that have existed in past dry periods throughout the period 2010 through 2025. The RUWMP includes tables that show the region can provide reliable supplies under both the single driest year (1977) and multiple dry years (1990-92) through 2030. MWD has also identified buffer supplies, including additional State Water Project groundwater storage and transfers that could serve to supply the additional water needed.

It is anticipated that MWD will revise its regional supply availability analysis periodically to supplement its RUWMP in years when the RUWMP is not being updated.

IRWD is permitted by the statute to rely upon the water supply information provided by the wholesaler concerning a wholesale water supply source, for use in preparing its UWMPs. In turn, the statute provides for the use of UWMP information to support water supply assessments and verifications. In accordance with these provisions, IRWD is entitled to rely upon the conclusions of the MWD RUWMP. As referenced above under Summary of Results of Demand-Supply Comparisons - Recent Actions on Delta Pumping, MWD has provided additional information on its imported water supply.

MWD's reserve supplies, together with the fact that IRWD relies on MWD

supplies as supplemental supplies that need not be used to the extent IRWD operates currently available and under-development local supplies, build a margin of safety into IRWD's supply availability.

(2) Adopted capital outlay program to finance delivery of the water supplies.

All necessary delivery facilities currently exist for the use of the *currently available* and *under-development* supplies assessed herein, with the exception of future groundwater wells, MWRP expansion and IRWD sub-regional and developer-dedicated conveyance facilities necessary to complete the local distribution systems for the Project. IRWD's turnout at each MWD connection and IRWD's regional delivery facilities are sufficiently sized to deliver all of the supply to the subregional and local distribution systems.

With respect to future groundwater wells (PR Nos. 10285, 15423, 15427, 15428, 15051, and 15052) and the MWRP Phase 2 expansion (PR Nos. 20214 and 30214), IRWD adopted its fiscal year 2007/08 capital budget on June 25, 2007 (Resolution No. 2007-19), budgeting portions of the funds for such projects. (A copy is available from IRWD on request.) For these facilities, as well as unbuilt IRWD sub-regional conveyance facilities, the sources of funding are previously authorized general obligation bonds, revenue-supported certificates of participation and/or capital funds held by IRWD Improvement Districts. IRWD has maintained a successful program for the issuance of general obligation bonds and certificates of participation on favorable borrowing terms, and IRWD has received AA public bond ratings. IRWD has approximately \$500 million (water) and \$775 million (wastewater) of unissued, voter-approved bond authorization. Certificates of participation do not require voter approval. Proceeds of bonds and available capital funds are expected to be sufficient to fund all IRWD facilities for delivery of the supplies under development. Tract-level conveyance facilities are required to be donated to IRWD by the Applicant or its successor(s) at time of development.

See also *MWD's RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to capital outlay programs related to MWD's supplies.

(3) Federal, state and local permits for construction of delivery infrastructure.

Most IRWD delivery facilities are constructed in public right-of-way or future right-of-way. State statute confers on IRWD the right to construct works along, under or across any stream of water, watercourse, street, avenue, highway, railway, canal, ditch or flume (Water Code Section 35603). Although this right cannot be denied, local agencies may require encroachment permits when work is to be performed within a street. If easements are necessary for delivery infrastructure, IRWD requires the developer to provide them. The crossing of watercourses or areas with protected species requires federal and/or state permits as applicable.

See also *MWD's RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to permits related to MWD's supplies.

(4) Regulatory approvals for conveyance or delivery of the supplies.

See response to preceding item (3). In addition, reclamation plant expansion will require approval of amendments to IRWD's permits issued by the Regional Water Quality Control Board.

See also *MWD's RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to regulatory approvals related to MWD's supplies.

3. Other users and contractholders (identified supply not previously used).

For each of the water supply sources identified by IRWD, if no water has been received from that source(s), IRWD is required to identify other public water systems or water service contractholders that receive a water supply from, or have existing water supply entitlements, water rights and water service contracts to, that source(s):

Water has been received from all listed sources. A small quantity of Subbasin water is used by Woodbridge Village Association for the purpose of supplying its North and South Lakes. There are no other public water systems or water service contractholders that receive a water supply from, or have existing water supply entitlements, water rights and water service contracts to, the Irvine Subbasin.

4. Information concerning groundwater included in the supply identified for the Project:

(a) Relevant information in the Urban Water Management Plan (UWMP):

See Irvine Ranch Water District 2005 UWMP, section III-3.

(b) Description of the groundwater basin(s) from which the Project will be supplied:

The Orange County Groundwater Basin ("Basin") is described at pages 3-1 through 3-14 of the OCWD Master Plan Report, dated April, 1999 ("MPR") and in the more recent Groundwater Management Plan ("GMP") at pages 2-1 through 6-33⁹. The rights of the producers within the Basin vis a vis one another have not been adjudicated. The Basin is managed by the Orange County Water District (OCWD) for the benefit of municipal, agricultural and private groundwater producers. OCWD is responsible for the protection of water rights to the Santa Ana River in Orange County as well as the management and replenishment of the Basin. Current production from the Basin is approximately 300,000 AFY.

The Department of Water Resources has not identified the Basin as overdrafted in its most current bulletin that characterizes the condition of the Basin, Bulletin 118 (2003). The efforts being undertaken by OCWD to eliminate long-term overdraft in the Basin are described in the OCWD MPR, including in particular, Chapters 4, 5, 6, 14 and 15 of the MPR and also more recently described in the Long-Term Facilities Plan ("LTFP") Chapters 3, 5 and 6. Although the water supply assessment statute (Water Code Section 10910(f)) refers to elimination of "long-term overdraft," overdraft includes conditions which may be managed for optimum basin storage, rather than eliminated. OCWD's Act defines annual groundwater overdraft to be the quantity by which production exceeds the natural replenishment of the Basin. Accumulated overdraft is defined in the OCWD Act to be the quantity of water needed in the groundwater basin forebay to prevent landward movement of seawater into the fresh groundwater body. However, seawater intrusion control facilities have been constructed by OCWD since the Act was written, and have been effective in preventing landward movement of seawater. These facilities allow greater utilization of the storage capacity of the Basin.

OCWD has invested over \$250 million in seawater intrusion control (injection barriers), recharge facilities, laboratories, and Basin monitoring to effectively manage the Basin. Consequently, although the Basin is defined to be in an "overdraft" condition, it is actually managed to allow utilization of up to 500,000 acre-feet of storage capacity of the basin during dry periods, acting as an underground reservoir and buffer against drought. An optimal basin management target of 100,000 acre-feet of accumulated overdraft provides sufficient storage space to accommodate increased supplies from one wet year while also provide enough water in storage to offset decreased supplies during a two- to three year drought. If the Basin is too full, artesian conditions can occur along the coastal area, causing rising water and water logging, an adverse

⁹ OCWD has also prepared a Long Term Facilities Plan which provides updated information and is expected to be considered for adoption in 2007.

condition. Since the formation of OCWD in 1933, OCWD has made substantial investment in facilities, Basin management and water rights protection, resulting in the elimination and prevention of adverse long-term “mining” overdraft conditions. OCWD continues to develop new replenishment supplies, recharge capacity and basin protection measures to meet projected production from the basin during normal rainfall and drought periods. (Source: 2005-2006 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District; OCWD MPR, *supra*.)

OCWD's efforts include ongoing replenishment programs and planned capital improvements. It should be noted under OCWD's management of overdraft to maximize its use for annual production and recharge operations, overdraft varies over time as the Basin is managed to keep it in balance over the long term. The Basin is not operated on an annual safe-yield basis. (OCWD MPR, section 3.2 and LTFP, section 6)

(c) Description and analysis of the amount and location of groundwater pumped by IRWD from the Basin for the past five years:

The following table shows the amounts pumped, by groundwater source:

(In AFY)

Year (ending 6/30)	DRWF/DATS	Irvine Subbasin (IRWD)	Irvine Subbasin (TIC)	LAWD ¹⁰
2007	37,864	5,407	0	6
2006	37,046	2,825	0	268
2005	36,316	2,285	628	357
2004	30,265	1,938	3,079	101
2003	24,040	2,132	4,234	598
2002	25,855	2,533	5,075	744

(d) Description and analysis of the amount and location of groundwater projected to be pumped by IRWD from the Basin:

IRWD has a developed groundwater supply of 35,200 AFY from its Dyer Road Wellfield (including the Deep Aquifer Treatment System), in the main portion of the Basin.

Although TIC's historical production from the Subbasin declined as its use of the Subbasin for agricultural water diminished, OCWD's and other historical production records for the Subbasin show that production has been as high as 13,000 AFY. Plans are also underway to expand IRWD's main Orange County

¹⁰ The water produced from IRWD's Los Alisos wells is not included in this assessment. IRWD is presently evaluating the future use of these wells.

Groundwater Basin supply (characterized as *under-development* supplies herein). (See Section 2 (a)(1) herein). IRWD anticipates the development of additional production facilities within both the main Basin and the Irvine Subbasin. However, such additional facilities have not been included or relied upon in this assessment. Additional groundwater development will provide an additional margin of safety as well as reduce future water supply costs to IRWD.

The following table summarizes future IRWD groundwater production from currently available and under-development supplies.

(In AFY)

Year (ending 6/30)	DRWF ¹¹	Future GW ¹²	Well 106 ¹³	IDP (Potable)	IDP (Nonpotable)
2010	36,900	17,000	1,000	5,640	3,898
2015	36,900	32,400	1,000	5,640	3,898
2020	36,900	32,400	1,000	5,640	3,898
2025	36,900	32,400	1,000	5,640	3,898
2027	36,900	32,400	1,000	5,640	3,898

(e) If not included in the UWMP, analysis of the sufficiency of groundwater projected to be pumped by IRWD from the Basin to meet to meet the projected water demand of the Project:

See responses to 4(b) and 4(d).

The OCWD MPR and LTFP examined future Basin conditions and capabilities, water supply and demand, and identified projects to meet increased replenishment needs of the basin. With the implementation of OCWD's preferred projects, the Basin yield in the year 2025 would be up to 500,000 AF. The amount that can be produced will be a function of which projects will be implemented by OCWD and how much increased recharge capacity is created by those projects, total demands by all producers, and the resulting Basin Production Percentage ("BPP") that OCWD sets based on these factors.¹⁴

Sufficient replenishment supplies are projected by the OCWD MPR to be

¹¹ See Potable Supply - Groundwater, paragraph (iii), above. DRWF non-colored production above 28,000 AFY and colored water production above 8,000 AFY are subject to contractually-imposed assessments. In addition, seasonal production amounts apply.

¹² Under development.

¹³ Subbasin well (other than Irvine Desalter Project) under development

¹⁴ OCWD has adopted a basin production percentage of 74% for 2007-08. In recent years OCWD has maintained a basin production percentage that is lower than the current percentage, and IRWD anticipates that such reductions may occur from time to time as a temporary measure employed by OCWD to encourage lower pumping levels as OCWD implements other measures to reduce the current accumulated overdraft in the Basin. Any such reductions are not expected to affect any of IRWD's currently available groundwater supplies listed in this assessment, which are subject to a contractually-set equivalent basin production percentage as described, or are exempt from the basin production percentage.

available to OCWD to meet the increasing demand on the Basin. These supplies include capture of increasing Santa Ana River flows, purchases of replenishment water from MWD, and development of new local supplies. OCWD is moving forward with a number of replenishment supply projects, including the Groundwater Replenishment System project ("GWRS"). The OCWD MPR indicates that the GWRS will produce over 100,000 afy of new replenishment supply from recycled water.

Production of groundwater can exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies. Additional groundwater production is anticipated by OCWD in the Basin in dry years, as producers reduce their use of imported supplies, and the Basin is "mined" in anticipation of the eventual availability of replenishment water. (OCWD MPR, section 14.6.)

See also, Figures 1-8. IRWD assesses sufficiency of supplies on an aggregated basis, as neither groundwater nor other supply sources are allocated to particular projects or customers. Under the Irvine Subbasin Agreement, IRWD is contractually obligated to attribute the Subbasin supply only to TIC development projects for assessment purposes; however, the agreement does not allocate or assign rights in the Subbasin supply to any project.

5. This Water Supply Assessment is being completed for a project included in a prior water supply assessment. Check all of the following that apply:

- Changes in the Project have substantially increased water demand.
- Changes in circumstances or conditions have substantially affected IRWD's ability to provide a sufficient water supply for the Project.
- Significant new information has become available which was not known and could not have been known at the date of the prior Water Supply Assessment.

6. References

Water Resources Master Plan, Irvine Ranch Water District, March, 2002 (supplemented January, 2004)

2005 Urban Water Management Plan, Irvine Ranch Water District, November, 2005

The Regional Urban Water Management Plan for the Metropolitan Water District of Southern California, Metropolitan Water District of Southern California, November, 2005

Southern California's Integrated Resources Plan, Metropolitan Water District of Southern California, March, 1996

Southern California's Integrated Resources Plan Update, Metropolitan Water District of Southern California, July, 2004

Proposed Framework for Metropolitan Water District's Delta Action Plan, Metropolitan Water District of Southern California, May 8, 2007

Board Information Report, Metropolitan Water District of Southern California, October 9, 2007

2007 IRP Implementation Report, Metropolitan Water District of Southern California, October, 2007

Master Plan Report, Orange County Water District, April, 1999

Groundwater Management Plan, Orange County Water District, March, 2004

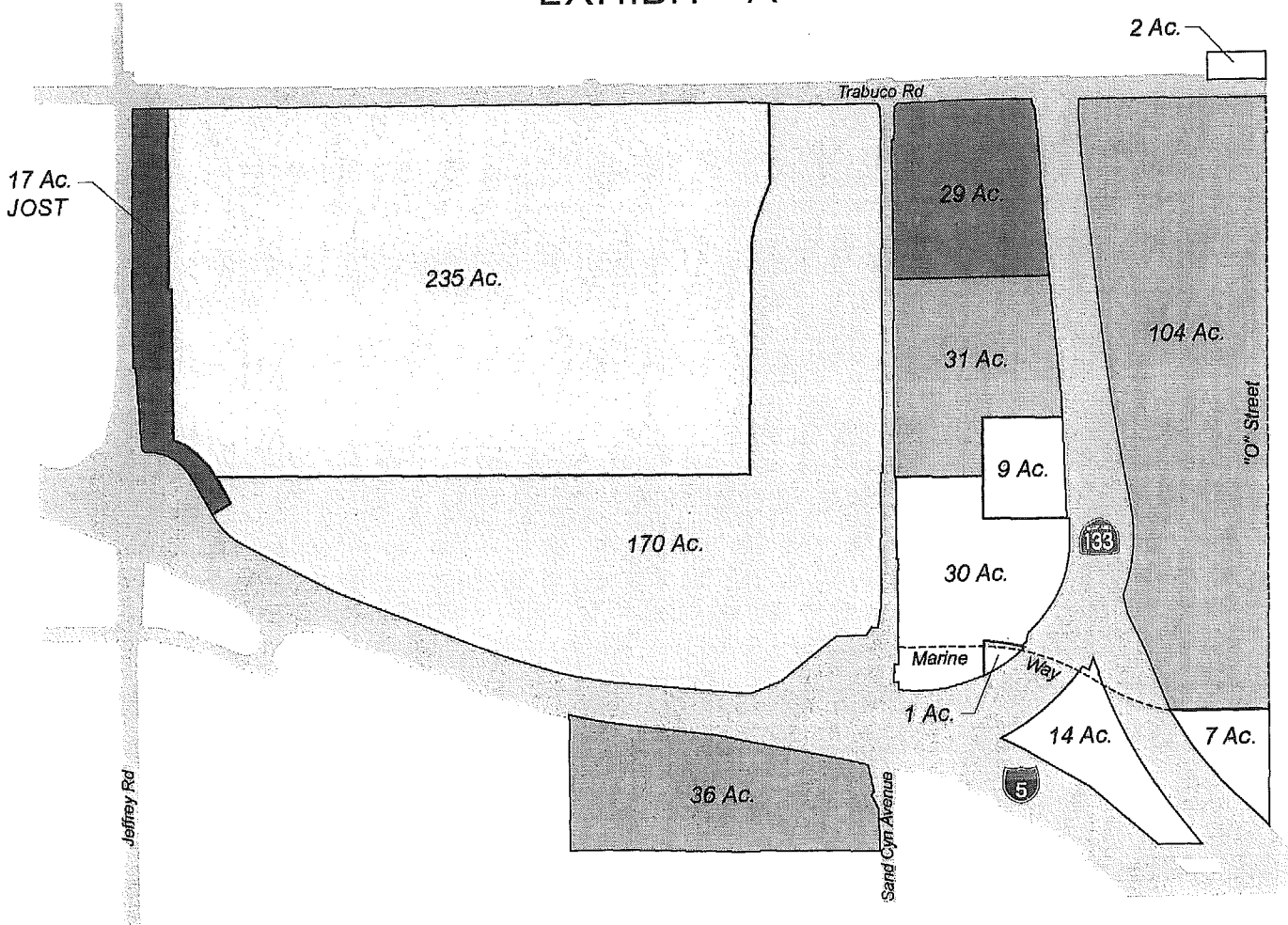
Final Draft Long-Term Facilities Plan, Orange County Water District, January 2006

2005-2006 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District

Progress on Incorporating Climate Change into Management of California's Water Resources, California Department of Water Resources, July 2006

Exhibit A
Depiction of Project Area

EXHIBIT "A"



Legend

- | | | |
|---|---|------------------------|
| 1.5 Recreation (JOST) | } | Project Area 622 Acres |
| 2.3 Medium Residential | | |
| 2.4 Medium-High Residential | | |
| 3.1 Multi-Use | | |
| 4.20 Community Commercial | | |
| 5.5H Medical and Science | } | NAP (PA 12) 63 Acres |
| 5.4 General Industrial | | |
| 5.5D Medical and Science | | |
| Proposed Road Alignments | | |



Planning Areas 12 and 40 GPA / Zoning Project

June 27, 2007

Exhibit B
Uses Included in Project

August 23, 2007

EXHIBIT "B"

Irvine Ranch Water District
15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000

Re: Request for Water Supply Assessment (Water Code §10910 et seq.)

The City of Irvine hereby requests an assessment of water supply availability for the below-described project. The City has determined that the project is a "project" as defined in Water Code §10912, and has determined that an environmental impact report is required for the project.

Proposed Project Information

Project Title: PA 40/12 General Plan Amendment, Zone Change and EIR

Location of project: See attached exhibits and narrative.

- (For projects requiring a new assessment under Water Code §10910 (h).) Previous Water Supply Assessment including this project was prepared on: _____. This application requests a new Water Supply Assessment, due to the following (check all that apply):
- Changes in the project have substantially increased water demand
- Changes in circumstances or conditions have substantially affected IRWD's ability to provide a sufficient water supply for the project
- Significant new information has become available which was not known and could not have been known at the date of the prior Water Supply Assessment

Type of Development:

- Residential:* No. of dwelling units: 2,385 new units with potential for an additional 1,309 units in Multi-Use zoned areas in PA 40. 1,533 units are being transferred from other planning areas into PA 40 for a total of 3,918 units allowed (222 units from PA 1 and 1,311 units from PA 9).
- Shopping center or business:* No. of employees _____ Sq. ft. of floor space. A maximum of 205,000 square feet in PA 40.
- Commercial office:* No. of employees _____ Sq. ft. of floor space. A maximum of 1,540,000 square feet of Multi-Use development in PA 40. A maximum of 1,309 residential units in the Multi-Use areas may be substituted for the 1,540,000 square feet of non-residential intensity subject to equivalent traffic generation. In PA 12, a REDUCTION of 12,000 square feet of community commercial intensity is proposed.
- Hotel or motel:* No. of rooms N/A
- Industrial, manufacturing, processing or industrial park:* No. of employees _____ No. of acres _____ Sq. ft. of floor space. A REDUCTION of 8,550,000 square feet is proposed in the intensity currently allowed under the general plan for PA 40. 575,000 square feet of medical and science intensity is proposed in PA 12.
- Mixed use* (check and complete all above that apply) N/A
- Other:* N/A

Total acreage of project: Development Acres: 617 (PA 40); 36 (PA 12).

Acreage devoted to landscape:

Greenbelt N/A golf course N/A parks Approx. 20 acres
Agriculture None other landscaped areas 17 acres of Recreation zoned area for development of the proposed Jeffrey Open Space Spine.

Number of schools: Approved middle school and proposed elementary school. Number of public facilities Undetermined at this time.

Other factors or uses that would affect the quantity of water needed, such as peak flow requirements or potential uses to be added to the project to reduce or mitigate environmental impacts:

N/A

What is the current land use of the area subject to a land use change under the project?

PA 40 – Medical & Science and Recreation

PA 12 – Vehicle Related Commercial

Is the project included in the existing General Plan? No. If no, describe the existing General Plan Designation See attached

The City acknowledges that IRWD's assessment will be based on the information hereby provided to IRWD concerning the project. If it is necessary for corrected or additional information to be submitted to enable IRWD to complete the assessment, the request will be considered incomplete until IRWD's receipt of the corrected or additional information. If the project, circumstances or conditions change or new information becomes available after the issuance of a Water Supply Assessment, the Water Supply Assessment may no longer be valid. The City will request a new Water Supply Assessment if it determines that one is required.

The City acknowledges that the Water Supply Assessment shall not constitute a "will-serve" or in any way entitle the project applicant to service or to any right, priority or allocation in any supply, capacity or facility, and that the issuance of the Water Supply Assessment shall not affect IRWD's obligation to provide service to its existing customers or any potential future customers including the project applicant. In order to receive service, the project applicant shall be required to file a completed Application(s) for Service and Agreement with the Irvine Ranch Water District on IRWD's forms, together with all fees and charges, plans and specifications, bonds and conveyance of necessary easements, and meet all other requirement as specified therein.

CITY OF IRVINE

By:

REQUEST RECEIVED:

Date: Oct. 2, 2007


By:
Irvine Ranch Water District


REQUEST COMPLETE:


Date: Oct. 2, 2007

By:
Irvine Ranch Water District

December 17, 2007

Prepared by:  M. Cortez/J. Stanearth

Submitted by: G. P. Heiertz 

Approved by: Paul Jones 

ACTION CALENDAR

PLANNING AREA 39 SEWER IMPROVEMENTS – APPROVAL OF PROJECT ADDITION TO THE FY 2007-08 CAPITAL BUDGET, EXPENDITURE AUTHORIZATION, AND SUPPLEMENTAL REIMBURSEMENT AGREEMENT

SUMMARY:

Staff requests that the Board:

- Authorize the addition of Project 20736 to the FY 2007-08 Capital Budget,
- Approve an Expenditure Authorization for Project 20736, and
- Authorize the General Manager to execute a Supplemental Reimbursement Agreement with the Irvine Community Development Company (ICDC) for the design and construction of the capital sewer facility for Planning Area (PA) 39.

BACKGROUND:

PA 39 is located in the City of Irvine, and is generally bound by Interstate 405 to the north, Irvine Center Drive and Bake Parkway to the east, the future extension of Lake Forest Drive to the south, and PA 18 to the west. Although ICDC is not proceeding with the development of PA 39 until its lease with Verizon (for the amphitheater) expires, they have requested that the portion of the PA 39 capital sewer system, which crosses I-405 and connects to the sewer system within PA 33 (north of I-405), be constructed at this time, concurrent with the construction of the PA 33 site development improvements. This project will eliminate trenching into the PA 33 street improvements in the future.

The required Irvine Ranch Water District (IRWD) sewer facilities are documented in the Preliminary PA 39 Pre-sub Area Master Plan dated May 2005, prepared by Stantec. The portion of the capital sewer pipeline is shown in Exhibit “A”. ICDC retained Wilson Mikami Corporation for the design of the capital sewer pipeline. The installation of the pipeline will be performed by KEC Engineering under a Supplemental Reimbursement Agreement (SRA) between IRWD and ICDC as shown in Exhibit “B”. The SRA will stipulate that the costs for any required future sewer system change, resulting from the preparation of the PA 39 Sub-Area Master Plan or similar analysis and study (e.g., change of diameter or re-alignment), will be the sole responsibility of ICDC. The construction cost for this project is \$1,311,688. A summary of the design and construction phase services costs and supporting documentation are shown in Exhibit “C”.

FISCAL IMPACTS:

The addition of Project 20736 to the FY 2007-08 Capital Budget is required as well as an Expenditure Authorization to fund the design and construction phases in the amounts shown below. The Expenditure Authorization is provided as Exhibit “D”.

Action Calendar: Planning Area 39 Sewer Improvements – Approval of Project Addition to the FY 2007-08 Capital Budget, Expenditure Authorization, and Supplemental Reimbursement Agreement

December 17, 2007

Page 2

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
20736	\$0	\$1,599,200	\$1,599,200	\$0	\$1,599,200	\$1,599,200

ENVIRONMENTAL COMPLIANCE:

This reimbursement agreement is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3), in that CEQA applies only to projects which have the potential for causing a significant effect on the environment.

The execution of the subject agreement would allow for the construction of the capital sewer facility for PA 39. This project is subject to CEQA and is in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7. An Environmental Impact Report was certified on July 18, 2006 by the City of Irvine, the lead agency for this project. A Notice of Determination was filed with the Office of Planning and Research, SCH 2005081099, on July 19, 2006.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee meeting on December 11, 2007.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 20736 TO THE FY 2007-08 CAPITAL BUDGET IN THE AMOUNT OF \$1,599,200; APPROVE AN EXPENDITURE AUTHORIZATION FOR PROJECT 20736 IN THE AMOUNT OF \$1,599,200; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SUPPLEMENTAL REIMBURSEMENT AGREEMENT WITH THE IRVINE COMMUNITY DEVELOPMENT COMPANY FOR THE DESIGN AND CONSTRUCTION OF THE IRVINE RANCH WATER DISTRICT CAPITAL SEWER PIPELINE FACILITIES FOR PLANNING AREA 39.

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Supplemental Reimbursement Agreement
- Exhibit "C" – Design and Construction Phase Services Costs
- Exhibit "D" – Expenditure Authorization

EXHIBIT "A"

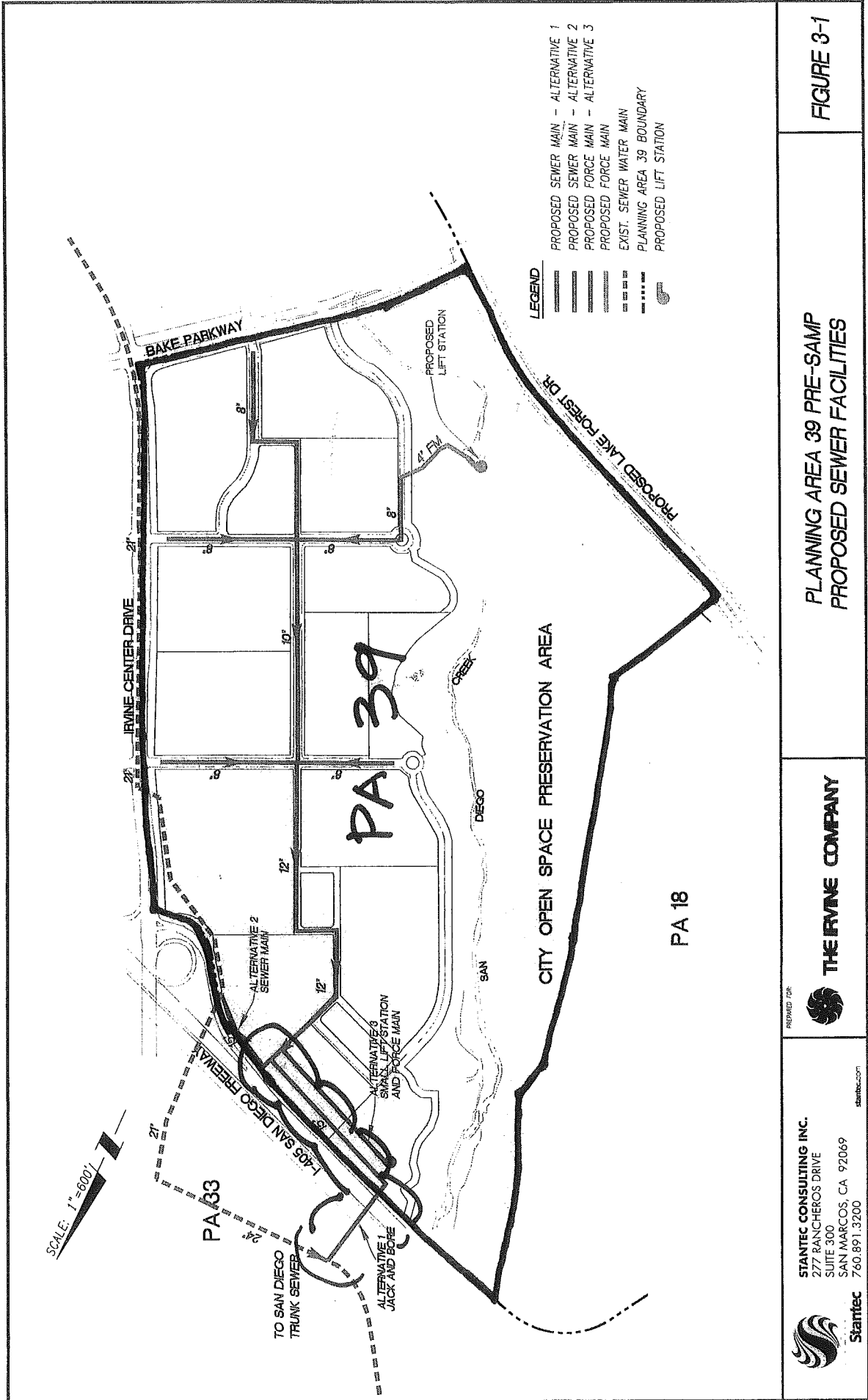


FIGURE 3-1

**PLANNING AREA 39 PRE-SAMP
PROPOSED SEWER FACILITIES**

THE IRVINE COMPANY



STANTEC CONSULTING INC.
277 RANCHEROS DRIVE
SUITE 300
SAN MARCOS, CA 92069
760.891.3200



Stantec

EXHIBIT "B"

Exhibit "A"
to
Reimbursement Agreement

SUPPLEMENTAL REIMBURSEMENT AGREEMENT

BY AND BETWEEN

IRVINE RANCH WATER DISTRICT

AND

IRVINE COMMUNITY DEVELOPMENT COMPANY

This SUPPLEMENTAL REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of this ____ day of _____, 20__, by and between Irvine Ranch Water District, a California water district formed and existing pursuant to the California Water District Law of the state of California ("IRWD"), and Irvine Community Development Company LLC, a Delaware limited liability company ("ICDC"). All capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Reimbursement Agreement.

WHEREAS, IRWD and ICDC's predecessor in interest, Irvine Community Development Company, a Delaware corporation, have previously entered into that certain Reimbursement Agreement dated May 21, 1997 ("Reimbursement Agreement") respecting construction of Capital Facilities; and

WHEREAS, said Reimbursement Agreement made reference to the fact that certain supplemental agreements would be entered into by the parties regarding construction of Capital Facilities and reimbursement therefor consistent with the provisions of said Reimbursement Agreement; and

WHEREAS, the parties now wish to enter this Agreement regarding the construction of Capital Facilities described below, subject to all of the terms of the Reimbursement Agreement, except as provided herein.

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants hereinafter set forth, do agree as follows:

1. Except as provided herein, the parties hereby incorporate by reference all of the terms and conditions of the Reimbursement Agreement into this Agreement.

2. The name of the Project to which this Agreement pertains is:
PA39 Sewer Improvements, PR20736.

The Project is depicted on Exhibit 1 attached to this Agreement.

3. The Capital Facilities to be constructed pursuant to this Agreement are as follows: [describe type, diameter, approximate linear footage, etc; include any detailed drawing as Exhibit 3 if needed]

15-inch sewer pipeline from PA39 to PA33.

The Capital Facilities do / do not [check appropriate box] include any facilities that are a part of the Michelson/ Los Alisos Reclamation Plants Upgrades and Distribution System Expansion Project identified in the Agreement No. 61719 2003 LRP Local Resources Program Agreement, entered into as of June 13, 2005, by and between IRWD and the Metropolitan Water District of Southern California (the "MWD Local Project").

4. The total costs for the Capital Facilities shall include, but not be limited to, the actual costs for construction, surveying, compaction testing, permits, construction bonds, legal fees and an administration fee equal to one percent (1%) of the actual cost of construction (all such actual costs are collectively referred to as the "Costs"). The estimated amount of the Costs is \$1,490,000.

5. The following special terms apply to the construction of the Capital Facilities under this Agreement and supersede the provisions of the original Reimbursement Agreement referenced above: [if none, state "None."] None.

_____.

6. In accordance with Section 10 of the Reimbursement Agreement, ICDC is executing concurrently herewith an Assignment Agreement in the form of Exhibit 2, to be effective upon the Effective Date specified in the Assignment Agreement.

7. If the box in Section 3 above has been checked to indicate that any of the Capital Facilities are a part of the MWD Local Project, then ICDC shall include the following language in its agreements with any consultant or contractor retained by ICDC to work on the Capital Facilities:

“[Contractor / Consultant] agrees at its sole cost and expense to protect, indemnify, defend, and hold harmless Metropolitan Water District of Southern California, Municipal Water District of Orange County, and each of their respective Boards of Directors, officers, representatives, agents and employees from and against any and all claims and liability of any kind (including, but not limited to, any claims or liability for injury or death to any person, damage to property, natural resources or the environment, or water quality problems) that arise out of or relate to any act or omission of [Contractor / Consultant] in the performance of this agreement. Such indemnity shall include all damages and losses related to any claim made, whether or not a court action is filed, and

shall include attorney fees, administrative and overhead costs, engineering and consulting fees and all other costs related to or arising out of such claim of liability.”

IN WITNESS WHEREOF, the parties have entered this Agreement as of the date set forth above.

IRVINE RANCH WATER DISTRICT

IRVINE COMMUNITY DEVELOPMENT
COMPANY LLC

By: _____
General Manager

By: _____
Title: James J. Lorman, Jr.
Senior Vice President
Land Development & Construction

By: _____
Title: Brigid D. McMahon
Assistant Secretary

Exhibits to Supplemental Reimbursement Agreement:

Exhibit 1 - Depiction of Project

Exhibit 2 - Assignment Agreement

Exhibit 3 - Description of Capital Facilities (as needed)

Exhibit "1"
to
Supplemental Reimbursement Agreement

[Insert map, showing Project's location and approximate limits]

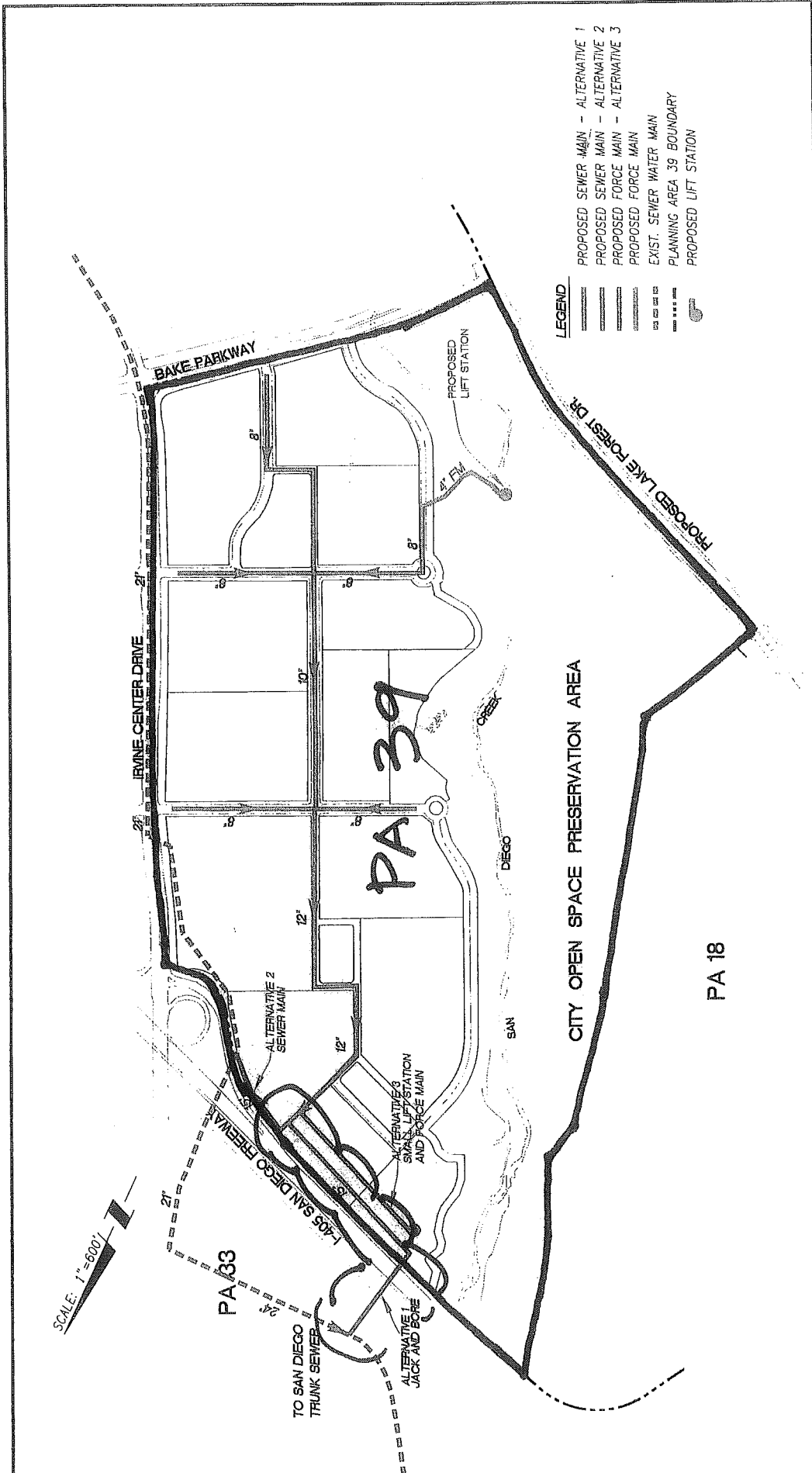


FIGURE 3-1

**PLANNING AREA 39 PRE-SAMP
PROPOSED SEWER FACILITIES**

THE IRVINE COMPANY



STANTEC CONSULTING INC.
277 RANGHEROS DRIVE
SUITE 300
SAN MARCOS, CA 92069
760.891.3200



Exhibit "2"
to
Supplemental Reimbursement Agreement

Assignment Agreement

This ASSIGNMENT AGREEMENT is made as of _____, 20____, by and between IRVINE COMMUNITY DEVELOPMENT COMPANY LLC, a Delaware limited liability company, successor in interest to IRVINE COMMUNITY DEVELOPMENT COMPANY, a Delaware corporation (IRVINE COMMUNITY DEVELOPMENT COMPANY LLC and IRVINE COMMUNITY DEVELOPMENT COMPANY are collectively referred to as "Assignor"), to IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California ("Assignee") based upon the following recitals:

A. Assignor has previously (or will, prior to the Effective Date hereof, have) entered into that certain Construction Contract relating to the Project and Capital Facilities identified in Schedule A hereto (the "Construction Contract").

B. Assignee desires to acquire (I) Assignor's right, title and interest in and to the Capital Facilities constructed under the Construction Contract, and (II) the warranty rights of Assignor as to the Capital Facilities under the Construction Contract, and Assignor desires to assign such rights to Assignee.

NOW, THEREFORE, in consideration of the foregoing, the covenants and agreements contained herein and other valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. ASSIGNMENT. Effective upon the date specified in Section 2 hereof (the "Effective Date"), Assignor assigns and transfers to Assignee all of Assignor's right, title, claim and interest in and to (a) the Capital Facilities constructed pursuant to the Construction Contract, and (b) the warranties and guarantees of contractor as to the Capital Facilities constructed pursuant to the Construction Contract. This Assignment is made by Assignor pursuant to the provisions of Section 10, entitled "Assignment of Interest", contained in that certain Reimbursement Agreement between Assignor and Assignee dated as of May 21, 1997.

2. EFFECTIVE DATE. The Effective Date shall be the date of the filing of the Notice of Completion for the Construction Contract unless a different date is inserted in the following space: _____.

3. TRANSFER OF DOCUMENTATION. On or prior to the Effective Date, Assignor shall provide Assignee with a copy of the Construction Contract.

IN WITNESS WHEREOF, Assignor has executed this Assignment Agreement as of the date first above written.

ASSIGNOR:

Irvine Community Development Company LLC
a Delaware limited liability company

By: _____

Title: _____

By: _____

Title: _____

Schedule A
to
Assignment Agreement

This Schedule A to Assignment Agreement relates to the assignment of certain matters pursuant to the Supplemental Reimbursement Agreement between Assignor and Assignee dated _____ (“Supplemental Reimbursement Agreement”).

Agreement: Insert name of Project from Section 2 of Supplemental Reimbursement Agreement: PA39 15-inch Sewer Improvements.

Insert description of Capital Facilities from Section 3 of Supplemental Reimbursement Agreement: 15-inch sewer pipeline from PA39 to PA33.

Contractor's Name: _____

License No. _____

Address: _____

Phone #: _____ Fax #: _____

Contact Person: _____

Exhibit "3"
to
Supplemental Reimbursement Agreement

[Insert detailed map if available]
As required

EXHIBIT "C"

PA39 Sewer improvements Project 20736

Project Costs

	Description of Service	
Design Phase		
Wilson Mikami Corp.	Civil engineering	\$ 61,600
GMU Geotechnical Inc.	Geotechnical engineering	\$ 19,500
	Sub-total	<u>\$ 81,100</u>
Construction Phase Support		
Wilson Mikami Corp.	Construction support	\$ 14,700
Wilson Mikami Corp.	Survey staking	\$ 20,800
GMU Geotechnical Inc.	Geotechnical observation and testing	\$ 20,085
LSA Associates, Inc.	Archeological/paleontological monitoring	\$ 1,280
Harmsworth Associates	Biological/botanical monitoring	\$ 256
	Sub-total	<u>\$ 57,121</u>
Construction		
KEC Engineering	Sewer construction	\$ 1,311,688
ICDC	Construction administration (1%)	\$ 13,117
	Sub-total	<u>\$ 1,324,805</u>
Total		<u><u>\$ 1,463,026</u></u>

WMC

SCOPE OF SERVICES

**PLANNING AREA 39,
IRWD CAPITAL SEWER LINE AT I-5 AND MERIDIAN,
CIVIL ENGINEERING**

Consultant shall provide the following professional services to the Client as described below:

200 FINAL ENGINEERING PHASE

201 Topographic Survey, Base Map Preparation and Record Data Review

Consultant shall perform a field topographic survey of the extension of Meridian Street and the north and south edge of Caltrans right of way along the proposed alignment of the sewer pipeline per the enclosed Exhibit "C". Existing and proposed topography to be provided in AutoCad electronic format by the Client's Consultant. The topographic survey will consist of locating the existing surface features, spot elevations and invert elevations of existing sewer manholes, storm drain manholes, and OCFCD facilities within the project area.

Contact of visit the appropriate agencies of Client Consultants for underlying improvements and obtain relevant reference information for the project. This information and documentation may include: record maps, centerline ties, available improvement plans, general design criteria, and utility drawings as needed to establish the base information and constraints for the project. Consultant is not responsible and cannot be held accountable for the accuracy of As-built or Record Drawings provided by the Agencies. Consultant has no means of determining whether subsurface features were constructed per the construction/improvement drawings and does not claim to do so. Potholing of existing utilities may be required but is not included in this scope of work.

Consultant shall develop the base map of the project site that illustrates three main types of data: topographic data, record utility data, and record mapping and constraint data (boundary and easements). Utility data will be compiled from best available record sources. A Title Report provided by the Client will be required to identify additional project site constraints. Boundary and easement data will be calculated from record sources, and from those items listed in a current and open preliminary title report covering the subject property.

202 Easement Legal Description and Plat

Consultant shall prepare an easement legal description and plat in conformance with Irvine Ranch Water District standards for the sewer pipeline.

203 Sewer Improvement Plans

Consultant shall prepare Sewer Improvement plans for the proposed 15-inch sewer main per the limits described in Exhibit "C" attached. Plans to be prepared at a scale of 1" = 40'. Sewer mainline will be profiled. The Plan shall include details for jack and bore methods for installation of the pipeline under the I-405 Freeway. This plan will be prepared and processed to approval through the Irvine Ranch Water District, City of Irvine, Caltrans and the Orange County Flood Control District. Improvement plans will not include permanent access to the manholes on the south side of I-405. Consultant shall prepare a Title Sheet, Index/Quantity Sheet, Detail Sheet and on e Plan and Profile sheet.

- 204 **Traffic Control Plan**
Consultant shall prepare a traffic control plan for sewer construct work within Pacific Street in compliance with City of Irvine and Caltrans standards, as necessary. The traffic control plan shall be prepared as a separate stand alone set of plans. Consultant shall submit the plan to the City of Irvine for approval.
- 205 **Caltrans WPCD**
Consultant shall prepare a Water Pollution Control Document (WPCD) in accordance with Caltrans standards for the project construction. Consultant shall submit the WPCD to Caltrans and respond to comments.
- 206 **Plan Processing**
Consultant shall submit in accordance with IRWC, City of Irvine, Caltrans, and OCFCD plan check guidelines. Consultant shall provide processing support for each agency permit to plan approval. Processing support shall consist of responding to agency plan check comments and questions and contacting agency staff to follow-up on plan check status.
- 207 **Quantities and Cost Estimates**
Consultant shall provide construction quantity takeoff list and cost estimate for each plan submittal, and a detailed final engineers estimate of the project cost (3 estimates total). Unit prices will be based on the best information available at the time, but may not necessarily reflect actual construction costs. Consultant makes no guarantee as to actual construction costs.
- 208 **Specifications**
Consultant shall develop technical specifications as special provisions in conformance with Owner's format and IRWD requirements and provide required permits and reference materials to be included in ICDC standard contract documents. Preparation of two exhibits shall be included in this task of work. Response to bidders questions and preparation of two addendums shall be included in this item of work.
- 209 **Project Coordination and Meetings**
Consultant shall provide time outside of regularly scheduled meetings to assure proper project management and to coordinate with the Client, other project consultants in-house staff, and Agency staff. Project management and coordination services will be billed on a time-and-materials basis, not to exceed the amount shown in the Fee Summary without prior written authorization. Additional project management services required beyond the budgeted amount will be considered additional services, subject to Client authorization.

11/05/07
PC - 4

CONSULTANT CONTRACT INVOICE

SUBMIT ALL INVOICES TO:
IRVINE COMMUNITY DEVELOPMENT COMPANY LLC
Irvine Community Development Company LLC
650 NEWPORT CENTER DRIVE
P.O. BOX 6370
NEWPORT BEACH, CA 92658-6370
ATTENTION: FINANCE

Terms Code:
Comments:
Special Handling:

VENDOR: WILSON MIKAMI CORPORATION
VENDOR NO: G105186
INVOICE DATE: 09/26/07
INVOICE NO: 11548
AGREEMENT NO: G105186012 TASK ID: 39-EG-01-xx-00
base fully executed
CONTRACT MANAGER: YOSHIDACONLEY
PROJECT NO: 1637-50 PA 39 IRWD
DESCRIPTION: IRWD Capital Sewer Line at I-5 and Meridian
BILLING PERIOD: FROM: 08/01/07 TO: 08/31/07
Separate Check (Y or Blank):
Retention: 0.00%

Project ID	Component	Element	Cost	Commitment Number	PO Line Number	DESCRIPTION	ORIGINAL CONTRACT AMOUNT	CONTRACT REVISION AMOUNT	TOTAL CONTRACT AMOUNT	TOTAL CONTRACT AMOUNT	TOTAL PRIOR BILLINGS	WORK PERFORMED THIS BILLING	TOTAL WORK PERFORMED TO DATE	TOTAL WORK REMAINING	PERCENT COMPLETE
PA 39 IRWD CAPITAL SEWER LINE AT I-5 & MERIDIAN, CIVIL ENGINEERING							\$0.00		\$0.00	\$0.00	\$0.00	0.00	\$0.00	\$0.00	0%
1637	50	00113	G105186012			1. Topographic Survey, base Map Preparation and Record Data Review	9,800.00		9,800.00	9,800.00	0.00	0.00	9,800.00	0.00	100%
1637	50	00111	G105186012			2. Essemment Legal Description and Plan	4,600.00		4,600.00	4,600.00	0.00	0.00	4,600.00	0.00	0%
1637	50	00111	G105186012			3. Sewer Improvement Plans	15,100.00		15,100.00	15,100.00	5,720.00	0.00	5,720.00	9,380.00	38%
1637	50	00111	G105186012			4. Traffic Control Plan	2,400.00		2,400.00	2,400.00	0.00	0.00	475.00	2,400.00	0%
1637	50	00106	G105186012			5. Caltrans WPCD	2,400.00		2,400.00	2,400.00	475.00	245.00	2,620.00	1,925.00	20%
1637	50	00111	G105186012			6. Plan Processing	14,300.00		14,300.00	14,300.00	2,375.00	0.00	2,620.00	11,680.00	18%
1637	50	00111	G105186012			7. Quantities and Cost Estimates	1,800.00		1,800.00	1,800.00	940.00	0.00	940.00	880.00	52%
1637	50	00111	G105186012			8. Specifications	6,500.00		6,500.00	6,500.00	0.00	975.00	975.00	5,525.00	15%
1637	50	00111	G105186012			9. Project Coordination and Meetings	4,100.00		4,100.00	4,100.00	3,060.00	0.00	3,060.00	1,040.00	75%
1637	50	00991	G105186012			REIMBURSABLE	600.00		600.00	600.00	142.32	0.00	142.32	457.68	24%

T & M (Field): Require signed field tickets. ==T & M (Non-Field): Require hourly breakdown.
 Phase/ Cost Commitment PO Line
 Project ID Component Element Number Number DESCRIPTION ORIGINAL CONTRACT AMOUNT CONTRACT REVISION AMOUNT TOTAL CONTRACT AMOUNT TOTAL PRIOR BILLINGS WORK PERFORMED THIS BILLING TOTAL WORK PERFORMED TO DATE TOTAL WORK REMAINING PERCENT COMPLETE

TOTAL THIS INVOICE: \$61,600.00 \$0.00 \$61,600.00 \$22,512.32 \$1,220.00 \$23,732.32 \$37,867.68

This contract is complete Yes No

INTERNAL USE ONLY:
 INVOICE APPROVALS

PROJECT	CONTROLLER	MANAGER	DIRECTOR	VICE PRESIDENT	VICE PRESIDENT	FINANCE	PRESIDENT
12	12	12	12	12	12	12	12

GMU

SCOPE OF SERVICES

PLANNING AREA 39, FUTURE ASSESSMENT DISTRICT GEOTECHNICAL INVESTIGATION SERVICES FOR IRWD 15" SEWER GRAVITY MAIN, CIVIL ENGINEERING

Consultant shall provide geotechnical investigation services which will provide sufficient data and analysis to:

- 1) geotechnically characterize the proposed sewer pipeline alignment;
- 2) provide geotechnical recommendations for anticipated excavation characteristics, temporary excavation stability, site grading, lateral earth pressures, groundwater, compaction, and chemical characteristics of the existing soil materials; and,
- 3) quantify the liquefaction potential, tunnel classification, and possible presence of flammable gas or vapors in the vicinity of the planned IRWD pipeline jack and receiving pits at Lot 111 and PA 39, adjacent to the San Diego Freeway (I-405). The results of Consultant's geotechnical investigation will be summarized in a report which will be suitable for the purpose of design and construction of the pipeline.

Consultant understands that the necessary subsurface investigation work can be performed on private easement areas at Lot 111 and PA 39 on the north and south sides of the I-405 Freeway along the proposed sewer pipeline alignment. The following scope for the proposed project design and construction was developed based on our knowledge of the geotechnical subsurface conditions in the vicinity of the project site:

- 1.) Perform reconnaissance of the proposed pipeline alignment, research available files for existing geotechnical reports adjacent to the planned improvements, layout and stake drill hole locations, and coordinate and meet with underground Dig Alert to review drill hole locations.
- 2.) Pull necessary encroachment permit from the City of Irvine (COI).
- 3.) Perform a subsurface exploration program consisting of 2 Hollow Stem drill holes (DH) of up to 50 feet in depth along the pipeline alignment at the proposed pipeline jack and receiving pits at Lot 111 and PA 39 on the north and south sides of the I-405 Freeway, for purposes of observing subsurface conditions and obtaining representative samples of the soil materials in the proposed pipeline alignments. The drill holes will help determine the liquefaction potential of the planned pipeline and jack and receiving pit installations in order to satisfy Caltrans geotechnical review.
- 4.) During the installation of the drill holes at the planned jack and bore pit locations, provide the subconsultant services of Laguna Geosciences, Inc. to perform a field investigation to determine tunnel classification, as required by Cal OSHA, and also to determine flammable gas or vapors, as required by Caltrans. The drill holes will allow collection of soil samples for Total Recoverable Hydrocarbons (TRPH). Two-stage gas probes will be installed in each of the drill hole locations and the probes will be monitored for methane and other fixed gases utilizing a portable gas analyzer. A formal report of the results of the field and lab testing will be included.

- 5.) Perform geotechnical laboratory testing of the 2 drill hole soil samples for determining the engineering properties of the soil materials in each sampled location, and to determine liquefaction potential.
- 6.) Perform geologic and engineering analysis to evaluate the exploration and laboratory test data and provide design recommendations for construction of the pipelines and the jack and bore pits.
- 7.) Prepare a report summarizing the results of our research, exploration, testing, analysis, conclusions, and recommendations relative to accomplishing the design and construction of the proposed project. Our report would be based upon and include a review of the most current plans provided by Wilson Mikami Corporation.

Based upon Consultant's present knowledge of the pipeline alignment and provided that the accessibility is open to both the jacking and receiving pit locations, Consultant anticipates that the geotechnical and existing pavement field work will require about one day to complete. Consultant anticipates having the geotechnical investigation report approximately four to five weeks after the fieldwork has been completed.

CONSULTANT CONTRACT INVOICE

VENDOR: GOFFMAN, McCORMICK & URBAN, GEOTECHNICAL INVOICE DATE: 10/29/07

VENDOR NO: 258342 INVOICE NO: 36396

base fully executed
AGREEMENT NO: 258342046 TASK ID: 39-EG-01-xx-00 BILLING PERIOD:

FROM: 09/01/07

TO: 09/30/07

RETENTION: 0.00%

SUBMIT ALL INVOICES TO:
IRVINE COMMUNITY DEVELOPMENT COMPANY LLC
Irvine Community Development Company LLC
550 NEWPORT CENTER DRIVE
P.O. BOX 6370
NEWPORT BEACH, CA 92658-6370
ATTENTION: FINANCE

Terms Code: 14 OC-0591
Comments:
Special Handling:

CONTRACT MANAGER: YOSHIDA/CONLEY
PROJECT NO: 1637-50 PA 39 IRWD
DESCRIPTION: Geotech investigation for IRWD 15" sewer gravity main, Future AD

Separate Check (Y or Blank):

Project ID	Component	Element	Phase/ Cost	Commitment Number	PO Line Number	DESCRIPTION	ORIGINAL CONTRACT AMOUNT	CONTRACT REVISION AMOUNT	TOTAL CONTRACT AMOUNT	TOTAL PRIOR BILLINGS	WORK PERFORMED THIS BILLING	TOTAL WORK PERFORMED TO DATE	TOTAL WORK REMAINING	PERCENT COMPLETE
PLANNING AREA 39, FUTURE ASSESSMENT DISTRICT GEOTECHNICAL INVESTIGATION SERVICES FOR IRWD 15" SEWER GRAVITY MAIN, CIVIL ENGINEERING														
1637	50	00101	258342046			1. Site Reconnaissance, Research Files, Stake Drill	1,000.00	0.00	1,000.00	992.50	0.00	992.50	7.50	99%
1637	50	00509	258342046			Holes, Coordinate Dig Alert	500.00	0.00	500.00	500.00	0.00	500.00	0.00	100%
1637	50	00101	258342046			2. COI Encroachment Permit	4,500.00	0.00	4,500.00	4,496.50	0.00	4,496.50	3.50	100%
1637	50	00101	258342046			3. Exploration 2 Hollow Stem Auger Drill Holes	4,000.00	0.00	4,000.00	4,000.00	0.00	4,000.00	0.00	100%
1637	50	00101	258342046			4. Tunnel Classification Gas/Vapors Investigation and Testing @ 2 drill hole locations	2,500.00	0.00	2,500.00	2,295.00	205.00	2,500.00	0.00	100%
1637	50	00101	258342046			5. Geotechnical Laboratory Testing	3,500.00	0.00	3,500.00	3,476.50	20.00	3,496.50	3.50	100%
1637	50	00101	258342046			6. Geotechnical Engineering Analysis	3,500.00	0.00	3,500.00	3,243.50	240.00	3,483.50	16.50	100%
1637	50	00101	258342046			7. Geotechnical Investigation Report	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
TOTAL THIS INVOICE:							\$19,500.00	\$0.00	\$19,500.00	\$19,004.00	\$465.00	\$19,469.00	\$31.00	

This contract is complete Yes No.

INTERNAL USE ONLY:
INVOICE APPROVALS

CONTROLLER MANAGER DIRECTOR VICE PRESIDENT VICE PRESIDENT FINANCE PRESIDENT

12 12 12 12 12 12 12 12 12 12 12 12 12 12 9



WILSON • MIKAMI • CORPORATION
CONSULTING ENGINEERING SERVICES

3 PETERS CANYON, SUITE 110 • IRVINE, CA 92606
(949) 679-0090 FAX (949) 679-0091

October 16, 2007

P.N. 10066.11

Irvine Community Development Company, LLC

550 Newport Center Drive
Newport Beach, CA 92660
ATTN: Misty Fowler

**SUBJECT: Proposal for Construction Support Services
PA 39 Sewer Line at I-405 and Meridian (IRWD Capital)**

Dear Ms. Fowler:

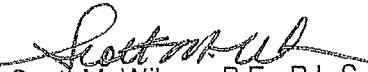
Wilson Mikami Corporation, Inc. (WMC) sincerely appreciates the opportunity to build on our relationship with Irvine Community Development Company and to present the enclosed proposal for engineering services related to the referenced project.

This proposal includes the services that Wilson Mikami Corporation anticipates are required to accomplish the project goals. The proposal is based on discussions with your office. The attached proposal includes the following information:

- Scope of Services
- Project Fee Summary

Once again, thank you for considering Wilson Mikami Corporation for this project. I can be reached at (949) 679-0092 to answer any questions you may have regarding this project proposal.

Sincerely,
Wilson Mikami Corporation, Inc.


Scott M. Wilson, P.E., P.L.S.
Principal

Enclosures

EXHIBIT 'A'
SCOPE OF SERVICES
PA 39 SEWER AT I-405 AND MERIDIAN (IRWD Capital)

Wilson Mikami Corporation (WMC) agrees to provide professional services to the Client as described below:

500 CONSTRUCTION SUPPORT SERVICES

501 Preconstruction and Field Meetings

During the period before Owner issues a Notice to Proceed to its Contractor, Consultant shall attend the preconstruction meeting called by Owner. During the active construction period, Consultant shall provide an engineering project manager to attend field meetings called by Owner's Construction Manager. It is estimated that the Consultant should allow sixteen (16) hours for meetings.

502 Field Support Services

Consultant shall provide review of Contractor's submittals, shop drawings, and construction layouts as required and observe the work in process. Consultant shall respond to Requests for Information's (RFIs) submitted through the Owner's Construction Manager and provide written response to Owner as appropriate. When requested by Owner, the engineering project manager will share interpretations, opinions, and possible solutions to field issues and coordinate additional services required. Upon request by Owner's Construction Manager, Consultant will review and respond to change order requests submitted by the Contractor and prepare estimates of quantities and cost supporting the change.

503 Plan Revision Processing During Construction

As approvals are required for various field design modifications, Consultant shall coordinate the processing of documents through the appropriate agencies.

504 Certifications

On completion of the construction work (or various phases thereof), Consultant shall prepare written certifications signed by a licensed architect verifying completion of the work in substantial compliance with the intent of the plans and specifications.

505 Record Drawings

Consultant shall compile all documents provided by the Owner's Construction Manager affecting the final configuration of the work. These may include Contractor's as-built drawings, survey records, plan changes, change orders, and other contract documents. Consultant shall produce the Record Drawings for the future reference of Owner, Public Agencies, and if applicable the Homeowners Associates. The Record Drawings must be a full set of plans stamped "As-Built" in red.

EXHIBIT 'B'
FEE SUMMARY
PA 39 SEWER AT I-405 AND MERIDIAN (IRWD Capital)

TASK	DESCRIPTION	FEE
500	CONSTRUCTION SUPPORT SERVICES	
501	Pre-Construction and Field Meetings (16 hours) (T&M NTE)	\$ 2,300
502	Field Support Services (T&M NTE)	\$ 4,300
503	Plan Revision Processing during Construction (T&M NTE)	\$ 4,000
504	Certifications (Fixed Fee)	\$ 1,500
505	Record Drawings (Fixed Fee)	\$ 2,600
		Total \$ 14,700

The estimated budget is a maximum for the work proposed based on the direction and information provided by your office. Work performed will be billed monthly on a fixed fee and a time-and-materials basis.

*Reimbursable costs, such as printing, all reproduction blueprinting shall be billed directly to Client's account at the specified reproduction company. Reimbursables such as photocopying will be billed, at cost, against the Reimbursable Line Item above.

(T&M) - Items to be billed on a time and materials basis

**Irvine Community Development Company
Wilson Mikami Corporation**

FEE SCHEDULE
July 1, 2007 to June 30, 2008

Compensation for work performed on a time and materials basis will be computed as follows:

CIVIL ENGINEERING SERVICES and MAPPING

Hourly Rate

Principal	\$180.00
Project Manager	\$145.00
Assistant Project Manager	\$137.00
Sr. Project Designer, Sr. Project Engineer, Sr. Project Surveyor	\$137.00
Project Engineer, Project Designer, Project Surveyor	\$133.00
Sr. Designer, Sr. Design Engineer, Sr. Survey Analyst	\$125.00
Design Engineer, Designer, Survey Analyst	\$107.00
Assistant Engineer, Research/Processing Coordinator, Sr. CADD Technician	\$100.00
CADD Technician	\$ 87.00
Jr. Engineer	\$ 77.00
Jr. CADD Technician	\$ 67.00
Engineering Aide, Office Work	

FIELD SURVEY

Director of Survey	\$155.00
Field Coordinator	\$133.00
One Person Crew	\$177.00
Two Person Crew	\$197.00
Three Person Crew	\$222.00



WILSON • MIKAMI • CORPORATION
CONSULTING ENGINEERING SERVICES

3 PETERS CANYON, SUITE 110 • IRVINE, CA 92606
(949) 679-0090 FAX (949) 679-0091

October 16, 2007
Revised October 18, 2007

P.N. 10066.10

Irvine Community Development Company, LLC
550 Newport Center Drive
Newport Beach, CA 92660
ATTN: Misty Fowler

SUBJECT: Proposal for Construction Services
PA 39 Sewer Line at I-405 and Meridian (IRWD Capital)

Dear Ms. Fowler:

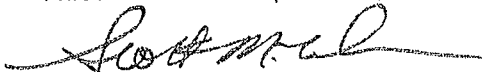
Wilson Mikami Corporation, Inc. (WMC) sincerely appreciates the opportunity to build on our relationship with Irvine Community Development Company and to present the enclosed proposal for engineering services related to the referenced project.

This proposal includes the services that Wilson Mikami Corporation anticipates are required to accomplish the project goals. The proposal is based on discussions with your office. The attached proposal includes the following information:

- Scope of Services
- Project Fee Summary
- List of Assumptions & Exclusions

Once again, thank you for considering Wilson Mikami Corporation for this project. I can be reached at (949) 679-0092 to answer any questions you may have regarding this project proposal.

Sincerely,
Wilson Mikami Corporation, Inc.


Scott M. Wilson, P.E., P.L.S.
Principal

Enclosures

EXHIBIT 'A'
SCOPE OF SERVICES
PA 39 SEWER AT I-405 AND MERIDIAN (IRWD Capital)

Wilson Mikami Corporation (WMC) agrees to provide professional services to the Client as described below:

500 CONSTRUCTION SERVICES

501 Survey Control Calculations and Stakes

Prepare coordinate control calculations of office/plan data for field survey control. The Owner's Survey Consultant will establish one (1) set of project horizontal and vertical control points within the project area. The Contractor is responsible for protecting these survey control points at all times. Any additional moving of these control points will be performed by the Owner's Survey Consultant and all costs shall be the responsibility of the Contractor.

502 Settlement Monitoring

The Owner's Survey Consultant will establish one (1) set of settlement monitoring monument points at each bore pit location (2 total) and in the median of the San Diego Freeway (I-405) (1 total) in accordance with the Caltrans encroachment permit and the project geotechnical report. Each monitoring point will consist of a settlement rod per the detail provided by Caltrans.

The survey consultant shall establish a baseline survey by surveying the set monuments on a weekly basis three (3) times prior to construction. During the jack and bore operation, the survey consultant shall survey the monitoring points each working day. The jack and bore operation is anticipated to be completed in ten (10) working days. Daily survey monitoring will occur only when jack and bore construction is occurring (no survey work will be performed on delay days). After completion of the jack and bore operation, the monitoring points shall be surveyed on a weekly basis three (3) times to project completion. Survey monitoring data shall be submitted to the owner, contractor, geotechnical engineer and engineer within 24 hours of each survey. Survey consultant shall be named on the contractor's "DP" permit with Caltrans.

503 Street Grade Staking

Provide one set of finish grade stakes for final AC lift at 50-foot intervals.

504 Sanitary Sewer Staking

- a. Provide one survey to verify the horizontal location and vertical elevation of all Points of Connection (POC) prior to construction.
- b. Provide stakes at all primary points of control, beginnings, and ends of pipes to facilitate construction of main line sewer.
- c. Provide one set of stakes for manholes.

Provide one survey to certify line and grade sewer stubs at the manhole and at the end of the stub prior to pipe backfill.

EXHIBIT 'B'
FEE SUMMARY
PA 39 SEWER AT I-405 AND MERIDIAN (IRWD Capital)

TASK	DESCRIPTION	FEE
500	CONSTRUCTION SERVICES	
501	Staking Control Calculations and Stakes	\$ 800
502	Settlement Monitoring	\$ 13,400
503	Street Grade Staking	\$ 1,700
504	Sanitary Sewer Staking	\$ 4,900
		<hr/> Subtotal \$ 20,800
505	Reimbursables*	<hr/> \$ 200
		 Total (T&M NTE) \$ 21,000

The estimated budget is a maximum for the work proposed based on the direction and information provided by your office. Work performed will be billed monthly on a fixed fee and a time-and-materials basis.

*Reimbursable costs, such as printing, all reproduction blueprinting shall be billed directly to Client's account at the specified reproduction company. Reimbursables such as photocopying will be billed, at cost, against the Reimbursable Line Item above.

(T&M) - Items to be billed on a time and materials basis

Exhibit 'C' Assumptions and Exclusions

ASSUMPTIONS:

This proposal was based on the following assumptions related to the proposed project:

- Bid Package for IRWD Capital Sanitary Sewer at I-405 including Addendum 1 and 2.

EXCLUSIONS:

Items not specifically identified in the scope of service sections of this proposal are to be excluded from this work effort and would be considered additional services. Such services would include, but are not limited to, the following:

- Potholing of Existing Utilities
- Submittal Fees
- Final Engineering
- Construction Support Services including construction meetings, certifications, bond exoneration and record drawings.
- Record of Survey
- ALTA/ASCM Land Title Survey
- Revisions to work completed or underway due to a change in information or instruction provided to Wilson Mikami Corporation by the Client for Client's consultant (s).

Irvine Community Development Company
Wilson Mikami Corporation
FEE SCHEDULE
July 1, 2007 to June 30, 2008

Compensation for work performed on a time and materials basis will be computed as follows:

<u>CIVIL ENGINEERING SERVICES and MAPPING</u>	<u>Hourly Rate</u>
Principal	\$180.00
Project Manager	\$145.00
Assistant Project Manager	\$137.00
Sr. Project Designer, Sr. Project Engineer, Sr. Project Surveyor	\$137.00
Project Engineer, Project Designer, Project Surveyor	\$133.00
Sr. Designer, Sr. Design Engineer, Sr. Survey Analyst	\$125.00
Design Engineer, Designer, Survey Analyst	\$107.00
Assistant Engineer, Research/Processing Coordinator, Sr. CADD Technician	\$100.00
CADD Technician	\$ 87.00
Jr. Engineer	\$ 87.00
Jr. CADD Technician	\$ 77.00
Engineering Aide, Office Work	\$ 67.00
 <u>FIELD SURVEY</u>	
Director of Survey	\$155.00
Field Coordinator	\$133.00
One Person Crew	\$177.00
Two Person Crew	\$197.00
Three Person Crew	\$222.00

Misty Fowler

From: Steve Milazzo
Sent: Thursday, October 18, 2007 7:45 AM
To: 'Scott Wilson'
Cc: Misty Fowler; Jamie Yoshida
Subject: RE: Staking Proposal for PA 39 Sewer Jack and Bore - Settlement Monitoring

Scott:

Please update your proposal as suggested below.

Misty:

Please make sure that the goetech RFP reflects this scope for evaluation of settlement monitoring data.

Thanks,

Steve Milazzo
Senior Director, Construction
Irvine Community Development Company
550 Newport Center Drive, T1-7-5 | Newport Beach, California | 92660-7011
Phone 949.720.2566 | Fax 949.720.2820
smilazzo@irvinecompany.com



*Per Jamie -
leave RFP as
is - if there
is an issue
we will deal
with it as a
CO.*

From: Scott Wilson [mailto:swilson@wilsonmikami.com]
Sent: Wednesday, October 17, 2007 11:08 AM
To: Jamie Yoshida; Steve Milazzo
Cc: Misty Fowler
Subject: RE: Staking Proposal for PA 39 Sewer Jack and Bore - Settlement Monitoring

Steve / Jamie -

We based our proposal on the following:

1. Survey monitoring during the jacking operation is based on working days.
2. The assumed duration of the jacking operation (for the I-405 crossing only) is 10 working days. 2 hrs each day for the survey
3. Daily survey monitoring is to only occur on days in which work is performed. Monitoring is assumed to not occur on delay days.
4. Attached is the Caltrans permit (it is included in the bid package). There are no specifics regarding the monitoring in the permit itself. It only states to monitor ground movement and settlement during the jacking operation and to provide a monitoring program when the contractor submits for the "DP" permit (to enter Caltrans right of way). We can provide this monitoring program (base on the PA 18 sample/our scope of work) to the contractor for submittal and also need our company included in the "DP" permit.

If acceptable, I will update our proposal to clarify the above items.

Thanks

Scott M. Wilson

Direct Line: 949.679.0092

Fax: 949.679.0091

Main Line: 949.679.0090

Email: swilson@wilsonmikami.com

WILSON MIKAMI CORPORATION

3 Peters Canyon, Suite 110 Irvine, CA 92606

From: Jamie Yoshida [<mailto:JYoshida@irvinecompany.com>]

Sent: Tuesday, October 16, 2007 4:46 PM

To: Steve Milazzo

Cc: Scott Wilson; Misty Fowler

Subject: RE: Staking Proposal for PA 39 Sewer Jack and Bore - Settlement Monitoring

Scott, please respond to the questions below.

The monitoring plan was modeled after the PA 18 sewer monitoring that was just approved by Caltrans.

From: Steve Milazzo

Sent: Tuesday, October 16, 2007 4:24 PM

To: Jamie Yoshida

Cc: Scott Wilson; Misty Fowler

Subject: Staking Proposal for PA 39 Sewer Jack and Bore - Settlement Monitoring

I am in possession of a draft staking scope of work for the settlement monitoring.

A couple of clarifications are needed:

- The points are to be monitored "daily" during the jack and bore. Are these calendar or work days?
- Is there an assumed duration for the jack and bore for this "daily" scope?
- How are delay days handled during the jack and bore operation? More monitoring, or are these back out days?
- Do we have the Caltrans permit in hand yet? When will we have it?

Thanks,

Steve Milazzo

Senior Director, Construction

Irvine Community Development Company

550 Newport Center Drive, T1-7-5 | Newport Beach, California | 92660-7011

Phone 949.720.2566 | Fax 949.720.2820

smilazzo@irvinecompany.com



**IRVINE COMMUNITY
DEVELOPMENT COMPANY**
An Affiliate of THE IRVINE COMPANY

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IRVINE COMMUNITY DEVELOPMENT COMPANY
An Affiliate of THE IRVINE COMPANY

REQUEST FOR PROPOSAL

GMU Geotechnical Inc.
23241 Arroyo Vista
Rancho Santa Margarita, CA 92688

October 5, 2007

Attention: Bob Mutchnick

Project: **Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District
Capital Improvement Project No. 20736**
(Construction Contract No. 1065300)

Services: **Geotechnical Observation and Testing During Construction
Task/Potential Contract ID: TBD**

SCOPE OF REQUEST:

Provide a proposal to perform geotechnical observation and testing required to complete the construction of the above referenced project.

The proposal shall be based on the following criteria:

The project plans, reports, and specifications as listed:

1. Plans as listed in the Contract Documents attached hereto.
2. Construction Project Bid Package dated September 20, 2007, attached hereto.
3. Soils Reports prepared by GMU Geotechnical, Inc.

The scope of services shall be per Exhibit ‘A’ – Scope of Services attached hereto and shall include preparation and processing of written certifications as required by the governing agencies.

All services shall be prepared in accordance with accepted industry standards.

SUBMITTAL OF PROPOSALS:

This entire Request for Proposal must be submitted along with a fully completed Exhibit ‘C’ – Cost Summary attached hereto.

Proposals will be accepted on or before the hour of 2:00 p.m. on October 16, 2007, and shall be delivered to Misty Fowler, Contracts Manager, at 550 Newport Center Drive, 7th Floor, Newport Beach, California 92660.

OWNER:

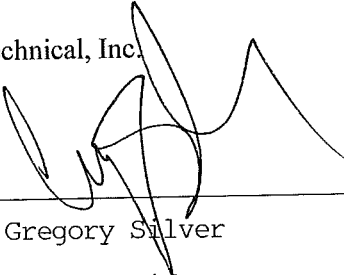
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC
A Delaware Limited Liability Company

By: _____
Misty Fowler
Contracts Manager

PROPOSAL PRICE: The undersigned offers to fully complete the geotechnical observation and testing services for the total stipulation amount indicated in Exhibit 'C' attached hereto. The price stated includes all work and materials to complete the service required by the Project Drawings, Specifications, (included herein and those referenced), other Contract Documents and current governing jurisdictional requirements. By submitting the Proposal Price, the Consultant certifies that all necessary work is included and will be fully completed for such price, unless otherwise stated with the Proposal.

CONSULTANT:

GMU Geotechnical, Inc.

By: _____

Gregory Silver
Title: _____
Vice President

cc: Bid File (1065300)
Bill Martin, Construction Manager

SCOPE OF SERVICES

GEOTECHNICAL OBSERVATION AND TESTING DURING CONSTRUCTION

The purpose of this Scope of Services is to provide the Owner with the required geotechnical observation and testing services associated with the construction of the Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District Capital Improvements Project No. 20736 (Construction Contract No. 1065300) project. All work will be done in accordance with the approved and permitted Plans, the approved soils reports and the Project’s Technical Specifications. All work will be done in complete coordination with Owner’s contractor and therefore will assure Owner that in accordance with current industry standards, all required testing will be provided so that complete construction of the work as called for on the approved plans can be completed.

It should be noted that all project management, field supervision, and contract administration time or compensation associated with completing the work as outlined in this Scope of Services is included in the various tasks and no additional time or compensation will be allowed therefore.

The following task items are provided as a guide to the Consultant and not to be considered as the entire Scope of Services necessary to complete the work. Consultant is responsible for furnishing and performing any and all work, whether listed below or not, which is required or needed to provide a full and complete service.

TASK	DESCRIPTION
1.	TRENCH (EXCAVATION AND BACKFILL) Provide compaction testing and all trench backfill including trench sub-grade certifications.
2.	SUBGRADE <ol style="list-style-type: none">Provide compaction testing and pre-saturation testing of all sub-grades below concrete improvements and asphalt paving as required by the approved Soils Report or governing agency.Provide compaction testing of pavement rock base.
3.	ASPHALT PAVEMENT PLACEMENT OBSERVATION AND TESTING Provide observation and testing during asphalt placement in accordance with governing agency requirements.
4.	LABORATORY WORK This work includes all in-house or other outside laboratory testing required to complete the work.
5.	CERTIFICATIONS/REPORT In accordance with the prevailing governing agency’s grading code, provide all required documentation in order to assure Owner and the governing agency that all grading completed is in substantial compliance with the approved and permitted plans and approved soils report. This work includes all office time associated with comparing field reports with the approved and permitted plans and soils report.

In accordance with the prevailing governing agency’s requirements, provide complete and acceptable certification letters/report including a registered geotechnical engineer’s stamp and

wet signature certifying that all work covered in the letters are indeed in substantial conformance with the approved and permitted plans and soils report.

It should be noted that any additional testing and office time required to redo the certification effort as required due to Contractor's inability to properly meet the minimum compaction requirements correctly the first time is not included in this Scope of Services. Additional field testing and office comparison time associated with certifications of the project site created by the Contractor will be at the Contractor's expense and will be billed directly to the Contractor.

6. MEETINGS AND COORDINATION TIME

Throughout the course of this work, it will be required that the Owner's geotechnical consultant attend pre-grade meetings, construction field meetings, and other coordination meetings to assure Owner that all work being performed is in accordance with the approved plans and the definitions of the Scope of Services. This work includes coordination time and project construction management time as required to assure Owner complete construction of the facilities, etc., as called for on the approved and permitted plans and the approved soils report. It is estimated that the Geotechnical Consultant should allow nine (9) hours for this work effort.

7. NATURALLY – OCCURRING ASBESTOS

Consultant shall advise Owner as to whether any portion of the area to be disturbed is known to contain naturally-occurring asbestos, serpentine or ultra-mafic rock so that Owner may comply with applicable regulations regarding airborne toxic measures. If any such conditions is discovered after the start of grading or construction, the Geotechnical Consultant shall notify Owner thereof immediately.

8. WORKING PLANS AND DOCUMENTS

Owner will provide the Geotechnical Consultant with the necessary copies, bluelines, etc. of all plans/drawings, reports, etc. of all work to be performed.

The Geotechnical Consultant is responsible for providing its own work force with the necessary copies, bluelines, computer plots, etc., for all work to be performed by the Geotechnical Consultant. All expenses incurred by the Geotechnical Consultant for this work effort as outlined in this Scope of Services shall be considered included in the various work items and no additional compensation will be allowed therefore.

9. UNACCEPTABLE TESTS RESULTS

Geotechnical Consultant shall notify Owner and Owner's Contractor upon determination of any area of grading worked or compacted by Owner's grading contractor but as a result of Geotechnical Consultant's observations or testing, if it does not meet minimum specified requirements. Geotechnical Consultant shall follow through with Owner's grading contractor until unacceptable areas have been corrected, retested, and meet minimum specified requirements. In accordance with Owner's requirements, all re-testing provided by the Geotechnical Consultant will be at the expense of Owner's Contractor and will be billed directly to Owner's Contractor.

COST SUMMARY

CONSULTANT: GMU Geotechnical, Inc.

Project: **Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District
Capital Improvement Project No. 20736**

(Construction Contract No. 1065300)

Services: **Geotechnical Observation and Testing During Construction
Task/Potential Contract ID: TBD**

Geotechnical Consultant shall be compensated on a Time and Material (T&M) Not to Exceed (NTE) basis unless otherwise indicated below:

<u>TASK</u>	<u>DESCRIPTION</u>	<u>AMOUNT</u>
1.	Trench (Excavation and Backfill)	\$ 9,800.00
2.	Subgrade	\$ 900.00
3.	Asphalt Pavement Placement Observation & Testing	\$ 1,470.00
4.	Laboratory	\$ 2,520.00
5.	Certifications/Report	(Fixed Fee) \$ 4,000.00
6.	Meetings and Coordination Time	(9 Hours) \$ 1,395.00
TOTAL PROPOSAL (1637-50-0103):		\$ 20,085.00

HOURLY RATES:

The following hourly rates are in effect throughout the length of the construction project:

In the event that additional work is undertaken, that is not covered by the Contract and Owner elects to proceed on a “time and material” or cost plus basis, the rates provided below shall prevail at Owner’s election thereof. Rates shall be provided to include all labor and equipment to complete the Work. The rates shall be billing rates, with no further markups to be added and all equipment shall include fuel, lubrication, operation and all maintenance. No overtime premium will be paid on equipment.

Consultant shall, as part of the proposal consideration, attach or enclose its firm’s billing rate sheet that has been approved by Owner.



23241 Arroyo Vista
Sancho Santa Margarita
CA 92688

voice: 949.888.6513
fax: 949.888.1380
gmugeo.com

Unit Price and Hourly Rates July 1, 2007 – June 30, 2008

PROFESSIONAL SERVICES

Principal Engineer or Geologist	\$ 195.00/hour
Associate Engineer or Geologist	\$ 175.00/hour
Senior Engineer or Geologist	\$ 155.00/hour
Project Engineer or Geologist	\$ 140.00/hour
Staff Engineer or Geologist	\$ 125.00/hour

TECHNICAL SUPPORT SERVICES

Supervising Engineering Technician	\$ 115.00/hour
Engineering Technician	\$ 98.00/hour
Engineering Seismological Technician (includes 3-channel seismograph)	\$ 130.00/hour
Seismic Refraction Studies (includes 2-person staff and 12-channel seismograph)	\$ 375.00/hour
Special Registered Inspector (4 hour minimum)	\$ 88.00/hour
Laboratory Testing	\$ 90.00/hour
Concrete, Grout, or Mortar Compression Test and Report	\$ 60.00/test

SUPPORT SERVICES

Graphic Illustration/CADD	\$ 88.00/hour
Report Preparation	\$ 75.00/hour

OTHER CHARGES

Pneumatic Piezometer Indicator	\$ 60.00/day
Slope Inclinometer Monitoring Equipment	\$ 100.00/day
Mileage	\$ 0.50/mile
Outside Services	Cost + 15%

Executive Vice President
Sr. Vice President Operations
Vice President Community Development

D. Revised Schedule of Unit Price

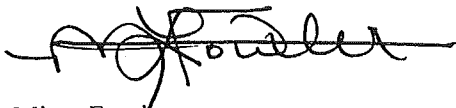
Schedule of Unit Prices, V-4 Pages, is hereby revised to reflect the changes addressed in this Addendum No. 1 and is attached hereto.

All Bidders are directed to discard previously distributed V-4 Pages and complete and submit the attached V-4 Pages dated October 5, 2007, for Bid Consideration.

All other terms and conditions of the Bid Package shall remain unchanged. Please indicate your agreement and acceptance of the foregoing clarification, modification and revisions by signing in the space provided below.

THIS ORIGINAL SIGNED ADDENDUM MUST BE RETURNED TO OWNER AS PART OF THE BID SUBMITTAL.

Sincerely,




Misty Fowler
Contracts Manager

AGREED AND ACCEPTED

CONTRACTOR: GMU GEOTECHNICAL, INC.

Date: October 16, 2007

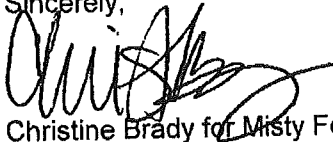
By: 
Gregory Silver
Its: Vice President

Attachments:	▪ "15" Gravity Sewer Main Planning Area 39 (PA 39) IRWD Capital Facilities Improvement Project No. 20736", prepared by Wilson Mikami Corporation, stamped "ADDENDUM 1 – October 5, 2007" , consisting of Sheets 1 of 3 through 3 of 3
	▪ Schedule of Unit Prices, V-4 Pages, dated October 5, 2007

Addendum No. 2
PLANNING AREA 39
15" SANITARY SEWER IMPROVEMENTS,
IRVINE RANCH WATER DISTRICT CAPITAL
IMPROVEMENT PROJECT NO. 20736
Contract No. 1065300
October 9, 2007
Page 3 of 3

THIS ORIGINAL SIGNED ADDENDUM MUST BE RETURNED TO OWNER AS PART OF THE BID SUBMITTAL.

Sincerely,

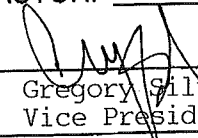


Christine Brady for Misty Fowler
Contracts Administrator

AGREED AND ACCEPTED

CONTRACTOR: GMU GEOTECHNICAL, INC.

Date: October 16, 2007

By: 
Gregory Silver
Its: Vice President

- Attachments:
- Exhibit entitled "Planning Area 39 Sewer Improvement Plans, Line 'A' From Pipe Sta. 10+00.00 to Pipe Sta. 17+54.50, Sheet 3 of 3", stamped "ADDENDUM 2 – October 9, 2007", describing a change to the plan "15" Gravity Sewer Main Planning Area 39 (PA 39) IRWD Capital Facilities Improvement Project No. 20736", prepared by Wilson Mikami Corporation, consisting of Sheet 3 of 3 only.
 - Exhibit entitled "Traffic Control Plan for Pacifica Sewer PA 39, Sheet 2 of 2", stamped "ADDENDUM 2 – October 9, 2007", describing a change to the plan "Traffic Control Plans for PA 39 Pacifica Sewer Project No. 20736", prepared by Wilson Mikami Corporation, consisting of Sheet 2 of 2 only.



IRVINE COMMUNITY DEVELOPMENT COMPANY
An Affiliate of THE IRVINE COMPANY

REQUEST FOR PROPOSAL

October 5, 2007

LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, CA 92614

Attention: Lloyd Sample

Project: **Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District
Capital Improvement Project No. 20736**
(Construction Contract No. 1065300)

Services: **Archaeological/Paleontological Monitoring Services During Construction
Task/Potential Contract ID: TBD**

SCOPE OF REQUEST:

Provide a proposal to perform archaeological/paleontological monitoring services required to complete the construction of the above referenced project.

The proposal shall be based on the following criteria:

The project plans, reports, and specifications as listed:

1. Plans as listed in the Contract Documents attached hereto.
2. Construction Project Bid Package dated September 20, 2007, attached hereto.
3. Soils Reports prepared by GMU Geotechnical, Inc.

The scope of services shall be per Exhibit ‘A’ – Scope of Services attached hereto and shall include preparation and processing of written certifications as required by the governing agencies.

All services shall be prepared in accordance with accepted industry standards.

SUBMITTAL OF PROPOSALS:

This entire Request for Proposal must be submitted along with a fully completed Exhibit ‘C’ – Cost Summary attached hereto.

Proposals will be accepted on or before the hour of 2:00 p.m. on October 16, 2007, and shall be delivered to Misty Fowler, Contracts Manager, at 550 Newport Center Drive, 7th Floor, Newport Beach, California 92660

OWNER:


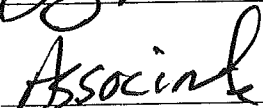
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC
A Delaware Limited Liability Company

By: _____
Misty Fowler
Contracts Manager

PROPOSAL PRICE: The undersigned offers to fully complete the archaeological/paleontological monitoring services for the total stipulation amount indicated in Exhibit 'C' attached hereto. The price stated includes all work and materials to complete the service required by the Project Drawings, Specifications, (included herein and those referenced), other Contract Documents and current governing jurisdictional requirements. By submitting the Proposal Price, the Consultant certifies that all necessary work is included and will be fully completed for such price, unless otherwise stated with the Proposal.

CONSULTANT:

LSA Associates, Inc.

By:  _____
Title:  _____

cc: Bid File (1065300)
Bill Martin, Construction Manager

SCOPE OF SERVICES

ARCHAEOLOGICAL/PALEONTOLOGICAL MONITORING DURING CONSTRUCTION

Consultant shall provide archaeological/paleontological monitoring services during the construction of the Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District Capital Improvements Project No. 20736 (Construction Contract No. 1065300) project. Consultant shall be on-call to provide qualified personnel to evaluate and to salvage any significant archaeological or paleontological resources discovered during construction. Areas to be monitored include previously undisturbed areas or areas where excavation did not extend below trench depth proposed on plans.

Consultant shall provide the following services associated with construction of the Improvements as requested by Owner:

TASK	DESCRIPTION
-------------	--------------------

1. Consultant shall meet with the Agency’s project inspector, and any other concerned parties to review the project excavation and construction plans. The required frequency and duration of monitoring will be established.
2. Consultant shall attend the pre-construction meeting to coordinate Consultant’s responsibilities with the Owner and Owner’s Contractor.
3. Consultant shall attend field meetings called by Owner (if requested)
4. Consultant shall be present and actively monitor the grading and trenching of previously undisturbed land areas and previously disturbed areas in which excavation activities did not extend below the trench depth proposed on these project plans. Grading includes grubbing and clearing. The monitor will be present to observe, identify, record, evaluate, and salvage any archaeological or paleontological resources uncovered by grubbing, grading, or trenching.
5. Excavating or trenching within 50 feet of any archaeological or paleontological resources determined to be significant will be temporarily diverted or halted.
6. Consultant shall determine whether any discovery is an isolate (one or two cultural items) or a site (three or more cultural items or a feature), using shovel probes if necessary. If the discovery is an isolate, its location will be recorded, the material will be collected, and earthmoving can then continue. Thus, in most cases, should require one hour or less.
7. If the discovery is a significant paleontological/archaeological resource, the Owner will be notified and earth moving may be diverted for up to 36 hours while the site is evaluated to determine its boundaries, depth, contents, integrity, and significance. Evaluation and salvage methods may include mapping, collecting of exposed artifacts and features, and limited excavations. A site evaluation may require additional field staff and be handled as an optional service.
8. If the Consultant determines that the resource has the potential to yield data relevant to important issues of historical or scientific significance, appropriate mitigation measures will be proposed, for review and approval by the Agency and Owner. Generally, a hand-excavated sample of the site area using standard archaeological sampling procedures would constitute mitigation of grading impacts through data recovery (salvage). The Consultant will

inform the Owner and the Agency of the estimated time required for such a mitigation program. An archaeological salvage program, which includes a full report on the site resources recovered, will require a contract change order to be negotiated using the Consultants standard fee schedule approved by Owner.

9. If additional cultural materials become exposed by grading within a site area after mitigation of impacts through data recovery has been completed, further salvage efforts will not be required unless the additional materials represents a new type of characteristic not recovered during previous data recovery. Such new resources would consist of artifact classes and features not recognized during previous mitigation. Features may include the remains of structures, hearths, cooking pits, and burials. Even if no additional salvage is required, the newly exposed material would be mapped and collected.
10. Consultant shall coordinate and facilitate the transfer of any collected archaeology or paleontology resources. For any collections to be donated or transferred, the property owners will be responsible for fulfilling any institutional curatorial preparations and service standards.
11. If human remains are encountered, the following procedures in addition to items 6-9 above will be followed. In addition, the County Coroner and the Agency's staff will be notified, as required by law. If it is determined that the remains are Native American, a Most Likely Descendant recognized by the Native American Heritage Commission will be notified and a plan will be formulated for dignified reburial.
12. Consultant will prepare a full report on the archaeological/paleontological monitoring program. Archaeological/Paleontological discoveries will be described and interpreted. Copies of the report will be provided to the Owner and the Agency as required by regulation.

COST SUMMARY

CONSULTANT: LSA Associates, Inc.

Project: **Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District
Capital Improvement Project No. 20736**
(Construction Contract No. 1065300)

Services: **Archaeological/Paleontological Monitoring Services During Construction
Task/Potential Contract ID: TBD**

Consultant shall be compensated on a Time and Material (T&M) Not to Exceed (NTE) basis unless otherwise indicated below:

TASK	DESCRIPTION	AMOUNT
1.	Archaeological/Paleontological Monitoring During Construction	(T & M Hours) \$ <u>680</u>
2.	Final Report	(Fixed Fee) \$ <u>600</u>
TOTAL PROPOSAL (1637-50-0061):		\$ <u>1280</u>

HOURLY RATES:

The following hourly rates are in effect throughout the length of the construction project:

In the event that additional work is undertaken, that is not covered by the Contract and Owner elects to proceed on a “time and material” or cost plus basis, the rates provided below shall prevail at Owner’s election thereof. Rates shall be provided to include all labor and equipment to complete the Work. The rates shall be billing rates, with no further markups to be added and all equipment shall include fuel, lubrication, operation and all maintenance. No overtime premium will be paid on equipment.

Consultant shall, as part of the proposal consideration, attach or enclose its firm’s billing rate sheet that has been approved by Owner.

D. Revised Schedule of Unit Price

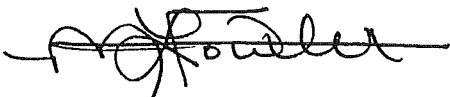
Schedule of Unit Prices, V-4 Pages, is hereby revised to reflect the changes addressed in this Addendum No. 1 and is attached hereto.

All Bidders are directed to discard previously distributed V-4 Pages and complete and submit the attached V-4 Pages dated October 5, 2007, for Bid Consideration.

All other terms and conditions of the Bid Package shall remain unchanged. Please indicate your agreement and acceptance of the foregoing clarification, modification and revisions by signing in the space provided below.

THIS ORIGINAL SIGNED ADDENDUM MUST BE RETURNED TO OWNER AS PART OF THE BID SUBMITTAL.

Sincerely,



Misty Fowler
Contracts Manager

AGREED AND ACCEPTED

CONTRACTOR: LSA Associates Inc

Date: 10/16/07

By: [Signature]

Its: Associate

Attachments:	<ul style="list-style-type: none">▪ "15" Gravity Sewer Main Planning Area 39 (PA 39) IRWD Capital Facilities Improvement Project No. 20736", prepared by Wilson Mikami Corporation, stamped "ADDENDUM 1 – October 5, 2007", consisting of Sheets 1 of 3 through 3 of 3▪ Schedule of Unit Prices, V-4 Pages, dated October 5, 2007
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Addendum No. 2
PLANNING AREA 39
15" SANITARY SEWER IMPROVEMENTS,
IRVINE RANCH WATER DISTRICT CAPITAL
IMPROVEMENT PROJECT NO. 20736
Contract No. 1065300
October 9, 2007
Page 3 of 3

THIS ORIGINAL SIGNED ADDENDUM MUST BE RETURNED TO OWNER AS PART OF THE BID SUBMITTAL.

Sincerely,

Christine Brady for Misty Fowler
Contracts Administrator

AGREED AND ACCEPTED

CONTRACTOR: LSA Associates Inc.

Date: 10/16/07

By: [Signature]

Its: Associate

- Attachments:
- Exhibit entitled "Planning Area 39 Sewer Improvement Plans, Line 'A' From Pipe Sta. 10+00.00 to Pipe Sta. 17+54.50, Sheet 3 of 3", stamped "ADDENDUM 2 – October 9, 2007", describing a change to the plan "15" Gravity Sewer Main Planning Area 39 (PA 39) IRWD Capital Facilities Improvement Project No. 20736", prepared by Wilson Mikami Corporation, consisting of Sheet 3 of 3 only.
 - Exhibit entitled "Traffic Control Plan for Pacifica Sewer PA 39, Sheet 2 of 2", stamped "ADDENDUM 2 – October 9, 2007", describing a change to the plan "Traffic Control Plans for PA 39 Pacifica Sewer Project No. 20736", prepared by Wilson Mikami Corporation, consisting of Sheet 2 of 2 only.

October 16, 2007

Ms. Misty Fowler
Senior Contract Administrator
Irvine Community Development Company LLC
550 Newport Center Drive, 7th Floor
Newport Beach, CA 92666

Subject: Proposal for Archaeological and Paleontological Mitigation Monitoring for Planning Area 39, 15" Sanitary Sewer Improvements, Irvine Ranch Water District Capital Improvements Project No. 20736, City of Irvine, Orange County California

Dear Ms. Fowler:

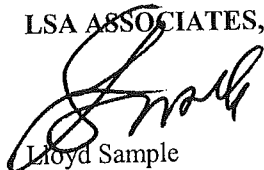
LSA Associates, Inc. (LSA) is pleased to submit this time-and-materials scope and budget to provide Archaeological and Paleontological monitoring for Planning Area 39, 15" Sanitary Sewer Improvements, Irvine Ranch Water District Capital Improvements Project No. 20736, City of Irvine, Orange County California. LSA will complete the project as described in the attached scope of work. This scope of work is based on the assumption that one cross trained archaeological/paleontological monitor will be required during excavation of previously undisturbed land areas. The LSA Field Director will attend up to 1 hour of meetings requested by ICDC. Additional meetings will be attended at the request of the owner; in this event, a budget adjustment may be necessary. It has been documented that the project area is adjacent to sensitive paleontological and archaeological resources. It is unknown, however, whether similar resources may be encountered during excavation within the project footprint. For the purposes of this SOW, only monitoring and negative results reports discussing the results of monitoring findings are budgeted for.

LSA will assign field personnel who have direct monitoring experience in the vicinity of the project area. If unmapped/untreated historic, prehistoric, or paleontological resources are encountered during ground-disturbing activities, monitoring levels will need to be assessed; new resources will need treatment, which will likely require a budget adjustment.

LSA is prepared to commence work on this project upon your authorization. If you have any questions or comments, please contact me at (949) 553-1566, extension 313. LSA looks forward to working with you on this project.

Sincerely,

LSA ASSOCIATES, INC.



Lloyd Sample
Associate, Senior Field Director
Archaeology/Paleontology Group

SCOPE OF WORK

Task 1: Excavation Monitoring

The LSA Field Director will attend the pregrade/preconstruction meetings and other meetings as requested by the owner (up to 1 hour). Further meeting requests may require an adjustment to the budget. LSA will provide one archaeological /paleontological monitor during ground-disturbing activities in native sediments (when excavation schedules warrant). If historic, prehistoric, or paleontological resources are encountered during ground-disturbing activities, LSA's level of involvement may need to be elevated, increased tasks will require a budget adjustment.

Task 2: Report of Findings

LSA will prepare two stand-alone reports of findings, one for archaeology and the other for paleontology, per the City's Standard Conditions of Approval. The reports will be a minimal effort with minimum documentation of the prehistory of the area and will focus on discussing the results of the records search/previous reports and current monitoring. If resources are discovered during monitoring, necessitating a positive report, further work will be required to complete a more comprehensive report. This proposal is based on negative findings.

BUDGET

The following Budget estimate summarizes each task. If excavation schedules are substantially altered or resources are encountered a budget adjustment may be necessary to address additional tasks. This proposal is based on negative findings.

Budget Estimate

Task 1: Monitoring (T&M, Not to Exceed, 8 hours R/T)	\$560
Meetings (Field director - 1 Hours)	\$120
Task 2: Negative Letter of Findings (Fixed Fee)	\$600
TOTAL ESTIMATED MASS GRADING COSTS	\$1,280

Unit Price and Hourly Rates
July 1, 2007 - June 30, 2008

LSA Associates, Inc.

Job Classification							Hourly Rate Range*
Planning	Principal	Principal	Principal	Principal	Principal	Principal	\$160-235
	Associate	Associate	Associate	Associate	Associate	Associate	\$110-170
Senior Planner	Principal	Senior Environmental Planner	Senior Transportation Planner/Engineer	Senior Air Quality/Noise Specialist	Senior Cultural Resources Manager	Senior Biologist/ Botanist/ Wildlife Biologists/ Ecologist/ Soil Scientist/ Herpetologist / Arborist	\$ 90-160
	Associate	Associate	Associate	Associate	Associate	Associate	
Planner	Principal	Environmental Planner	Transportation Planner/Engineer	Air Quality/ Noise Specialist	Cultural Resources Manager	Biologist/ Botanist/ Wildlife Biologist / Ecologist/ Soil Scientist / Herpetologist /	\$ 70-110
	Associate	Associate	Associate	Associate	Associate	Associate	
Assistant Planner	Principal	Assistant Environmental Planner	Assistant Transportation Planner/Engineer	Air Quality/ Noise Analyst	Cultural Resources Analyst	Assistant Biologist/ Botanist/ Wildlife Biologist/ Ecologist/ Soil Scientist/ Herpetologist / Arborist	\$ 60-100
	Associate	Associate	Associate	Associate	Associate	Associate	
Field Services							
Field Director							\$ 75-90
Senior Field Crew/Field Crew							\$ 40-90
Office Services							
Research Assistant/Technician							\$ 30-50
Graphics							\$ 70-100
Office Assistant							\$ 45-80
Word Processing/Technical Editing							70-80

[Signature]
Executive Vice President

[Signature]
Sr. Vice President Operations

[Signature]
Vice President Community Development



IRVINE COMMUNITY DEVELOPMENT COMPANY
An Affiliate of THE IRVINE COMPANY

REQUEST FOR PROPOSAL

Harmsworth Associates
19 Golf Ridge Drive
Dove Canyon, CA 92679

October 5, 2007

Attention: Paul Galvin

Project: **Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District
Capital Improvement Project No. 20736**

(Construction Contract No. 1065300)

Services: **Biological/Botanical Monitoring Services During Construction
Task/Potential Contract ID: TBD**

SCOPE OF REQUEST:

Provide a proposal to perform biological/botanical monitoring services required to complete the construction of the above referenced project.

The proposal shall be based on the following criteria:

The project plans, reports, and specifications as listed:

1. Plans as listed in the Contract Documents attached hereto.
2. Construction Project Bid Package dated September 20, 2007, attached hereto.
3. Soils Reports prepared by GMU Geotechnical, Inc.

The scope of services shall be per Exhibit ‘A’ – Scope of Services attached hereto and shall include preparation and processing of written certifications as required by the governing agencies.

All services shall be prepared in accordance with accepted industry standards.

SUBMITTAL OF PROPOSALS:

This entire Request for Proposal must be submitted along with a fully completed Exhibit ‘C’ – Cost Summary attached hereto.

Proposals will be accepted on or before the hour of 2:00 p.m. on October 16, 2007, and shall be delivered to Misty Fowler, Contracts Manager, at 550 Newport Center Drive, 7th Floor, Newport Beach, California 92660.

OWNER:

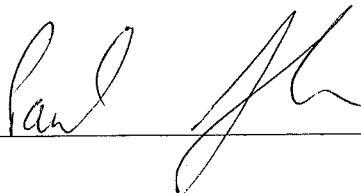
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC
A Delaware Limited Liability Company

By: _____
Misty Fowler
Contracts Manager

PROPOSAL PRICE: The undersigned offers to fully complete the biological/botanical monitoring services for the total stipulation amount indicated in Exhibit 'C' attached hereto. The price stated includes all work and materials to complete the service required by the Project Drawings, Specifications, (included herein and those referenced), other Contract Documents and current governing jurisdictional requirements. By submitting the Proposal Price, the Consultant certifies that all necessary work is included and will be fully completed for such price, unless otherwise stated with the Proposal.

CONSULTANT:

Harmsworth Associates

By: _____


Title: Vice Prersident

cc: Bid File (1065300)
Mike Rodebaugh, Construction Manager

D. Revised Schedule of Unit Price

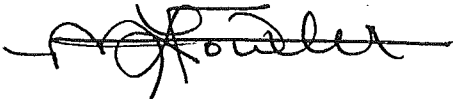
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All other terms and conditions of the Bid Package shall remain unchanged. Please indicate your agreement and acceptance of the foregoing clarification, modification and revisions by signing in the space provided below.

THIS ORIGINAL SIGNED ADDENDUM MUST BE RETURNED TO OWNER AS PART OF THE BID SUBMITTAL.

Sincerely,



Misty Fowler
Contracts Manager

AGREED AND ACCEPTED

CONTRACTOR Hamsworthy Associates

Date: 10/16/07

By: Paul [Signature]

Its: Vice President

Attachments:	<ul style="list-style-type: none">▪ "15" Gravity Sewer Main Planning Area 39 (PA 39) IRWD Capital Facilities Improvement Project No. 20736", prepared by Wilson Mikami Corporation, stamped "ADDENDUM 1 – October 5, 2007", consisting of Sheets 1 of 3 through 3 of 3▪ Schedule of Unit Prices, V-4 Pages, dated October 5, 2007
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Addendum No. 2
PLANNING AREA 39
15" SANITARY SEWER IMPROVEMENTS,
IRVINE RANCH WATER DISTRICT CAPITAL
IMPROVEMENT PROJECT NO. 20736
Contract No. 1065300
October 9, 2007
Page 3 of 3

THIS ORIGINAL SIGNED ADDENDUM MUST BE RETURNED TO OWNER AS PART OF THE BID SUBMITTAL.

Sincerely,



Christine Brady for Misty Fowler
Contracts Administrator

AGREED AND ACCEPTED

CONTRACTOR: Haamsyorn Associates

Date: 10/16/07

By: Paul Jol

Its: Vice President

- Attachments:
- Exhibit entitled "Planning Area 39 Sewer Improvement Plans, Line 'A' From Pipe Sta. 10+00.00 to Pipe Sta. 17+54.50, Sheet 3 of 3", stamped "ADDENDUM 2 – October 9, 2007", describing a change to the plan "15" Gravity Sewer Main Planning Area 39 (PA 39) IRWD Capital Facilities Improvement Project No. 20736", prepared by Wilson Mikami Corporation, consisting of Sheet 3 of 3 only.
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SCOPE OF SERVICES

BIOLOGICAL/BOTANICAL MONITORING DURING CONSTRUCTION

Consultant shall provide biological/botanical monitoring services during the construction of the Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District Capital Improvements Project No. 20736 (Construction Contract No. 1065300) project. Consultant shall be on-call during construction. All work will be done in accordance with the approved and permitted Plans and the projects Technical Specifications.

Consultant shall provide the following services associated with construction of the Improvements as requested by Owner:

TASK	DESCRIPTION
A.	MEETINGS Attend pre-construction meeting called by Owner.
B.	LETTER Consultant shall provide a letter of certification to Owner upon completion of the project indicating that the project has been completed in substantial compliance with all applicable governmental agencies requirements.

COST SUMMARY

CONSULTANT: Harmsworth Associates

Project: **Planning Area 39 – 15” Sanitary Sewer Improvements, Irvine Ranch Water District
Capital Improvement Project No. 20736**
(Construction Contract No. 1065300)

Services: **Biological/Botanical Monitoring Services During Construction
Task/Potential Contract ID: TBD**

Consultant shall be compensated on a Time and Material (T&M) Not to Exceed (NTE) basis unless otherwise indicated below:

TASK	DESCRIPTION	AMOUNT
1.	Pre-Construction Meeting	1 Hours (T&M NTE) <u>\$78</u>
2.	Letter (Upon Completion of Project)	(Fixed Fee) <u>\$178</u>
TOTAL PROPOSAL (1637-50-0390):		<u>\$256</u>

HOURLY RATES:

The following hourly rates are in effect throughout the length of the construction project:

In the event that additional work is undertaken, that is not covered by the Contract and Owner elects to proceed on a “time and material” or cost plus basis, the rates provided below shall prevail at Owner’s election thereof. Rates shall be provided to include all labor and equipment to complete the Work. The rates shall be billing rates, with no further markups to be added and all equipment shall include fuel, lubrication, operation and all maintenance. No overtime premium will be paid on equipment.

Consultant shall, as part of the proposal consideration, attach or enclose its firm’s billing rate sheet that has been approved by Owner.

HARMSWORTH ASSOCIATES
Environmental Consultants

CONSULTING FEE SCHEDULE
JULY 1, 2006 TO JUNE 30, 2007

Labor Category	Hourly Rates
Principal	\$ 140.00
Vice-principal	\$ 100.00
Sr. Biologist	\$ 78.00
Project Biologist	\$ 68.00
Assistant Biologist	\$ 58.00

SCHEDULE OF UNIT PRICES

**PLANNING AREA 39 - 15" SANITARY SEWER IMPROVEMENTS
IRVINE RANCH WATER DISTRICT CAPITAL IMPROVEMENTS PROJECT 20736**

KEC ENGINEERING

CONTRACT NO. 1065300 [TASK ID: _____]

CODING ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
1637-50 I.	<u>IRWD CAPITAL IMPROVEMENTS - PROJECT NO. 20736</u>				
1311	A. <u>GENERAL</u>				
	1 MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT PRICE FOR SECTIONS A-B)	1	LS	25,000.00	25,000.00
	2 DEVELOP CONSTRUCTION WATER (SECTIONS A-B)	1	LS	13,818.00	13,818.00
	3 TRAFFIC CONTROL (SECTIONS A-B)	1	LS	16,000.00	16,000.00
	4 FURNISH AND INSTALL TEMPORARY CONSTRUCTION FENCING	1	LS	3,500.00	3,500.00
	5 TRAFFIC DIRECTION SIGNAGE	1	LS	14,000.00	14,000.00
	SUBTOTAL - GENERAL:				<u>72,318.00</u>
1311	B. <u>SEWER</u>				
	6 INSTALL 15-INCH PVC SDR-35 SEWER MAIN	20	LF	313.00	6,260.00
	7 CONSTRUCT 72-INCH DIA. MANHOLE WITH T-LOCK PVC LINER OR RAVEN COATING PER IRWD STANDARDS	1	EA	32,000.00	32,000.00
	8 CONSTRUCT 60-INCH DIA. MANHOLE WITH T-LOCK PVC LINER OR RAVEN COATING PER IRWD STANDARDS	1	EA	15,000.00	15,000.00
	9 JACK 15-INCH PVC IN 27-INCH STEEL CASING	440	LF	1,260.00	554,400.00
	10 JACK 15-INCH PVC IN 24-INCH STEEL CASING	280	LF	1,710.00	478,800.00
	11 INSTALL 15-INCH PLUG	1	EA	410.00	410.00
	12 CORE DRILL EXISTING MANHOLE AND CONNECT PROPOSED 15-INCH PVC SEWER INCLUDING T-LOCK OR RAVEN COATING RECONSTRUCTION PER IRWD STANDARDS	1	EA	18,000.00	18,000.00
	13 REMOVE AND RECONSTRUCT PAVEMENT AT THE INTERSECTION OF PACIFICA AND MERIDIAN	16,100	SF	5.00	80,500.00
	14 CONSTRUCT PAVEMENT MARKINGS AND STRIPING REMOVED DURING CONSTRUCTION	1	LS	5,000.00	5,000.00
	15 REMOVE AND REPLACE DETECTOR LOOPS FOR THE ENTIRE INTERSECTION PER COI STANDARDS	1	LS	10,000.00	10,000.00
	16 INSTALL CATHODIC TEST STATION INCLUDING SCHEDULE 80 PVC CONDUIT PER IRWD STANDARDS	4	EA	6,000.00	24,000.00
	SUBTOTAL - SEWER:				<u>1,224,370.00</u>
2501	C. <u>PAYMENT AND PERFORMANCE BONDS</u>				
	17 PAYMENT AND PERFORMANCE BONDS (SECTIONS A & B)	1	LF	15,000.00	15,000.00
	SUBTOTAL - BONDS:				<u>15,000.00</u>
	TOTAL BID AMOUNTS:				<u><u>1,311,688.00</u></u>



EXHIBIT "D"

Irvine Ranch Water District Expenditure Authorization

Project Name: PA39 15" SEWER (UNDER I405 TO PA33)
Project No: 20736 EA No: 1
Project Manager: CORTEZ, MALCOLM
Project Engineer: POPESCU, LUMINITA
Request Date: November 19, 2007

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
230	100.0	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$1,599,200
Total EA Requests:	\$1,599,200
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$1,599,200
Updated Budget:	\$1,599,200
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	5,000	0	5,000	5,000	0	5,000	5/07	11/07
ENGINEERING DESIGN - OUTSIDE	82,000	0	82,000	82,000	0	82,000	5/07	11/07
DESIGN STAFF FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	5/07	11/07
ENGINEERING - CA&I IRWD	20,000	0	20,000	20,000	0	20,000	12/07	7/08
ENGINEERING - CA&I OUTSIDE	60,000	0	60,000	60,000	0	60,000	12/07	7/08
CONSTRUCTION FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	12/07	7/08
CONSTRUCTION	1,350,000	0	1,350,000	1,350,000	0	1,350,000	12/07	7/08
LEGAL	2,000	0	2,000	2,000	0	2,000	5/07	7/08
Contingency - 5.00% Subtotal	\$76,200	\$0	\$76,200	\$76,200	\$0	\$76,200		
Subtotal (Direct Costs)	\$1,599,200	\$0	\$1,599,200	\$1,599,200	\$0	\$1,599,200		
Estimated G/A - 175.00% of direct labor*	\$50,800	\$0	\$50,800	\$50,800	\$0	\$50,800		
Total	\$1,650,000	\$0	\$1,650,000	\$1,650,000	\$0	\$1,650,000		
*Direct Labor	\$29,000	\$0	\$29,000	\$29,000	\$0	\$29,000		

EA Originator:

M. Cortez J. STANEART 11/20/07

Department Director:

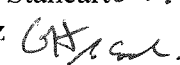
Finance:


Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$1,683,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.

December 17, 2007

Prepared by:  W. M. Cortez/J. Staneart J.S.

Submitted by: G. P. Heiertz 

Approved by: Paul Jones 

ACTION CALENDAR

PLANNING AREA 40 CAPITAL IMPROVEMENTS - APPROVAL OF PROJECTS ADDITION TO THE FY 2007-08 CAPITAL BUDGET, EXPENDITURE AUTHORIZATIONS, AND SUPPLEMENTAL REIMBURSEMENT AGREEMENT

SUMMARY:

Staff requests that the Board:

- Authorize the addition of Project 10419 for \$859,100, Project 20419 for \$226,900, and Project 30419 for \$204,600 to the FY 2007-08 Capital Budget;
- Approve Expenditure Authorizations in the amount of \$108,900 for Project 10419, \$226,900 for Project 20419, and \$204,600 for Project 30419; and
- Authorize the General Manager to execute a Supplemental Reimbursement Agreement with Irvine Community Development Company (ICDC) for the design and construction of capital facilities for Planning Area (PA) 40.

BACKGROUND:

PA 40, formerly known as Spectrum 8, is located in the City of Irvine. It is generally bound by Trabuco Road to the north, Sand Canyon Avenue to the east, the Santa Ana Freeway Interstate 5 to the south, and Jeffrey Road to the west. ICDC is proceeding with the installation of utilities required to serve the school site and fire station. The school will be located at the southeast corner of the street intersection of Trabuco and Jeffrey Road with the fire station located along Trabuco Road, east of the Laguna Canyon Freeway (SR-133). The capital facilities required to serve PA 40 are documented in the PA 40 Preliminary Sub-area Master Plan dated March 2007 and prepared by Stantec. The domestic water, sewer, and reclaimed water system maps are shown in Exhibit "A". ICDC has retained Stantec for the design of these pipelines. Construction of these facilities will be performed by All-American Construction under a Supplemental Reimbursement Agreement with Irvine Ranch Water District and ICDC, as shown in Exhibit "B". A summary of the design and construction phase services costs and supporting documentation are shown in Exhibit "C".

FISCAL IMPACTS:

The addition of Projects 10419, 20419, and 30419 to the FY 2007-08 Capital Budget are required as well as Expenditure Authorizations to fund the design and construction of the facilities. The Expenditure Authorizations are shown in Exhibit "D". The fiscal information is shown as follows:

Action Calendar: Planning Area 40 Capital Improvements – Approval of Projects Addition to the FY 2007-08 Capital Budget, Expenditure Authorizations, and Supplemental Reimbursement Agreement

December 17, 2007

Page 2

Project No.	Current Budget	Addition <Reduction>	Total Budget	Existing EA	This EA Request	Total EA Request
10419	\$0	\$ 859,100	\$ 859,100	\$0	\$108,900	\$108,900
20419	\$0	\$ 226,900	\$ 226,900	\$0	\$226,900	\$226,900
30419	\$0	\$ 204,600	\$ 204,600	\$0	\$204,600	\$204,600
TOTAL	\$0	\$ 1,290,600	\$1,290,600	\$0	\$540,400	\$540,400

ENVIRONMENTAL COMPLIANCE:

The reimbursement agreement is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3) in that CEQA applies only to projects which have the potential for causing a significant effect on the environment.

The execution of the agreement would allow for the construction of the capital sewer facility for Planning Area 40. This project is subject to CEQA and is in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7. An Environmental Impact Report was certified by the City of Irvine, the lead agency for this project. A Notice of Determination was filed with the Office of Planning and Research, SCH 2000071014, on May 15, 2003.

COMMITTEE STATUS:

This item was reviewed at the Engineering and Operations Committee meeting on December 11, 2007.

RECOMMENDATION:

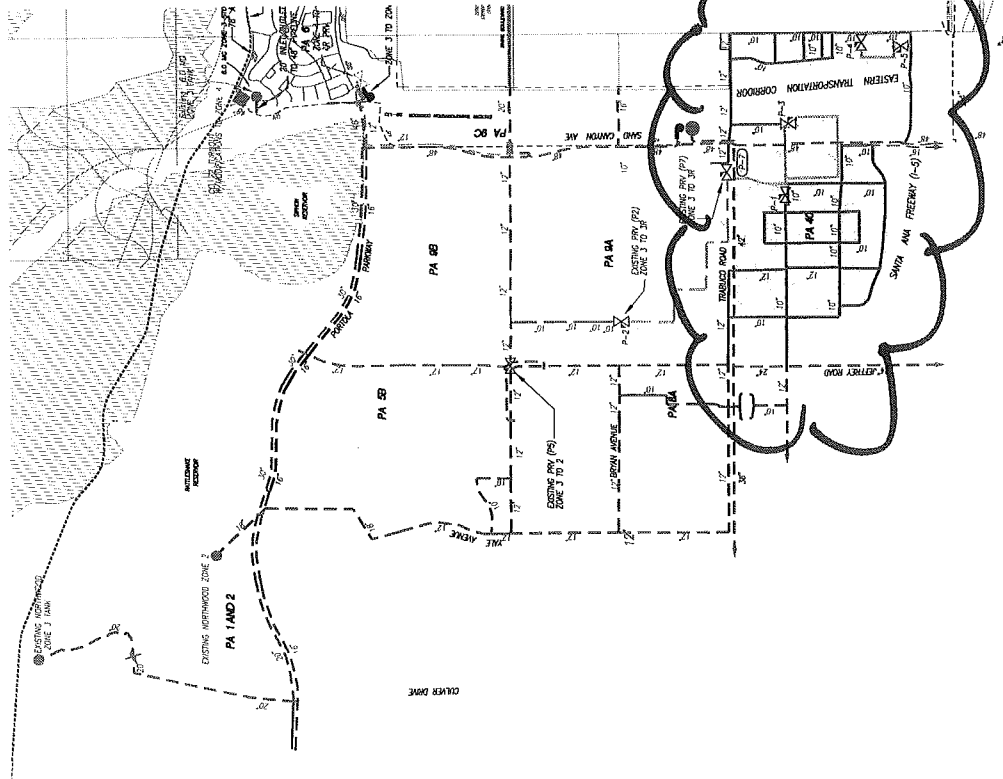
THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 10419 FOR \$859,100, PROJECT 20419 FOR \$226,900, AND PROJECT 30419 FOR \$204,600 TO THE FY 2007-08 CAPITAL BUDGET; APPROVE EXPENDITURE AUTHORIZATIONS IN THE AMOUNT OF \$108,900 FOR PROJECT 10419, \$226,900 FOR PROJECT 20419, AND \$204,600 FOR PROJECT 30419; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SUPPLEMENTAL REIMBURSEMENT AGREEMENT WITH THE IRVINE COMMUNITY DEVELOPMENT COMPANY FOR THE DESIGN AND CONSTRUCTION OF THE IRVINE RANCH WATER DISTRICT FACILITIES FOR PLANNING AREA 40.

LIST OF EXHIBITS:

- Exhibit "A" – Capital Domestic Water, Sewer, and Reclaimed Water System Maps
- Exhibit "B" – Supplemental Reimbursement Agreement
- Exhibit "C" – Design and Construction Phase Services Costs
- Exhibit "D" – Expenditure Authorizations

EXHIBIT "A"

SCALE: 1" = 2200'



LEGEND

- PROPOSED ZONE 2 (355 HGL) PIPELINES
- PROPOSED ZONE 3R (380 HGL) PIPELINES
- PROPOSED ZONE 3 (470 HGL) PIPELINES
- EXISTING ZONE 1 PIPELINES
- EXISTING ZONE 2 PIPELINES
- EXISTING ZONE 3 PIPELINES
- EXISTING ZONE 3 PIPELINE TO BE CONVERTED TO THE NON-POTABLE WATER SYSTEM
- ZONE 1 TO 2 CONVERSION PIPELINE
- NCCP NATURE RESERVE
- PRESSURE REDUCING STATION
- STORAGE TANK
- BOOSTER PUMP STATION
- PRIMARY FEED

ZONE	PAD ELEVATION BELOW WHICH INDIVIDUAL PRV REQUIRED
2	170
3R	195
3	285

PA 40

FIGURE 2-3
(09/07/2007 Update)

PLANNING AREA 40
DOMESTIC WATER SYSTEM FACILITIES



STANTEC CONSULTING INC.
19 TECHNOLOGY DRIVE
IRVINE, CA 92618
949.923.6277



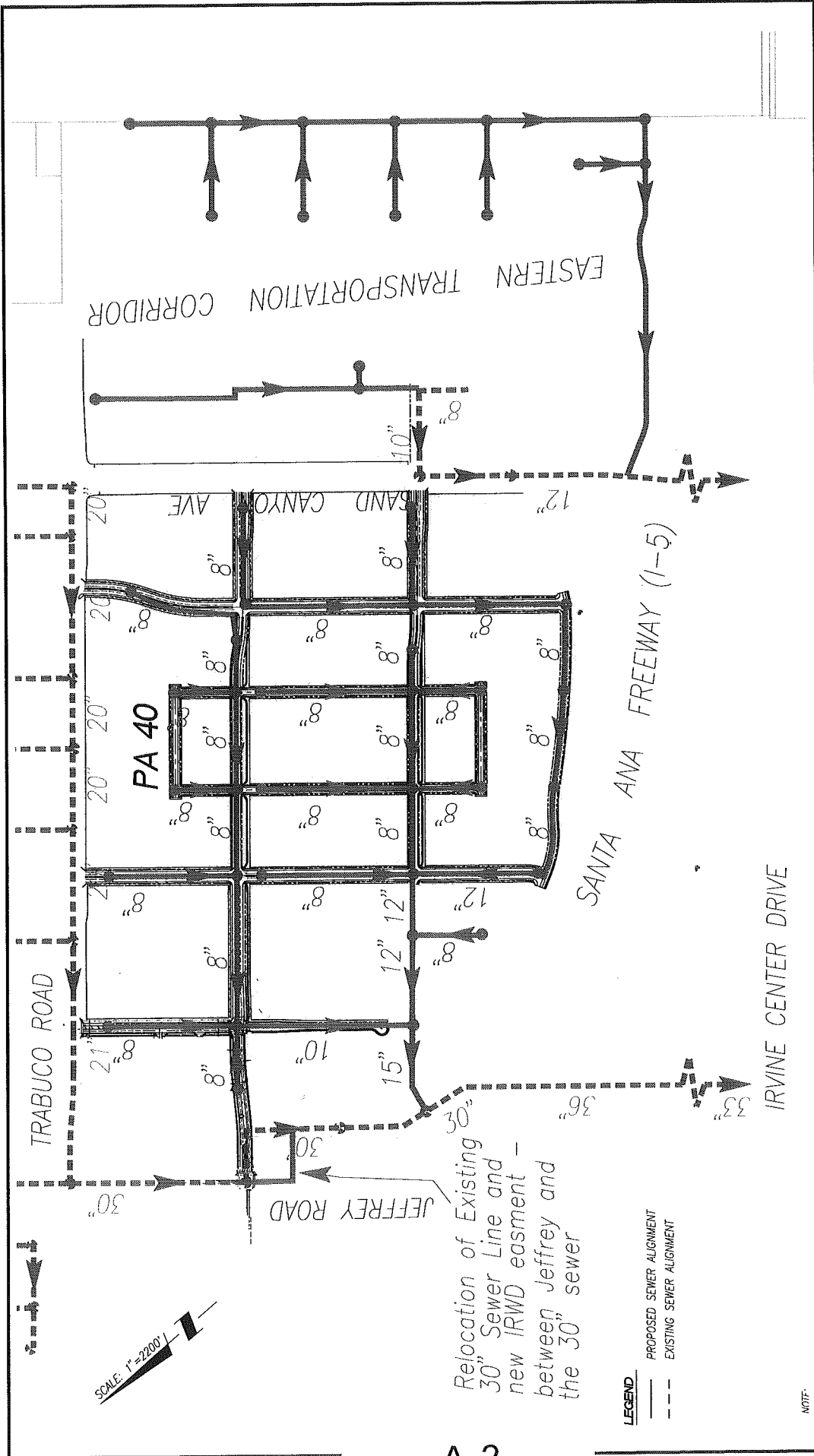


FIGURE 3-1
(08/10/2007 Update)

**PLANNING AREA 40
SEWER COLLECTION SYSTEM FACILITIES**

PREPARED FOR:
THE IRVINE COMPANY

STANTEC CONSULTING INC.
19 TECHNOLOGY DRIVE
IRVINE, CA 92618
949.923.6277

Stantec

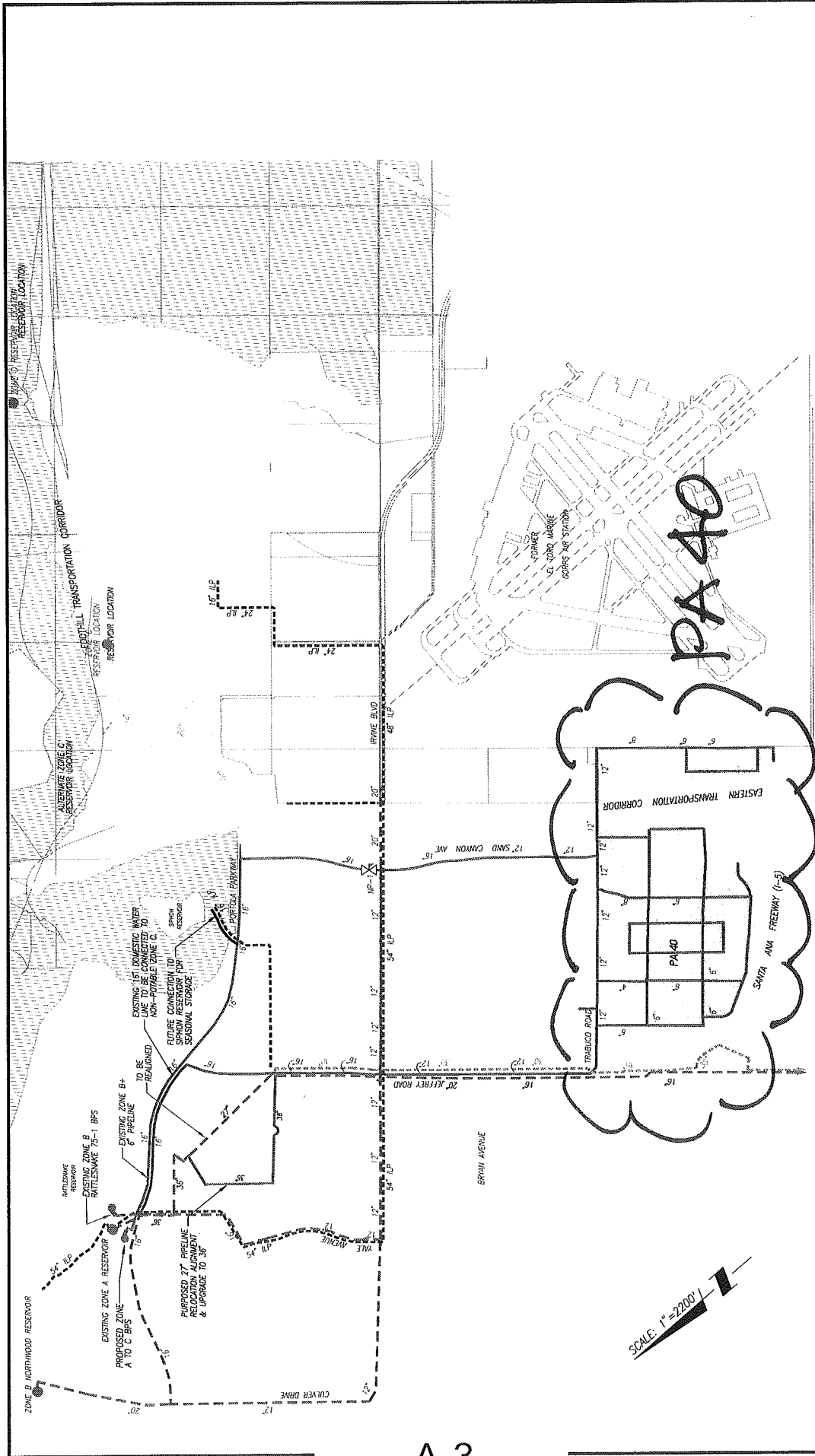


FIGURE 4-3
(09/07/2007 Update)

PLANNING AREA 40
NON-POTABLE WATER SYSTEM FACILITIES

THE IRVINE COMPANY

STANTEC CONSULTING INC.
19 TECHNOLOGY DRIVE
IRVINE, CA 92618
949.923.6277



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EXHIBIT "B"

Exhibit "A"
to
Reimbursement Agreement

SUPPLEMENTAL REIMBURSEMENT AGREEMENT

BY AND BETWEEN

IRVINE RANCH WATER DISTRICT

AND

IRVINE COMMUNITY DEVELOPMENT COMPANY

This SUPPLEMENTAL REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of this ____ day of _____, 20__, by and between Irvine Ranch Water District, a California water district formed and existing pursuant to the California Water District Law of the state of California ("IRWD"), and Irvine Community Development Company LLC, a Delaware limited liability company ("ICDC"). All capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Reimbursement Agreement.

WHEREAS, IRWD and ICDC's predecessor in interest, Irvine Community Development Company, a Delaware corporation, have previously entered into that certain Reimbursement Agreement dated May 21, 1997 ("Reimbursement Agreement") respecting construction of Capital Facilities; and

WHEREAS, said Reimbursement Agreement made reference to the fact that certain supplemental agreements would be entered into by the parties regarding construction of Capital Facilities and reimbursement therefor consistent with the provisions of said Reimbursement Agreement; and

WHEREAS, the parties now wish to enter this Agreement regarding the construction of Capital Facilities described below, subject to all of the terms of the Reimbursement Agreement, except as provided herein.

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants hereinafter set forth, do agree as follows:

1. Except as provided herein, the parties hereby incorporate by reference all of the terms and conditions of the Reimbursement Agreement into this Agreement.

2. The name of the Project to which this Agreement pertains is:
PA40 Capital Facilities for School Site and Fire Station, Projects 10419, 20419, and 30419.

The Project is depicted on Exhibit 1 attached to this Agreement.

3. The Capital Facilities to be constructed pursuant to this Agreement are as follows:
[describe type, diameter, approximate linear footage, etc; include any detailed drawing as Exhibit 3
if needed]

Capital domestic water, sewer, and reclaimed water facilities serving PA40.

The Capital Facilities do / do not [check appropriate box] include any facilities that are a part of the Michelson/ Los Alisos Reclamation Plants Upgrades and Distribution System Expansion Project identified in the Agreement No. 61719 2003 LRP Local Resources Program Agreement, entered into as of June 13, 2005, by and between IRWD and the Metropolitan Water District of Southern California (the "MWD Local Project").

4. The total costs for the Capital Facilities shall include, but not be limited to, the actual costs for construction, surveying, compaction testing, permits, construction bonds, legal fees and an administration fee equal to one percent (1%) of the actual cost of construction (all such actual costs are collectively referred to as the "Costs"). The estimated amount of the Costs is \$285,000.

5. The following special terms apply to the construction of the Capital Facilities under this Agreement and supersede the provisions of the original Reimbursement Agreement referenced above: [if none, state "None."] None.

6. In accordance with Section 10 of the Reimbursement Agreement, ICDC is executing concurrently herewith an Assignment Agreement in the form of Exhibit 2, to be effective upon the Effective Date specified in the Assignment Agreement.

7. If the box in Section 3 above has been checked to indicate that any of the Capital Facilities are a part of the MWD Local Project, then ICDC shall include the following language in its agreements with any consultant or contractor retained by ICDC to work on the Capital Facilities:

"[Contractor / Consultant] agrees at its sole cost and expense to protect, indemnify, defend, and hold harmless Metropolitan Water District of Southern California, Municipal Water District of Orange County, and each of their respective Boards of Directors, officers, representatives, agents and employees from and against any and all claims and liability of any kind (including, but not limited to, any claims or liability for injury or death to any person, damage to property, natural resources or the environment, or water quality problems) that arise out of or relate to any act or omission of [Contractor / Consultant] in the performance of this agreement. Such indemnity shall include all damages and losses related to any claim made, whether or not a court action is filed, and

shall include attorney fees, administrative and overhead costs, engineering and consulting fees and all other costs related to or arising out of such claim of liability.”

IN WITNESS WHEREOF, the parties have entered this Agreement as of the date set forth above.

IRVINE RANCH WATER DISTRICT

IRVINE COMMUNITY DEVELOPMENT
COMPANY LLC

By: _____
General Manager

By: _____
Title: James J. Lorman, Jr.
Senior Vice President
Land Development & Construction

By: _____
Title: Brigid D. McMahon
Assistant Secretary

Exhibits to Supplemental Reimbursement Agreement:

Exhibit 1 - Depiction of Project

Exhibit 2 - Assignment Agreement

Exhibit 3 - Description of Capital Facilities (as needed)

Exhibit "1"
to
Supplemental Reimbursement Agreement

[Insert map, showing Project's location and approximate limits]

Exhibit "2"
to
Supplemental Reimbursement Agreement

Assignment Agreement

This ASSIGNMENT AGREEMENT is made as of _____, 20____, by and between IRVINE COMMUNITY DEVELOPMENT COMPANY LLC, a Delaware limited liability company, successor in interest to IRVINE COMMUNITY DEVELOPMENT COMPANY, a Delaware corporation (IRVINE COMMUNITY DEVELOPMENT COMPANY LLC and IRVINE COMMUNITY DEVELOPMENT COMPANY are collectively referred to as "Assignor"), to IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California ("Assignee") based upon the following recitals:

A. Assignor has previously (or will, prior to the Effective Date hereof, have) entered into that certain Construction Contract relating to the Project and Capital Facilities identified in Schedule A hereto (the "Construction Contract").

B. Assignee desires to acquire (I) Assignor's right, title and interest in and to the Capital Facilities constructed under the Construction Contract, and (II) the warranty rights of Assignor as to the Capital Facilities under the Construction Contract, and Assignor desires to assign such rights to Assignee.

NOW, THEREFORE, in consideration of the foregoing, the covenants and agreements contained herein and other valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. ASSIGNMENT. Effective upon the date specified in Section 2 hereof (the "Effective Date"), Assignor assigns and transfers to Assignee all of Assignor's right, title, claim and interest in and to (a) the Capital Facilities constructed pursuant to the Construction Contract, and (b) the warranties and guarantees of contractor as to the Capital Facilities constructed pursuant to the Construction Contract. This Assignment is made by Assignor pursuant to the provisions of Section 10, entitled "Assignment of Interest", contained in that certain Reimbursement Agreement between Assignor and Assignee dated as of May 21, 1997.

2. EFFECTIVE DATE. The Effective Date shall be the date of the filing of the Notice of Completion for the Construction Contract unless a different date is inserted in the following space: _____.

3. TRANSFER OF DOCUMENTATION. On or prior to the Effective Date, Assignor shall provide Assignee with a copy of the Construction Contract.

IN WITNESS WHEREOF, Assignor has executed this Assignment Agreement as of the date first above written.

ASSIGNOR:

Irvine Community Development Company LLC
a Delaware limited liability company

By: _____

Title: _____

By: _____

Title: _____

Schedule A
to
Assignment Agreement

This Schedule A to Assignment Agreement relates to the assignment of certain matters pursuant to the Supplemental Reimbursement Agreement between Assignor and Assignee dated _____ (“Supplemental Reimbursement Agreement”).

Agreement: Insert name of Project from Section 2 of Supplemental Reimbursement Agreement: PA40 Capital Facilities for School Site and Fire Station, Projects 10419, 20419, and 30419.

Insert description of Capital Facilities from Section 3 of Supplemental Reimbursement Agreement: Capital domestic water, sewer, and reclaimed water facilities serving PA40.

Contractor's Name: _____

License No. _____

Address: _____

Phone #: _____ Fax #: _____

Contact Person: _____

Exhibit "3"
to
Supplemental Reimbursement Agreement

[Insert detailed map if available]
As required

EXHIBIT "C"

PA40 Improvements for School Site and Fire Station Projects 10419, 20419, 30419 Project Costs

School Site (RW, 20419; Sewer, 30419)

	Description of Service	
Design Phase		
Stantec (School Site)	Civil engineering	\$ 49,000
	Sub-total	\$ 49,000
 Construction Phase Support		
VA Consulting	Survey staking	\$ 3,307
Lawson	Geotechnical observation and testing	\$ 1,880
Stantec	Archeological/paleontological monitoring	\$ 224
Harmsworth Associates	Biological/botanical monitoring	\$ 104
Dudek	Tree monitoring	\$ 338
	Sub-total	\$ 5,853
 Construction		
All-American Construction	Construction of IRWD facilities	\$ 273,996
ICDC	Construction administration (1%)	\$ 2,740
	Sub-total	\$ 276,736
Total		\$ 331,589

Fire Station (12" DW, 10419)

	Description of Service	
Design Phase		
Stantec (Fire Station)	Civil engineering	\$ 80,800
	Sub-total	\$ 80,800
 Construction Phase Support (Not yet contracted by ICDC)		
	Survey staking	
	Geotechnical observation and testing	
	Archeological/paleontological monitoring	
	Biological/botanical monitoring	
	Tree monitoring	
	Sub-total	estimate \$ 30,000
 Construction		
	Construction cost of IRWD facilities (estimate)	\$ 640,000
ICDC	Construction administration (1%)	\$ 6,400
	Sub-total	\$ 646,400
Total		\$ 757,200

SCOPE OF WORK

Planning Area 40 - School Site and Trabuco Road Infrastructure Improvements - Non Assessment District Improvements and IRWD Capital Facility Improvements

Contract No. 106350B

Contractor shall provide all labor, materials, tools and equipment necessary to construct the improvements shown in the approved plans and specifications including, but not limited to the following:

NON-ASSESSMENT DISTRICT IMPROVEMENTS

Mobilization, develop construction water, school site improvements including: street improvements; storm drain; reclaimed water; dry utilities including: security conduit, competitive access, and CATV conduit, Trabuco Road improvements including: reclaimed water; dry utilities including: ICDC competitive access, CATV conduit, trench, and payment and performance bonds.

DELETABLES – IRWD CAPITAL FACILITIES

The following are hereby made a part of the contract:

Mobilization, develop construction water, reclaimed water (school site), reclaimed water (Trabuco Rd. improvements), and payment and performance bonds.

This contract is for the Non-Assessment District and IRWD Capital Facilities Improvements only. Any reference to the Proposed Assessment District Improvements is hereby deemed “Not a Part” of this contract.

SCHEDULE OF UNIT PRICES
 PLANNING AREA 40 - SCHOOL SITE AND TRABUCO ROAD
 INFRASTRUCTURE IMPROVEMENTS - NON AD IMPROVEMENTS
 AND IRWD CAPITAL FACILITY IMPROVEMENTS

ALL AMERICAN ASPHALT

CONTRACT NO. 106350B

PROJECT
 CODE /
 BUDGET
 CODE

PROJECT CODE / BUDGET CODE	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
1645-03	I. <u>NON-ASSESSMENT DISTRICT IMPROVEMENTS (SECTIONS S. - Y.)</u>				
	A. <u>GENERAL (SECTIONS S. - X.)</u>				
1011	1. Mobilization (Not to Exceed 2% of Contract Price of Sections S. - X.)	1	LS	6,000.00	6,000.00
1011	2. Develop Construction Water (Sections S. - X.)	1	LS	6,000.00	6,000.00
	SUBTOTAL: GENERAL (SECTIONS S.-X.)				12,000.00
	<u>SCHOOL SITE IMPROVEMENTS</u>				
	B. <u>STREET IMPROVEMENTS</u>				
1201	3. Install 6" PVC Sch. 40 Irrigation Sleeve per Detail (One (1) Pipe)	871	LF	11.50	10,016.50
1201	4. Install 4" PVC Sch. 40 Irrigation Sleeve per Detail (Two (2) Pipe)	1,474	LF	14.50	21,373.00
1201	5. Construct 0.67' AB for Temporary Access Road per Details on Plans and Geotechnical Recommendations*	41,645	SF	1.50	62,467.50
1201	6. Construct 2" Redwood Header per Plans	5,650	LF	5.00	28,250.00
1201	7. Install Metal Beam Railing and Signage per City of Irvine Std. Plan No. 400 and 401	255	LF	48.00	12,240.00
1201	8. Install Access Gate per IRWD Std. Dwg. G-3	1	EA	10,000.00	10,000.00
1201	9. Import Unclassified Fill for access Road as Required per Plans	982	CY	18.00	17,676.00
	SUBTOTAL: STREET IMPROVEMENTS				162,023.00
	C. <u>STORM DRAIN</u>				
1301	10. Brick and Mortar Plug 18" Orifice at Diversion Structure	2	EA	365.00	730.00
	SUBTOTAL: STORM DRAIN				730.00
	D. <u>RECLAIMED WATER (NON-CAPITAL)</u>				
1371	11. Install 2" Irrigation Service Lateral and Meter Box per IRWD Std. W-2	2	EA	2,100.00	4,200.00
	SUBTOTAL: RECLAIMED WATER (NON CAPITAL)				4,200.00
	E. <u>DRY UTILITIES</u>				
	<u>SECURITY CONDUIT</u>				
1391	12. Install Security 2" Conduit; Type C	4,400	DU-FT	3.15	13,860.00
1391	13. Furnish and Install Pullbox 2X3X3	3	EA	1,250.00	3,750.00
	SUBTOTAL: SECURITY CONDUIT				17,610.00
	<u>COMPETITIVE ACCESS</u>				
1391	14. Furnish and Install 4" Conduit; Type C	8,700	DU-FT	2.85	24,795.00
1391	15. Furnish and Install Pullbox 2x3x3	3	EA	1,250.00	3,750.00
	SUBTOTAL: COMPETITIVE ACCESS				28,545.00
	<u>CATV CONDUIT</u>				
1393	16. Furnish CATV 3" Conduit (Material)	3,800	DU-FT	1.05	3,990.00
1393	17. Install CATV 3" Conduit (Installation)	3,800	DU-FT	2.10	7,980.00
1393	18. Furnish CATV 2" Conduit (Material)	8,800	DU-FT	0.55	4,840.00
1393	19. Install CATV 2" Conduit (Installation)	8,800	DU-FT	1.05	9,240.00
1393	20. Furnish CATV 2x3x3 Plastic AGV (Material)	3	EA	415.00	1,245.00
1393	21. Install CATV 2x3x3 Plastic AGV (Installation)	3	EA	835.00	2,505.00
	SUBTOTAL: CATV CONDUIT				29,800.00

SCHEDULE OF UNIT PRICES
 PLANNING AREA 40 - SCHOOL SITE AND TRABUCO ROAD
 INFRASTRUCTURE IMPROVEMENTS - NON AD IMPROVEMENTS
 AND IRWD CAPITAL FACILITY IMPROVEMENTS

ALL AMERICAN ASPHALT

CONTRACT NO. 106350B

PROJECT CODE / BUDGET CODE	ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
TRABUCO ROAD IMPROVEMENTS						
F. RECLAIMED WATER (NON-CAPITAL)						
1371	22.	Install 2" Irrigation Service Lateral and Meter Box per IRWD Std. Plan No. W-2	1	EA	9,400.00	9,400.00
SUBTOTAL: RECLAIMED WATER (NON CAPITAL)						9,400.00
G. PAYMENT AND PERFORMANCE BONDS						
2501	23.	Payment and Performance Bonds (Sections S. - X.)	1	LS	5,000.00	5,000.00
SUBTOTAL: PAYMENT & PERF. BONDS (SECTION S.-X.)						5,000.00
TOTAL - NON-ASSESSMENT DISTRICT IMPROVEMENTS						269,308.00
1645-50	II.	DELETABLE ITEMS (SECTIONS Z. - FF.) <u>The following items are hereby made a part of the contract.</u>				
IRWD CAPITAL FACILITIES IMPROVEMENTS						
h. GENERAL (SECTIONS Z. - EE.)						
1011	24.	Mobilization (Not to Exceed 2% of Contract Price of Sections Z. - EE.)	1	LS	6,000.00	6,000.00
1011	25.	Develop Construction Water (Sections Z. - EE.)	1	LS	6,000.00	6,000.00
SUBTOTAL: GENERAL (SECTIONS Z.-EE.)						12,000.00
SCHOOL SITE IMPROVEMENTS						
I. SITE PREPARATION						
1031	26.	Protect and Maintain Existing Eucalyptus Windrow	1	LS	11,000.00	11,000.00
SUBTOTAL: SITE PREPARATION						11,000.00
J. TREE REMOVAL						
1011	27.	Eucalyptus Tree Removal (Including all Debris)	11	EA	600.00	6,600.00
SUBTOTAL: TREE REMOVAL						6,600.00
K. RECLAIMED WATER						
1371	28.	Construct 6" AWWA C-900 PVC Purple Pipe, Pressure Class 200, per IRWD Std. W-17	1,286	LF	34.00	43,724.00
1371	29.	Install 6" R.W.G.V. Class 150, per IRWD Std. Plan W-22	6	EA	1,015.00	6,090.00
1371	30.	Install 1" Air Release and Vacuum Relief Valve Assembly per IRWD Std. Plan W-11	1	EA	4,000.00	4,000.00
1371	31.	Install 6" 11.25° DI Bend and Thrust Blocks per IRWD Std. Plan W-16	2	EA	286.00	572.00
1371	32.	Install 6"x6"x4" DI FE x FE Tee and Thrust Block per IRWD Std. W-16	1	EA	705.00	705.00
1371	33.	Temporary Flush-Out Assembly per IRWD Std. Plan W-12	2	EA	1,150.00	2,300.00
1371	34.	Install 6" 22.5° DI Bend and Thrust Blocks per IRWD Std. Plan W-	2	EA	285.00	570.00
1371	35.	Install 6" DI FE x FE Cross and Thrust Blocks per IRWD Std. Plan W-16	1	EA	1,510.00	1,510.00
1371	36.	Install 6" x 4" DI Reducer per IRWD Std. Plan W-16	1	EA	550.00	550.00
SUBTOTAL: RECLAIMED WATER						60,021.00
L. SANITARY SEWER						
1311	37.	Install 15" PVC SDR-35 Sewer Main per IRWD Std. No. S-6	664	LF	90.00	59,760.00
1311	38.	Install End of the Line Plug	1	EA	215.00	215.00
1311	39.	Construct 27" Steel Casing, 5/16" Min. Thickness per IRWD Std. S-7	232	EA	225.00	52,200.00
1311	40.	Construct 60" Diameter Manhole per IRWD Std. S-1	3	EA	6,000.00	18,000.00
1311	41.	Install 2" Wire Test Station and Test Box per IRWD Std. CP-1, CP-6 and CP-8	2	EA	1,150.00	2,300.00
SUBTOTAL: SANITARY SEWER						132,475.00

*E+L = 50%
M = 20%*

SCHEDULE OF UNIT PRICES
 PLANNING AREA 40 - SCHOOL SITE AND TRABUCO ROAD
 INFRASTRUCTURE IMPROVEMENTS - NON AD IMPROVEMENTS
 AND IRWD CAPITAL FACILITY IMPROVEMENTS

ALL AMERICAN ASPHALT

CONTRACT NO. 106350B

PROJECT CODE / BUDGET CODE	ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
<u>TRABUCO ROAD IMPROVEMENTS</u>						
<u>M. RECLAIMED WATER</u>						
1371	42.	Install 6" Purple AWWA C900 PVC Class 200 Reclaimed Water Line per IRWD Std. Plan No. W-17	10	LF	78.00	780.00
1371	43.	Install 6" AWWA C900 Purple PVC Class 200 Reclaimed Water Line with 14" Steel Casing to be Bored per IRWD Std. Plan No. W-17 and W-21	131	LF	260.00	34,060.00
1371	44.	Install 6" Gate Valve and Valve Box per IRWD Std. Plan No. W-22	1	EA	1,100.00	1,100.00
1371	45.	Install 12" x 12" x 6" D.I. Tee and Thrust Block per IRWD Std. Plan No. W-16	1	EA	6,300.00	6,300.00
1371	46.	Install End of Line Blow Off Assembly per IRWD Std. Plan No. W-	1	EA	1,150.00	1,150.00
1371	47.	Repair Utility Trench per City of Irvine Std. Plan No. 223	27	SF	130.00	3,510.00
SUBTOTAL: RECLAIMED WATER						46,900.00
<u>N. PAYMENT AND PERFORMANCE BONDS</u>						
2501	48.	Payment and Performance Bonds (Sections Z. - EE.)	1	LS	5,000.00	5,000.00
SUBTOTAL: PAYMENT & PERF. BONDS (SECTION Z.-EE.)						5,000.00
TOTAL DELETABLE ITEMS						273,996.00
TOTAL CONTRACT						543,304.00

LAWSON

EXHIBIT "B-1"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

SCOPE OF SERVICES

GEOTECHNICAL OBSERVATION AND TESTING DURING CONSTRUCTION

The purpose of this Scope of Services is to provide the Owner with the required geotechnical observation and testing services associated with the construction of the Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment District, Non Assessment District, and IRWD Capital Facility Improvements (Construction Contract No. 1063500) project. All work will be done in accordance with the approved and permitted plans as prepared by Stantec Consulting, Inc., the approved soils reports and the Project’s Technical Specifications. All work will be done in complete coordination with Owner’s contractor and therefore will assure Owner that in accordance with current industry standards, all required testing will be provided so that complete construction of the work as called for on the approved plans can be completed.

It should be noted that all project management, field supervision, and contract administration time or compensation associated with completing the work as outlined in this Scope of Services is included in the various tasks and no additional time or compensation will be allowed therefore.

The following task items are provided as a guide to the Consultant and not to be considered as the entire Scope of Services necessary to complete the work. Consultant is responsible for furnishing and performing any and all work, whether listed below or not, which is required or needed to provide a full and complete service.

TASK	DESCRIPTION
1.	GRADING Consultant shall provide observation and testing necessary during the grading of areas requiring cut or fill, including testing of unworked designated fill areas prior to placing fill material.
2.	TRENCH (EXCAVATION AND BACKFILL) Provide compaction testing and all trench backfill including trench sub-grade certifications.
3.	SUBGRADE a. Provide compaction testing and pre-saturation testing of all sub-grades below concrete improvements and asphalt paving as required by the approved Soils Report or governing agency. b. Provide compaction testing of pavement rock base.
4.	ASPHALT PAVEMENT SECTION DESIGN a. Consultant shall collect representative samples of earth materials from the pavement subgrade at a frequency of not less than one (1) sample per street, and not less than one

- thousand (1,000) lineal foot frequency per street, and more frequently in the case of significant variation in soil types.
- b. Consultant shall perform laboratory testing of the soil samples to determine the R-Value and/or any other parameters required by the governing agency for the design of the pavement section.
 - c. Consultant shall obtain the Traffic Index for each street / street segment from the Civil Engineer of Record for the street improvement plans.
 - d. Consultant shall design the pavement section in accordance with design methods recognized by and acceptable to the governing agency.
 - e. Consultant shall prepare a "Pavement Design Report", which shall include at a minimum a map showing the location of the subject streets and/or street segments, the locations of the soil sampling, the results of laboratory testing, the Traffic Indices used and which streets and/or street segments to which they are applicable, and the recommended pavement section for each street / street segment. The report shall be wet signed and stamped by a registered Civil Engineer.
 - f. Consultant shall submit the "Pavement Design Report" to the governing agency, and shall promptly reply to all requests for supplemental information and comments, through approval of the report. Copies of all submittals to and correspondence with the governing agency shall be provided to the Owner.

5. ASPHALT PAVEMENT PLACEMENT OBSERVATION AND TESTING

Provide observation and testing during asphalt placement in accordance with governing agency requirements.

6. LABORATORY WORK

This work includes all in-house or other outside laboratory testing required to complete the work.

7. CERTIFICATIONS/REPORT

In accordance with the prevailing governing agency's grading code, provide all required documentation in order to assure Owner and the governing agency that all grading completed is in substantial compliance with the approved and permitted plans and approved soils report. This work includes all office time associated with comparing field reports with the approved and permitted plans and soils report.

In accordance with the prevailing governing agency's requirements, provide complete and acceptable certification letters/report including a registered geotechnical engineer's stamp and wet signature certifying that all work covered in the letters are indeed in substantial conformance with the approved and permitted plans and soils report.

It should be noted that any additional testing and office time required to redo the certification effort as required due to Contractor's inability to properly meet the minimum compaction requirements correctly the first time is not included in this Scope of Services. Additional field testing and office comparison time associated with certifications of the project site created by the Contractor will be at the Contractor's expense and will be billed directly to the Contractor.

8. MEETINGS AND COORDINATION TIME

Throughout the course of this work, it will be required that the Owner's geotechnical consultant attend pre-grade meetings, construction field meetings, and other coordination

meetings to assure Owner that all work being performed is in accordance with the approved plans and the definitions of the Scope of Services. This work includes coordination time and project construction management time as required to assure Owner complete construction of the facilities, etc., as called for on the approved and permitted plans and the approved soils report. It is estimated that the Geotechnical Consultant should allow fourteen (14) hours for this work effort.

9. NATURALLY – OCCURRING ASBESTOS

Consultant shall advise Owner as to whether any portion of the area to be disturbed is known to contain naturally-occurring asbestos, serpentine or ultra-mafic rock so that Owner may comply with applicable regulations regarding airborne toxic measures. If any such conditions is discovered after the start of grading or construction, the Geotechnical Consultant shall notify Owner thereof immediately.

10. WORKING PLANS AND DOCUMENTS

Owner will provide the Geotechnical Consultant with the necessary copies, bluelines, etc. of all plans/drawings, reports, etc. of all work to be performed.

The Geotechnical Consultant is responsible for providing its own work force with the necessary copies, bluelines, computer plots, etc., for all work to be performed by the Geotechnical Consultant. All expenses incurred by the Geotechnical Consultant for this work effort as outlined in this Scope of Services shall be considered included in the various work items and no additional compensation will be allowed therefore.

11. UNACCEPTABLE TESTS RESULTS

Geotechnical Consultant shall notify Owner and Owner's Contractor upon determination of any area of grading worked or compacted by Owner's grading contractor but as a result of Geotechnical Consultant's observations or testing, if it does not meet minimum specified requirements. Geotechnical Consultant shall follow through with Owner's grading contractor until unacceptable areas have been corrected, retested, and meet minimum specified requirements. In accordance with Owner's requirements, all re-testing provided by the Geotechnical Consultant will be at the expense of Owner's Contractor and will be billed directly to Owner's Contractor.

EXHIBIT "B-2"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

FEE SCHEDULE

Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment
District, Non Assessment District, and IRWD Capital Facility Improvements
(Construction Contract No. 1063500)

GEOTECHNICAL OBSERVATION AND TESTING DURING CONSTRUCTION

Geotechnical Consultant shall be compensated on a Time and Material (T&M) Not to Exceed (NTE) basis unless otherwise indicated below:

TASK	DESCRIPTION	AMOUNT
Proposed AD Improvements – Dry Utility Costs Only		
		<u>INCLUDED</u>
1.	Grading	<u>\$798.00</u>
2.	Trench (Excavation and Backfill)	<u>\$0.00</u>
3.	Subgrade	<u>\$0.00</u>
4.	Asphalt Pavement Section Design	<u>\$0.00</u>
5.	Asphalt Pavement Placement Observation & Testing	<u>\$159.60</u>
6.	Laboratory	<u>\$420.00</u>
7.	Certifications/Report (Fixed Fee)	<u>\$201.60</u>
8.	Meetings and Coordination Time (14 Hours)	<u>\$1,579.20</u>
Subtotal: AD Dry Utility Improvements (1845-03-0103):		<u>\$1,579.20</u>
Proposed AD Improvements – All Other Improvements		
		<u>INCLUDED</u>
1.	Grading	<u>\$3,002.00</u>
2.	Trench (Excavation and Backfill)	<u>\$380.00</u>
3.	Subgrade	<u>\$710.00</u>
4.	Asphalt Pavement Section Design	<u>\$1,140.00</u>
5.	Asphalt Pavement Placement Observation & Testing	<u>\$1,170.40</u>
6.	Laboratory	<u>\$3,080.00</u>
7.	Certifications/Report (Fixed Fee)	<u>\$1,478.40</u>
8.	Meetings and Coordination Time (14 Hours)	<u>\$10,960.80</u>
Subtotal: AD Improvements – All Other Improvements (1845-01-0103):		<u>\$10,960.80</u>
Non AD Improvements		
1.	Trench (Excavation and Backfill) (Subgrade)	<u>\$190.00</u>
2.	Laboratory	<u>\$160.00</u>
3.	Certifications/Report (Fixed Fee)	<u>\$1,000.00</u>
4.	Meetings and Coordination Time (1 Hours)	<u>\$120.00</u>
Subtotal: Non AD Improvements (1645-03-0103):		<u>\$1,470.00</u>

IRWD Capital Facility Improvements		
1.	Trench (Excavation and Backfill)	<u>\$760.00</u>
2.	Laboratory	<u>\$0.00</u>
3.	Certifications/Report (Fixed Fee)	<u>\$1,000.00</u>
4.	Meetings and Coordination Time (1 Hours)	<u>\$120.00</u>
Subtotal: IRWD Capital Facility Improvements (1645-50-0103):		<u>\$1,880.00</u>
TOTAL CONTRACT:		<u>\$15,890.00</u>

HOURLY RATES:

The following hourly rates are in effect throughout the length of the construction project:

In the event that additional work is undertaken, that is not covered by the Contract and Owner elects to proceed on a "time and material" or cost plus basis, the rates provided below shall prevail at Owner's election thereof. Rates shall be provided to include all labor and equipment to complete the Work. The rates shall be billing rates, with no further markups to be added and all equipment shall include fuel, lubrication, operation and all maintenance. No overtime premium will be paid on equipment.

Consultant shall, as part of the proposal consideration, attach or enclose its firm's billing rate sheet that has been approved by Owner.

EXHIBIT "B-1"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES
SCOPE OF SERVICES

SURVEY AND STAKING SERVICES DURING CONSTRUCTION

The purpose of this Scope of Services is to provide the Owner with the required horizontal and vertical control stakes associated with the construction of the Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment District, Non Assessment District, and IRWD Capital Facility Improvements (Construction Contract No. 1063500) project. All work will be done in complete coordination with Owner’s contractor and therefore will assure Owner that in accordance with current industry standards, all horizontal and vertical control construction stakes will be provided so that complete construction of the work as called for on the approved plans can be completed.

It should be noted that all project management, field supervision, and contract administration time or compensation associated with completing the work as outlined in this Scope of Services is included in the various tasks and no additional time or compensation will be allowed therefor.

The following task items are provided as a guide to the Consultant and not to be considered as the entire Scope of Services necessary to complete the work. Consultant is responsible for furnishing and performing any and all work, whether listed below or not, which is required or needed to provide a full and complete service.

TASK	DESCRIPTION
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1.	SURVEY AND STAKING PER TECHNICAL SPECIFICATIONS
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Consultant shall provide survey and staking services in accordance with the projects Technical Specifications, Section ‘D’ Survey, Page D-15 through D-16 for the Non-Assessment District improvements and Page D-16 through D-19 for the Assessment District improvements and Page D-65 through D-66 and as follows:

Control stakes are intended to provide the required permanent horizontal and vertical control points necessary to control the entire work effort throughout the length of the construction period as allowed for in the construction contract. This work is intended to be provided on (1) time and all permanent control points set will be protected by Owner’s contractor throughout the length of the construction period as provided for in the construction contract.

2.	MEETINGS AND COORDINATION TIME
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Throughout the course of the work, it will be required that the Owner’s surveying consultant attend construction meetings, construction field meetings and other coordination meetings to assure Owner that all work being performed is in accordance with the approved plans and the definitions of the Scope of Services. This work includes coordination time and project construction management time as required to assure Owner complete construction of the

facilities, etc., as called for on the approved Plans. It is estimated that the surveying consultant should allow fourteen (14) hours for this work effort.

3. CERTIFICATIONS

Provide certifications of all improvements in accordance with the governing agency's requirements.

4. WORKING PLANS AND DOCUMENTS

Owner will provide the consultant with one (1) set of reproducible drawings of all work to be performed. Consultant will provide Owner and Owner's contractor with the necessary copies, bluelines, etc. of all plans/drawings, reports, etc. of all work to be performed. The survey consultant is responsible for providing its own work force with the necessary copies, bluelines, computer plots, etc. for all work to be performed by the survey consultant. All expenses incurred by the survey consultant for this work effort as outlined in this Scope of Services shall be considered included in the various work items and no additional compensation will be allowed therefore.

5. RESTAKING

In accordance with Owner's performance requirements, all restakes provided by survey consultant, due to actions by others, such as but not limited to, replacement of lost or destroyed stakes will be at the expense of the responsible party (i.e., general contractor, consultant, etc.). The expense will be billed from the survey consultant directly to the responsible party. Owner's Construction Manager, prior to implementation, must review all restakes. If the responsible party does not make payment in a timely manner, then Owner will take the appropriate actions(s) to obtain payment for services rendered.

EXHIBIT "B-2"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

FEE SCHEDULE

Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment District, Non Assessment District, and IRWD Capital Facility Improvements
(Construction Contract No. 1063500)

SURVEY AND STAKING SERVICES DURING CONSTRUCTION

All tasks shall be compensated on a Fixed Fee basis unless otherwise indicated below:

TASK	DESCRIPTION	AMOUNT
NON AD Improvements		
A.	SURVEY & STAKING	
1.	Control Calculations and Staking	\$1,032.00
2.	Water Stakes – Reclaimed (Non –Capital)	\$998.00
3.	Joint Trench – Dry Utilities (prior to curb and gutter)	\$1,368.00
B.	MEETINGS & COORDINATION TIME	1 Hour (T & M) \$135.00
C.	CERTIFICATIONS	\$2,237.00
Subtotal Non AD Improvements (1645-03-0114)		\$5,770.00
Proposed AD Improvements – Dry Utility Improvements Only		
A.	SURVEY & STAKING	
1.	Control Calculations and Staking	\$117.60
2.	Sanitary Sewer (Non-Capital) (prior to curb and gutter)	\$0.00
3.	Storm Drain (prior to curb and gutter)	\$0.00
4.	Water Stakes - Domestic (Non-Capital) (prior to curb and gutter)	\$0.00
5.	Water Stakes – Reclaimed (Non-Capital) (prior to curb and gutter)	\$0.00
6.	Street Grade	\$0.00
7.	Joint Trench – Dry Utilities (prior to curb and gutter)	\$5,529.00
8.	Curb and Gutter	\$0.00
9.	Storm Drain Connection to Existing CalTrans Channel	\$0.00
10.	Traffic Signal Poles	\$0.00
11.	Traffic Signal Conduit	\$0.00
B.	MEETINGS & COORDINATION TIME	12 Hours (T & M) \$194.40

C.	CERTIFICATIONS		<u>\$1,089.24</u>
	Subtotal: Proposed AD Improvements – Dry Utility Improvements Only		
		(1845-03-0114):	<u>\$6,930.24</u>

Proposed AD Improvements – All Other Improvements

A.	SURVEY & STAKING		
1.	Control Calculations and Staking		<u>\$862.40</u>
2.	Sanitary Sewer (Non-Capital) (prior to curb and gutter)		<u>\$3,605.00</u>
3.	Storm Drain (prior to curb and gutter)		<u>\$7,453.00</u>
4.	Water Stakes - Domestic (Non-Capital) (prior to curb and gutter)		<u>\$3,291.00</u>
5.	Water Stakes – Reclaimed (Non-Capital) (prior to curb and gutter)		<u>\$1,055.00</u>
6.	Street Grade		<u>\$1,368.00</u>
7.	Joint Trench – Dry Utilities (prior to curb and gutter)		<u>\$0.00</u>
8.	Curb and Gutter		<u>\$5,714.00</u>
9.	Storm Drain Connection to Existing CalTrans Channel		<u>\$499.00</u>
10.	Traffic Signal Poles		<u>\$499.00</u>
11.	Traffic Signal Conduit		<u>\$1,867.00</u>
B.	MEETINGS & COORDINATION TIME	12 Hours (T & M)	<u>\$1,425.60</u>
C.	CERTIFICATIONS		<u>\$7,987.76</u>
	Subtotal: Proposed AD Improvements – All Other Improvements		
		(1845-01-0114):	<u>\$35,626.76</u>

IRWD Capital Facilities Improvements

A.	SURVEY & STAKING		
1.	Control Calculations and Staking		<u>\$935.00</u>
2.	Construction Pipelines		<u>\$869.00</u>
3.	Construction Structures and Appurtenances		<u>\$869.00</u>
B.	MEETINGS & COORDINATION TIME	1 Hour (T & M)	<u>\$135.00</u>
C.	CERTIFICATIONS		<u>\$499.00</u>
	Subtotal IRWD Capital Facility Improvements (1645-50-0114):		<u>\$3,307.00</u>
	TOTAL CONTRACT:		<u>\$51,634.00</u>

HOURLY RATES:

The following hourly rates are in effect throughout the length of the construction project:

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EXHIBIT "B-1"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

SCOPE OF SERVICES

ARCHAEOLOGICAL/PALEONTOLOGICAL MONITORING DURING CONSTRUCTION

Consultant shall provide archaeological/paleontological monitoring services during the construction of the Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment District, Non Assessment District, and IRWD Capital Facility Improvements (Construction Contract No. 1063500) project. Consultant shall be on-call to provide qualified personnel to evaluate and to salvage any significant archaeological or paleontological resources discovered during construction. Areas to be monitored include previously undisturbed areas or areas where excavation did not extend below trench depth proposed on plans.

Consultant shall provide the following services associated with construction of the Improvements as requested by Owner:

TASK **DESCRIPTION**

1. Consultant shall meet with the Agency’s project inspector, and any other concerned parties to review the project excavation and construction plans. The required frequency and duration of monitoring will be established.
2. Consultant shall attend the pre-construction meeting to coordinate Consultant’s responsibilities with the Owner and Owner’s Contractor.
3. Consultant shall attend field meetings called by Owner (if requested)
4. Consultant shall be present and actively monitor the grading and trenching of previously undisturbed land areas and previously disturbed areas in which excavation activities did not extend below the trench depth proposed on these project plans. Grading includes grubbing and clearing. The monitor will be present to observe, identify, record, evaluate, and salvage any archaeological or paleontological resources uncovered by grubbing, grading, or trenching.
5. Excavating or trenching within 50 feet of any archaeological or paleontological resources determined to be significant will be temporarily diverted or halted.
6. Consultant shall determine whether any discovery is an isolate (one or two cultural items) or a site (three or more cultural items or a feature), using shovel probes if necessary. If the discovery is an isolate, its location will be recorded, the material will be collected, and earthmoving can then continue. Thus, in most cases, should require one hour or less.
7. If the discovery is a significant paleontological/archaeological resource, the Owner will be notified and earth moving may be diverted for up to 36 hours while the site is evaluated to determine its boundaries, depth, contents, integrity, and significance. Evaluation and salvage

methods may include mapping, collecting of exposed artifacts and features, and limited excavations. A site evaluation may require additional field staff and be handled as an optional service.

8. If the Consultant determines that the resource has the potential to yield data relevant to important issues of historical or scientific significance, appropriate mitigation measures will be proposed, for review and approval by the Agency and Owner. Generally, a hand-excavated sample of the site area using standard archaeological sampling procedures would constitute mitigation of grading impacts through data recovery (salvage). The Consultant will inform the Owner and the Agency of the estimated time required for such a mitigation program. An archaeological salvage program, which includes a full report on the site resources recovered, will require a contract change order to be negotiated using the Consultants standard fee schedule approved by Owner.
9. If additional cultural materials become exposed by grading within a site area after mitigation of impacts through data recovery has been completed, further salvage efforts will not be required unless the additional materials represents a new type of characteristic not recovered during previous data recovery. Such new resources would consist of artifact classes and features not recognized during previous mitigation. Features may include the remains of structures, hearths, cooking pits, and burials. Even if no additional salvage is required, the newly exposed material would be mapped and collected.
10. Consultant shall coordinate and facilitate the transfer of any collected archaeology or paleontology resources. For any collections to be donated or transferred, the property owners will be responsible for fulfilling any institutional curatorial preparations and service standards.
11. If human remains are encountered, the following procedures in addition to items 6-9 above will be followed. In addition, the County Coroner and the Agency's staff will be notified, as required by law. If it is determined that the remains are Native American, a Most Likely Descendant recognized by the Native American Heritage Commission will be notified and a plan will be formulated for dignified reburial.
12. Consultant will prepare a full report on the archaeological/paleontological monitoring program. Archaeological/Paleontological discoveries will be described and interpreted. Copies of the report will be provided to the Owner and the Agency as required by regulation.

EXHIBIT "B-2"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

FEE SCHEDULE

Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment District, Non Assessment District, and IRWD Capital Facility Improvements
(Construction Contract No. 1063500)

ARCHAEOLOGICAL/PALEONTOLOGICAL MONITORING DURING CONSTRUCTION

Consultant shall be compensated on a Time and Material (T&M) Not to Exceed (NTE) basis unless otherwise indicated below:

TASK	DESCRIPTION – Proposed Assessment District	AMOUNT
1.	Archaeological/Paleontological Monitoring During Construction (T & M Hours)	\$2,436.00
2.	Final Report (Fixed Fee)	\$351.48
Subtotal Assessment District (1845-01) :		\$2,787.48

TASK	DESCRIPTION – Non-Assessment District	AMOUNT
1.	Archaeological/Paleontological Monitoring During Construction (T & M Hours)	\$168.00
2.	Final Report (Fixed Fee)	\$24.24
Subtotal Non-Assessment District :		\$192.24

TASK	DESCRIPTION	AMOUNT
1.	Archaeological/Paleontological Monitoring During Construction (T & M Hours)	\$196.00
2.	Final Report (Fixed Fee)	\$28.28
IRWD Capital Facilities :		\$224.28
TOTAL CONTRACT:		\$3,204.00

Harmsworth

EXHIBIT "B-1"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

SCOPE OF SERVICES

BIOLOGICAL/BOTANICAL MONITORING SERVICES DURING CONSTRUCTION

The purpose of this Scope of Services is to provide the Owner with the required biological/botanical monitoring services associated with the construction of the Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment District, Non Assessment District, and IRWD Capital Facility Improvements (Construction Contract No. 1063500) project. All work will be done in accordance with the approved and permitted plans as prepared by Stantec Consulting, Inc., the approved soils reports and the Project’s Technical Specifications. All work will be done in complete coordination with Owner’s contractor and therefore will assure Owner that in accordance with current industry standards, all required testing will be provided so that complete construction of the work as called for on the approved plans can be completed.

It should be noted that all project management, field supervision, and contract administration time or compensation associated with completing the work as outlined in this Scope of Services is included in the various tasks and no additional time or compensation will be allowed therefore.

The following task items are provided as a guide to the Consultant and not to be considered as the entire Scope of Services necessary to complete the work. Consultant is responsible for furnishing and performing any and all work, whether listed below or not, which is required or needed to provide a full and complete service.

TASK DESCRIPTION

A. BIOLOGICAL/BOTANICAL MONITORING

Monitoring, Certification/Report and Meetings and Coordination Time.

B. CERTIFICATION/REPORTS

In accordance with the applicable governmental agencies, provide all required documentation in order to assure Owner that the project is completed in substantial compliance with all applicable governmental requirements.

C. MEETINGS AND COORDINATION TIME

Throughout the course of this work, it will be required that the Owner’s biological/botanical consultant attend pre-grade meetings, construction field meetings, and other coordination meetings to assure Owner that all work being performed is in accordance with the approved plans and the definitions of the Scope of Services. This work includes coordination time and project construction management time as required to assure Owner complete construction of the facilities, etc., as called for on the approved and permitted plans and the approved soils report. It is estimated that the biological/botanical consultant should allow fourteen (14) hours for this work effort.

D. WORKING PLANS AND DOCUMENTS

Owner will provide the biological/botanical consultant with necessary copies, blueines, etc. of all plans/drawings, reports, etc. of all work to be performed.

The biological/botanical consultant is responsible for providing its own work force with the necessary copies, blueines, computer plots, etc., for all work to be performed by the biological/botanical consultant. All expenses incurred by the biological/botanical consultant for this work effort as outlined in this Scope of Services shall be considered included in the various work items and no additional compensation will be allowed therefore.

E. PROCEDURE FOR COMMUNICATION PROTOCOL FOR BIOLOGICAL RESOURCE MONITORING DURING CONSTRUCTION (Note: Any costs associated with this procedure are included in Tasks A-C)

The procedures below are to be followed for all biological resources monitoring performed under contract to the Owner's construction group. The purpose of this communications protocol is to ensure efficient, timely, and necessary interaction among all of the parties involved in the interface of construction projects and environmental compliance measures. The primary parties involved in this protocol are the Owner's individual project Construction Manager, Construction Senior Vice President, Environmental Permitting Vice President, Project Development Vice President, and the Biological Resources Monitor.

- Biological Resources Monitor shall prepare a daily field memorandum for each day that on-site monitoring of construction occurs. This memorandum shall be faxed or delivered to the Construction Manager.
- The Biological Resources Monitor shall prepare monthly status reports that summarized the events of the month as detailed in the daily field memorandum. A draft of this report shall be submitted to the Construction Senior Vice President, who will distribute it for review to the Construction Manager, Project Development Vice President, and Environmental Permitting Vice President. The Construction Senior Vice President will consolidate comments and return them to the Biological Resources Monitor. The final monthly report shall be submitted to the Construction Senior Vice President and copied to the Environmental Permitting Vice President, Construction Manager, and Project Development Vice President.
- If an issue regarding environment compliance arises as a result of construction activity, the Biological Resources Monitor shall immediately notify the Construction Manager in order to take immediate corrective action. If the Construction Manager is not immediately available, the Biological Resources Monitor shall contact the Construction Senior Vice President' office for assistance in contacting the Construction Manager. In addition, the Construction Manager and/or the Biological Resources Monitor shall notify the Environmental Permitting Vice President immediately after the initial calls to the Construction Group. The first priority shall be for the Construction Division to stop the activity causing a potential compliance issue.
- The appropriate response to issues regarding environmental compliance will be addressed by the team consisting of the Biological Resources Monitor, Construction Manager, Construction Senior Vice President, and Environmental Permitting Vice President. Ideally, a conference call of these persons will occur immediately after

notification of the environmental compliance issue is given for purposed of determining the appropriate course of action to resolve the issue. If this is not possible, team members may be consulted serially regarding resolution but all team members shall be consulted.

- The Construction Manager and Biological Resources Monitor are also encouraged to follow this protocol to proactively communicate in advance with the Environmental Permitting Vice President regarding regulatory constraints that may affect construction activates or development project implementation in order that the same team approach may be used to avert environmental compliance issues before they arise.

EXHIBIT "B-2"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

FEE SCHEDULE

Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment District, Non Assessment District, and IRWD Capital Facility Improvements
 (Construction Contract No. 1063500)

BIOLOGICAL/BOTANICAL MONITORING SERVICES DURING CONSTRUCTION

Consultant shall be compensated on a Time and Material (T&M) Not to Exceed (NTE) basis unless otherwise indicated below:

TASK	DESCRIPTION – Proposed Assessment District Improvements	AMOUNT
A.	Monitoring	\$542.88
B.	Certification/Report (Fixed Fee)	\$261.00
C.	Meetings and Coordination Time (14 Hours)	483.72
Subtotal Assessment District (1845-01):		\$1287.60
TASK	DESCRIPTION – Proposed Non-Assessment District Improvements	AMOUNT
A.	Monitoring	\$37.44
B.	Certification/Report (Fixed Fee)	\$18.00
C.	Meetings and Coordination Time (14 Hours)	\$33.36
Subtotal Non-Assessment District (1645-03):		\$88.80
TASK	DESCRIPTION – IRWD Capital Facility Improvements	AMOUNT
A.	Monitoring	\$43.68
B.	Certification/Report (Fixed Fee)	\$21.00
C.	Meetings and Coordination Time (14 Hours)	\$38.92
Subtotal IRWD (1645-50):		\$103.60
TOTAL CONTRACT:		\$1,480.00

NOTE: Time and material amounts shall not be exceeded without execution of a written Change Order.

Dudek

EXHIBIT "B-1"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

SCOPE OF SERVICES

TREE MONITORING SERVICES DURING CONSTRUCTION

The purpose of this Scope of Services is to provide the Owner with the required tree monitoring services associated with the construction of the Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment District, Non Assessment District, and IRWD Capital Facility Improvements (Construction Contract No. 1063500) project. All services are subject to the request, direction, and authorization of the Owner. Consultant shall act in a supporting role to Owner by providing professional services on an as-needed basis.

It should be noted that all project management, field supervision, and contract administration time or compensation associated with completing the work as outlined in this Scope of Services is included in the various tasks and no additional time or compensation will be allowed therefore.

The following task items are provided as a guide to the Consultant and not to be considered as the entire Scope of Services necessary to complete the work. Consultant is responsible for furnishing and performing any and all work, whether listed below or not, which is required or needed to provide a full and complete service.

TASK DESCRIPTION

- A. PRE-CONSTRUCTION AND FIELD MEETINGS**
During the period before Owner issues a Notice to Proceed to its Contractor, Consultant shall attend the preconstruction meeting called by Owner. During the active construction period, Consultant shall provide a project manager to attend field meetings called by Owner's Construction Manager. It is estimated that the Consultant should allow fourteen (14) hours for meetings.

- B. FIELD SUPPORT SERVICES**
Consultant shall monitor trees to be protected in place in coordination with Owner's Contractor as directed by Owner's Construction Manager. Consultant shall notify Owner immediately if any construction activity threatens the health of the trees to be protected in place.

- C. FINAL REPORT**
On completion of the construction work, Consultant shall prepare a final report indicating the results of the tree monitoring efforts.

EXHIBIT "B-2"
TO
MASTER CONTRACT FOR PROFESSIONAL SERVICES

FEE SCHEDULE

Planning Area 40 – School Site and Trabuco Road Infrastructure Improvements – Proposed Assessment
District, Non Assessment District, and IRWD Capital Facility Improvements
(Construction Contract No. 1063500)
TREE MONITORING SERVICES DURING CONSTRUCTION

All tasks are on a Time and Material (T&M) Not to Exceed (NTE) basis unless otherwise noted below:

TASK	DESCRIPTION – PROPOSED A.D	AMOUNT
1.	Pre-Construction and Field Meetings	\$1,400.70
2.	Field Support Services	\$2,305.50
3.	Final Report (Fixed Fee)	\$500.25
SUBTOTAL AD (1845-01):		\$4,206.45

TASK	DESCRIPTION –A.D	AMOUNT
1.	Pre-Construction and Field Meetings	\$96.60
2.	Field Support Services	\$159.00
3.	Final Report (Fixed Fee)	\$34.50
SUBTOTAL NON-AD (1645-03):		\$290.10

TASK	DESCRIPTION – IRWD CAPITAL FACILITIES	AMOUNT
1.	Pre-Construction and Field Meetings	\$112.70
2.	Field Support Services	\$185.50
3.	Final Report (Fixed Fee)	\$40.25
SUBTOTAL IRWD (1645-50):		\$338.45
TOTAL CONTRACT:		4,835.00

NOTE: Time and material amounts shall not be exceeded without execution of a written change order.

EXHIBIT "D"

Irvine Ranch Water District Expenditure Authorization

Project Name: PA40 TRABUCO RD PIPELINES (FIRE STATION)
 Project No: 10419 EA No: 1
 Project Manager: CORTEZ, MALCOLM
 Project Engineer: POPESCU, LUMINITA
 Request Date: November 20, 2007

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
150	100.0	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$108,900
Total EA Requests:	\$108,900
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$859,100
Updated Budget:	\$859,100
Budget Remaining After This EA	\$750,200

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	10,000	0	10,000	10,000	0	10,000	12/07	3/08
ENGINEERING DESIGN - OUTSIDE	85,000	0	85,000	85,000	0	85,000	12/07	3/08
DESIGN STAFF FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	12/07	3/08
ENGINEERING - CA&I IRWD	0	0	0	10,000	0	10,000	4/08	9/08
ENGINEERING - CA&I OUTSIDE	0	0	0	30,000	0	30,000	4/08	9/08
CONSTRUCTION FIELD SUPPORT	0	0	0	2,000	0	2,000	4/08	9/08
CONSTRUCTION	0	0	0	640,000	0	640,000	4/08	9/08
LEGAL	2,000	0	2,000	2,000	0	2,000	12/07	9/08
Contingency - 10.00% Subtotal	\$9,900	\$0	\$9,900	\$78,100	\$0	\$78,100		
Subtotal (Direct Costs)	\$108,900	\$0	\$108,900	\$859,100	\$0	\$859,100		
Estimated G/A - 175.00% of direct labor*	\$21,000	\$0	\$21,000	\$42,000	\$0	\$42,000		
Total	\$129,900	\$0	\$129,900	\$901,100	\$0	\$901,100		
*Direct Labor	\$12,000	\$0	\$12,000	\$24,000	\$0	\$24,000		

EA Originator: _____

[Signature] J. STANBART

11/20/07

Department Director: _____

Finance: _____

Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$920,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.

Irvine Ranch Water District

Expenditure Authorization

Project Name: PA40 SCHOOL SITE 15" PIPELINE
 Project No: 20419 EA No: 1
 Project Manager: CORTEZ, MALCOLM
 Project Engineer: POPESCU, LUMINITA
 Request Date: November 20, 2007

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
250	100.0	BONDS YET TO BE SOLD**
Total	100.0%	

Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$226,900
Total EA Requests:	\$226,900
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$226,900
Updated Budget:	\$226,900
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	5,000	0	5,000	5,000	0	5,000	3/07	11/07
ENGINEERING DESIGN - OUTSIDE	30,000	0	30,000	30,000	0	30,000	3/07	11/07
DESIGN STAFF FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	3/07	11/07
ENGINEERING - CA&I IRWD	5,000	0	5,000	5,000	0	5,000	12/07	7/08
ENGINEERING - CA&I OUTSIDE	10,000	0	10,000	10,000	0	10,000	12/07	7/08
CONSTRUCTION FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	12/07	7/08
CONSTRUCTION	160,000	0	160,000	160,000	0	160,000	12/07	7/08
LEGAL	2,000	0	2,000	2,000	0	2,000	3/07	7/08
Contingency - 5.00% Subtotal	\$10,900	\$0	\$10,900	\$10,900	\$0	\$10,900		
Subtotal (Direct Costs)	\$226,900	\$0	\$226,900	\$226,900	\$0	\$226,900		
Estimated G/A - 175.00% of direct labor*	\$24,600	\$0	\$24,600	\$24,600	\$0	\$24,600		
Total	\$251,500	\$0	\$251,500	\$251,500	\$0	\$251,500		
*Direct Labor	\$14,000	\$0	\$14,000	\$14,000	\$0	\$14,000		

EA Originator:

 J. STANEART

11/20/07

Department Director:

Finance:

Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$257,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.

Irvine Ranch Water District

Expenditure Authorization

Project Name: PA40 SCHOOL SITE 6" PIPELINES
 Project No: 30419 EA No: 1
 Project Manager: CORTEZ, MALCOLM
 Project Engineer: POPESCU, LUMINITA
 Request Date: November 20, 2007

ID Split: Miscellaneous

Improvement District (ID) Allocations

ID No.	Allocation %	Source of Funds
250	100.0	BONDS YET TO BE SOLD**
Total	100.0%	

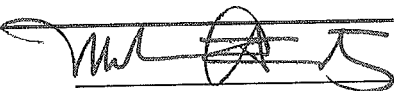
Summary of Direct Cost Authorizations

Previously Approved EA Requests:	\$0
This Request:	\$204,600
Total EA Requests:	\$204,600
Previously Approved Budget:	\$0
Budget Adjustment Requested this EA:	\$204,600
Updated Budget:	\$204,600
Budget Remaining After This EA	\$0

Comments:

Phase	This EA Request	Previous EA Requests	EA Requests to Date	This Budget Request	Previous Budget	Updated Budget	Start	Finish
ENGINEERING DESIGN - IRWD	5,000	0	5,000	5,000	0	5,000	3/07	11/07
ENGINEERING DESIGN - OUTSIDE	30,000	0	30,000	30,000	0	30,000	3/07	11/07
DESIGN STAFF FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	3/07	11/07
ENGINEERING - CA&I IRWD	5,000	0	5,000	5,000	0	5,000	12/07	7/08
ENGINEERING - CA&I OUTSIDE	10,000	0	10,000	10,000	0	10,000	12/07	7/08
CONSTRUCTION FIELD SUPPORT	2,000	0	2,000	2,000	0	2,000	12/07	7/08
CONSTRUCTION	130,000	0	130,000	130,000	0	130,000	12/07	7/08
LEGAL	2,000	0	2,000	2,000	0	2,000	3/07	7/08
Contingency - 10.00% Subtotal	\$18,600	\$0	\$18,600	\$18,600	\$0	\$18,600		
Subtotal (Direct Costs)	\$204,600	\$0	\$204,600	\$204,600	\$0	\$204,600		
Estimated G/A - 175.00% of direct labor*	\$24,600	\$0	\$24,600	\$24,600	\$0	\$24,600		
Total	\$229,200	\$0	\$229,200	\$229,200	\$0	\$229,200		
*Direct Labor	\$14,000	\$0	\$14,000	\$14,000	\$0	\$14,000		

EA Originator:

 J. STEWART 11/20/07

Department Director:

Finance:

Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$234,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.105-2.



December 17, 2007

Prepared and

Submitted by: Paul Cook *P. Cook*

Approved by: Paul Jones *P. Jones*

ACTION CALENDAR

ORANGE PARK ACRES MUTUAL WATER COMPANY CONSOLIDATION REVISED LAFCO TERMS AND CONDITIONS

SUMMARY:

In September of 2007, the IRWD Board approved an Annexation and Acquisition Agreement between OPAMWC and IRWD and a resolution of application to the Local Agency Formation Commission (LAFCO). Included as an exhibit to the resolution of application to LAFCO were proposed Terms and Conditions for the annexation of OPAMWC into IRWD. The approved Annexation and Annexation Agreement, resolution of application, draft Terms and Conditions, Notice of Exemption under CEQA and additional application materials were subsequently submitted to LAFCO for review. Based upon input received from the City of Orange, LAFCO staff and legal counsel, and the OPAMWC Ad Hoc Committee, the draft Terms and Conditions have been revised and are scheduled to be considered for approval by LAFCO at their December 19, 2007 hearing on the annexation of OPAMWC into IRWD. Staff requests that the Board approve of the revised Terms and Conditions, subject to non-substantive changes.

BACKGROUND:

In September of 2007, the IRWD Board approved an Annexation and Acquisition Agreement between OPAMWC and IRWD and a resolution of application to the Local Agency Formation Commission (LAFCO). The Acquisition and Annexation Agreement was also approved by the OPAMWC Board and the annexation application was submitted, and has been deemed complete by LAFCO staff. The LAFCO public hearing on the annexation is currently scheduled for December 19, 2007.

Subsequent to the Board meeting, staff has been working LAFCO to finalize the Terms and Conditions and address issues raised by the City of Orange. Specifically, the City of Orange views itself as a "full service city," and has expressed a desire to maintain an option to provide water and sewer service in OPA should the area ever be annexed to the City in the future. This issue was discussed in an initial meeting with the City of Orange that was attended by Director Darryl Miller, Orange County Supervisor Bill Campbell, Board members from OPAMWC, members of the Orange City Council, and staff from IRWD, the City of Orange, and LAFCO.

Based upon direction received at the initial meeting, IRWD staff has met on several occasions with City staff and developed revised Terms and Conditions that provide a mechanism for the City, if it annexes OPA in the future, to acquire at its option the sewer and water systems and service from IRWD. However, the Proposed Terms and Conditions as revised place specific compensation and other requirements on the transfer of service to the City that will result in IRWD and the residents within the OPAMWC being kept financially whole.

Staff has also requested comments from the LAFCO staff regarding the revised Terms and Conditions. LAFCO staff and legal counsel have reviewed the document, and provided comments that pertain to the transition of the existing limited sewer service from the City to IRWD, resolution of the City's Out of Area Service Agreements, and the acquisition of sewer facilities by IRWD. These comments have been incorporated into this most recent version of the Terms and Conditions attached as Exhibit "A."

Staff recommends that the revised Terms and Conditions, as presented, be approved by the Board and submitted to LAFCO for consideration at their December 19, 2007, hearing.

FISCAL IMPACTS:

There are no fiscal impacts relative to the proposed actions as the merger of OPAMWC into IRWD is structured such that existing IRWD ratepayers are unaffected by the transaction. The merger of OPAMWC into IRWD will produce revenue and cost neutrality to the existing IRWD customer base through the implementation of the Acquisition Balance concept.

ENVIRONMENTAL COMPLIANCE:

This item is categorically exempt from CEQA (Categorical Exemption Class 20) as a project consisting of changes in organization of local agencies not changing the area in which existing powers are exercised, under the California Environmental Quality Act Code of Regulations, Title 14, Article 19, Section 15320 (b).

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications Committee meeting on December 10, 2007.

RECOMMENDATION:

THAT THE BOARD APPROVE OF THE REVISED TERMS AND CONDITIONS, SUBJECT TO NON-SUBSTANTIVE CHANGES, FOR THE ANNEXATION APPLICATION BEING SUBMITTED BY IRWD TO LAFCO FOR CONSIDERATION AT THE DECEMBER 19, 2007 MEETING.

LIST OF EXHIBITS:

Exhibit "A" – Revised Terms and Conditions for IRWD's Application to LAFCO for Annexation of OPAMWC Service Area

EXHIBIT "A"

LAFCO APPLICATION - EXHIBIT "C"

TERMS AND CONDITIONS FOR ANNEXATION OF ORANGE PARK ACRES MUTUAL WATER COMPANY SERVICE AREA TO IRVINE RANCH WATER DISTRICT

Revised 04 December 2007

Condition No. 1 – Annexation Agreement.

The annexation ("annexation") of the Orange Park Acres Mutual Water Company ("OPAMWC") into the Irvine Ranch Water District ("IRWD") shall be subject to the terms and conditions set forth in the Agreement for Acquisition and Annexation, dated as of September 24, 2007, by and between Orange Park Acres Mutual Water Company and Irvine Ranch Water District (the "Annexation Agreement").

Condition No. 2 – Designation of Successor

IRWD is designated as the successor to the OPAMWC for the purpose of succeeding to all of the rights, duties and obligations of OPAMWC with respect to enforcement, performance or payment of any outstanding contracts and obligations of OPAMWC upon its merger into IRWD's limited liability company as provided in the Annexation Agreement. The foregoing designation shall include, but not be limited to, that certain Compromise and Settlement Agreement, dated as of September 18, 1979, by and between the City of Orange and OPAMWC, as affected by Agreement Between Korbel Family Inter-Vivos Trust and Orange Park Acres Mutual Water Company For Release of Certain Appurtenant Water Rights, Abandonment of Service Area and Quitclaim of Interests In Real Property, dated January 13, 1992; as further affected by Agreement Between Orange Park Acres Mutual Water Company and Certain Property Owners Within Glen Arran Section of Orange Park Acres Mutual Water Company Service Area, dated January 20, 1992; and as further affected by Water Service Area Agreement, dated October 12, 1995, by and between the City of Orange and OPAMWC (collectively, the "1979 Service Area Agreement").

Condition No. 3 – Service Area

The annexing territory is within the Sphere of Influence of the City of Orange and a portion of the annexing territory is within the City of Orange. However, the 1979 Service Area Agreement provides, with respect to water service, that the City of Orange and OPAMWC will each provide water service within their respective service areas, only, except as to certain identified parcels for which the future water service provider may be changed under certain circumstances and in the manner provided in the 1979 Service Area Agreement.

Condition No. 4 – Future Annexation of Former OPAMWC Service Area to the City of Orange

If through future LAFCO action, the former OPAMWC service area is annexed in its entirety into the City of Orange (“City’s Annexation”), IRWD will cooperate with the City of Orange, at its request, to transfer water and sewer service and facility ownership to the City. Any transfer will require that the City assume both water and sewer service, will secure detachment of the area in its entirety from IRWD through LAFCO, and will secure an administrative transfer through Orange County Sanitation District (“OCSD”) of the area from Revenue Area 14 (IRWD) to the OCSD Consolidated Revenue Area. Notwithstanding the City of Orange’s ability to exercise its general police powers, under no circumstances, except as provided in the terms and conditions, shall this reorganization permit the City’s concurrent provision of water or sewer service to the Orange Park Acres Mutual Water Company service area.

In addition, such transfer of territory or service provision will result in no negative financial or operational impacts to IRWD or to the customers formerly served by OPAMWC, and will be subject to an agreement to terminate the 1979 Service Area Agreement based upon the following:

(A) Maintenance of Obligations. As a condition of water service and facility ownership transfer, the City of Orange will assume all then-current and remaining obligations of IRWD to the former customers of the OPAMWC contained in the Annexation Agreement.

(B) Compensation for Water Facilities. Any transfer of water service facilities or capacity to the City shall be conditioned upon payment to IRWD of an amount representing the depreciated replacement value of:

1. The current OPAMWC water system in existence on the effective date of the annexation of the OPAMWC service area into IRWD;
2. Upgraded or replaced facilities constructed by IRWD as described in the Annexation Agreement; and
3. Other facilities or upgrades to facilities constructed by IRWD in the OPAMWC service area as a result of system deficiencies, wear or failures encountered by IRWD during its ownership of the system.

Attachment A hereto shows the methodology for the valuation using the current OPAMWC water system value and cost estimates for recommended upgrades to that system included in (B)1, and (B)2, above. The City’s payment to IRWD shall be reduced by a “credit” representing the cumulative amount paid by OPAMWC residents through water rates and charges to IRWD from the effective date of the annexation to the effective date of the City’s Annexation for upgraded or replaced facilities constructed by IRWD as described in the Annexation Agreement. The “credit” shall be decreased by the cumulative amount representing the rate and charge reductions provided by IRWD to former OPAMWC customers as described in Sections 4.2, 4.3 and 4.6 of the Annexation

Agreement from the effective date of the annexation to the date of the City's Annexation, and any costs incurred by IRWD for planning, engineering, legal, and other infrastructure design and construction related expenses, including staff time, as well as costs for implementing the Annexation and merger as identified in the Annexation Agreement.

(C) Compensation for Sewer Facilities. Any transfer of sewer service facilities and treatment and disposal capacity at OCSD to the City shall be conditioned upon payment to IRWD of an amount representing:

1. The depreciated replacement value of all sewer infrastructure existing or acquired by IRWD from the effective date of the annexation of the OPAMWC service area into IRWD to the effective date of the city's annexation,
2. The depreciated replacement value of all sewer infrastructure constructed by IRWD from the effective date of the annexation to the effective date of the city's annexation, including any master planned facilities and any facilities constructed to remedy system deficiencies, or to correct wear or failures encountered by IRWD during its ownership of the system;
3. OCSD annexation fees applicable at the time of the City's Annexation, plus the cumulative costs incurred by IRWD from the effective date of the annexation to the effective date of the City's Annexation for OCSD regional sewage treatment and disposal capacity including equity payments and payments to the Capital Outlay Revolving Fund (CORF); and
4. Expenses incurred by IRWD for planning, engineering, legal, debt issuance and other related expenses, including staff time, through the effective date of the City's Annexation.

The City's payment to IRWD shall be reduced by a "credit" representing the cumulative amount of principal payments made by former OPAMWC residents from the effective date of the annexation to the date of the city's annexation through IRWD levied taxes, sewer rates or other capital charges for sewer infrastructure included in (C)2, and regional sewage treatment and disposal capacity related expenses included in (C)3, less any equity adjustments attributable to the transfer of flows from OCSD Revenue Area 14 (IRWD) to the Consolidated Revenue area as a result of the City's annexation.

(D) Acquisition and Ownership of Facilities and Capacity. As provided in (B), above, the City may acquire and own all pipes, pumps, wells and appurtenant equipment ("water system") purchased or installed by IRWD as part of the Annexation Agreement. IRWD shall retain capacity ownership in the water system not needed to serve the OPAMWC service area, as provided for in the Annexation Agreement. The foregoing notwithstanding, well and well capacity ownership will be made subject to alternative ownership arrangements as may be necessary to meet the requirements of Orange County Water District without impairing the optimal utilization of the wells or the capacity rights described herein. City will be obligated to operate the acquired facilities in which IRWD

retains and utilizes capacity, subject to emergency, facility destruction, regulatory requirements and other appropriate exceptions. IRWD will reimburse the City of Orange for costs associated with the operation and maintenance of the acquired facilities on a pro-rata basis. The foregoing will be detailed in an agreement to be entered into by IRWD and Orange prior to the City's Annexation.

Conditions 4(B) and (D) above shall apply to water service. Condition 4(C) is applicable to sewer service.

Condition No. 5 – Transfer of Future Development Parcels within the Former OPAMWC Service Area to the City of Orange

IRWD will cooperate to transfer service responsibility for any parcels that are undeveloped as of the effective date of the Annexation ("Future Development Parcels") formerly served by the OPAMWC when such parcels are located in the City of Orange and can be more logically served from City water and sewer systems. These transfers would be evaluated on a case-by-case basis pursuant to mutual agreement of the City and IRWD and in accordance with the 1979 Service Area Agreement, and would require landowner consent. Any transfer of future development parcels will require that the City assume both water and sewer service, and secure detachment of the parcels from IRWD through LAFCO. In addition, such transfer will result in no negative financial or operational impacts to IRWD or to the customers formerly served by OPAMWC. Any subsequent agreement(s) between IRWD and the City regarding changes in the service area boundary to transfer future development areas will require executing an amendment to the 1979 Settlement Agreement between OPAMWC and the City of Orange, and will also be subject to the following:

(A) Protection of the Acquisition Balance. Under the Annexation Agreement, IRWD will acquire the OPAMWC stock and will provide a means for the OPAMWC customers to correct deficiencies in the water system and to make a contribution and obtain participation in the IRWD replacement fund to pay for refurbishments that may be needed in such system in the future, by advancing the cost thereof (the "Acquisition Balance" as defined in the Annexation Agreement) and recovering such amount through a water rate differential borne by all former OPAMWC customers. Any future removal of development parcels from the area of IRWD containing the former service area of OPAMWC (designated by IRWD as "Planning Area No. 156") shall be conditioned upon the payment to IRWD by the City, as the new water service provider of the amount representing the fractional share of the then-remaining Acquisition Balance attributable to the future development parcels.

(B) Lost Fixed Charges. In addition to compensation for the loss of water rate differentials that will retire the Acquisition Balance, removal of future development parcels from Planning Area No. 156 will result in the loss of future fixed meter charge payments. Any future development parcels from Planning Area No. 156 shall be

conditioned upon the payment to IRWD of an amount representing the loss of this revenue, computed by escalating the then-current IRWD fixed meter charge and determining the discounted lump-sum value of the future cash flow therefrom, at reasonable escalation and discount rates and term.

(C) Value of Facilities. In addition to the foregoing, if the removal of future development parcels includes the transfer of any water or sewer system capacity or facilities, any future removal of parcels from Planning Area No. 156 shall be conditioned upon the payment to IRWD of an amount representing depreciated replacement value of the capacity or facilities to be transferred.

(D) Facilities Retained. Under the Annexation Agreement, IRWD will achieve cost and operational efficiencies for the mutual benefit of the former OPAMWC customers and IRWD's existing service territory, by interconnecting and utilizing portions of IRWD's current system in lieu of refurbishing some of the deteriorated OPAMWC facilities. Any future removal of parcels from Planning Area No. 156 shall be conditioned upon the retention by IRWD of ownership of any facilities that have capacity in excess of the needs of the removed area and that are used to serve areas that remain in IRWD. In the instance of such facilities, only capacity would be transferred to the new provider in respect of the removed areas. IRWD will retain any well and pipeline capacity to meet demands in IRWD and within the City of Orange's Sphere of Influence, including Santiago Hills II, East Orange Area I and East Orange Area II, each as defined in the Second Amended Agreement between the City of Orange and IRWD (dated August 28, 2006) regarding water service to such areas (collectively "SHII/East Orange Area"). A further condition shall be an appropriate mechanism for the allocation of flows if such sewer transfers result in combined tributary flows to any sewers.

(E) Conversion Costs. The City shall be solely responsible for all costs associated with providing water and sewer service to the future development parcels from the City of Orange's water and sewer system.

Conditions 5(B), (C), (D) and (E) above shall apply to both water and sewer service. Condition 5 (A) is applicable to water service.

Condition No. 6 – Formation of Sewer Improvement District.

Effective upon the annexation, a sewer improvement district of IRWD, encompassing the entire annexed area shall be and the same hereby is formed, to be named "Improvement District No. 256 of Irvine Ranch Water District." Said improvement district shall be deemed to be an improvement district formed and existing under California Water Code Section 36410 et seq.

Condition No. 7 – Sewer Service

Sewer service will be provided in the annexing area at the request of area residents, subject to: (1) successful completion of the merger of OPAMWC; (2) successful annexation to OCSD; and (3) IRWD's investigation of the physical, institutional, and financial feasibility of providing sewer collection service to all or a part of the annexing area desiring such service, and if found to be feasible, development of necessary institutional arrangements and implementation of a financing mechanism to fund the required facilities that is acceptable to the residents of the service area [[this comma deletion appears to be a typo]] design and construction of sewer facilities. IRWD would acquire sewer system facilities or capacity owned by the City of Orange, as needed, based upon replacement value less depreciation. Within ___ months of the effective date of the Annexation, IRWD shall provide and activate sewer service connections to the properties within Planning Area No. 156 currently served by the City pursuant to out of area sewer service agreements ("Out of Area Agreements"). Upon said activation, IRWD shall be the City's successor to all City's rights, duties, and obligations under the Out of Area Agreements.

Condition No. 8 – Effective Date

The effective date of the Annexation shall be the date of recordation which shall generally correspond to the effective date of the merger of OPAMWC into IRWD's limited liability company, as such date is established by the filing of the certificate of merger. The effectiveness of any separate or concurrent annexation to Orange County Sanitation District ("OCSD") of the portion of the herein subject territory which is not already within OCSD, shall be conditioned upon the effectiveness of the Annexation and the receipt of IRWD's commitment to be the local sewer service provider.

Condition No. 9 – Coordination of Groundwater Production, Monitoring and Mitigation of Impacts from New or Upgraded Wells

The Second Amended Agreement between the City of Orange and IRWD (dated August 28, 2006) regarding water service to the SHII/East Orange Area, provides that any municipal groundwater production wells operated by IRWD within the Sphere of Influence of the City of Orange shall only serve water customers within the Sphere of Influence of the City of Orange (to be determined on the basis of water accounting, showing no net export) unless otherwise authorized by the City of Orange's prior written consent.

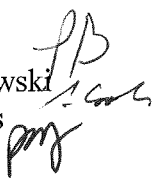
In order coordinate groundwater production, monitoring and the mitigation of impacts from new wells, IRWD and the City of Orange shall establish a Joint Groundwater Engineering and Management Committee and shall each appoint one representative and one alternate representative to the Joint Committee. The primary purpose of the Joint Committee shall be to facilitate communication between IRWD and the City of Orange

and to cooperatively monitor and evaluate groundwater production and distribution activities in OPAMWC and the SHII/East Orange Area. IRWD and the City of Orange shall give full consideration to all recommendations of the Joint Committee. The Committee shall coordinate its activities and recommendations with the Orange County Water District (OCWD) and shall request OCWD to participate in the Committee's tasks. The Joint Committee shall meet periodically, but at least once a year, to perform such tasks as may be assigned to it by IRWD and the City of Orange from time to time, including, but not limited to, the following:

- Monitoring of groundwater levels and production in the OPAMWC and east Orange area
- Monitoring of water quality in the OPAMWC, east Orange area.
- Reviewing any proposed IRWD and City of Orange well sites for drawdown impact and spacing considerations within OPAMWC and East Orange areas.
- Development of mitigation measures for IRWD and City of Orange wells effected by increased pumping or water quality changes.
- Allocation of cost of groundwater mitigation measures.
- Development of programs to augment groundwater production in the east Orange area.



December 17, 2007
Prepared and
Submitted by: L. Bonkowski
Approved by: Paul Jones



ACTION CALENDAR

ELECTION OF OFFICERS FOR 2008

SUMMARY:

The Bylaws of the District provide that the President and Vice President shall be elected by the Board from among its members. The term of office of the President and Vice President is one year, or until the election and qualification of their successors. On December 18, 2006, Director Reinhart was elected to the office of President and Director Miller was elected to the office of Vice President.

While there are no formal election procedures set forth in the Bylaws, it is suggested that the General Manager be appointed temporary Chairman to conduct the election of President. The temporary Chairman would open nominations, accept nominations which need not be seconded, accept a motion to close the nominations, and conduct the balloting by voice vote. The President would then conduct the election of the Vice President in a similar manner.

FISCAL IMPACTS:

None

ENVIRONMENTAL COMPLIANCE:

Not applicable

COMMITTEE STATUS:

Not applicable.

RECOMMENDED MOTION:

CONDUCT AN ELECTION OF THE PRESIDENT AND VICE PRESIDENT.

