
CONSENT CALENDAR

Items 5-16

5. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the January 9, 2012 Regular Board Meeting be approved as presented.

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

Recommendation: That the Board ratify/approve the meetings and events for Steven LaMar, Mary Aileen Matheis, Peer Swan, John Withers, and Douglas Reinhart.

7. STRATEGIC MEASURES DASHBOARD

Recommendation: That the Board receive and file the Strategic Measures Dashboard and information items.

8. DECEMBER 2011 FINANCIAL REPORTS

Recommendation: Receive and file the Treasurer's Investment Summary Report and the Monthly Interest Rate Swap Summary for December 2011; approve the December 2011 Disbursement Summary of Warrants Nos. 325443 through 326346, Workers' Compensation distributions, wire transfers, payroll direct deposit ACH payments, payroll withholding distributions and voided checks in the total amount of \$23,945,915.10.

9. RESOLUTION COMMENDING IRV PICKLER

Recommendation: That the Board adopt a resolution commending Mr. Irv Pickler for his dedicated service to the Orange County Water District.

Reso. No. 2012-

10. 2012 STATE LEGISLATIVE UPDATE

Recommendation: Receive and file.

11. WATER SUPPLY ASSESSMENT FOR PLANNING AREA 33 (LOTS 105/107 AND 108) GENERAL PLAN AMENDMENT AND ZONE CHANGE

Recommendation: That the Board approve the Water Supply Assessment for Planning Area 33 (Lots 105/107 and 108) General Plan Amendment and Zone Change.

CONSENT CALENDAR - Continued

Items 5-16

12. VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR SERRANO SUMMIT (TENTATIVE TRACT MAP 17331)

Recommendation: That the Board approve the Verification of Sufficient Water Supplies for Serrano Summit (Tentative Tract Map 17331).

13. MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND BIOSOLIDS AND ENERGY RECOVERY FACILITIES VARIANCES

Recommendation: That the Board authorize the General Manager to execute Variance No. 3, in the amount of \$30,000, with Environ for engineering services to complete the air permit application package for the Michelson Water Recycling Plant (MWRP) Biosolids and Energy Recovery Facilities, project 20847 (1617); authorize the General Manager to execute Variance No. 2, in the amount of \$71,810.40, with ARCADI-US/Malcolm Pirnie for construction management and inspection services for the MWRP Biosolids and Energy Recovery Facilities, project 20847 (1617); authorize the General Manager to execute Variance No. 10 in the amount of \$85,500 with Black & Veatch for engineering services for the MWRP Biosolids and Energy Recovery Facilities, project 20847 (1617); and authorize the General Manager to execute Variance No. 11 with VA Consulting for engineering services in the amount of \$74,000 for MWRP Flood Protection Improvement, projects 20542 (1150) and 30542 (1118).

14. BUREAU OF RECLAMATION WATERSMART GRANT APPLICATION FOR MICHELSON WATER RECYCLING PLANT MICROTURBINE SYSTEM PROJECT

Recommendation: That the Board authorize staff to apply for the Bureau of Reclamation WaterSMART grant with a maximum award of \$1.5 million in total funding to increase the use of renewable energy, energy use and efficiency water use, and commit to authorizing matching funds of at least fifty percent; agree to meet established deadlines for entering into a cooperative agreement; and adopt a resolution authorizing submission of a grant application for Michelson Water Recycling Plant Microturbine System Project to the Department of Interior, Bureau of Reclamation, Policy and Administration.

Reso. No. 2012-

CONSENT CALENDAR - Continued

Items 5-16

15. PORTOLA ZONE 9 RESERVOIR ACCESS ROAD REPAIR – BUDGET ADDITION, EXPENDITURE AUTHORIZATION, AND CONSULTANT SELECTION

Recommendation: That the Board authorize the addition to the FY 2011-12 Capital Budget in the amount of \$94,600 for the Portola Zone 9 Reservoir Access Road Repair, project 11618 (3531); approve an Expenditure Authorization in the amount of \$94,600 for the Portola Zone 9 Reservoir Access Road Repair, project 11618 (3531); and authorize the General Manager to execute a consultant agreement in the amount of \$59,158 with NMG Geotechnical for the Portola Zone 9 Reservoir Access Road Repair, project 11618 (3531).

16. PLANNING AREA 40 CYPRESS VILLAGE PHASE 2 BUDGET, EXPENDITURE AUTHORIZATIONS, CONSTRUCTION CONTRACT, AND SUPPLEMENTAL REIMBURSEMENT AGREEMENT

Recommendation: That the Board authorize the addition of project 11605 (1346) for \$194,700 and project 31605 (1229) for \$216,700 to the FY 2011-12 Capital Budget; approve Expenditure Authorizations for project 11605 (1346) for \$194,700 and project 31605 (1229) for \$216,700; authorize the General Manager to execute a Supplemental Reimbursement Agreement with the Irvine Community Development Company (ICDC) for the design and construction of the IRWD facilities within Planning Area 40 Cypress Village; and approve a construction contract in the amount of \$232,900.55 to the Reimbursement Agreement with ICDC for Planning Area 40 Cypress Village to construct Phase 2 IRWD capital facilities, projects 10605 (1346) and 31605 (1229).

ACTION CALENDAR

17. PLANNING AREA 18 ZONE 3-4 AND ZONE B-C BOOSTER PUMP STATIONS PRELIMINARY DESIGN REPORT CONSULTANT SELECTION

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with SAIC Energy, Environmental & Infrastructures, LLC in the amount of \$88,594 for engineering design services for the Planning Area 18 Zone 3-4 and the Zone B-C Booster Pump Stations Preliminary Design Report, projects 10446 (1648) and 30446 (1063).

ACTION CALENDAR - Continued

18. APPROVAL OF INDEX-BASED TENDER NOTE REMARKETING STATEMENTS

Recommendation: That the Board adopt a resolution approving Remarketing Statements relating to unscheduled mandatory tenders (Refunding Series 2011A-1 and Refunding Series 2011A-2).

Reso. No. 2012-

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 staff to report back at a subsequent meeting concerning any matter, or direct 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.

19. A. General Manager's Report

B. Directors' Comments

1)

2)

3)

4)

5)

C. Adjourn. The meeting will be adjourned to Monday, January 30, 2012 at 1:00 p.m. in the Multi-purpose Room to hold a Strategic Planning Workshop.

* * * * *

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the Irvine Ranch Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Board Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available at the entrance to the Board of Directors Room of the District Office.

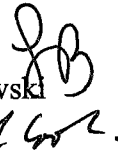
The Irvine Ranch Water District Board Room is wheelchair accessible. If you require any special disability-related accommodations (e.g., access to an amplified sound system, etc.), please contact the District Secretary at (949) 453-5300 during business hours at least seventy-two (72) hours prior to the 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.

January 23, 2012

Prepared and

Submitted by: L. Bonkowski

Approved by: P. Cook



CONSENT CALENDAR

MINUTES OF REGULAR BOARD MEETING

SUMMARY:

Provided are the minutes of the January 9, 2012 Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE JANUARY 9, 2012 REGULAR BOARD MEETING
APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – January 9, 2012 Regular Board Meeting

EXHIBIT "A"

MINUTES OF REGULAR MEETING – JANUARY 9, 2012

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Matheis on January 9, 2012 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, LaMar, Matheis, Swan and Withers (arrived at 5:15 p.m.).

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Operations Pedersen, Executive Director of Engineering and Planning Burton, Treasurer/Assistant Director of Finance Jacobson, Secretary Bonkowski, Legal Counsel Arneson, Executive Director of Water Policy Heiertz, Director of Public Affairs Beeman, Director of Human Resources Wells, Director of Wastewater Operations Posey, Director of Water Resources Weghorst, Mr. Thomas Bonkowski, Ms. Fiona Sanchez, Ms. Debby Kanoff, Ms. Terri Isaacs, Mr. Nathaniel Singer, Mr. Jim Reed, Ms. Roberta Sitzler, Mr. Ken Drake, Mr. Brad Garcia, Mr. Jim Hamer, Mr. Brad Garcia, Ms. Kay Phillies, Mr. Louis Denger, and other members of the public and staff.

WRITTEN COMMUNICATION: None.

ORAL COMMUNICATION:

- 1) Mrs. Joan Irvine Smith's assistant addressed the Board of Directors with respect to the Dyer Road Wellfield. She said it was her understanding that currently wells 1, 5, 6, 7, C-8, C-9, 10, 15 and 17 will operate in accordance with the District's annual pumping plan. Wells, 2, 3, 4, 11, 12, 13, 14, 16, and 18 will be off. This was confirmed by Mr. Cook, 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), a Notice of Completion was approved by the OCWD Board of Directors on March 19, 2009. Metropolitan Water District has given notice to OCWD to extract 22,000 acre feet in fiscal year 2009/10. The extraction is being performed by agencies that constructed conjunctive use wells under this program. IRWD is not a participant. This was confirmed by Mr. Cook.

With respect to the OCWD annexation of certain IRWD lands, on June 5, 2009, IRWD received a letter from OCWD noting that OCWD has completed the formal responses to comments they previously received on the draft program Environmental Impact Report. The letter further noted that with this task completed, OCWD has exercised its right to terminate the 2004 Memorandum of Understanding (MOU) regarding annexation. OCWD also indicated that due to the lack of progress on the annexation issue, the draft program Environmental Impact Report will not be completed. On June 8, 2009, OCWD completed the Long-Term Facilities Plan which was received and filed by the OCWD Board in July 2009. Staff has been coordinating with the City of Anaheim (Anaheim) and Yorba Linda Water District (YLWD)

on their most recent annexation requests and has reinitiated the annexation process with OCWD. IRWD, YLWD and Anaheim have negotiated a joint MOU with OCWD to process and conduct environmental analysis of the annexation requests. The MOU was approved by the OCWD Board on July 21, 2010. This was confirmed by Mr. Cook.

With respect to the Groundwater Emergency Service Plan, IRWD has an agreement in place with various south Orange County water agencies, MWDOC and OCWD, to produce additional groundwater for use within IRWD and transfer imported water from IRWD to south Orange County in case of emergencies. IRWD has approved the operating agreement with certain south Orange County water agencies to fund the interconnection facilities needed to affect the emergency transfer of water. MWDOC and OCWD have also both approved the operating agreement. This was confirmed by Mr. Cook.

- 2) In response to Mr. Louis Denger's inquiry relative to the selection process of Directors for Standing Committees, President Matheis said that she would provide an overview of the process under item 8 on the agenda (see page 4). Mr. Denger also suggested that information be provided on the website relative to the Natural Treatment System's (NTS) removal of nutrients. In response to Mr. Denger's inquiry if the NTS is meeting nutrient removal expectations listed in the NTS Master Plan, General Manager Cook said he would need to investigate this further as this information was not immediately available.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED: None.

PRESENTATIONS

AQUA DUCK CONTEST WINNER

Ms. Erika Blaska presented a certificate to Ms. Britany Long, the winner of IRWD's art contest to redesign the District's water conservation mascot, Aqua Duck.

SHADETREE PARTNERSHIP OVERVIEW

Using a PowerPoint presentation, Mr. Thomas Bonkowski, General Manager of Shadetree Partnership, provided an overview of the 2011 activities. President Matheis thanked Mr. Bonkowski and the Board for all of its efforts with the organization.

PUBLIC HEARING

ADOPTION OF REVISED RULES AND REGULATIONS

General Manager Cook reported that the District has compiled a series of proposed changes to its Rules and Regulations for water, sewer, recycled water, and natural treatment system service. He said that the purpose of this hearing is to allow members of the public and the Board to comment prior to the adoption of the revised Rules and Regulations.

Mr. Cook said that changes have been made to update definitions and promote consistent nomenclature throughout the document, and that changes have been made to specific sections as follows: Section 4: Distinguishes "lower lateral" and "upper lateral" sewer responsibilities and

maintenance, repair and reconstruction; adds provision at 4.13 for reservation of rights to supply potable or non-potable water to the District's recycled water system without adjustment of costs for source of supply, as a conforming change relating to a clarification in the definition of Recycled Water; Section 7: Removes provisions for grease disposal mitigation; adds provisions for Fats, Oils and Grease (FOG) permitting process and recordkeeping requirements; and Section 12: Updates payment methods to incorporate electronic forms of billing and payment methods; updates variance process for rate structure allocations; updates procedures for revisions to acreage and base indexes; provides specific time window for application of retroactive adjustments; specifies parameters for customer courtesy adjustments to conform to District practices.

President Matheis declared this to be the time and place for the hearing on the adoption of revised Rules and Regulations for water, sewer, recycled water, and natural treatment system service in accordance with Water Code Section 35423, and declared the hearing open. She asked Secretary Bonkowski how the Notice of Hearing was given.

Secretary Bonkowski said that the Notice of this hearing was published in the Orange County Register on December 24 and December 31, 2011. She said a notice was also posted in the District office on December 16, 2011. She then presented an Affidavit of Posting and the Proof of Publication. On MOTION by Swan, seconded and unanimously carried, THE BOARD RECEIVED AND FILED THE AFFIDAVIT OF POSTING AND THE PROOF OF PUBLICATION PRESENTED BY THE SECRETARY.

President Matheis inquired of the Secretary whether there have been any written communications. Secretary Bonkowski said that there were no communications.

President Matheis asked Legal Counsel Arneson to describe the nature of the proceeding. Ms. Arneson said that a public hearing is being held to allow all persons interested an opportunity to be heard concerning any matters set forth in the proposed changes to its Rules and Regulations.

President Matheis inquired if the Executive Director of Water Policy would like to give a report. Mr. Heiertz said that the General Manager had summarized the changes in the Rules and Regulations, and said he was available to answer any questions from the Board. There were no questions from the Board.

President Matheis inquired whether there is anyone present who wished to address the Board concerning the Irvine Ranch Water District's revised Rules and Regulations for water, sewer, recycled water, and natural treatment system service. There were none.

President Matheis inquired whether there are any comments or questions from members of the Board of Directors. There were none.

On MOTION by Swan, seconded and unanimously carried, THE HEARING WAS CLOSED AND THE FOLLOWING RESOLUTION WAS ADOPTED BY TITLE:

RESOLUTION NO. 2012-1

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA
RESCINDING RESOLUTION NO. 2009-4 AND
ESTABLISHING REVISED RULES AND REGULATIONS OF
THE IRVINE RANCH WATER DISTRICT
FOR WATER, SEWER, RECYCLED WATER,
AND NATURAL TREATMENT SYSTEM SERVICE
AND EXHIBIT A THERETO

CONSENT CALENDAR

President Matheis asked that item No. 8, RATIFICATION OF MEMORANDUM RELATIVE TO THE BOARD, COMMITTEE AND OTHER ASSIGNMENTS, AND APPROVAL OF AGENCY AND OUTSIDE ORGANIZATION BOARD REPRESENTATION AT MEETINGS/EVENTS FOR 2012, be placed on the Action Calendar for discussion. There being no objections, this item was moved to the Action Calendar. On MOTION by Withers, seconded and unanimously carried, CONSENT CALENDAR ITEMS 6 AND 7 WERE APPROVED AS FOLLOWS:

6. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the December 12, 2011 Regular Board Meeting be approved as presented.

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

Recommendation: That the Board ratify/approve the meetings and events for Steven LaMar, Mary Aileen Matheis, Peer Swan and John Withers.

ACTION CALENDAR

RATIFICATION OF MEMORANDUM RELATIVE TO THE BOARD, COMMITTEE AND OTHER ASSIGNMENTS, AND APPROVAL OF AGENCY AND OUTSIDE ORGANIZATION BOARD REPRESENTATION AT MEETINGS/EVENTS FOR 2012

President Matheis reported that as the newly-elected President, it is customary to review and evaluate the assignments of Directors who serve on various standing and ad hoc committees as well as District representation in various other assignments. She said that in consultation with General Manager Cook, she reviewed the committees and other assignments, and has incorporated changes in the Memorandum which is provided in the write-up. She said that she also received suggestions from the Directors on various assignments. Mr. Denger, a member of the public, who had inquired about the selection process for standing committees, said that he was satisfied with the explanation provided by President Matheis.

On MOTION by Withers, seconded and unanimously carried. THE BOARD RATIFIED THE MEMORANDUM DATED JANUARY 9, 2012 ENTITLED OFFICERS OF THE BOARD, COMMITTEE AND OTHER ASSIGNMENTS, APPROVED ATTENDANCE FOR THE MEETINGS AND EVENTS FOR THE BOARD'S REPRESENTATION FOR CALENDAR YEAR 2012 AS OUTLINED AND ADOPTED THE FOLLOWING RESOLUTION BY TITLE.

RESOLUTION NO. 2012-2

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT, RESCINDING
RESOLUTION NO. 2011-2 AND REVISING THE
ASSIGNMENT OF DIRECTORS TO COMMITTEES
OF THE BOARD

INTEREST RATE SWAPS BASIS SWAP STRATEGY AND AUTHORIZATION REQUEST

General Manager Cook reported that staff and the District's interest rate swap financial advisor, Mr. Nathaniel Singer of Swap Financial Group, will present an overview of interest rate basis swap fundamentals including potential transaction scenarios, current market rates/ratios and potential cash flow and market value implications to the District. Mr. Cook said that the Finance and Personnel Committee requested that staff evaluate the tax-exempt/taxable ratio levels that occurred in late 2008 to determine if a long-term basis swap(s) executed in a similar interest rate environment would be a prudent and effective strategy for the District.

Using a PowerPoint presentation, Mr. Singer provided an overview of the basis swaps. Using charts, he reviewed the long-term tax-exempt bond price inefficiency relative to short-term tax-exempt bonds; described how a basis swap could be used to capture the inefficiency associated with long-term tax exempt bond pricing; described how long-term ratios are higher than tax-exempt break even; provided factors that can influence SIFMA/LIBOR ratios; reviewed how a \$100 million basis swap will fit within IRWD's existing debt structure; and provided a chart on statistics summary and market-to-market sensitivity ratios. In response to Director LaMar's inquiry, he said that the Metropolitan Water District has had success with this trading strategy.

Director Swan reported that this item was reviewed by the Finance and Personnel Committee at its meeting on August 19 and December 6, 2011, and said that over the District's lifetime, has had over \$1 billion in interest rate swaps which were very successful. In regard to the process for approving swap transactions should the Board approve the proposed term sheet, Mr. Jacobson explained that as provided in the authority delegated pursuant to the District's *Interest Rate Swap Policy*, the transaction will be submitted to the Finance and Personnel Committee, who will specify further detailed parameters for the transaction and then to the Treasurer, who will execute the documents, and of whose action(s) will also be reported to the full Board. He said this process permits timely response to quickly-changing market conditions. Director Swan added that information will be provided to the Board as soon as feasible if a transaction proceeds. Director Withers asked staff to obtain a Statement of Qualifications and resume from the Swap Financial Group for his review. On MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED "INTEREST RATE SWAP AUTHORIZATION – TERM SHEET NO. 7" AUTHORIZING AN INTEREST RATE BASIS SWAP TRANSACTION(S) NOT TO EXCEED \$100 MILLION NOTIONAL AMOUNT AT A MINIMUM TAX-EXEMPT/TAXABLE RATIO

OF 96% AND FOR A MAXIMUM TERM OF UP TO 20 YEARS FROM THE TRANSACTION DATE, AS FURTHER SET FORTH IN SAID TERM SHEET.

ASSET OPTIMIZATION – SAND CANYON MEDICAL OFFICE PROJECT TENANT IMPROVEMENT CONSTRUCTION AWARD

Treasurer/Assistant Director of Finance Jacobson reported that in March 2011, the Board approved a 10-year lease agreement with Coastal to lease 12,031 square feet of the planned medical office building, resulting in occupancy of approximately 73% of the space in the new building. The approved lease agreement includes a tenant improvement (TI) allowance in order to design and construct Coastal's new facilities.

Mr. Jacobson said that included in the lease agreement with Coastal is a TI allowance of up to \$100.00 per useable square foot (10,583 useable SF), or a total of \$1,058,300. The lease terms also include a provision for the District to finance additional TIs, if required, up to \$25.00 per useable square foot, or up to an additional \$264,575, at an interest rate of 8.00% per year. Lease terms provide for the additional amount to be amortized and included in the tenant's monthly lease payments over the term. Any improvements in excess of this amount are the sole responsibility of Coastal.

Mr. Jacobson said that based on bids received for Coastal's TI construction, as well as design and project management expenses incurred to date, Coastal anticipates it will likely require the maximum amount allowed in the lease agreement of \$125.00 per square foot, or a total of \$1,322,875. He said that staff is recommending an increase to the 2011/12 Capital Budget of \$1,455,100 and an Expense Authorization for \$1,455,100, representing the stated TI budget plus contingencies.

Mr. Jacobson said that the general contractors submitting proposals include KPRS Construction (KPRS), Driver SPG (CW Driver) and Swinerton Builders. The cost variance of the submitted proposals ranged from \$1,338,399 to \$1,418,889. He said that based on its competitive bid proposal of \$1,338,399, its experience with similar medical office tenant improvement projects, as well as its performance as general contractor for the building shell construction, staff is recommending KPRS Construction to provide general contractor services for the TIs. Director Withers left the Board room at 6:10 p.m.

Director Swan said that this item was reviewed by the Asset Management Committee at meetings in June 2010, September 2010 and January 2012, and was approved by the Committee at its January meeting. On MOTION by Swan, seconded and carried (4-0) (Swan, LaMar, Reinhart, and Matheis voting aye, and Withers absent), THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH KPRS CONSTRUCTION IN AN AMOUNT NOT TO EXCEED \$1,338,399; APPROVED AN INCREASE TO THE 2011/12 CAPITAL BUDGET IN THE AMOUNT OF \$1,455,100 AND APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$1,455,100 FOR PROJECT 1284.

NEWPORT BOULEVARD DOMESTIC WATER MAIN RELOCATION - CONSTRUCTION AWARD

Executive Director of Engineering and Planning Burton reported that the Newport Boulevard Domestic Water Main Relocation project will replace approximately 5,000 linear feet of 12-inch asbestos cement water main located in Santa Ana Heights which provides drinking water, irrigation, fire services, and fire hydrants to approximately 73 customers. He said that an existing 12-inch asbestos cement domestic water main runs parallel to the rear property line of properties facing either Newport Boulevard or Elden Avenue, from Wilson Street to Mesa Drive. Mr. Burton said that since the water main is “landlocked”, repairing leaks and performing routine maintenance requires IRWD to enter private property. Aside from the costs to repair or maintain the pipeline, there are additional costs should IRWD damage any private improvement. He said that this project will construct a replacement 12-inch water main in Newport Boulevard. All existing pipeline appurtenances and service connections will be relocated to the new pipeline and reconnected to private on-site plumbing outside the buildings. The existing water main will be filled with slurry and abandoned in place and the existing water meters will be removed.

Mr. Burton said that the project was advertised on November 21, 2011 to a select bid list of nine pipeline contractors including Steve Bubalo Construction Co., Doty Brothers Construction Co., RC Foster Corporation, GCI Construction, Inc., Kennedy Pipeline Company, L&S Construction, Inc., Leatherwood Construction, Inc., Paulus Engineering, Inc., and Sully-Miller Contracting Co. He said that the bid opening was held on December 19, 2011, with bids received from four of the nine contractors. Sully-Miller Contracting Co. was the apparent low bidder with a bid amount of \$3,657,815.54. The engineer's estimate was \$4,897,000. He further said that of the five other contractors that declined to bid, Steve Bubalo Construction and Doty Brothers Construction cited their manpower deficiencies to complete the project within the proposed construction period. The amount of on-site plumbing work on private properties may also have been a contributing factor to the non-submittal of bids from the other contractors. Director Withers returned at 6:15 p.m.

On MOTION by Reinhart, seconded and unanimously carried, THE BOARD AUTHORIZED AN INCREASE TO THE FY 2011-12 CAPITAL BUDGET FOR PROJECT 10822 (1866) IN THE AMOUNT OF \$1,237,200, FROM \$3,622,300 TO \$4,859,500; APPROVED AN EXPENDITURE AUTHORIZATION FOR PROJECT 10822 (1866) IN THE AMOUNT OF \$4,152,200; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH SULLY-MILLER CONTRACTING CO. IN THE AMOUNT OF \$3,657,815.54 FOR THE NEWPORT BOULEVARD DOMESTIC WATER MAIN RELOCATION PROJECT.

Director Reinhart left the Board meeting at 6:19 p.m. due to another commitment.

GENERAL MANAGER’S COMMENTS

General Manager Cook provided an update on the Metropolitan Water District shutdown in South County which is proceeding on schedule. He said that water is being provided through an emergency interconnection as well as the Baker pipeline.

Mr. Cook noted the 2012 ACWA Committee assignments are as follows: Beth Beeman (Communications); Peer Swan (Energy, Finance and Water Management), Steve LaMar (Federal Affairs), Doug Reinhart (Groundwater), Mary Aileen Matheis (Legal Affairs), Kirsten McLaughlin (State Legislative), and Dave Pedersen (Water Quality).

Mr. Cook said that OCWD's Board Member Irv Pickler will be resigning from its Board, and that a reception will be held for him on January 25. Staff was asked to prepare a resolution of commendation for him for adoption at the January 23 Board meeting. He further said that Mr. Harry Sidhu will be appointed to fill Mr. Pickler's open seat. Staff was asked to invite Mr. Sidhu to attend a tour of IRWD.

Mr. Cook further said that OCWD will be holding a groundbreaking ceremony of the GWRS on January 17.

DIRECTORS' COMMENTS

Director LaMar reported that he attended the City of Lake Forest's 20th anniversary event.

Director Swan reported that he continues to work with ACWA on the Delta Alternative package. He said that he made a presentation at the WACO meeting relative to the Delta last Friday.

Director Withers reported that he will be attending a LAFCO Commission meeting this Wednesday as well as a Concordia Public Affairs meeting next week.

Director Matheis reported that she attended a CSDA Education Committee meeting where they are planning the next annual conference.

ADJOURNMENT

President Matheis adjourned the meeting at 6:28 p.m.

APPROVED and SIGNED this 23rd day of January, 2012.

President, IRVINE RANCH WATER DISTRICT

Secretary, IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

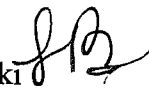
Legal Counsel - Bowie, Arneson, Wiles & Giannone

January 23, 2012

Prepared and

Submitted by: L. Bonkowski

Approved by: P. Cook



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

Steven LaMar

2/3/2012 ACWA Federal Affairs Committee, Sacramento
2/8 – 2/9/2012 Federal Legislative Meetings, Washington DC
2/15/2012 State Legislative Meetings, Sacramento

Mary Aileen Matheis

1/17/2012 OCWD's Groundwater Replenishment System Groundbreaking Ceremony
1/25/2012 Retirement celebration for OCWD's Board Member Irv Pickler
2/2/2012 Tustin Community Foundation's City of Tustin's Mayor's Inaugural Event
2/7/2012 City of Irvine's State of the City Address
2/8 – 2/9/2012 Federal Legislative Meetings, Washington DC
2/15/2012 State Legislative Meetings, Sacramento
2/27-27/2012 ACWA 2012 Washington DC Conference
2/29-3/1/2012 Water Education Foundation's Water Tour

John Withers

1/17/2012 OCWD's Groundwater Replenishment System Groundbreaking Ceremony
1/17/2012 Southern California Water Committee Quarterly Meeting
1/18/2012 Orange County Water Association Monthly Luncheon Meeting
1/25/2012 Retirement celebration for OCWD's Board Member Irv Pickler
2/8 – 10/2012 Urban Water Institute, Inc. Spring Water Conference, Palm Springs

Doug Reinhart

2/8 – 10/2012 Urban Water Institute, Inc. Spring Water Conference, Palm Springs

Peer Swan

2/27-27/2012 ACWA 2012 Washington DC Conference

RECOMMENDATION:

THAT THE BOARD RATIFY/APPROVE THE MEETINGS AND EVENTS FOR STEVEN LAMAR, PEER SWAN, MARY AILEEN MATHEIS, DOUGLAS REINHART, AND JOHN WITHERS AS PRESENTED.

LIST OF EXHIBITS:

None.

Lb - Board Meeting Events.doc

January 23, 2012

Prepared and Submitted by: Various

Approved by: Paul Cook



CONSENT CALENDAR

STRATEGIC MEASURES DASHBOARD

SUMMARY:

Provided as Exhibits "A", "B", and "C" are the Strategic Measures Dashboard and informational items for Board review.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE STRATEGIC MEASURES DASHBOARD AND INFORMATION ITEMS.

EXHIBITS:

Exhibit "A" – Strategic Measures Dashboard

Exhibit "B" – Dyer Road Wellfield Status

Exhibit "C" – Reservoir Data

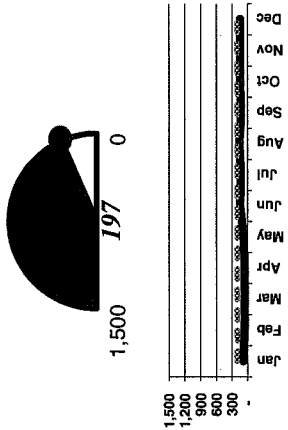
IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES DASHBOARD

December 2011

Note: The more blue area displayed on the dial, the more favorable the measure.

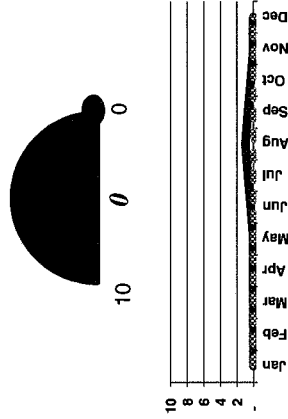
Reliability-Potable/Nonpotable

Target = 200 customer hours out of service this month



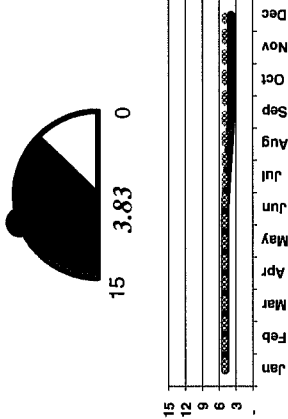
Sewer Spills

Target = 0 Spills this month



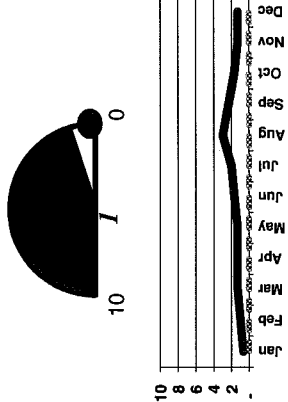
OCSD CORF Flows

Target = 8.80 MGD CORF flow to OCSD this month



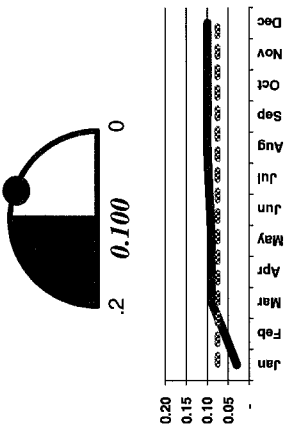
OSHA Recordables

Target = 0 reportable accidents this month



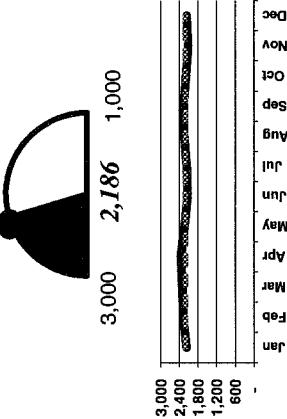
MWRP Energy Cost per kWh

Target = .0792 cost per kWh this month



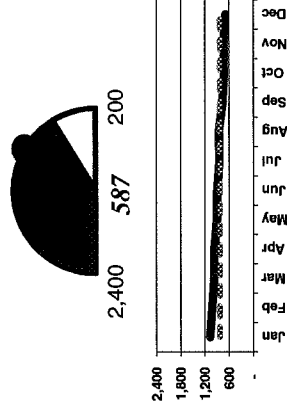
Wastewater Cost

Target = \$2,190/MG processed this month



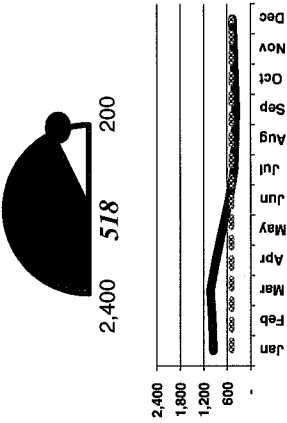
Water System Cost--Potable

Target = \$866/ac-ft delivered this month



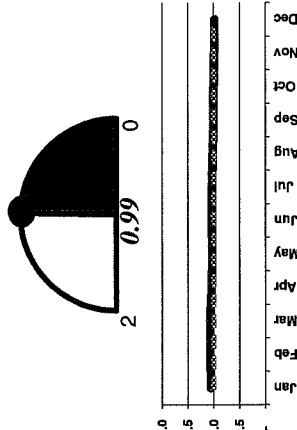
Water System Cost--Nonpotable

Target = \$451/ac-ft delivered this month



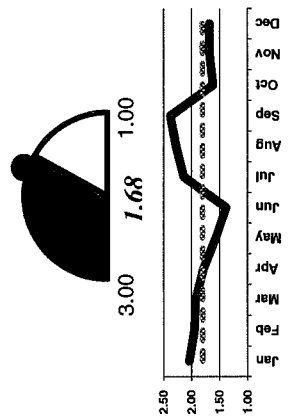
Enterprise Return

Target = 1.0 (net income/goal) last month



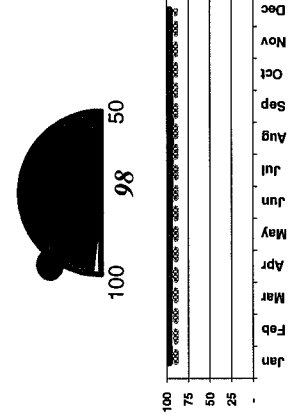
Overhead Ratio

Target = 1.80 (G&A expenses/direct labor) this month



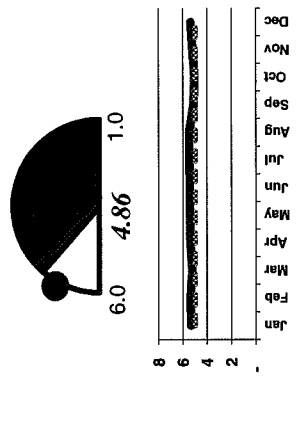
Customer Satisfaction

Target = 90% satisfaction this month



Employee Satisfaction

Target = 5.0 score this month



● Target shown on gauge
 00.00 Figure for Current Month

Target shown on trend graph
 3-month rolling average

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Reliability-Potable/Nonpotable

MONTHLY STATUS REPORT

Metric Owner: Water Ops

Definition of Measure:

The relative magnitude of system outages due to failures or scheduled maintenance for Potable and Non Potable Water.

Method:

Summation of the time any part of the system was out of service times the number of customers affected by the given outage during the month.

Data Collection

Data was derived from the CSR database for customer based reports of "no water" and from the work order database for scheduled maintenance requiring the shut down of water service during repairs.

Current Issues

1. Main break on Anniversary Lane, December 16th.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|--------------|-------------|----------------------------|
| January 2011 | 103.20 | | <i>Thru:</i> December 2011 |
| February 2011 | 20.33 | | <i>Goal:</i> 200.00 |
| March 2011 | 59.22 | | |
| April 2011 | 120.60 | | |
| May 2011 | 45.68 | | |
| June 2011 | 283.80 | | |
| July 2011 | 62.33 | | |
| August 2011 | 148.10 | | |
| September 2011 | 176.90 | | |
| October 2011 | 130.00 | | |
| November 2011 | 114.50 | | |
| December 2011 | 197.10 | | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Sewer Spills

MONTHLY STATUS REPORT

Metric Owner: Gregory Springman

Collection System Manager

Definition of Measure:

Number of sewer overflows of any quantity, regardless of cause, in IRWD's sanitary sewer collection system. This does not include spills from private sewers within IRWD's service area. IRWD has no control over private spills and is not responsible for them. However, it should be noted that IRWD will assist the County Health Care Agency in responding to and cleaning up private spills in the interest of the community.

Method:

Total number of IRWD sewer spills

Data Collection

Data is obtained from the California State Water Boards CIWQS data base for reporting SSO's.

Current Issues

1. June, 2011 - MWRP MPS-3 Forcemain Pigging Operation, blockage occurred at the termination point of the 18" MPS-3 forcemain due to debris accumulation. 250 gals SSO with 250 gals of wastewater contained and recovered.
2. July, 2011-MWRP MPS-3 Forcemain Pigging Operation (2nd Phase), blockage occurred due to same cause. 25 gals SSO with 25 gals of wastewater contained and recovered.
3. August, 2011 - Irvine, 8" VCP. 165 gals SSO with 100% of wastewater contained and recovered. Caused by root intrusion.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|--------------|-------------|----------------------------|
| January 2011 | 0 | | <i>Thru:</i> December 2011 |
| February 2011 | 0 | | <i>Goal:</i> 0 |
| March 2011 | 0 | | |
| April 2011 | 0 | | |
| May 2011 | 0 | | |
| June 2011 | 1.00 | | |
| July 2011 | 1.00 | | |
| August 2011 | 1.00 | | |
| September 2011 | 0 | | |
| October 2011 | 0 | | |
| November 2011 | 0 | | |
| December 2011 | 0 | | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

OCSD CORF Flows

MONTHLY STATUS REPORT

Metric Owner: Wayne Posey

Director of Wastewater Operations

Definition of Measure:

Estimated CORF flow for current FY. CORF flow ownership as of the end of FY 2009/2010 was 8.62 MGD.

Method:

IRWD's CORF flow is derived by using the actual Main Street Flume Meter flow and subtracting the MWRP biosolid discharge flow and all non Revenue Area 14 (IRWD) flows tributary to the Main Street Flume meter/MWRP and adding in the San Joaquin Hills Planned Community flow and flow discharges from the Gas Recovery System (Formerly Laidlaw) for the FY four calendar months with the highest flow totals multiplied by three, averaging the result thereof with the same result of the same calculation for the preceding two fiscal years and adding in the current IBC transfer flow.

Note: All of the Newport Coast flows with the exception of the San Joaquin Hills Planned Community and Gas Recovery System flow are excluded from IRWD's CORF flow calculation. The OCSD's 1988 Downcoast Area Agreement only requires for IRWD to provide local wastewater collection service and requires OCSD to provide wastewater regional collection, transmission, treatment and disposal for that area.

Data Collection

The OCSD's Monthly Gallonage Flow Summary Report provides the actual flows used in calculating IRWD's CORF flow. This includes the Main Street Flume Meter actual monthly flow. All non Revenue Area 14 (IRWD) flows that are tributary to the Main Street Flume Meter is adjusted every year based on the results of OCSD's Flow Verification Study. The San Joaquin Hills Planned Community flow is adjusted every year based on the results of IRWD's Flow Verification Study. The Gas Recovery System flow is the actual monthly meter flow. The IBC transfer flow is adjusted every five years based on the results of OCSD's Flow Verification Study.

Current Issues

1. None

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | From: January 2011 |
|----------------|---------------|-------------|----------------------------|
| January 2011 | 4.91 | | Thru: December 2011 |
| February 2011 | 4.92 | | Goal: 4.95 |
| March 2011 | 4.92 | | |
| April 2011 | 4.92 | | |
| May 2011 | 4.93 | | |
| June 2011 | 4.95 | | |
| July 2011 | 3.85 | | |
| August 2011 | 3.83 | | |
| September 2011 | 3.83 | | |
| October 2011 | 3.83 | | |
| November 2011 | 3.83 | | |
| December 2011 | Not available | | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

OSHA Recordables

MONTHLY STATUS REPORT

Metric Owner: Ken Erwin

District Safety & Security Manager

Definition of Measure:

OSHA Recordables are a monthly measure of injuries and illnesses that occurred and must be entered on the OSHA 300 (Log of Work Related Injuries and Illnesses), in conformance with OSHA requirements. This measure is standardized not only in the water/wastewater industry, but throughout industries nationwide.

Method:

OSHA Recordables = Number of OSHA Recordable cases occurring during the subject month.

Data Collection

All injuries/illnesses and near-misses are reported to the District Safety & Security Manager immediately when they occur. All are investigated and cases meeting the recordable definition are logged. This measure simply reports the number of accidents whose occurrence date is within the calendar month.

Current Issues

1. Collections System Supervisor sustained needle stick puncture @ index finger Canada lift station

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|--------------|-------------|----------------------------|
| January 2011 | 1.00 | | <i>Thru:</i> December 2011 |
| February 2011 | 1.00 | | <i>Goal:</i> 0 |
| March 2011 | 2.00 | | |
| April 2011 | 1.00 | | |
| May 2011 | 1.00 | | |
| June 2011 | 3.00 | | |
| July 2011 | 2.00 | | |
| August 2011 | 4.00 | | |
| September 2011 | 1.00 | | |
| October 2011 | 0 | | |
| November 2011 | 3.00 | | |
| December 2011 | 1.00 | | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

MWRP Energy Cost per kWh

MONTHLY STATUS REPORT

Metric Owner: Wayne Posey

Director of Wastewater Operations

Definition of Measure:

Actual MWRP Cost per kWh used at MWRP with new generating facility.

Method:

MWRP cost per kWh is calculated by the monthly total energy purchased from imported SCE electricity, purchased natural gas for the generators from Coral Energy, and SCG natural gas transportation charge divided by the total monthly kWh generated and imported from SCE. We then add in actual maintenance costs, including g/a.

Data Collection

Data collected from actual monthly SCE, Coral Energy and SCG Invoices. Total kWh is collected from the two generator kWh meters and SCE main electric meter.

Current Issues

1. Information not available at time of reporting.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|---------------|-------------|----------------------------|
| January 2011 | .09 | | <i>Thru:</i> December 2011 |
| February 2011 | .09 | | <i>Goal:</i> .08 |
| March 2011 | .09 | | |
| April 2011 | .09 | | |
| May 2011 | .09 | | |
| June 2011 | .10 | | |
| July 2011 | .10 | | |
| August 2011 | .10 | | |
| September 2011 | .10 | | |
| October 2011 | Not available | | |
| November 2011 | Not available | | |
| December 2011 | Not available | | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Wastewater Cost

MONTHLY STATUS REPORT

Metric Owner: Wayne Posey

Director of Wastewater Operations

Definition of Measure:

Total cost of collection and treatment (primary, secondary, and solids disposal) of wastewater, on a unit basis (\$/million gallons) for this month.

Method:

(MWRP cost of collections(G/L #530) + MWRP cost of treatment(G/L #551,552,565) + OCSD cost(G/L #535,555) + SMWD cost(G/L #531,556)) divided by the total sewage flows emanating from OCSD District #14 (Includes MWRP flow + OCSD flow + SMWD flow)

Data Collection

Data used for this measure are collected from the general ledger and from Orange County Sanitation District (OCSD) and Santa Margarita Water District (SMWD) staff. Costs and flows from OCSD District #7 are not included in the calculation.

Current Issues

1. Flows information not available at time of reporting.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|---------------|-------------|----------------------------|
| January 2011 | 2,155.00 | 2,355.00 | <i>Thru:</i> December 2011 |
| February 2011 | 2,492.00 | 2,380.00 | <i>Goal:</i> 2,206.00 |
| March 2011 | 2,277.00 | 2,375.00 | |
| April 2011 | 2,297.00 | 2,378.00 | |
| May 2011 | 2,143.23 | 2,375.00 | |
| June 2011 | 1,973.19 | 2,378.00 | |
| July 2011 | 2,393.00 | 2,380.00 | |
| August 2011 | 2,390.00 | 2,386.00 | |
| September 2011 | 2,040.00 | 2,386.00 | |
| October 2011 | 2,126.00 | 2,190.00 | |
| November 2011 | 2,186.00 | 2,196.00 | |
| December 2011 | Not available | 2,206.00 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Water System Cost--Potable

MONTHLY STATUS REPORT

Metric Owner: Denise To-Nguyen

Accountant

Definition of Measure:

Total cost of potable water delivered to IRWD's customers this month, on a unit basis (\$/acre-foot). These monthly costs can vary greatly due to variation in water sales and power cost billing cycles. Thus, monthly expenses do not match up with their corresponding water sales.

Method:

Sum of all potable water costs accrued this month divided by the quantity of potable water sold this month.

Data Collection

Potable water costs collected from current month general ledger. This cost includes labor, power, distribution, and other costs. The quantity of water sold is collected from the Water Usage Variance Report, which summarizes metered water sales. Wide fluctuations in this measure may occur due to the billing delays for such expenses as electrical power (ie, bills are not paid in the same month as the water is sold).

Current Issues

1. None

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|--------------|-------------|----------------------------|
| January 2011 | 957.53 | 902.95 | <i>Thru:</i> December 2011 |
| February 2011 | 937.62 | 903.89 | <i>Goal:</i> 828.00 |
| March 2011 | 1,031.46 | 897.43 | |
| April 2011 | 951.24 | 873.74 | |
| May 2011 | 728.69 | 920.18 | |
| June 2011 | 1,005.05 | 943.89 | |
| July 2011 | 798.49 | 854.55 | |
| August 2011 | 773.00 | 789.00 | |
| September 2011 | 731.00 | 768.00 | |
| October 2011 | 699.00 | 866.00 | |
| November 2011 | 795.17 | 858.00 | |
| December 2011 | 587.43 | 828.00 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Water System Cost--Nonpotable

MONTHLY STATUS REPORT

Metric Owner: Denise To-Nguyen

Accountant

Definition of Measure:

Total cost of nonpotable water delivered to IRWD's customer this month, on a unit basis (\$/acre-foot). These monthly costs can vary greatly due to variation in water sales and power cost billing cycles. Thus, monthly expenses do not match up with their corresponding water sales.

Method:

Sum of all nonpotable water costs accrued this month divided by the quantity of nonpotable water sold this month.

Data Collection

Nonpotable water costs collected from current month general ledger. This cost includes labor, power, distribution, and other costs related to tertiary treatment and reclaimed water distribution. The quantity of water sold is collected from the Water Usage Variance Report, which summarizes metered water sales. Wide fluctuations in this measure may occur due to the billing delays for such expenses as electrical power (ie, bills are not paid in the same month as the water is sold).

Current Issues

1. None

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|--------------|-------------|----------------------------|
| January 2011 | 1,186.35 | 722.95 | <i>Thru:</i> December 2011 |
| February 2011 | 905.02 | 607.02 | <i>Goal:</i> 485.00 |
| March 2011 | 1,000.90 | 707.32 | |
| April 2011 | 777.61 | 563.92 | |
| May 2011 | 424.12 | 452.90 | |
| June 2011 | 471.96 | 413.85 | |
| July 2011 | 394.00 | 432.00 | |
| August 2011 | 338.00 | 408.00 | |
| September 2011 | 413.08 | 422.00 | |
| October 2011 | 490.00 | 451.00 | |
| November 2011 | 404.40 | 468.00 | |
| December 2011 | 517.82 | 485.00 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Enterprise Return

MONTHLY STATUS REPORT

Metric Owner: Jayne George

Debt and Investment Analyst

Definition of Measure:

This is a monthly measure of performance by IRWD's various enterprise activities, including residential and commercial real estate, Strawberry Farms Golf Course, and wireless communications leases.

Method:

Enterprise Return = Actual Net Income/Budgeted Net Income x 100

Data Collection

The various enterprise activities generate revenues and expenses at different frequencies through the year. Except for the real estate projects, the enterprise projects are primarily revenue generating activities with relatively little associated expenses. The measure reflects a comparison between the actual and budgeted net income of the various projects on a monthly basis.

Current Issues

1. None

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|--------------|-------------|----------------------------|
| January 2011 | 1.17 | | <i>Thru:</i> December 2011 |
| February 2011 | 1.04 | | <i>Goal:</i> 1.00 |
| March 2011 | 1.02 | | |
| April 2011 | 1.06 | | |
| May 2011 | 1.02 | | |
| June 2011 | 1.05 | | |
| July 2011 | 1.04 | | |
| August 2011 | .98 | | |
| September 2011 | 1.00 | | |
| October 2011 | 1.03 | | |
| November 2011 | .95 | | |
| December 2011 | .99 | | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Overhead Ratio

MONTHLY STATUS REPORT

Metric Owner: Jessica Craig

Accountant

Definition of Measure:

Overhead Ratio is a measure of general and administrative (G&A) overhead expenses compared to direct labor expenses.

Method:

Ratio of total G&A expenses to total direct labor (including regular and overtime wages).

Data Collection

G&A expenses are summarized from the general ledger and include all costs incurred that are not directly accounted to mission-critical work (charged to g/l #792). Direct labor expenses are the hourly staff charges accounted to mission-critical work (generally charged to expense codes #110 and #120). Benefits are considered G&A, not direct labor expenses.

Current Issues

1. Information not available at time of reporting.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|---------------|-------------|----------------------------|
| January 2011 | 2.13 | | <i>Thru:</i> December 2011 |
| February 2011 | 1.72 | | <i>Goal:</i> 1.80 |
| March 2011 | 1.92 | | |
| April 2011 | 1.72 | | |
| May 2011 | 1.06 | | |
| June 2011 | 1.36 | | |
| July 2011 | 3.99 | | |
| August 2011 | 1.48 | | |
| September 2011 | 1.68 | | |
| October 2011 | Not available | | |
| November 2011 | Not available | | |
| December 2011 | Not available | | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Customer Satisfaction

MONTHLY STATUS REPORT

Metric Owner: Gina Jackson

Customer Service Manager

Definition of Measure:

Customer Satisfaction is measured by IRWD's Customer Satisfaction Index. The index is measured by sending surveys to a statistically-significant, random selection of customers that have called IRWD for some type of service. Services range from answering questions about water conservation or billing to repairing a sewer blockage in the street. The surveys allow the customer to rate IRWD's response to their request in eight categories. Each category is rated from 1 to 5, with 1 indicating the highest level of satisfaction. A total score of 100 indicates the highest level of satisfaction in all eight categories. The scores of all responses in the subject month are a weighted average for the monthly index figure.

Method:

Data Collection

Surveys are mailed at the end of each work week for the customer requests completed that week. The monthly index reflects the surveys received within the subject month.

Current Issues

1. Total Overall Satisfaction: 98%
Satisfaction: 95%
Timely: 97%
Phone: 100%
Field Contact: 100%

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> January 2011 |
|----------------|--------------|-------------|----------------------------|
| January 2011 | 98.00 | | <i>Thru:</i> December 2011 |
| February 2011 | 100.00 | | <i>Goal:</i> 90.00 |
| March 2011 | 97.00 | | |
| April 2011 | 98.00 | | |
| May 2011 | 98.00 | | |
| June 2011 | 98.00 | | |
| July 2011 | 95.00 | | |
| August 2011 | 96.00 | | |
| September 2011 | 99.00 | | |
| October 2011 | 95.00 | | |
| November 2011 | 100.00 | | |
| December 2011 | 98.00 | | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Employee Satisfaction

MONTHLY STATUS REPORT

Metric Owner: Gretchen Maswadeh

Human Resources Manager

Definition of Measure:

Level of employee satisfaction with employment at IRWD.

Method:

Average of all scores on surveys for performance evaluations presented this month

Data Collection

A survey is sent to each employee receiving a performance evaluation this month. The survey simply asks the employee to rate his/her overall employment satisfaction on a scale of 1 to 6 (1 being very dissatisfied and 6 being very satisfied). The ratings are compiled and averaged by Human Resources.

Current Issues

1. 7 surveys were returned of 26 surveys sent (27%). 6 of 7 respondents (86%) rated satisfaction as 5 or 6 on a scale of 1 to 6. In the 12 month period ending December 2011, 102 surveys have been returned of 295 surveys sent (35%). 87 of 102 respondents (85%) rated satisfaction as 5 or 6 on a scale of 1 to 6. 12 month average rating is 5.29%.

MONTHLY DATA

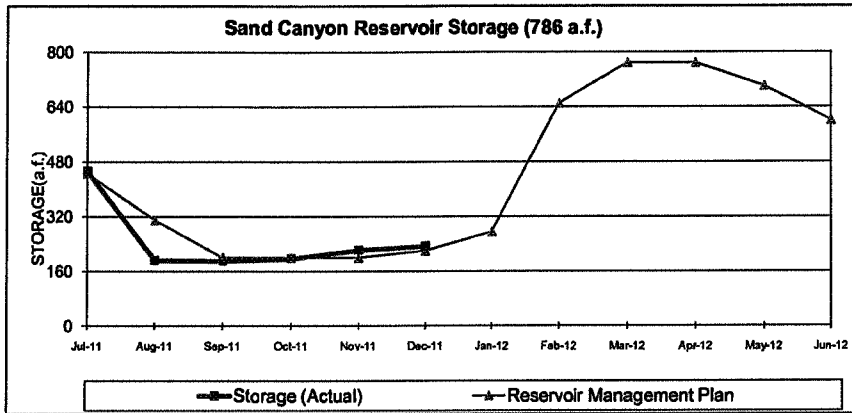
| <u>Month</u> | <u>Value</u> | <u>Goal</u> | From: January 2011 |
|----------------|--------------|-------------|----------------------------|
| January 2011 | 5.00 | | Thru: December 2011 |
| February 2011 | 5.20 | | Goal: 5.00 |
| March 2011 | 5.50 | | |
| April 2011 | 5.46 | | |
| May 2011 | 5.33 | | |
| June 2011 | 5.50 | | |
| July 2011 | 5.63 | | |
| August 2011 | 5.38 | | |
| September 2011 | 4.38 | | |
| October 2011 | 5.36 | | |
| November 2011 | 5.91 | | |
| December 2011 | 4.86 | | |

EXHIBIT "B"

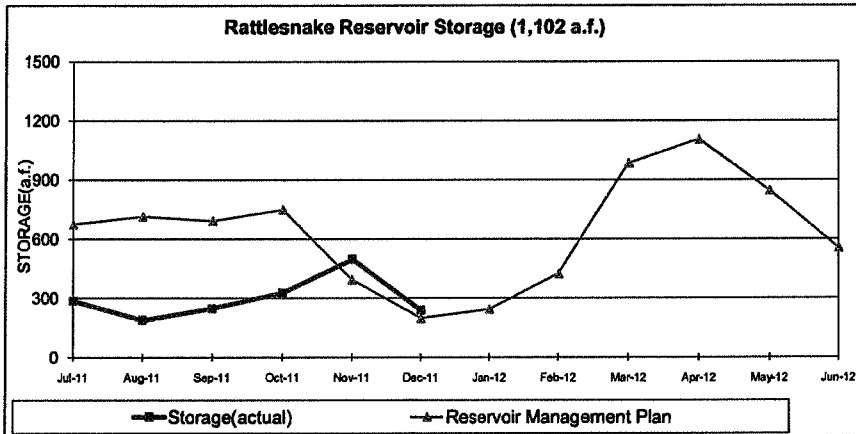
| DYER ROAD WELL FIELD STATUS | | | | | | | Dec-2011 |
|-------------------------------------|--------------------------|----------------------|---------------------------|-----------------|----------------|------------------|----------------------------|
| Well Number | Production Mo./YTD | Ref. Point Elevation | Depth to Water 12/31/2011 | Water Level-MSL | Depth of Bowls | Bowl Setting-MSL | Feet of Water Above Intake |
| 1 | 88.3 AF 319.1 AF | 34 | N/A | N/A | 270 | -236 | N/A |
| 2 | 161.6 AF 617.0 AF | 37 | 160 | -124 | 270 | -234 | 110 |
| | | | Pumping | | | | |
| 3 | 0.0 AF 0.0 AF | 55 | 81 | -26 | 215 | -160 | 134 |
| | | | Static | | | | |
| 4 | 94.0 AF 413.3 AF | 38 | 134 | -96 | 216 | -178 | 82 |
| | | | Pumping | | | | |
| 5 | 192.2 AF 475.2 AF | 48 | 259 | -211 | 290 | -242 | 31 |
| | | | Pumping | | | | |
| 6 | 130.7 AF 414.8 AF | 43 | 133 | -90 | 250 | -207 | 117 |
| | | | Pumping | | | | |
| 7 | 128.2 AF 367.5 AF | 40 | 215 | -175 | 290 | -250 | 75 |
| | | | Pumping | | | | |
| C-8 DATS | 412.1 AF 2,507.2 AF | 37 | 119 | -82 | 305 | -268 | 186 |
| | | | Pumping | | | | |
| C-9 DATS | 319.4 AF 1,936.3 AF | 23 | 120 | -97 | 305 | -282 | 185 |
| | | | Pumping | | | | |
| 10 | 139.8 AF 615.6 AF | 47 | 137 | -90 | 250 | -203 | 113 |
| | | | Pumping | | | | |
| 11 | 166.0 AF 356.7 AF | 40 | 175 | -135 | 300 | -260 | 125 |
| | | | Pumping | | | | |
| 12 | 259.7 AF 492.7 AF | 51 | 154 | -103 | 300 | -249 | 146 |
| | | | Pumping | | | | |
| 13 | 11.4 AF 75.7 AF | 40 | 182 | -142 | 300 | -260 | 118 |
| | | | Pumping | | | | |
| 14 | 98.9 AF 330.4 AF | 47 | 176 | -129 | 311 | -264 | 135 |
| | | | Pumping | | | | |
| 15 | 123.6 AF 752.1 AF | 44 | 155 | -111 | 300 | -256 | 145 |
| | | | Pumping | | | | |
| 16 | 241.4 AF 391.5 AF | 47 | 108 | -61 | 280 | -233 | 172 |
| | | | Static | | | | |
| 17 | 290.7 AF 885.1 AF | 52 | 168 | -117 | 250 | -199 | 82 |
| | | | Pumping | | | | |
| 18 | 237.9 AF 280.2 AF | 45 | 213 | -168 | 300 | -255 | 87 |
| | | | Pumping | | | | |
| Clear production: | 2,364.4 AF for the month | | | | | | |
| FYTD: | 6,786.9 AF | | | | | | |
| DATS production: | 731.4 AF for the month | | | | | | |
| FYTD: | 4,443.5 AF | | | | | | |
| November data is not yet available. | | | | | | | |

Exhibit "C"

RESERVOIR DATA FY 11-12

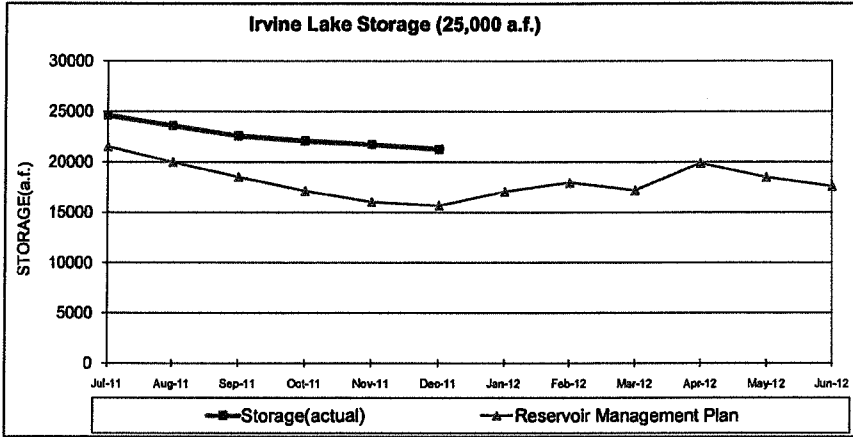


Storage was under 200 AF by October 1 as required by Regional Board permit.

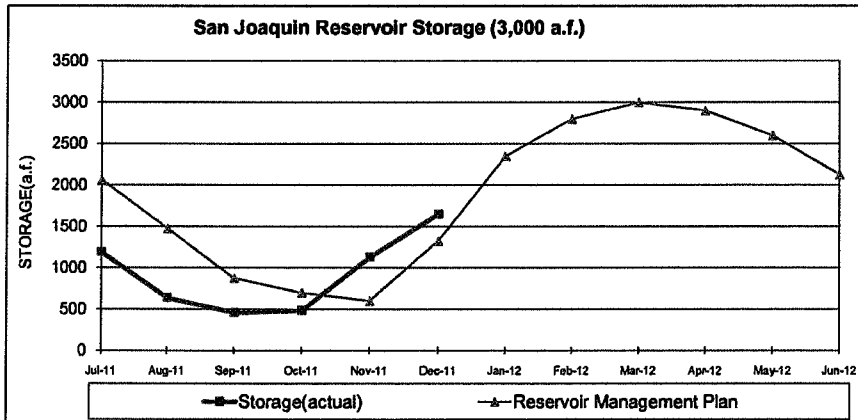


Rattlesnake storage is below average due to dry weather.

RESERVOIR DATA FY 11-12



Irvine Lake storage is above average due to rainfall and reduced demands.



All Lake Forest reclaimed demand is being supplied from the East Irvine Zone B system. The GAP was started on to help control seasonal storage.

January 23, 2011

Prepared by: Tanja Fournier/Rob Jacobson

Submitted by: Debby Cherney

Approved by: Paul Cook

CONSENT CALENDAR

DECEMBER 2011 FINANCIAL REPORTS

SUMMARY:

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

- A. The Investment Summary Report for December 2011. This Investment Summary Report is in conformity with the 2011 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 December 31, 2011, as outlined in Exhibit "B".
- C. The December 31, 2011 Disbursement Summary of the tabulation of Warrant Nos. 325443 through 326346, Workers' Compensation distributions, payroll withholding distributions, payroll direct deposit ACH payments and voided checks in the total amount of \$23,945,915.10.

FISCAL IMPACTS:

As of December 31, 2011, the book value of the investment portfolio was \$372,657,643 with a 0.41% rate of return and a market value of \$368,574,956. Based on the District's December 31, 2011 quarterly real estate investment rate of return of 9.66%, the District's weighted average return for the fixed income and real estate investments was 1.77%.

As of December 31, 2011, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in December from all swaps was negative \$615,595 and negative \$3,718,169 fiscal year to date.

Wire transfers, ACH payments, and checks issued for debt service, accounts payable, payroll and water purchases for December totaled \$23,945,915.10.

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 DECEMBER 2011; APPROVE THE DECEMBER 2011 DISBURSEMENT SUMMARY OF WARRANTS NOS. 325443 THROUGH 326346, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL DIRECT DEPOSIT ACH PAYMENTS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$23,945,915.10.

LIST OF EXHIBITS:

- Exhibit "A" - Investment Summary Report
- Exhibit "B" - Monthly Interest Rate Swap Summary
- Exhibit "C" - Monthly Summary of District Disbursements

12/31/11

| SETTLEMENT | INTEREST PERIOD | | NEXT RESET | Call Date | Maturity Date | Rating | INVESTMENT TYPE | INSTITUTION / ISSUER | PAR Amount | COUPON | YIELD | YTC | ORIGINAL COST | CARRY VALUE | MARKET VALUE 12/31/2011 | (1) | UNREALIZED GAIN/(LOSS)(2) |
|---|-----------------|----------|------------|-----------|---------------|-----------------|----------------------|-----------------------------|---------------|--------|--------|--------|------------------|------------------|-------------------------|-----|---------------------------|
| | FROM | THROUGH | | | | | | | | | | | | | | | |
| 12/29/11 | 12/01/11 | 12/31/11 | | | 01/29/12 | | LAIF | State of California Tsy. | \$21,600,000 | | 0.403% | | \$21,600,000.00 | \$21,600,000.00 | 21,639,907.99 | | 39,907.99 |
| 11/08/11 | 12/01/11 | 12/31/11 | | | 01/29/12 | | LAIF-JPA | State of California Tsy. | 43,500,000 | | 0.403% | | \$43,500,000.00 | \$43,500,000.00 | 43,580,370.25 | | 80,370.25 |
| 10/14/11 | 12/01/11 | 12/31/11 | | | 01/06/12 | | LAIF-2009A | State of California Tsy. | 683,934 | | 0.403% | | \$683,933.60 | \$683,933.60 | 685,197.23 | | 1,263.63 |
| 10/14/11 | 12/01/11 | 12/31/11 | | | 01/06/12 | | LAIF-2009B | State of California Tsy. | 683,934 | | 0.403% | | \$683,933.60 | \$683,933.60 | 685,197.23 | | 1,263.63 |
| 12/19/11 | 12/01/11 | 12/31/11 | | | 01/18/12 | | LAIF BABS | State of California Tsy. | 115,911,427 | | 0.403% | | \$115,911,426.65 | \$115,911,426.65 | 116,125,583.67 | | 214,157.02 |
| 12/31/11 | 12/01/11 | 12/31/11 | | | 01/01/12 | | B of A Tsy. Reserves | Bank of America | 3,591,188.19 | | 0.009% | | 3,591,188.19 | 3,591,188.19 | 3,591,188.19 | | |
| 731 | 01/11/11 | | | | 01/11/13 | Aaa/AAA/NR | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.750% | 0.826% | 0.901% | 4,992,500.00 | 4,996,142.27 | 5,000,500.00 | | 4,357.73 |
| | 02/10/11 | | | | 02/08/12 | Aaa/AAA/NR | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 0.850% | 0.997% | 1.144% | 4,985,500.00 | 4,991,964.33 | 5,002,400.00 | | 10,435.67 |
| | 04/04/11 | | | | 03/14/12 | Aaa/AAA/NR | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 0.500% | 1.013% | 0.500% | 5,000,000.00 | 5,000,000.00 | 5,001,500.00 | | 1,500.00 |
| | 05/23/11 | | | | 04/11/13 | Aaa/AAA/AAA | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 1.720% | 0.517% | | 5,112,550.00 | 5,076,122.35 | 5,089,500.00 | | 13,377.65 |
| | 04/25/11 | | | | 04/25/13 | NA/AAA/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 0.750% | 0.750% | 0.750% | 5,000,000.00 | 5,000,000.00 | 5,007,200.00 | | 7,200.00 |
| | 06/27/11 | | | | 06/27/13 | Aaa/AAA/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 0.700% | 0.700% | 0.700% | 5,000,000.00 | 5,000,000.00 | 5,007,100.00 | | 7,100.00 |
| | 10/25/11 | | | | 10/25/13 | Aaa/AA+/NR | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.625% | 0.625% | 0.625% | 5,000,000.00 | 5,000,000.00 | 5,019,950.00 | | (4,498,050.00) |
| | 11/29/11 | | | | 11/29/13 | Aaa/AA+/AA+ | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 0.500% | 0.596% | 0.690% | 4,990,500.00 | 4,990,928.86 | 4,995,100.00 | | 4,171.14 |
| | 06/27/11 | | | | 06/27/14 | Aaa/AAA/NR | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 1.050% | 1.050% | 1.050% | 10,000,000.00 | 10,000,000.00 | 10,022,100.00 | | 22,100.00 |
| | 07/14/11 | | | | 07/11/14 | Aaa/AAA/NR | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.125% | 0.962% | 0.962% | 5,008,000.00 | 5,006,748.39 | 5,014,843.50 | | 8,095.11 |
| | 08/22/11 | | | | 08/22/14 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 0.650% | 0.660% | 0.680% | 4,998,500.00 | 4,998,680.66 | 4,985,100.00 | | (13,580.66) |
| | 08/29/11 | | | | 08/28/14 | Aaa/AA+/NR | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.650% | 0.650% | 0.650% | 5,000,000.00 | 5,000,000.00 | 4,994,300.00 | | (5,700.00) |
| | 10/13/11 | | | | 08/28/12 | Aaa/AA+/NR | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.650% | 0.791% | 1.110% | 4,980,000.00 | 4,981,523.81 | 4,994,300.00 | | 12,776.19 |
| 1005 | 12/15/11 | | | | 03/15/12 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.700% | 0.700% | 0.700% | 5,000,000.00 | 5,000,000.00 | 5,000,300.00 | | 300.00 |
| | 10/19/11 | | | | 10/17/12 | Aaa/AA+/NR | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 0.750% | 0.801% | 0.902% | 4,992,500.00 | 4,993,007.31 | 4,999,350.00 | | 6,342.69 |
| 1096 | 12/05/11 | | | | 06/05/12 | Aaa/AA+/NR | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 1.000% | 1.010% | 1.060% | 4,998,500.00 | 4,998,536.95 | 4,998,950.00 | | 413.05 |
| | 12/19/11 | | | | 12/19/14 | Aaa/AA+/NR | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 0.625% | 1.038% | 0.625% | 5,000,000.00 | 5,000,000.00 | 4,999,150.00 | | (850.00) |
| 09/22/11 | | | | N/A | 06/26/12 | MIG1/SP-1+/F1 | CA ST-RANS-A2 | State of California | 2,000,000 | 2.000% | 0.400% | | 2,024,280.00 | 2,015,458.86 | 2,015,820.00 | | 361.14 |
| 09/26/08 | 12/28/11 | 01/03/12 | 01/04/12 | | | (4) Aaa/AAA/NR | VRDO | Chino Basin Fin | 11,280,000 | | 0.070% | | 11,280,000.00 | 11,280,000.00 | 11,280,000.00 | | |
| 08/01/09 | 12/28/11 | 01/03/12 | 01/04/12 | | | (5) Aa3/A/NR | VRDO | Rancho California WtrD | 6,500,000 | | 0.080% | | 6,500,000.00 | 6,500,000.00 | 6,500,000.00 | | |
| 07/20/10 | 12/29/11 | 01/04/12 | 01/05/12 | | | (4) Aa1/AAA/AAA | VRDO | Metropolitan Water | 7,500,000 | | 0.070% | | 7,500,000.00 | 7,500,000.00 | 7,500,000.00 | | |
| 08/16/10 | 12/28/11 | 01/03/12 | 01/04/12 | | | (4) Aaa/AAA/NR | VRDO | Sacramento WTR | 10,000,000 | | 0.070% | | 10,000,000.00 | 10,000,000.00 | 10,000,000.00 | | |
| 11/18/10 | 12/29/11 | 01/04/12 | 01/05/12 | | | (4) Aa1/AAA/AA- | VRDO | LA Waste Wtr | 4,900,000 | | 0.040% | | 4,900,000.00 | 4,900,000.00 | 4,900,000.00 | | |
| 12/22/10 | 12/28/11 | 01/03/12 | 01/04/12 | | | (4) Aa2/AA/AA+ | VRDO | Eastern Mun Wtr Dist CA | 7,900,000 | | 0.060% | | 7,900,000.00 | 7,900,000.00 | 7,900,000.00 | | |
| 04/27/11 | 12/28/11 | 01/03/12 | 01/04/12 | | | (4) Aa2/AAA/NR | VRDO | East Bay MUD | 9,600,000 | | 0.060% | | 9,600,000.00 | 9,600,000.00 | 9,600,000.00 | | |
| 05/06/11 | 12/28/11 | 01/03/12 | 01/04/12 | | | (4) Aa2/AA-/NR | VRDO | West Basin Wtr | 9,200,000 | | 0.080% | | 9,200,000.00 | 9,200,000.00 | 9,200,000.00 | | |
| 06/01/11 | 12/28/11 | 01/03/12 | 01/04/12 | | | (4) Aa1/AAA/AAA | VRDO | Orange Cnty Wtr | 5,000,000 | | 0.080% | | 5,000,000.00 | 5,000,000.00 | 5,000,000.00 | | |
| SUB-TOTAL | | | | | | | | | \$349,850,482 | | | | \$349,933,312.04 | \$349,899,595.84 | \$345,816,908.06 | | (\$4,082,687.78) |
| RESTRICTED CASH (Swap Collateral Deposits) | | | | | | | | | | | | | | | | | |
| 12/01/11 | 12/01/11 | 12/31/11 | | | | | Collateral Deposit | Citi-Group | \$15,698,047 | | 0.072% | | \$15,698,047.45 | \$15,698,047.45 | 15,698,047.45 | | |
| 09/23/11 | 12/01/11 | 12/31/11 | | | | | Collateral Deposit | Merrill Lynch | \$7,060,000 | | 0.072% | | \$7,060,000.00 | \$7,060,000.00 | 7,060,000.00 | | |
| SUB-TOTAL | | | | | | | | | \$22,758,047 | | | | \$22,758,047.45 | \$22,758,047.45 | \$22,758,047.45 | | |
| TOTAL INVESTMENTS | | | | | | | | | \$372,608,529 | | | | \$372,691,359.49 | \$372,657,643.29 | \$368,574,955.51 | | |
| Petty Cash | | | | | | | | | | | | | 3,300.00 | | | | |
| Bank Bal. (unrec.) | | | | | | | | | | | | | (3,152,770.49) | | | | |
| | | | | | | | | | | | | | \$369,541,889.00 | | | | |

| | | |
|---|---|---------------|
| (1) LAIF market value is as of the most recent quarter-end as reported by LAIF. | Outstanding Variable Rate Debt | \$382,060,000 |
| Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing. | Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps) | \$252,060,000 |
| (2) Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers | Investment Balance: | \$369,541,889 |
| (3) Real estate rate of return is based on most recent quarter end return | Investment to Variable Rate Debt Ratio: | 147% |
| (4) No call Notice | Portfolio - Average Number of Days To Maturity | 215 |
| (5) Partial Call | | |
| This Investment Summary Report is in conformity with the 2011 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures. | | |

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

12/31/11

PORTFOLIO \$372,608,529

| DATE | TOTAL | % | LAIF | AGENCIES | MUNI | CAL REV NOTES | MONEY MARKET SAVINGS & SWEEP | Collateral * Deposit |
|----------------------------|----------------------|----------------|----------------------|-------------------|-------------------|------------------|------------------------------|----------------------|
| 1/12 | \$282,608,529 | 75.85% | \$182,379,294 | | 71,880,000 | 2,000,000 | 3,591,188 | \$22,758,047 |
| 2/12 | | | | | | | | |
| 3/12 | | | | | | | | |
| 4/12 | | | | | | | | |
| 5/12 | | | | | | | | |
| 6/12 | | | | | | | | |
| 7/12 | | | | | | | | |
| 8/12 | | | | | | | | |
| 9/12 | | | | | | | | |
| 10/12 | | | | | | | | |
| 11/12 | | | | | | | | |
| 12/12 | | | | | | | | |
| SUB-TOTAL | \$282,608,529 | 75.85% | \$182,379,294 | - | 71,880,000 | 2,000,000 | 3,591,188 | \$22,758,047 |
| 13 Months - 3 YEARS | | | | | | | | |
| 1/1/2013 - 3/31/2013 | \$15,000,000 | 4.03% | | 15,000,000 | | | | |
| 4/1/2013 - 6/30/2013 | \$10,000,000 | 2.68% | | 10,000,000 | | | | |
| 7/1/2013 - 9/30/2013 | \$5,000,000 | 1.34% | | 5,000,000 | | | | |
| 10/1/2013 - 12/31/2013 | \$10,000,000 | 2.68% | | 10,000,000 | | | | |
| 1/1/2014 - 3/31/2014 | | | | - | | | | |
| 4/1/2014 - 6/30/2014 | \$10,000,000 | 2.68% | | 10,000,000 | | | | |
| 7/1/2014 - 9/30/2014 | \$25,000,000 | 6.71% | | 25,000,000 | | | | |
| 10/1/2014 - 12/31/2014 | \$15,000,000 | 4.03% | | 15,000,000 | | | | |
| TOTALS | \$372,608,529 | 100.00% | \$182,379,294 | 90,000,000 | 71,880,000 | 2,000,000 | 3,591,188 | \$22,758,047 |
| % OF PORTFOLIO | | | 48.95% | 24.15% | 19.29% | 0.54% | 0.96% | 6.11% |

* Return of posted collateral is dependant on interest rates.

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Dec-11

MATURITIES/SALES

PURCHASES

| DATE | SECURITY TYPE | PAR | YIELD | DATE | SECURITY TYPE | PAR | YIELD |
|------|---------------|-----|-------|------------|-------------------------|-------------|-------|
| | | | | 12/5/2011 | FNMA Note Due 12/5/2014 | \$5,000,000 | 1.01% |
| | | | | 12/15/2011 | FFCB Note Due 9/15/2014 | \$5,000,000 | 0.70% |
| | | | | 12/19/2011 | FHLMC Note Due 12/19/14 | \$5,000,000 | 0.63% |

LAIF ACTIVITY

| | | |
|----------|----------------|-----------------------|
| 12/01/11 | LAIF | (\$800,000) |
| 12/02/11 | LAIF | (\$1,000,000) |
| 12/05/11 | LAIF | (\$7,000,000) |
| 12/08/11 | LAIF | \$4,000,000 |
| 12/15/11 | LAIF | (\$5,000,000) |
| 12/16/11 | LAIF | (\$800,000) |
| 12/19/11 | LAIF 2010 BABS | (\$5,900,000) |
| 12/21/11 | LAIF | (\$2,000,000) |
| 12/22/11 | LAIF | \$11,000,000 |
| 12/28/11 | LAIF | (\$2,000,000) |
| | | (Increase)/(Decrease) |
| | | (\$9,500,000) |

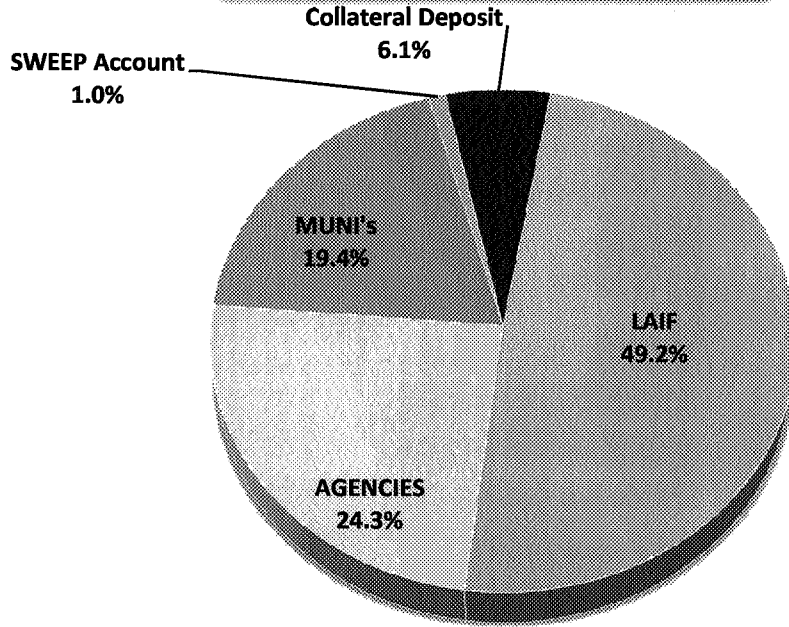
COLLATERALIZED DEPOSIT ACTIVITY

| | |
|-----------------|-----------------------|
| Balance Forward | \$21,327,141 |
| CITIGROUP | \$1,430,907 |
| MERRILL LYNCH | - |
| | Balance at 12/31/2011 |
| | \$22,758,048 |

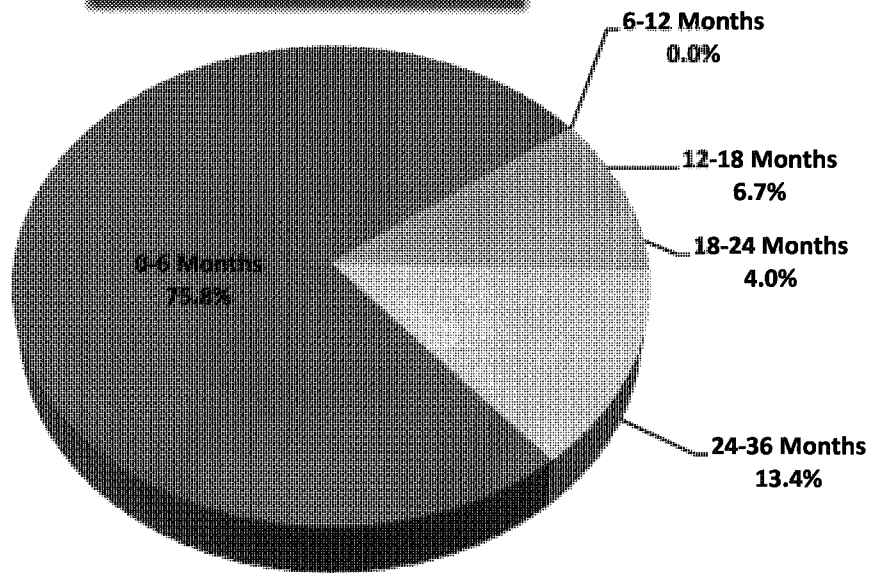
DECEMBER 2011 INVESTMENT PORTFOLIO

As of December 31, 2011

Portfolio by Investment Type



Portfolio by Maturities



IRVINE RANCH WATER DISTRICT
 INVESTMENT SUMMARY REPORT

Joint Powers Agency - Investment Contracts

12/31/2011

| Settlement Date | JPA Issue | Investment Contract | Original Cost | Current Par | Market Value 12/31/11 |
|-----------------|----------------|---|-----------------------|-----------------------|-----------------------|
| 10/25/1994 | JPA - Issue #1 | AIG Matched Funding Corp. 7.705% Due 2-15-14 | \$ 407,878,616 | \$ 268,818,400 | \$ 268,818,400 |
| 10/25/1994 | JPA - Issue #2 | Federal National Mortgage Assoc. 8.18% Due 2-15-14 | \$ 518,644,189 | \$ 380,152,449 | \$ 439,885,804 |
| | | | <u>\$ 926,522,805</u> | <u>\$ 648,970,849</u> | <u>\$ 708,704,204</u> |

Irvine Ranch Water District
 Summary of Real Estate
 12/31/2011

| | <u>ACQUISITION DATE</u> | <u>PROPERTY TYPE</u> | <u>OWNERSHIP INTEREST</u> | <u>ORIGINAL COST</u> | <u>RATE OF RETURN QUARTER ENDED Dec-11</u> |
|-------------------------|-----------------------------|--------------------------|-------------------------------|--------------------------|--|
| Sycamore Canyon | Dec-92 | Apartments | Fee Simple | 43,550,810 | 10.93% |
| Wood Canyon Villas | Jun-91 | Apartments | Limited Partner | \$ 6,000,000 | 8.53% |
| ITC (230 Commerce) | Jul-03 | Office Building | Fee Simple | 5,739,845 | 9.89% |
| Waterworks Business Pk. | Nov-08 | Research & Dev. | Fee Simple | 8,630,577 | 3.90% |
| | | | | <u>\$ 63,921,232</u> | <u>9.66%</u> |

**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
December 31, 2011**

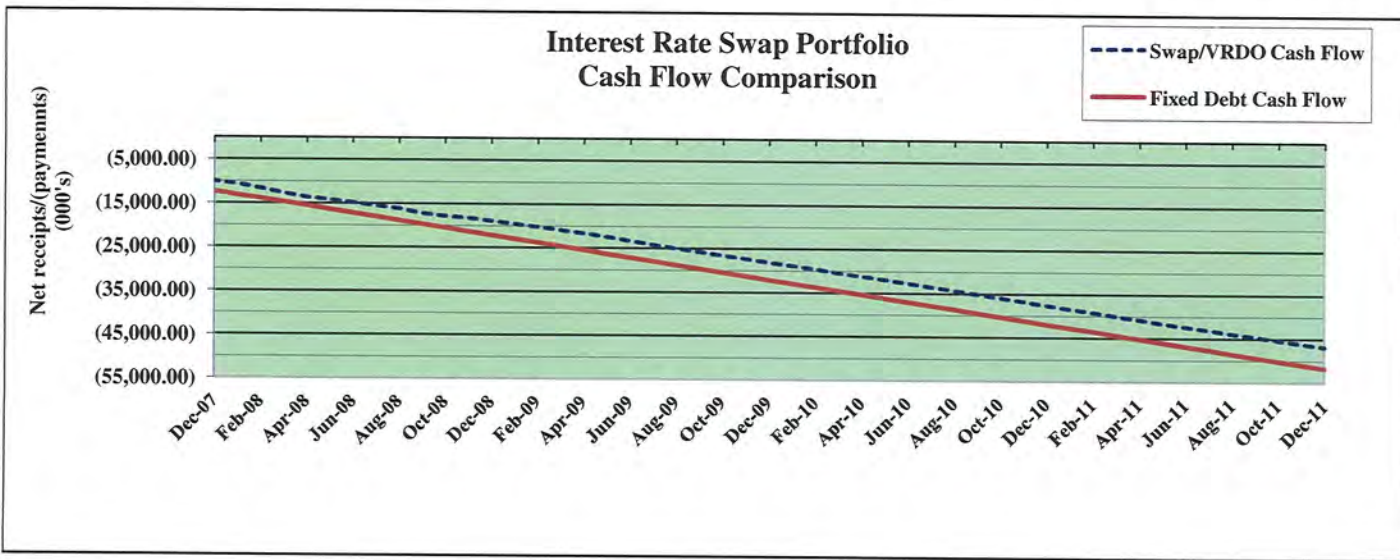
Exhibit "B"

| | | | |
|-------------|-----------|-------------|-----------|
| LIBOR Avg % | Prior Mo. | Current Mo. | 12-Mo Avg |
| | 0.24% | 0.28% | 0.23% |

| Current Fiscal Year Active Swaps | | | | | | | | Cash Flow | | | | Mark to Market | | |
|--|---------------|-------------------|---------------|---------------|----------------|------------|------------|--------------|---------------|----------------|----------------------|------------------------|---------------------|--|
| Effective Date | Maturity Date | Years to Maturity | Counter Party | Notional Amt | Type | Base Index | Fixed Rate | Cash Flow | | | (Since 6/06) | Mark to Market | | |
| | | | | | | | | Prior Month | Current Month | Fiscal YTD | Cumulative Cash Flow | Current Mark to Market | Notional Difference | |
| Fixed Payer Swaps - By Effective Date | | | | | | | | | | | | | | |
| 6/4/2006 | 6/4/2019 | 7.4 | ML | \$ 20,000,000 | FXP | LIBOR | 6.200% | \$ (102,693) | \$ (98,867) | \$ (597,093) | \$ (4,448,683) | \$ 13,545,757 | \$ (6,454,243) | |
| 6/4/2006 | 6/4/2019 | 7.4 | CG | \$ 20,000,000 | FXP | LIBOR | 6.200% | (102,693) | (98,867) | (597,093) | (4,448,683) | 13,543,162 | (6,456,838) | |
| 6/17/2006 | 6/17/2019 | 7.5 | CG | \$ 30,000,000 | FXP | LIBOR | 6.140% | (152,520) | (146,851) | (886,715) | (6,584,901) | 20,410,865 | (9,589,135) | |
| 3/10/2007 | 3/10/2029 | 17.2 | ML | \$ 30,000,000 | FXP | LIBOR | 5.687% | (140,798) | (135,505) | (818,634) | (5,739,168) | 15,819,003 | (14,180,997) | |
| 3/10/2007 | 3/10/2029 | 17.2 | CG | \$ 30,000,000 | FXP | LIBOR | 5.687% | (140,798) | (135,505) | (818,634) | (5,739,168) | 15,828,960 | (14,171,040) | |
| Totals/Weighted Avgs | | | | 11.9 | \$ 130,000,000 | | 5.949% | \$ (639,502) | \$ (615,595) | \$ (3,718,169) | \$ (26,960,604) | \$ 79,147,747 | \$ (50,852,253) | |
| Total Current Year Active Swaps | | | | | \$ 130,000,000 | | | \$ (639,502) | \$ (615,595) | \$ (3,718,169) | \$ (26,960,604) | \$ 79,147,747 | \$ (50,852,253) | |

| Current Fiscal Year Terminated Swaps | | | | | | | | Cash Flow | | | | Mark to Market | |
|--------------------------------------|---------------|--|---------------|--------------|------|------------|------------|-------------|---------------|------------|----------------------|------------------------|---------------------|
| Effective Date | Maturity Date | | Counter Party | Notional Amt | Type | Base Index | Fixed Rate | Cash Flow | | | Mark to Market | | |
| | | | | | | | | Prior Month | Current Month | Fiscal YTD | Cumulative Cash Flow | Current Mark to Market | Notional Difference |
| Total Current Year Terminated Swaps | | | | | \$ - | | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

| Current Fiscal Year - Total Swaps | | | | | | | | Cash Flow | | | | Mark to Market | |
|--|---------------|--|---------------|--------------|----------------|------------|------------|--------------|---------------|----------------|----------------------|------------------------|---------------------|
| Effective Date | Maturity Date | | Counter Party | Notional Amt | Type | Base Index | Fixed Rate | Cash Flow | | | Mark to Market | | |
| | | | | | | | | Prior Month | Current Month | Fiscal YTD | Cumulative Cash Flow | Current Mark to Market | Notional Difference |
| Total Current Year Active & Terminated Swaps | | | | | \$ 130,000,000 | | | \$ (639,502) | \$ (615,595) | \$ (3,718,169) | \$ (26,960,604) | \$ 79,147,747 | \$ (50,852,253) |



| Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt | |
|---|--------------|
| Cash Flow to Date | |
| Synthetic Fixed = | \$46,780,357 |
| Fixed Rate = | \$51,714,022 |
| Assumptions: | |
| - Fixed rate debt issued at 5.10% in Jun-06, and 4.93% in Mar-07 (estimated TE rates - Bloomberg) | |
| - 'Synthetic' includes swap cash flow + interest + fees to date | |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 1
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|-----------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325443 | | 01-DEC-11 | LOCHRIDGE, DAVID | RANCHO SANTA MA | 4,158.00 | | | Negotiable |
| 325444 | | 01-DEC-11 | GARCIA, SANDRA | ANAHEIM | 1,527.75 | | | Negotiable |
| 325445 | | 01-DEC-11 | APPLE STORE/EDWARD | COSTA MESA | 1,621.17 | | | Negotiable |
| 325446 | | 01-DEC-11 | ACCURATE AIR ENGINEERING INC | | 534.52 | | | Negotiable |
| 325447 | | 01-DEC-11 | ACCURATE AIR ENGINEERING INC | | 359.89 | | | Negotiable |
| 325448 | | 01-DEC-11 | ACKERMAN, STACY | | 33.66 | | | Negotiable |
| 325449 | | 01-DEC-11 | ACTION ELECTRIC CORP | | 1,450.78 | | | Negotiable |
| 325450 | | 01-DEC-11 | AIRGAS-WEST, INC. | | 2,096.28 | | | Negotiable |
| 325451 | | 01-DEC-11 | ALLEN INSTRUMENTS & SUPPLIES | | 824.29 | | | Negotiable |
| 325452 | | 01-DEC-11 | AMERICAN AUTOGARD CORPORATION | | 709.65 | | | Negotiable |
| 325453 | | 01-DEC-11 | ANDERSON, ERIK | | 44.10 | | | Negotiable |
| 325454 | | 01-DEC-11 | APCO GRAPHICS INC | | 187.05 | | | Negotiable |
| 325455 | | 01-DEC-11 | APPLIED SPECIATION AND CONSULTING, LLC | | 2,750.00 | | | Negotiable |
| 325456 | | 01-DEC-11 | AQUA-METRIC SALES COMPANY | | 25,622.83 | | | Negotiable |
| 325457 | | 01-DEC-11 | ARIZONA INSTRUMENT LLC | | 175.00 | | | Negotiable |
| 325458 | | 01-DEC-11 | ARMORCAST PRODUCTS COMPANY | | 2,648.41 | | | Negotiable |
| 325459 | | 01-DEC-11 | AT&T | | 1,856.33 | | | Negotiable |
| 325460 | | 01-DEC-11 | AT&T | | 4,654.11 | | | Negotiable |
| 325461 | | 01-DEC-11 | AT&T INTERNET SERVICES | | 1,124.00 | | | Negotiable |
| 325462 | | 01-DEC-11 | AYRES HOTEL AND SUITES (DBA) | | 395.40 | | | Negotiable |
| 325463 | | 01-DEC-11 | BAHREMAND, LINDA | | 79.90 | | | Negotiable |
| 325464 | | 01-DEC-11 | BERKELEY COURT APTS | | 177.88 | | | Negotiable |
| 325465 | | 01-DEC-11 | BILL'S SWEEPING SERVICE INC | | 1,265.00 | | | Negotiable |
| 325466 | | 01-DEC-11 | BIOMAGIC INC | | 1,355.23 | | | Negotiable |
| 325467 | | 01-DEC-11 | BOLTON, GENE J | | 28.38 | | | Negotiable |
| 325468 | | 01-DEC-11 | BOUTWELL FAY, LLP | | 455.00 | | | Negotiable |
| 325469 | | 01-DEC-11 | BURGOYNE, DOLORES | | 39.19 | | | Negotiable |
| 325470 | | 01-DEC-11 | BUSH & ASSOCIATES INC | | 572.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 2
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|-------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325471 | | 01-DEC-11 | BUTIER ENGINEERING INC | | 20,618.00 | | | Negotiable |
| 325472 | | 01-DEC-11 | C WELLS PIPELINE MATERIALS INC | | 1,220.27 | | | Negotiable |
| 325473 | | 01-DEC-11 | C.E./DONNA SCARBROUGH | | 994.61 | | | Negotiable |
| 325474 | | 01-DEC-11 | CALIFORNIA BANK & TRUST | | 22,487.92 | | | Negotiable |
| 325475 | | 01-DEC-11 | CALIFORNIA BARRICADE INC | | 3,396.25 | | | Negotiable |
| 325476 | | 01-DEC-11 | CANON BUSINESS SOLUTIONS INC | | 135.65 | | | Negotiable |
| 325477 | | 01-DEC-11 | CHEM TECH INTERNATIONAL INC | | 6,261.20 | | | Negotiable |
| 325478 | | 01-DEC-11 | CHISTI, STEPHANIE | | 29.91 | | | Negotiable |
| 325479 | | 01-DEC-11 | CLA-VAL COMPANY | | 3,372.11 | | | Negotiable |
| 325480 | | 01-DEC-11 | CLARK, ALISSA | | 39.04 | | | Negotiable |
| 325481 | | 01-DEC-11 | CLEARINGHOUSE | | 528.45 | | | Negotiable |
| 325482 | | 01-DEC-11 | COAST PLUMBING HEATING AND AIR, INC | | 160.37 | | | Negotiable |
| 325483 | | 01-DEC-11 | COASTAL TRAFFIC SYSTEMS, INC | | 510.00 | | | Negotiable |
| 325484 | | 01-DEC-11 | COLUMBIA COURT APTS | | 304.44 | | | Negotiable |
| 325485 | | 01-DEC-11 | COMMERCE ENERGY INC | | 532.06 | | | Negotiable |
| 325486 | | 01-DEC-11 | COMMERCIAL | | 240.00 | | | Negotiable |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|------|----------------------------|------|----------------|--------------|----------------|------------|
| 325487 | 01-DEC-11 | | CLEANING SYSTEMS INC | | 495.00 | | | Negotiable |
| 325488 | 01-DEC-11 | | COMMON-A USERS GROUP | | 77.04 | | | Negotiable |
| 325489 | 01-DEC-11 | | COMPTON, MRS ORRIL | | 78,821.88 | | | Negotiable |
| 325490 | 01-DEC-11 | | COMPUCOM SYSTEMS, INC. | | | | | Negotiable |
| 325491 | 01-DEC-11 | | CONTROLLED KEY SYSTEMS INC | | 3,249.13 | | | Negotiable |
| 325492 | 01-DEC-11 | | COOK, ANNA | | 12.34 | | | Negotiable |
| 325493 | 01-DEC-11 | | CORELOGIC INC | | 18.00 | | | Negotiable |
| 325494 | 01-DEC-11 | | COX COMMUNICATIONS | | 210.07 | | | Negotiable |
| 325495 | 01-DEC-11 | | D & G SIGNS | | 118.53 | | | Negotiable |
| 325496 | 01-DEC-11 | | DCSE INC | | 6,120.00 | | | Negotiable |
| 325497 | 01-DEC-11 | | DELPHIN COMPUTER SUPPLY | | 780.11 | | | Negotiable |
| 325498 | 01-DEC-11 | | DEMANTY, DONNA | | 10.34 | | | Negotiable |
| | 01-DEC-11 | | DIRECTV INC | | 86.99 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 3
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325499 | 01-DEC-11 | | DJ NELSON & SON | | 2,245.61 | | | Negotiable |
| 325500 | 01-DEC-11 | | POOL SERVICE | | 34.90 | | | Negotiable |
| 325501 | 01-DEC-11 | | DUDEK | | 1,065.00 | | | Negotiable |
| 325502 | 01-DEC-11 | | EAGLE GRAPHICS INC | | 6,430.08 | | | Negotiable |
| 325503 | 01-DEC-11 | | EMA INC | | 8,746.15 | | | Negotiable |
| 325504 | 01-DEC-11 | | ENDRESS AND HAUSER INC | | 611.10 | | | Negotiable |
| 325505 | 01-DEC-11 | | ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC. | | 2,896.25 | | | Negotiable |
| 325506 | 01-DEC-11 | | ENVIRONMENTAL WATER MGT | | 6,800.00 | | | Negotiable |
| 325507 | 01-DEC-11 | | ESA PWA | | 36,764.71 | | | Negotiable |
| 325508 | 01-DEC-11 | | ESRI | | 26,567.08 | | | Negotiable |
| 325509 | 01-DEC-11 | | EXPRESSAIR | | 530.50 | | | Negotiable |
| 325510 | 01-DEC-11 | | FANTON, ELIZABETH | | 23.98 | | | Negotiable |
| 325511 | 01-DEC-11 | | FARRELL & ASSOCIATES | | 434.97 | | | Negotiable |
| 325512 | 01-DEC-11 | | FEDEX | | 318.25 | | | Negotiable |
| 325513 | 01-DEC-11 | | FIERRO, SERGIO D | | 2,702.36 | | | Negotiable |
| 325514 | 01-DEC-11 | | FIRE EXTINGUISHING SAFETY | | 450.00 | | | Negotiable |
| 325515 | 01-DEC-11 | | FIRST CHOICE SERVICES | | 651.52 | | | Negotiable |
| 325516 | 01-DEC-11 | | FISERV | | 555.75 | | | Negotiable |
| 325517 | 01-DEC-11 | | FISHER SCIENTIFIC COMPANY LLC | | 1,739.20 | | | Negotiable |
| 325518 | 01-DEC-11 | | FLATIRON WEST INC | | 449,048.12 | | | Negotiable |
| 325519 | 01-DEC-11 | | FLEET SOLUTIONS LLC | | 3,867.25 | | | Negotiable |
| 325520 | 01-DEC-11 | | FLOW SCIENCE INCORPORATED | | 2,915.00 | | | Negotiable |
| 325521 | 01-DEC-11 | | FRANCHISE TAX BOARD | | 242.31 | | | Negotiable |
| 325522 | 01-DEC-11 | | FT ZIEBARTH COMPANY | | 57,690.00 | | | Negotiable |
| 325523 | 01-DEC-11 | | GANAHL LUMBER CO. | | 18.94 | | | Negotiable |
| 325524 | 01-DEC-11 | | GARZA INDUSTRIES, INC | | 1,292.57 | | | Negotiable |
| 325525 | 01-DEC-11 | | GATEWAY PACIFIC CONTRACTORS, INC. | | 11,365.65 | | | Negotiable |
| 325526 | 01-DEC-11 | | GEI CONSULTANTS INC | | 62,589.66 | | | Negotiable |
| 325527 | 01-DEC-11 | | GENTERRA CONSULTANTS INC | | 14,491.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 4
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|---------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325528 | 01-DEC-11 | | GEORGE T HALL CO INC | | 610.14 | | | Negotiable |
| 325529 | 01-DEC-11 | | GEOSCIENCE SUPPORT SERVICES INC | | 11,370.00 | | | Negotiable |
| 325530 | 01-DEC-11 | | GFE GODDARD INVESTMENT LLC | | 454.08 | | | Negotiable |
| 325531 | 01-DEC-11 | | GLOBALSTAR INC | | 168.88 | | | Negotiable |
| 325532 | 01-DEC-11 | | GODWIN PUMPS OF AMERICA, INC. | | 215.51 | | | Negotiable |

| | | | | |
|--------|-----------|---------------------------------------|-----------|------------|
| 325533 | 01-DEC-11 | GOLDEN STATE CONTROLS | 2,214.35 | Negotiable |
| 325534 | 01-DEC-11 | GOLDEN STATE LABOR COMPLIANCE LLC | 9,131.25 | Negotiable |
| 325535 | 01-DEC-11 | GOOGLE INC. | 1,039.68 | Negotiable |
| 325536 | 01-DEC-11 | GRAF, PATRICIA LYNN | 112.39 | Negotiable |
| 325537 | 01-DEC-11 | GRAINGER | 3,802.73 | Negotiable |
| 325538 | 01-DEC-11 | GRAYBAR ELECTRIC COMPANY | 2,763.79 | Negotiable |
| 325539 | 01-DEC-11 | GRIFFITH COMPANY | 30.71 | Negotiable |
| 325540 | 01-DEC-11 | GUSTAFSON, DOUG | 60.60 | Negotiable |
| 325541 | 01-DEC-11 | HACH COMPANY | 2,328.38 | Negotiable |
| 325542 | 01-DEC-11 | HARRINGTON INDUSTRIAL PLASTICS LLC | 8,407.69 | Negotiable |
| 325543 | 01-DEC-11 | HDR ENGINEERING INC | 6,565.38 | Negotiable |
| 325544 | 01-DEC-11 | HEARTLAND BUSINESS CREDIT CORPORATION | 570.58 | Negotiable |
| 325545 | 01-DEC-11 | HILL BROTHERS CHEMICAL COMPANY | 23,345.27 | Negotiable |
| 325546 | 01-DEC-11 | HOFMANN FINN | 766.78 | Negotiable |
| 325547 | 01-DEC-11 | HOME DEPOT USA INC | 803.20 | Negotiable |
| 325548 | 01-DEC-11 | HPA INC | 4,250.00 | Negotiable |
| 325549 | 01-DEC-11 | HUNSAKER & ASSOCIATES IRVINE | 616.00 | Negotiable |
| 325550 | 01-DEC-11 | II FUELS INC | 26,828.62 | Negotiable |
| 325551 | 01-DEC-11 | INDUSTRIAL METAL SUPPLY CO | 364.28 | Negotiable |
| 325552 | 01-DEC-11 | INTERNAL REVENUE SERVICE | 1,469.64 | Negotiable |
| 325553 | 01-DEC-11 | IRVINE PIPE & SUPPLY INC | 3,756.31 | Negotiable |
| 325554 | 01-DEC-11 | IRVINE UNIFIED SCHOOL DISTRICT | 4,662.20 | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 5
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325555 | | 01-DEC-11 | IRWD-PETTY CASH CUSTODIAN | | 1,458.78 | | | Negotiable |
| 325556 | | 01-DEC-11 | J.R. FILANC CONSTRUCTION COMPANY INC. | | 480,078.20 | | | Negotiable |
| 325557 | | 01-DEC-11 | JCI JONES CHEMICALS INC | | 5,615.50 | | | Negotiable |
| 325558 | | 01-DEC-11 | JEONG, HAI | | 25.56 | | | Negotiable |
| 325559 | | 01-DEC-11 | JM MCCONKEY AND COMPANY INC | | 4,296.70 | | | Negotiable |
| 325560 | | 01-DEC-11 | JOHN G. ALEVIZOS D.O. INC. | | 310.00 | | | Negotiable |
| 325561 | | 01-DEC-11 | JOHNSON, PEGGY | | 27.74 | | | Negotiable |
| 325562 | | 01-DEC-11 | JONES & STOKES ASSOCIATES, INC | | 2,482.50 | | | Negotiable |
| 325563 | | 01-DEC-11 | KANG, HO-FAN | | 31.13 | | | Negotiable |
| 325564 | | 01-DEC-11 | KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES | | 7,250.00 | | | Negotiable |
| 325565 | | 01-DEC-11 | KIM, ANTHONY | | 163.90 | | | Negotiable |
| 325566 | | 01-DEC-11 | KIM, SOON TAE | | 2,850.00 | | | Negotiable |
| 325567 | | 01-DEC-11 | KIMBALL MIDWEST | | 50.43 | | | Negotiable |
| 325568 | | 01-DEC-11 | KS DIRECT LLC | | 2,047.25 | | | Negotiable |
| 325569 | | 01-DEC-11 | LAGUNA BEACH COUNTY WATER DISTRICT | | 5,345.38 | | | Negotiable |
| 325570 | | 01-DEC-11 | LAYNE CHRISTENSEN COMPANY | | 75,969.33 | | | Negotiable |
| 325571 | | 01-DEC-11 | LCS TECHNOLOGIES, INC. | | 6,437.50 | | | Negotiable |
| 325572 | | 01-DEC-11 | LEE & SAKAHARA ARCHITECTS, INC | | 3,200.00 | | | Negotiable |
| 325573 | | 01-DEC-11 | LEONARD CHAIDEZ TREE SERVICE | | 760.00 | | | Negotiable |
| 325574 | | 01-DEC-11 | LEWIS OPERATING CORP | | 2,900.00 | | | Negotiable |
| 325575 | | 01-DEC-11 | LIGHTING RESOURCES LLC | | 1,623.55 | | | Negotiable |
| 325576 | | 01-DEC-11 | LSA ASSOCIATES INC | | 2,518.47 | | | Negotiable |
| 325577 | | 01-DEC-11 | MARVIN GARDENS LLC | | 3,207.62 | | | Negotiable |
| 325578 | | 01-DEC-11 | MBC APPLIED ENVIRONMENTAL SCIENCES | | 2,000.00 | | | Negotiable |
| 325579 | | 01-DEC-11 | MC MASTER CARR SUPPLY CO | | 278.13 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)

Payment Type: All

Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325580 | | 01-DEC-11 | MERCHANTS LANDSCAPE SERVICES INC | | 1,765.61 | | | Negotiable |
| 325581 | | 01-DEC-11 | MOBILE ID SOLUTIONS INC | | 247.19 | | | Negotiable |
| 325582 | | 01-DEC-11 | MOBILE MODULAR MANAGEMENT CORPORATION | | 1,108.75 | | | Negotiable |
| 325583 | | 01-DEC-11 | NADER, SADULLAH | | 43.12 | | | Negotiable |
| 325584 | | 01-DEC-11 | NATIONAL READY MIXED CONCRETE CO | | 936.53 | | | Negotiable |
| 325585 | | 01-DEC-11 | NATIONAL ROOFING CONSULTANTS, INC. | | 650.00 | | | Negotiable |
| 325586 | | 01-DEC-11 | NATIONAL SPECIALITY ALLOYS LLC | | 883.55 | | | Negotiable |
| 325587 | | 01-DEC-11 | NENNINGER, SARAH | | 29.91 | | | Negotiable |
| 325588 | | 01-DEC-11 | NESSL, DAVID | | 28.29 | | | Negotiable |
| 325589 | | 01-DEC-11 | NEWAGE INDUSTRIES INC | | 625.84 | | | Negotiable |
| 325590 | | 01-DEC-11 | NEWPORT REAL ESTATE SERVICES INC | | 7,512.61 | | | Negotiable |
| 325591 | | 01-DEC-11 | NEWPORT WINDOW MAINTENANCE INC | | 2,314.00 | | | Negotiable |
| 325592 | | 01-DEC-11 | NMG GEOTECHNICAL INC | | 7,325.90 | | | Negotiable |
| 325593 | | 01-DEC-11 | NORTHERN SAFETY CO INC | | 106.41 | | | Negotiable |
| 325594 | | 01-DEC-11 | NORTHWOOD PARK APTS | | 59.16 | | | Negotiable |
| 325595 | | 01-DEC-11 | NORTHWOOD PLACE APTS | | 95.42 | | | Negotiable |
| 325596 | | 01-DEC-11 | OATMAN, LEANNE | | 43.37 | | | Negotiable |
| 325597 | | 01-DEC-11 | OLIN CORPORATION | | 31,175.64 | | | Negotiable |
| 325598 | | 01-DEC-11 | ON ASSIGNMENT LAB SUPPORT | | 3,734.40 | | | Negotiable |
| 325599 | | 01-DEC-11 | ONESOURCE DISTRIBUTORS LLC | | 1,623.87 | | | Negotiable |
| 325600 | | 01-DEC-11 | OPEN TEXT INC | | 2,254.71 | | | Negotiable |
| 325601 | | 01-DEC-11 | ORANGE COUNTY FIRE PROTECTION | | 2,735.00 | | | Negotiable |
| 325602 | | 01-DEC-11 | ORANGE COUNTY SANITATION DISTRICT | | 510,204.48 | | | Voided |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 7
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325603 | | 01-DEC-11 | ORANGE COUNTY VECTOR CONTROL DISTRICT | | 164.39 | | | Negotiable |
| 325604 | | 01-DEC-11 | ORANGE, COUNTY OF | | 183.50 | | | Negotiable |
| 325605 | | 01-DEC-11 | ORDONEZ, CYNTHIA MARIE | | 500.17 | | | Negotiable |
| 325606 | | 01-DEC-11 | PACIFIC COAST BOLT CORP | | 207.15 | | | Negotiable |
| 325607 | | 01-DEC-11 | PACIFIC GAS AND ELECTRIC COMPANY | | 18.29 | | | Negotiable |
| 325608 | | 01-DEC-11 | PARK WEST APTS | | 119.95 | | | Negotiable |
| 325609 | | 01-DEC-11 | PERS LONG TERM CARE | | 1,626.89 | | | Negotiable |
| 325610 | | 01-DEC-11 | PRAXAIR DISTRIBUTION INC | | 3,457.32 | | | Negotiable |
| 325611 | | 01-DEC-11 | PRUDENTIAL OVERALL SUPPLY | | 677.03 | | | Negotiable |
| 325612 | | 01-DEC-11 | PRUDENTIAL OVERALL SUPPLY | | 807.42 | | | Negotiable |
| 325613 | | 01-DEC-11 | PSB THE MARKETING SUPERSOURCE | | 7,772.62 | | | Negotiable |
| 325614 | | 01-DEC-11 | PSOMAS | | 14,075.69 | | | Negotiable |
| 325615 | | 01-DEC-11 | PTI SAND & GRAVEL INC | | 348.21 | | | Negotiable |
| 325616 | | 01-DEC-11 | PURE EFFECT INC | | 5,945.00 | | | Negotiable |
| 325617 | | 01-DEC-11 | QUACH, JAMES | | 36.48 | | | Negotiable |
| 325618 | | 01-DEC-11 | QUICKEL PAVING INC | | 300.00 | | | Negotiable |
| 325619 | | 01-DEC-11 | RANCHO MARIPOSA APTS | | 20.64 | | | Negotiable |
| 325620 | | 01-DEC-11 | RBF CONSULTING | | 13,850.52 | | | Negotiable |
| 325621 | | 01-DEC-11 | RELIANT TESTING | | 4,326.00 | | | Negotiable |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|--------------------------------|------|----------------|--------------|----------------|------------|
| | | | ENGINEERS, INC. | | | | | |
| 325622 | 01-DEC-11 | 01-DEC-11 | ROSALES, ABEL | | 48.42 | | | Negotiable |
| 325623 | 01-DEC-11 | 01-DEC-11 | RYAN, BRETT | | 38.74 | | | Negotiable |
| 325624 | 01-DEC-11 | 01-DEC-11 | SALEMLA, KIMMO | | 27.47 | | | Negotiable |
| 325625 | 01-DEC-11 | 01-DEC-11 | SAN MARCO APTS | | 10.05 | | | Negotiable |
| 325626 | 01-DEC-11 | 01-DEC-11 | SANDERS PAVING INC | | 28,481.00 | | | Negotiable |
| 325627 | 01-DEC-11 | 01-DEC-11 | SANTA ANA BLUE PRINT | | 446.19 | | | Negotiable |
| 325628 | 01-DEC-11 | 01-DEC-11 | SANTA MARGARITA WATER DISTRICT | | 625.82 | | | Negotiable |
| 325629 | 01-DEC-11 | 01-DEC-11 | SCOTT, EDWIN | | 33.30 | | | Negotiable |
| 325630 | 01-DEC-11 | 01-DEC-11 | SEAL ANALYTICAL INC | | 326.53 | | | Negotiable |
| 325631 | 01-DEC-11 | 01-DEC-11 | SECURTEC DISTRICT PATROL INC | | 3,700.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 8
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325632 | 01-DEC-11 | 01-DEC-11 | SEKEYA, NICHOLAS | | 24.49 | | | Negotiable |
| 325633 | 01-DEC-11 | 01-DEC-11 | SEPARATION PROCESSES INC | | 6,728.16 | | | Negotiable |
| 325634 | 01-DEC-11 | 01-DEC-11 | SHAMROCK SUPPLY CO INC | | 1,699.79 | | | Negotiable |
| 325635 | 01-DEC-11 | 01-DEC-11 | SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT | | 5,675.64 | | | Negotiable |
| 325636 | 01-DEC-11 | 01-DEC-11 | SOUTHERN CALIFORNIA EDISON COMPANY | | 267,943.25 | | | Negotiable |
| 325637 | 01-DEC-11 | 01-DEC-11 | SOUTHERN CALIFORNIA SECURITY CENTER, INC. | | 99.13 | | | Negotiable |
| 325638 | 01-DEC-11 | 01-DEC-11 | SPARKLETTES | | 288.23 | | | Negotiable |
| 325639 | 01-DEC-11 | 01-DEC-11 | SPATIAL WAVE, INC. | | 15,048.00 | | | Negotiable |
| 325640 | 01-DEC-11 | 01-DEC-11 | STATE WATER RESOURCES CONTROL BOARD | | 128,598.00 | | | Negotiable |
| 325641 | 01-DEC-11 | 01-DEC-11 | STIASSNI, CARLA | | 30.11 | | | Negotiable |
| 325642 | 01-DEC-11 | 01-DEC-11 | T AND S LARSEN MAINTENANCE | | 360.00 | | | Negotiable |
| 325643 | 01-DEC-11 | 01-DEC-11 | TAYLOR MORRISON | | 123,200.00 | | | Negotiable |
| 325644 | 01-DEC-11 | 01-DEC-11 | TAYLOR WOODROW HOMES | | 15.00 | | | Negotiable |
| 325645 | 01-DEC-11 | 01-DEC-11 | TESTAMERICA LABORATORIES, INC | | 350.00 | | | Negotiable |
| 325646 | 01-DEC-11 | 01-DEC-11 | TETRA TECH, INC | | 35,919.23 | | | Negotiable |
| 325647 | 01-DEC-11 | 01-DEC-11 | THE FURMAN GROUP | | 10,129.00 | | | Negotiable |
| 325648 | 01-DEC-11 | 01-DEC-11 | THE GAS COMPANY | | 4,985.52 | | | Negotiable |
| 325649 | 01-DEC-11 | 01-DEC-11 | THE PLUMBERS WAREHOUSE | | 1,574.59 | | | Negotiable |
| 325650 | 01-DEC-11 | 01-DEC-11 | THORNE, ANNE | | 27.70 | | | Negotiable |
| 325651 | 01-DEC-11 | 01-DEC-11 | TIC-IPG-COMMON | | 1,870.75 | | | Negotiable |
| 325652 | 01-DEC-11 | 01-DEC-11 | TIC-RESORT PROPERTIES | | 71.84 | | | Negotiable |
| 325653 | 01-DEC-11 | 01-DEC-11 | TIC-RETAIL PROPERTIES | | 902.69 | | | Negotiable |
| 325654 | 01-DEC-11 | 01-DEC-11 | TIC-SPECTRUM OFFICE | | 919.06 | | | Negotiable |
| 325655 | 01-DEC-11 | 01-DEC-11 | TRABUCO CANYON WATER DISTRICT | | 97,770.81 | | | Negotiable |
| 325656 | 01-DEC-11 | 01-DEC-11 | TRAN, ANN | | 30.88 | | | Negotiable |
| 325657 | 01-DEC-11 | 01-DEC-11 | TROPICAL PLAZA NURSERY INC | | 41,850.57 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 9
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325658 | 01-DEC-11 | 01-DEC-11 | TRUGREEN LANDCARE LLC | | 4,532.00 | | | Negotiable |
| 325659 | 01-DEC-11 | 01-DEC-11 | TURTLE RIDGE APARTMENTS | | 278.17 | | | Negotiable |
| 325660 | 01-DEC-11 | 01-DEC-11 | ULTRA SCIENTIFIC | | 320.90 | | | Negotiable |
| 325661 | 01-DEC-11 | 01-DEC-11 | US PEROXIDE LLC | | 7,151.40 | | | Negotiable |
| 325662 | 01-DEC-11 | 01-DEC-11 | VA CONSULTING, INC | | 4,734.08 | | | Negotiable |
| 325663 | 01-DEC-11 | 01-DEC-11 | VALLEY POWER SYSTEMS INC | | 3,580.46 | | | Negotiable |
| 325664 | 01-DEC-11 | 01-DEC-11 | VERIZON CALIFORNIA INC | | 475.79 | | | Negotiable |
| 325665 | 01-DEC-11 | 01-DEC-11 | VERIZON WIRELESS | | 8,073.06 | | | Negotiable |

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|--------|-----------|--------------------------------------|----------------|-----------|------------|
| 325666 | 01-DEC-11 | SERVICES LLC VPSI INC | | 9,302.00 | Negotiable |
| 325667 | 01-DEC-11 | WASTE MANAGEMENT OF ORANGE COUNTY | | 1,584.46 | Negotiable |
| 325668 | 01-DEC-11 | WATER EDUCATION FOUNDATION | | 25.00 | Negotiable |
| 325669 | 01-DEC-11 | WAXIE'S ENTERPRISES, INC | | 1,839.05 | Negotiable |
| 325670 | 01-DEC-11 | WECK LABORATORIES INC | | 349.50 | Negotiable |
| 325671 | 01-DEC-11 | WELLS SUPPLY COMPANY | | 898.64 | Negotiable |
| 325672 | 01-DEC-11 | WESTERN EXTERMINATOR COMPANY | | 1,805.00 | Negotiable |
| 325673 | 01-DEC-11 | WHITE & CASE, LLP | | 17,500.00 | Negotiable |
| 325674 | 01-DEC-11 | WILDERMUTH ENVIRONMENTAL INC | | 19,911.25 | Negotiable |
| 325675 | 01-DEC-11 | WINDWOOD GLEN APTS | | 65.01 | Negotiable |
| 325676 | 01-DEC-11 | WOODBRIIDGE PINES APTS | | 279.41 | Negotiable |
| 325677 | 01-DEC-11 | WOODBRIIDGE WILLOWS APTS | | 147.30 | Negotiable |
| 325678 | 01-DEC-11 | YARIDA, MURALI | | 29.17 | Negotiable |
| 325679 | 01-DEC-11 | YOSHIDA, MARK K | | 24.51 | Negotiable |
| 325680 | 01-DEC-11 | ZAMAN HASAN | | 37.60 | Negotiable |
| 325681 | 01-DEC-11 | David Crowe | | 90.00 | Negotiable |
| 325682 | 01-DEC-11 | Gregory Herr | | 55.00 | Negotiable |
| 325683 | 01-DEC-11 | Leslie Bonkowski | | 222.83 | Negotiable |
| 325684 | 01-DEC-11 | Martha Ramos | | 155.78 | Negotiable |
| 325685 | 01-DEC-11 | Nikola Mrvos | | 12.67 | Negotiable |
| 325686 | 01-DEC-11 | Ricky Perry | | 750.00 | Negotiable |
| 325687 | 01-DEC-11 | JANHO-KAUFMAN, VIVIAN | MILL VALLEY | 6,000.00 | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 10
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325688 | | 02-DEC-11 | ORDONEZ, CYNTHIA MARIE | SANTA ANA | 500.17 | | | Negotiable |
| 325689 | | 02-DEC-11 | HAMILTON, KURT | PURCHASE_P AY | 1,549.00 | | | Negotiable |
| 325690 | | 02-DEC-11 | FOX, SAUL | PAY | 471.23 | | | Negotiable |
| 325691 | | 02-DEC-11 | COMPRESSOR COMPONENTS OF CALIFORNIA INC | DOWNEY | 2,241.20 | | | Negotiable |
| 325692 | | 05-DEC-11 | KERN COUNTY WATER AGENCY | BAKERSFIEL D | 7,500.00 | | | Negotiable |
| 325693 | | 08-DEC-11 | R&B AUTOMATION INC | TEMECULA | 8,284.00 | | | Negotiable |
| 325694 | | 08-DEC-11 | A CREATIVE PM | | 17.80 | | | Negotiable |
| 325695 | | 08-DEC-11 | ABRAHAMSON, DAVID | | 44.03 | | | Negotiable |
| 325696 | | 08-DEC-11 | ACCURATE MEASUREMENT SYSTEMS INC | | 8,811.63 | | | Negotiable |
| 325697 | | 08-DEC-11 | ACTION ELECTRIC CORP | | 992.89 | | | Negotiable |
| 325698 | | 08-DEC-11 | ACWA | | 30,845.91 | | | Negotiable |
| 325699 | | 08-DEC-11 | AFLAC | | 5,440.22 | | | Negotiable |
| 325700 | | 08-DEC-11 | AIRGAS-WEST, INC. | | 1,262.05 | | | Negotiable |
| 325701 | | 08-DEC-11 | ALEXANDER CONTRACT SERVICES INC | | 97,933.17 | | | Negotiable |
| 325702 | | 08-DEC-11 | ALPHA & OMEGA RESPIRATOR FIT TESTING SERVICES | | 3,294.00 | | | Negotiable |
| 325703 | | 08-DEC-11 | ALRAJHI, ALI | | 27.68 | | | Negotiable |
| 325704 | | 08-DEC-11 | AMERICAN MESSAGING SERVICES LLC | | 286.97 | | | Negotiable |
| 325705 | | 08-DEC-11 | AMERIDEX PLATE EXCHANGERS | | 7,873.35 | | | Negotiable |
| 325706 | | 08-DEC-11 | AOSAFETY | | 212.38 | | | Negotiable |
| 325707 | | 08-DEC-11 | APCO GRAPHICS INC | | 107.75 | | | Negotiable |
| 325708 | | 08-DEC-11 | ARMORCAST PRODUCTS COMPANY | | 3,554.88 | | | Negotiable |
| 325709 | | 08-DEC-11 | AT&T | | 2,093.61 | | | Negotiable |
| 325710 | | 08-DEC-11 | AT&T | | 51.76 | | | Negotiable |
| 325711 | | 08-DEC-11 | AT&T | | 145.24 | | | Negotiable |
| 325712 | | 08-DEC-11 | AYRES HOTEL AND SUITES (DBA) | | 1,878.15 | | | Negotiable |
| 325713 | | 08-DEC-11 | BARNHART INC | | 503.93 | | | Negotiable |
| 325714 | | 08-DEC-11 | BATTERY SYSTEMS INC | | 1,493.07 | | | Negotiable |
| 325715 | | 08-DEC-11 | BAY SECURITY | | 3,708.00 | | | Negotiable |
| 325716 | | 08-DEC-11 | BEST BUY/RENE BRAVO | | 1,422.25 | | | Voided |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 11
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325717 | | 08-DEC-11 | BETA SYSTEMS SOFTWARE OF NORTH AMERICA INC | | 1,476.13 | | | Negotiable |
| 325718 | | 08-DEC-11 | BIOMAGIC INC | | 8,236.41 | | | Negotiable |
| 325719 | | 08-DEC-11 | BLOOMBERG FINANCE LP | | 16,380.00 | | | Negotiable |
| 325720 | | 08-DEC-11 | BRENNTAG PACIFIC INC | | 18,781.82 | | | Negotiable |
| 325721 | | 08-DEC-11 | BRITHINEE ELECTRIC | | 7,944.37 | | | Negotiable |
| 325722 | | 08-DEC-11 | BROOKFIELD HOMES | | 33.44 | | | Negotiable |
| 325723 | | 08-DEC-11 | BUCCOLA LANDSCAPE SERVICES | | 169.47 | | | Negotiable |
| 325724 | | 08-DEC-11 | BUSH & ASSOCIATES INC | | 5,880.00 | | | Negotiable |
| 325725 | | 08-DEC-11 | C WELLS PIPELINE MATERIALS INC | | 5,501.23 | | | Negotiable |
| 325726 | | 08-DEC-11 | CALDWELL, DANA | | 175.00 | | | Negotiable |
| 325727 | | 08-DEC-11 | CALIFORNIA BARRICADE INC | | 3,960.81 | | | Negotiable |
| 325728 | | 08-DEC-11 | CANON FINANCIAL SERVICES INC | | 5,999.29 | | | Negotiable |
| 325729 | | 08-DEC-11 | CH2M HILL, INC | | 84,001.49 | | | Negotiable |
| 325730 | | 08-DEC-11 | CHANEY, JENIELLE | | 26.47 | | | Negotiable |
| 325731 | | 08-DEC-11 | CHEW, CHANEL | | 29.80 | | | Negotiable |
| 325732 | | 08-DEC-11 | Christian Kessler | | 1,151.93 | | | Negotiable |
| 325733 | | 08-DEC-11 | CHUNG, CELESTE | | 34.95 | | | Negotiable |
| 325734 | | 08-DEC-11 | CITY CIRCUIT BREAKERS | | 476.26 | | | Negotiable |
| 325735 | | 08-DEC-11 | CITY OF IRVINE | | 162.00 | | | Negotiable |
| 325736 | | 08-DEC-11 | CLARKE MASONRY INC | | 408.11 | | | Negotiable |
| 325737 | | 08-DEC-11 | CLEARWATER PIPELINE INC | | 745.44 | | | Negotiable |
| 325738 | | 08-DEC-11 | CLOTHIER, STACY | | 27.68 | | | Negotiable |
| 325739 | | 08-DEC-11 | COAST PACIFIC BUILDERS INC | | 623.41 | | | Negotiable |
| 325740 | | 08-DEC-11 | COLLINS, CLARK | | 11.69 | | | Negotiable |
| 325741 | | 08-DEC-11 | COLONIAL LIFE & ACCIDENT INSURANCE CO. | | 2,205.48 | | | Negotiable |
| 325742 | | 08-DEC-11 | COMMERCIAL CLEANING SYSTEMS INC | | 240.00 | | | Negotiable |
| 325743 | | 08-DEC-11 | COMMERCIAL COATING RESOURCE INC | | 3,330.00 | | | Negotiable |
| 325744 | | 08-DEC-11 | CONEYBEARE INC | | 9,254.68 | | | Negotiable |
| 325745 | | 08-DEC-11 | CS-AMSCO | | 2,431.43 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 12
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|-------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325746 | | 08-DEC-11 | CUI, HARRY | | 15.00 | | | Negotiable |
| 325747 | | 08-DEC-11 | CURTIS, LISA | | 24.86 | | | Negotiable |
| 325748 | | 08-DEC-11 | CUSHMAN, GRANT | | 46.67 | | | Negotiable |
| 325749 | | 08-DEC-11 | D & H WATER SYSTEMS INC. | | 14,497.30 | | | Negotiable |
| 325750 | | 08-DEC-11 | DANIEL, ASHLEY | | 24.89 | | | Negotiable |
| 325751 | | 08-DEC-11 | DATA CLEAN CORPORATION | | 513.25 | | | Negotiable |
| 325752 | | 08-DEC-11 | DEE JASPAR & ASSOCIATES, INC. | | 17,192.01 | | | Negotiable |
| 325753 | | 08-DEC-11 | DETECTION INSTRUMENTS CORP | | 1,776.50 | | | Negotiable |
| 325754 | | 08-DEC-11 | DONEUX, CYNTHIA | | 69.13 | | | Negotiable |
| 325755 | | 08-DEC-11 | DONROWE.COM LTD | | 2,583.00 | | | Negotiable |
| 325756 | | 08-DEC-11 | DPR CONSTRUCTION | | 697.36 | | | Negotiable |
| 325757 | | 08-DEC-11 | DRAEGER SAFETY INC | | 5,817.66 | | | Negotiable |
| 325758 | | 08-DEC-11 | DUDEK | | 15,778.75 | | | Negotiable |
| 325759 | | 08-DEC-11 | DWYER INSTRUMENTS INC | | 627.84 | | | Negotiable |
| 325760 | | 08-DEC-11 | EARTH CONSTRUCTION & MINING | | 4,898.73 | | | Negotiable |
| 325761 | | 08-DEC-11 | EI&C ENGINEERING INC | | 12,555.00 | | | Negotiable |
| 325762 | | 08-DEC-11 | EL TORO HIGH SCHOOL | | 2,500.00 | | | Negotiable |
| 325763 | | 08-DEC-11 | ELEVEN WESTERN BUILDERS INC | | 731.66 | | | Negotiable |
| 325764 | | 08-DEC-11 | ENDRESS AND HAUSER INC | | 5,908.19 | | | Negotiable |
| 325765 | | 08-DEC-11 | ENVIRONMENTAL EXPRESS INC | | 3,962.80 | | | Negotiable |

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|--------|-----------|--|------------|------------|
| 325766 | 08-DEC-11 | EXPRESSAIR | 58.40 | Negotiable |
| 325767 | 08-DEC-11 | FEDEX | 766.71 | Negotiable |
| 325768 | 08-DEC-11 | FERRIER, KEVEN | 20.15 | Negotiable |
| 325769 | 08-DEC-11 | FIDELITY SECURITY LIFE INSURANCE COMPANY | 5,748.24 | Negotiable |
| 325770 | 08-DEC-11 | FIRE EXTINGUISHING SAFETY | 481.29 | Negotiable |
| 325771 | 08-DEC-11 | FISHER SCIENTIFIC COMPANY LLC | 2,903.19 | Negotiable |
| 325772 | 08-DEC-11 | FUN, STEFFANY | 24.74 | Negotiable |
| 325773 | 08-DEC-11 | GANAHL LUMBER CO. | 1,008.88 | Negotiable |
| 325774 | 08-DEC-11 | GATEWAY PACIFIC CONTRACTORS, INC. | 102,290.95 | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 13
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325775 | | 08-DEC-11 | GCI CONSTRUCTION, INC. | | 788.64 | | | Negotiable |
| 325776 | | 08-DEC-11 | GCI CONSTRUCTION, INC. | | 875.12 | | | Negotiable |
| 325777 | | 08-DEC-11 | GENTERRA CONSULTANTS INC | | 211.25 | | | Negotiable |
| 325778 | | 08-DEC-11 | GEOSCIENCE SUPPORT SERVICES INC | | 1,510.00 | | | Negotiable |
| 325779 | | 08-DEC-11 | GESTOSO, KIMBERLY | | 13.46 | | | Negotiable |
| 325780 | | 08-DEC-11 | GODWIN PUMPS OF AMERICA, INC. | | 2,366.19 | | | Negotiable |
| 325781 | | 08-DEC-11 | GOTHIC LANDSCAPING INC IMPREST | | 618.87 | | | Negotiable |
| 325782 | | 08-DEC-11 | GRAINGER | | 136.35 | | | Negotiable |
| 325783 | | 08-DEC-11 | GRIFFITH COMPANY | | 939.47 | | | Negotiable |
| 325784 | | 08-DEC-11 | HACH COMPANY | | 775.28 | | | Negotiable |
| 325785 | | 08-DEC-11 | HAITBRINK ASPHALT PAVING INC | | 855.14 | | | Negotiable |
| 325786 | | 08-DEC-11 | HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY | | 180.38 | | | Negotiable |
| 325787 | | 08-DEC-11 | HELP/SYSTEMS-IL, LLC | | 2,045.00 | | | Negotiable |
| 325788 | | 08-DEC-11 | HERMAN WEISSKER IN | | 333.41 | | | Negotiable |
| 325789 | | 08-DEC-11 | HILL BROTHERS CHEMICAL COMPANY | | 13,942.74 | | | Negotiable |
| 325790 | | 08-DEC-11 | HILLCREST CONTRACTING INC | | 771.66 | | | Negotiable |
| 325791 | | 08-DEC-11 | HO, MARVIN | | 122.48 | | | Negotiable |
| 325792 | | 08-DEC-11 | HOME COMPANY THE NEW | | 33.20 | | | Negotiable |
| 325793 | | 08-DEC-11 | HOME DEPOT USA INC | | 1,339.46 | | | Negotiable |
| 325794 | | 08-DEC-11 | HUNSAKER & ASSOCIATES IRVINE | | 8,252.00 | | | Negotiable |
| 325795 | | 08-DEC-11 | IDE, YOHJI | | 36.16 | | | Negotiable |
| 325796 | | 08-DEC-11 | INDUSTRIAL ELECTRIC MACHINERY LLC | | 5,149.57 | | | Negotiable |
| 325797 | | 08-DEC-11 | INDUSTRIAL METAL SUPPLY CO | | 99.54 | | | Negotiable |
| 325798 | | 08-DEC-11 | INLAND VALLEY CONSTRUCTION CO | | 1,712.96 | | | Negotiable |
| 325799 | | 08-DEC-11 | IRVINE PIPE & SUPPLY INC | | 125.17 | | | Negotiable |
| 325800 | | 08-DEC-11 | IRVINE SUITES HOTEL | | 2,354.19 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 14
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325801 | | 08-DEC-11 | IRWD-PETTY CASH CUSTODIAN | | 796.27 | | | Negotiable |
| 325802 | | 08-DEC-11 | JAMBOREE AT MAIN | | 403.52 | | | Negotiable |
| 325803 | | 08-DEC-11 | JGINGERMASONRY LP | | 567.45 | | | Negotiable |
| 325804 | | 08-DEC-11 | JOHN G. ALEVIOS D.O. INC. | | 1,729.92 | | | Negotiable |
| 325805 | | 08-DEC-11 | JOTS CONSTRUCTION SERVICES INC | | 580.50 | | | Negotiable |
| 325806 | | 08-DEC-11 | KATHLEEN STEVENS | | 966.55 | | | Negotiable |
| 325807 | | 08-DEC-11 | KEARNEY, MATTHEW | | 29.54 | | | Negotiable |
| 325808 | | 08-DEC-11 | KEC ENGINEERING | | 671.30 | | | Negotiable |
| 325809 | | 08-DEC-11 | KELLEY BLUE BOOK, INC. | | 549.00 | | | Negotiable |

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|--------|-----------|---------------------------------------|----------|------------|
| 325810 | 08-DEC-11 | KENNEDY, LAUREN | 16.63 | Negotiable |
| 325811 | 08-DEC-11 | KEY EQUIPMENT FINANCE | 3,972.93 | Negotiable |
| 325812 | 08-DEC-11 | KILROY REALTY CORPORATION | 3,180.00 | Negotiable |
| 325813 | 08-DEC-11 | KOELLER NEBEKER CARLSON & HALUCK, LLP | 2,277.72 | Negotiable |
| 325814 | 08-DEC-11 | KONECRANES INC | 1,654.06 | Negotiable |
| 325815 | 08-DEC-11 | KPRS CONSTRUCTION SERVICES, INC | 950.56 | Negotiable |
| 325816 | 08-DEC-11 | KREUTZER, ERICA N | 61.87 | Negotiable |
| 325817 | 08-DEC-11 | KS DIRECT LLC | 3,415.24 | Negotiable |
| 325818 | 08-DEC-11 | KUNO'S GRADING INC | 889.03 | Negotiable |
| 325819 | 08-DEC-11 | L&S CONSTRUCTION INC | 1,262.85 | Negotiable |
| 325820 | 08-DEC-11 | LCS TECHNOLOGIES, INC. | 6,000.00 | Negotiable |
| 325821 | 08-DEC-11 | LEATHERWOOD CONSTRUCTION INC | 806.31 | Negotiable |
| 325822 | 08-DEC-11 | LEE & SAKAHARA ARCHITECTS, INC | 3,658.10 | Negotiable |
| 325823 | 08-DEC-11 | LEE, SEUNG | 67.50 | Negotiable |
| 325824 | 08-DEC-11 | LENNAR HOMES | 261.70 | Negotiable |
| 325825 | 08-DEC-11 | LESLEE FITZGIBBON | 420.00 | Negotiable |
| 325826 | 08-DEC-11 | LEWIS OPERATING CORP | 2,900.00 | Negotiable |
| 325827 | 08-DEC-11 | LSA ASSOCIATES INC | 2,427.50 | Negotiable |
| 325828 | 08-DEC-11 | LUBRICATION ENGINEERS, INC. | 2,801.93 | Negotiable |
| 325829 | 08-DEC-11 | LUSEN, ARON | 30.65 | Negotiable |
| 325830 | 08-DEC-11 | MAMCO INC | 969.74 | Negotiable |
| 325831 | 08-DEC-11 | MATSUMOTO, SHINYA | 49.05 | Negotiable |

DIRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 15
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|----------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325832 | | 08-DEC-11 | MC MASTER CARR SUPPLY CO | | 656.49 | | | Negotiable |
| 325833 | | 08-DEC-11 | MEEHAN HOLDINGS | | 89.60 | | | Negotiable |
| 325834 | | 08-DEC-11 | MEEHAN, VESNA | | 24.65 | | | Negotiable |
| 325835 | | 08-DEC-11 | MEINHARD | | 100.00 | | | Negotiable |
| 325836 | | 08-DEC-11 | MERCHANTS LANDSCAPE SERVICES INC | | 7,280.00 | | | Negotiable |
| 325837 | | 08-DEC-11 | MIAO, PAUL F | | 28.29 | | | Negotiable |
| 325838 | | 08-DEC-11 | MICHAEL SCHMIDT | | 623.03 | | | Negotiable |
| 325839 | | 08-DEC-11 | MID-WEST ASSOCIATES INC | | 4,156.38 | | | Negotiable |
| 325840 | | 08-DEC-11 | MISSION PAVING & SEALING INC | | 879.11 | | | Negotiable |
| 325841 | | 08-DEC-11 | MUTUAL PROPANE | | 27.00 | | | Negotiable |
| 325842 | | 08-DEC-11 | NATIONAL READY MIXED CONCRETE CO | | 732.54 | | | Negotiable |
| 325843 | | 08-DEC-11 | NCMN DEMOLITION & REMEDIATION | | 860.57 | | | Negotiable |
| 325844 | | 08-DEC-11 | NEWPORT BEACH, CITY OF | | 1,215.82 | | | Negotiable |
| 325845 | | 08-DEC-11 | NMG GEOTECHNICAL INC | | 15,165.90 | | | Negotiable |
| 325846 | | 08-DEC-11 | NOBEST INCORPORATED | | 714.33 | | | Negotiable |
| 325847 | | 08-DEC-11 | NWRI CHILDRENS WATER EDUCATION | | 2,500.00 | | | Negotiable |
| 325848 | | 08-DEC-11 | O'HAREN GOVERNMENT RELATIONS | | 6,500.00 | | | Negotiable |
| 325849 | | 08-DEC-11 | OCWA | | 250.00 | | | Negotiable |
| 325850 | | 08-DEC-11 | OLIVER-MAHON ASPHALT INC | | 677.35 | | | Negotiable |
| 325851 | | 08-DEC-11 | OLSON HAGEL FISHBURN, LLP | | 262.00 | | | Negotiable |
| 325852 | | 08-DEC-11 | ON ASSIGNMENT LAB SUPPORT | | 1,493.76 | | | Negotiable |
| 325853 | | 08-DEC-11 | ONESOURCE DISTRIBUTORS LLC | | 7,051.27 | | | Negotiable |
| 325854 | | 08-DEC-11 | ORANGE COUNTY TREASURER | | 107,822.90 | | | Negotiable |
| 325855 | | 08-DEC-11 | ORANGE, COUNTY OF | | 770.00 | | | Negotiable |
| 325856 | | 08-DEC-11 | PACIFIC COAST BOLT CORP | | 107.40 | | | Negotiable |
| 325857 | | 08-DEC-11 | PACIFIC RESOURCE RECOVERY | | 1,195.35 | | | Negotiable |

DIRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 16
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325858 | | 08-DEC-11 | PASCAL & LUDWIG CONSTRUCTORS | | 1,013,451.04 | | | Voided |
| 325859 | | 08-DEC-11 | PASCAL & LUDWIG CONSTRUCTORS | | 112,605.67 | | | Negotiable |
| 325860 | | 08-DEC-11 | PAUL E BRADLEY INC | | 7,875.00 | | | Negotiable |
| 325861 | | 08-DEC-11 | PEARPOINT | | 91.81 | | | Negotiable |
| 325862 | | 08-DEC-11 | PHILCO CONSTRUCTION INC | | 79,261.45 | | | Negotiable |
| 325863 | | 08-DEC-11 | PINNACLE LANDSCAPE COMPANY | | 6,560.00 | | | Negotiable |
| 325864 | | 08-DEC-11 | PINNACLE TOWERS LLC | | 547.44 | | | Negotiable |
| 325865 | | 08-DEC-11 | PRAXAIR DISTRIBUTION INC | | 1,384.49 | | | Negotiable |
| 325866 | | 08-DEC-11 | PRE-PAID LEGAL SERVICES INC | | 1,599.16 | | | Negotiable |
| 325867 | | 08-DEC-11 | PREBLE, COLLEEN | | 24.14 | | | Negotiable |
| 325868 | | 08-DEC-11 | PROBOLSKY RESEARCH LLC | | 25,000.00 | | | Negotiable |
| 325869 | | 08-DEC-11 | PRODATA COMPUTER SERVICES INC | | 695.00 | | | Negotiable |
| 325870 | | 08-DEC-11 | PROPERTIES LLC | | 24.65 | | | Negotiable |
| 325871 | | 08-DEC-11 | PALIADIO PRUDENTIAL OVERALL SUPPLY | | 1,721.05 | | | Negotiable |
| 325872 | | 08-DEC-11 | PSB THE MARKETING SUPERSOURCE | | 6,309.84 | | | Negotiable |
| 325873 | | 08-DEC-11 | PTI SAND & GRAVEL INC | | 1,065.51 | | | Negotiable |
| 325874 | | 08-DEC-11 | QUINN POWER SYSTEMS | | 75.43 | | | Negotiable |
| 325875 | | 08-DEC-11 | RAINBOW DISPOSAL CO INC | | 559.25 | | | Negotiable |
| 325876 | | 08-DEC-11 | RAM AIR ENGINEERING INC | | 11,988.88 | | | Negotiable |
| 325877 | | 08-DEC-11 | RANCHO MADERAS APTS | | 20.63 | | | Negotiable |
| 325878 | | 08-DEC-11 | RANCHO MARIPOSA APTS | | 65.82 | | | Negotiable |
| 325879 | | 08-DEC-11 | RBF CONSULTING | | 48,320.15 | | | Negotiable |
| 325880 | | 08-DEC-11 | REED, JAMES D | | 3,860.00 | | | Voided |
| 325881 | | 08-DEC-11 | REFRIGERATION SUPPLIES | | 528.66 | | | Negotiable |
| 325882 | | 08-DEC-11 | REHMAN, ASHAR | | 45.80 | | | Negotiable |
| 325883 | | 08-DEC-11 | RJ ALLEN | | 668.12 | | | Negotiable |
| 325884 | | 08-DEC-11 | RJ NOBEL COMPANY | | 47.89 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 17
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325885 | | 08-DEC-11 | RJ NOBEL COMPANY | | 499.90 | | | Negotiable |
| 325886 | | 08-DEC-11 | RJ NOBEL COMPANY | | 748.26 | | | Negotiable |
| 325887 | | 08-DEC-11 | ROCKET SOFTWARE, INC. | | 6,183.10 | | | Negotiable |
| 325888 | | 08-DEC-11 | RRM DESIGN GROUP | | 15,489.37 | | | Negotiable |
| 325889 | | 08-DEC-11 | S&S SEEDS INC | | 6,518.48 | | | Negotiable |
| 325890 | | 08-DEC-11 | SAK MANAGEMENT INC | | 2,488.27 | | | Negotiable |
| 325891 | | 08-DEC-11 | SANTA ANA BLUE PRINT | | 453.76 | | | Negotiable |
| 325892 | | 08-DEC-11 | SCHINDLER ELEVATOR CORPORATION | | 169.16 | | | Negotiable |
| 325893 | | 08-DEC-11 | SECC CORPORATION | | 528.69 | | | Negotiable |
| 325894 | | 08-DEC-11 | SHAMROCK SUPPLY CO INC | | 189.75 | | | Negotiable |
| 325895 | | 08-DEC-11 | SMITH, MARILYN | | 1,500.00 | | | Negotiable |
| 325896 | | 08-DEC-11 | SOLEIMANI, SHIVA | | 36.51 | | | Negotiable |
| 325897 | | 08-DEC-11 | SOUTH COAST ANSWERING SERVICE | | 470.75 | | | Negotiable |
| 325898 | | 08-DEC-11 | SOUTH ORANGE COUNTY WASTEWATER AUTHORITY | | 786.75 | | | Negotiable |
| 325899 | | 08-DEC-11 | SOUTHERN CALIFORNIA EDISON COMPANY | | 202,735.03 | | | Negotiable |
| 325900 | | 08-DEC-11 | SOUTHERN CALIFORNIA SECURITY CENTER, INC. | | 307.86 | | | Negotiable |
| 325901 | | 08-DEC-11 | SOUTHERN COUNTIES LUBRICANTS LLC | | 1,705.95 | | | Negotiable |
| 325902 | | 08-DEC-11 | SRINIVASAN, RAM | | 32.69 | | | Negotiable |
| 325903 | | 08-DEC-11 | STATE BOARD OF EQUALIZATION | | 165.25 | | | Negotiable |

| | | | | |
|--------|-----------|-------------------------------------|-----------|------------|
| 325904 | 08-DEC-11 | STATE WATER RESOURCES CONTROL BOARD | 1,943.00 | Negotiable |
| 325905 | 08-DEC-11 | SUKUT CONSTRUCTION INC | 731.42 | Negotiable |
| 325906 | 08-DEC-11 | SUMITOMO MITSUI BANKING CORPORATION | 25.00 | Negotiable |
| 325907 | 08-DEC-11 | SUNNYHILLS RESTORATION | 11,824.18 | Negotiable |
| 325908 | 08-DEC-11 | SUPERMEDIA LLC | 69.75 | Negotiable |
| 325909 | 08-DEC-11 | TABARES ENTERTAINMENT INC | 1,904.44 | Negotiable |
| 325910 | 08-DEC-11 | TAYLOR, JOHN | 25.56 | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 18
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325911 | | 08-DEC-11 | TEAM FISHEL | | 847.45 | | | Negotiable |
| 325912 | | 08-DEC-11 | TEKDRAULICS | | 31,417.54 | | | Negotiable |
| 325913 | | 08-DEC-11 | TESTAMERICA LABORATORIES, INC | | 492.15 | | | Negotiable |
| 325914 | | 08-DEC-11 | TETRA TECH, INC | | 21,221.00 | | | Negotiable |
| 325915 | | 08-DEC-11 | THE FENCE GUY | | 9,135.00 | | | Negotiable |
| 325916 | | 08-DEC-11 | THE GAS COMPANY | | 24.05 | | | Negotiable |
| 325917 | | 08-DEC-11 | THE PLUMBERS WAREHOUSE | | 6,957.95 | | | Negotiable |
| 325918 | | 08-DEC-11 | TOBY B HAYWARD INC | | 50.70 | | | Negotiable |
| 325919 | | 08-DEC-11 | TODAY REAL ESTATE | | 10.69 | | | Negotiable |
| 325920 | | 08-DEC-11 | TOKUHIRO, TARO | | 37.16 | | | Negotiable |
| 325921 | | 08-DEC-11 | TORIOLA, ABIODUN | | 10.02 | | | Negotiable |
| 325922 | | 08-DEC-11 | TROPICAL PLAZA NURSERY INC | | 780.00 | | | Negotiable |
| 325923 | | 08-DEC-11 | TRUGREEN LANDCARE LLC | | 41,344.77 | | | Negotiable |
| 325924 | | 08-DEC-11 | TSUZAKI, TETSUO | | 37.37 | | | Negotiable |
| 325925 | | 08-DEC-11 | TUMIYA, TAREK | | 274.21 | | | Negotiable |
| 325926 | | 08-DEC-11 | ULTRA SCIENTIFIC | | 522.67 | | | Negotiable |
| 325927 | | 08-DEC-11 | UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA | | 651.00 | | | Negotiable |
| 325928 | | 08-DEC-11 | US PEROXIDE LLC | | 25,437.05 | | | Negotiable |
| 325929 | | 08-DEC-11 | VALVERDE CONSTRUCTION INC | | 701.01 | | | Negotiable |
| 325930 | | 08-DEC-11 | VAN DAELE HOMES | | 17.51 | | | Negotiable |
| 325931 | | 08-DEC-11 | VANPATTEN, BRAD | | 13.57 | | | Negotiable |
| 325932 | | 08-DEC-11 | VERIZON CALIFORNIA INC | | 210.72 | | | Negotiable |
| 325933 | | 08-DEC-11 | VOLANT REALTY PARTNERS | | 22.70 | | | Negotiable |
| 325934 | | 08-DEC-11 | VOSSLER & CO | | 847.78 | | | Negotiable |
| 325935 | | 08-DEC-11 | VULCAN MATERIALS COMPANY | | 2,459.04 | | | Negotiable |
| 325936 | | 08-DEC-11 | WARD, GIL | | 13.78 | | | Negotiable |
| 325937 | | 08-DEC-11 | WARMINGTON HOMES | | 15.00 | | | Negotiable |
| 325938 | | 08-DEC-11 | WATERLINE TECHNOLOGIES INC | | 4,440.00 | | | Negotiable |
| 325939 | | 08-DEC-11 | WAXIE'S ENTERPRISES, INC | | 386.98 | | | Negotiable |
| 325940 | | 08-DEC-11 | WEINBERG, GAYLEE | | 32.70 | | | Negotiable |
| 325941 | | 08-DEC-11 | WESTERN MUNICIPAL WATER DISTRICT | | 29,269.50 | | | Negotiable |
| 325942 | | 08-DEC-11 | WESTERN SALES LLC | | 3,972.03 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 19
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|-------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325943 | | 08-DEC-11 | WESTERN WEATHER GROUP INC | | 1,798.00 | | | Negotiable |
| 325944 | | 08-DEC-11 | WHITE CAP CONSTRUCTION SUPPLY | | 151.34 | | | Negotiable |
| 325945 | | 08-DEC-11 | WILLIAM LYON HOMES | | 11.63 | | | Negotiable |
| 325946 | | 08-DEC-11 | WINDWOOD GLEN APTS | | 27.12 | | | Negotiable |
| 325947 | | 08-DEC-11 | WIRELESS WATCHDOGS LLC | | 1,236.00 | | | Negotiable |
| 325948 | | 08-DEC-11 | WONG, JONATHAN | | 24.65 | | | Negotiable |
| 325949 | | 08-DEC-11 | WOODBRIIDGE WILLOWS APTS | | 34.40 | | | Negotiable |
| 325950 | | 08-DEC-11 | YSI INCORPORATED | | 4,013.20 | | | Negotiable |
| 325951 | | 08-DEC-11 | Cheryl Kelly | | 112.20 | | | Negotiable |

| | | | | |
|--------|-----------|------------------------------|-----------|------------|
| 325952 | 08-DEC-11 | Damien McBride | 150.00 | Negotiable |
| 325953 | 08-DEC-11 | James Reed | 145.00 | Negotiable |
| 325954 | 08-DEC-11 | Jared Pennington | 262.00 | Negotiable |
| 325955 | 08-DEC-11 | Jason La | 420.00 | Negotiable |
| 325956 | 08-DEC-11 | Kenneth Erwin | 10.00 | Negotiable |
| 325957 | 08-DEC-11 | Leslie Bonkowski | 1,293.33 | Negotiable |
| 325958 | 08-DEC-11 | Mike Bornhoff | 17.56 | Negotiable |
| 325959 | 08-DEC-11 | Richard Mori | 14.00 | Negotiable |
| 325960 | 08-DEC-11 | Richard Olson | 150.00 | Negotiable |
| 325961 | 08-DEC-11 | Steven Malloy | 255.00 | Negotiable |
| 325962 | 08-DEC-11 | Thomas Bonkowski | 141.35 | Negotiable |
| 325963 | 08-DEC-11 | Zackariah Tegel | 150.00 | Negotiable |
| 325964 | 14-DEC-11 | HDR ENGINEERING OMAHA INC | 27,900.17 | Negotiable |
| 325965 | 14-DEC-11 | Carolyn German | 50.53 | Negotiable |
| 325966 | 14-DEC-11 | Ian Swift | 345.00 | Negotiable |
| 325967 | 14-DEC-11 | Jacob Moeder | 36.30 | Negotiable |
| 325968 | 14-DEC-11 | Kirsten McLaughlin | 95.65 | Negotiable |
| 325969 | 14-DEC-11 | Michele Drzymkowski | 59.25 | Negotiable |
| 325970 | 14-DEC-11 | Richard Mori | 270.00 | Negotiable |
| 325971 | 14-DEC-11 | ABS PRODUCTS INC | 1,028.53 | Negotiable |
| 325972 | 14-DEC-11 | ACWA | 28,132.50 | Negotiable |
| 325973 | 14-DEC-11 | ADS LLC | 1,936.50 | Negotiable |
| 325974 | 14-DEC-11 | ANTHEM BLUE CROSS | 1,445.60 | Negotiable |
| 325975 | 14-DEC-11 | AQUA-METRIC SALES COMPANY | 34,429.62 | Negotiable |
| 325976 | 14-DEC-11 | ARIZONA INSTRUMENT LLC | 660.00 | Negotiable |
| 325977 | 14-DEC-11 | AVISTA TECHNOLOGIES, INC | 2,833.33 | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 20
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 325978 | | 14-DEC-11 | AYRES HOTEL AND SUITES (DBA) | | 1,087.35 | | | Negotiable |
| 325979 | | 14-DEC-11 | BAKERSFIELD WELL & PUMP CO | | 30,800.00 | | | Negotiable |
| 325980 | | 14-DEC-11 | BDC SPECIAL WASTE | | 200.00 | | | Negotiable |
| 325981 | | 14-DEC-11 | BEST BUY/CODY CARIKER | | 835.20 | | | Negotiable |
| 325982 | | 14-DEC-11 | C WELLS PIPELINE MATERIALS INC | | 4,310.00 | | | Negotiable |
| 325983 | | 14-DEC-11 | CALIFORNIA BARRICADE INC | | 2,828.75 | | | Negotiable |
| 325984 | | 14-DEC-11 | CALIFORNIA SPECIAL DISTRICTS ASSOCIATION | | 4,581.00 | | | Negotiable |
| 325985 | | 14-DEC-11 | CITY OF IRVINE | | 3,007.20 | | | Negotiable |
| 325986 | | 14-DEC-11 | CLA-VAL COMPANY | | 3,296.40 | | | Negotiable |
| 325987 | | 14-DEC-11 | COASTAL TRAFFIC SYSTEMS, INC | | 510.00 | | | Negotiable |
| 325988 | | 14-DEC-11 | COMMERCIAL CLEANING SYSTEMS INC | | 10,605.99 | | | Negotiable |
| 325989 | | 14-DEC-11 | CONDITION MONITORING SERVICES INC | | 5,087.50 | | | Negotiable |
| 325990 | | 14-DEC-11 | CONYBEARE INC | | 947.52 | | | Negotiable |
| 325991 | | 14-DEC-11 | CONTROLLED KEY SYSTEMS INC | | 86.50 | | | Negotiable |
| 325992 | | 14-DEC-11 | CORRPRO COMPANIES INC | | 1,957.50 | | | Negotiable |
| 325993 | | 14-DEC-11 | COX COMMUNICATIONS | | 256.58 | | | Negotiable |
| 325994 | | 14-DEC-11 | DATA CLEAN CORPORATION | | 500.00 | | | Negotiable |
| 325995 | | 14-DEC-11 | DCSE INC | | 11,362.50 | | | Negotiable |
| 325996 | | 14-DEC-11 | DEE JASPAR & ASSOCIATES, INC. | | 5,502.23 | | | Negotiable |
| 325997 | | 14-DEC-11 | DELPHIN COMPUTER SUPPLY | | 478.41 | | | Negotiable |
| 325998 | | 14-DEC-11 | DUDEK | | 55,353.47 | | | Negotiable |
| 325999 | | 14-DEC-11 | ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC. | | 11,555.70 | | | Negotiable |
| 326000 | | 14-DEC-11 | FISHER SCIENTIFIC COMPANY LLC | | 904.02 | | | Negotiable |
| 326001 | | 14-DEC-11 | GEOSCIENCE SUPPORT SERVICES INC | | 17,140.00 | | | Negotiable |
| 326002 | | 14-DEC-11 | HOME DEPOT USA INC | | 64.23 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 21
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Cleared

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326003 | | 14-DEC-11 | HYDRO-SCAPE PRODUCTS INC | | 258.37 | | | Negotiable |
| 326004 | | 14-DEC-11 | INTEGRITY MUNICIPAL SERVICES | | 29,901.88 | | | Negotiable |
| 326005 | | 14-DEC-11 | KELLY SERVICES INC | | 504.00 | | | Negotiable |
| 326006 | | 14-DEC-11 | KENNEDY/JENKS CONSULTANTS INC | | 7,356.25 | | | Negotiable |
| 326007 | | 14-DEC-11 | MAG-TROL | | 3,200.46 | | | Negotiable |
| 326008 | | 14-DEC-11 | MALCOLM PIRNIE INC | | 20,058.50 | | | Negotiable |
| 326009 | | 14-DEC-11 | MCCLAIN'S FURNITURE INC | | 3,645.00 | | | Negotiable |
| 326010 | | 14-DEC-11 | MOUSE GRAPHICS | | 2,249.74 | | | Negotiable |
| 326011 | | 14-DEC-11 | MUNICIPAL WATER DISTRICT OF ORANGE COUNTY | | 1,500.00 | | | Negotiable |
| 326012 | | 14-DEC-11 | NATIONAL READY MIXED CONCRETE CO | | 304.93 | | | Negotiable |
| 326013 | | 14-DEC-11 | NINYO & MOORE | | 22,911.50 | | | Negotiable |
| 326014 | | 14-DEC-11 | NMG GEOTECHNICAL INC | | 13,641.30 | | | Negotiable |
| 326015 | | 14-DEC-11 | NOREX INC | | 3,210.00 | | | Negotiable |
| 326016 | | 14-DEC-11 | OLIN CORPORATION | | 5,202.81 | | | Negotiable |
| 326017 | | 14-DEC-11 | ON ASSIGNMENT LAB SUPPORT | | 2,489.60 | | | Negotiable |
| 326018 | | 14-DEC-11 | ORANGE COUNTY SANITATION DISTRICT | | 4,710.00 | | | Negotiable |
| 326019 | | 14-DEC-11 | ORANGE COUNTY VECTOR CONTROL DISTRICT | | 911.56 | | | Negotiable |
| 326020 | | 14-DEC-11 | ORANGE, COUNTY OF | | 2,997.50 | | | Negotiable |
| 326021 | | 14-DEC-11 | ORANGE, COUNTY OF | | 715,589.45 | | | Negotiable |
| 326022 | | 14-DEC-11 | PACIFIC COAST BOLT CORP | | 379.63 | | | Negotiable |
| 326023 | | 14-DEC-11 | PACIFIC ELITE COMMUNICATIONS | | 4,280.00 | | | Negotiable |
| 326024 | | 14-DEC-11 | PACIFIC STRATEGIES | | 2,500.00 | | | Negotiable |
| 326025 | | 14-DEC-11 | PAYNE & FEARS LLP | | 15,587.13 | | | Negotiable |
| 326026 | | 14-DEC-11 | PEARPOINT | | 3,263.94 | | | Negotiable |
| 326027 | | 14-DEC-11 | PRAXAIR DISTRIBUTION INC | | 411.02 | | | Negotiable |
| 326028 | | 14-DEC-11 | PRUDENTIAL OVERALL SUPPLY | | 746.04 | | | Negotiable |
| 326029 | | 14-DEC-11 | PSOMAS | | 7,742.00 | | | Negotiable |
| 326030 | | 14-DEC-11 | PTI SAND & GRAVEL INC | | 5,216.15 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 22
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326031 | | 14-DEC-11 | QUINN POWER SYSTEMS | | 66.70 | | | Negotiable |
| 326032 | | 14-DEC-11 | R & S SOIL PRODUCTS INC | | 840.45 | | | Negotiable |
| 326033 | | 14-DEC-11 | RBF CONSULTING | | 19,439.63 | | | Negotiable |
| 326034 | | 14-DEC-11 | RINGCLEAR LLC | | 73.80 | | | Negotiable |
| 326035 | | 14-DEC-11 | RJS SOFTWARE SYSTEMS INC | | 380.00 | | | Negotiable |
| 326036 | | 14-DEC-11 | SANTA ANA BLUE PRINT | | 57.21 | | | Negotiable |
| 326037 | | 14-DEC-11 | SOUTH COAST WATER | | 40.00 | | | Negotiable |
| 326038 | | 14-DEC-11 | SOUTHERN CALIFORNIA EDISON COMPANY | | 1,732.38 | | | Negotiable |
| 326039 | | 14-DEC-11 | STANDARD & POOR'S FINANCIAL SERVICES LLC | | 3,500.00 | | | Negotiable |
| 326040 | | 14-DEC-11 | TESTAMERICA LABORATORIES, INC | | 300.00 | | | Negotiable |
| 326041 | | 14-DEC-11 | TETRA TECH, INC | | 13,409.19 | | | Negotiable |
| 326042 | | 14-DEC-11 | THE FURMAN GROUP | | 9,924.00 | | | Negotiable |
| 326043 | | 14-DEC-11 | TRIPAC MARKETING INC | | 383.84 | | | Negotiable |
| 326044 | | 14-DEC-11 | TUSTIN CHAMBER OF COMMERCE | | 775.00 | | | Negotiable |
| 326045 | | 14-DEC-11 | ULTRA SCIENTIFIC | | 250.50 | | | Negotiable |
| 326046 | | 14-DEC-11 | UNITED SITE SERVICES OF CALIFORNIA INC | | 344.28 | | | Negotiable |
| 326047 | | 14-DEC-11 | UNITED STATES POST OFFICE | | 1,190.00 | | | Negotiable |
| 326048 | | 14-DEC-11 | US PEROXIDE LLC | | 7,021.25 | | | Negotiable |
| 326049 | | 14-DEC-11 | VA CONSULTING, INC | | 377.75 | | | Negotiable |
| 326050 | | 14-DEC-11 | WASTE MANAGEMENT | | 1,554.32 | | | Negotiable |

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|--------|-----------|---|--|-----------|--|------------|
| 326051 | 14-DEC-11 | OF ORANGE COUNTY WATER EDUCATION FOUNDATION | | 10,389.00 | | Negotiable |
| 326052 | 14-DEC-11 | WAXIE'S ENTERPRISES, INC | | 603.40 | | Negotiable |
| 326053 | 14-DEC-11 | WESTERN EXTERMINATOR COMPANY | | 15,999.50 | | Negotiable |
| 326054 | 14-DEC-11 | WOOD, KATHY | | 15.00 | | Negotiable |
| 326055 | 16-DEC-11 | ALLIANCE FOR WATER EFFICIENCY NFP | | 20,000.00 | | Negotiable |
| 326056 | 16-DEC-11 | ARCADIS U.S., INC. | | 2,012.45 | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 23
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326057 | | 16-DEC-11 | AT&T | | 6,471.48 | | | Negotiable |
| 326058 | | 16-DEC-11 | AT&T | | 91.10 | | | Negotiable |
| 326059 | | 16-DEC-11 | B&K ELECTRIC WHOLESALE | | 745.00 | | | Negotiable |
| 326060 | | 16-DEC-11 | CANON FINANCIAL SERVICES INC | | 1,389.97 | | | Negotiable |
| 326061 | | 16-DEC-11 | CLEARINGHOUSE | | 528.45 | | | Negotiable |
| 326062 | | 16-DEC-11 | DUDEK | | 6,705.23 | | | Negotiable |
| 326063 | | 16-DEC-11 | FARRELL & ASSOCIATES | | 293.08 | | | Negotiable |
| 326064 | | 16-DEC-11 | FISERV | | 9,968.36 | | | Negotiable |
| 326065 | | 16-DEC-11 | FRANCHISE TAX BOARD | | 242.31 | | | Negotiable |
| 326066 | | 16-DEC-11 | HACH COMPANY | | 866.98 | | | Negotiable |
| 326067 | | 16-DEC-11 | HARMSWORTH ASSOCIATES | | 1,195.00 | | | Negotiable |
| 326068 | | 16-DEC-11 | HDR ENGINEERING INC | | 23,276.36 | | | Negotiable |
| 326069 | | 16-DEC-11 | HOME DEPOT USA INC | | 95.58 | | | Negotiable |
| 326070 | | 16-DEC-11 | INTERNAL REVENUE SERVICE | | 1,484.50 | | | Negotiable |
| 326071 | | 16-DEC-11 | IRVINE PIPE & SUPPLY INC | | 4,993.55 | | | Negotiable |
| 326072 | | 16-DEC-11 | LEATHERWOOD CONSTRUCTION INC | | 515,457.15 | | | Negotiable |
| 326073 | | 16-DEC-11 | LEATHERWOOD CONSTRUCTION INC | | 7,036.50 | | | Negotiable |
| 326074 | | 16-DEC-11 | LSA ASSOCIATES INC | | 4,838.18 | | | Negotiable |
| 326075 | | 16-DEC-11 | MBF CONSULTING, INC. | | 6,810.01 | | | Negotiable |
| 326076 | | 16-DEC-11 | MC MASTER CARR SUPPLY CO | | 2,776.15 | | | Negotiable |
| 326077 | | 16-DEC-11 | ON ASSIGNMENT LAB SUPPORT | | 1,244.80 | | | Negotiable |
| 326078 | | 16-DEC-11 | ORDONEZ, CYNTHIA MARIE | | 500.17 | | | Negotiable |
| 326079 | | 16-DEC-11 | PASCAL & LUDWIG CONSTRUCTORS | | 1,330,201.24 | | | Negotiable |
| 326080 | | 16-DEC-11 | PERS LONG TERM CARE | | 1,626.89 | | | Negotiable |
| 326081 | | 16-DEC-11 | PRUDENTIAL OVERALL SUPPLY | | 74.18 | | | Negotiable |
| 326082 | | 16-DEC-11 | REED, JAMES D | | 1,930.00 | | | Negotiable |
| 326083 | | 16-DEC-11 | SANTA ANA BLUE PRINT | | 99.26 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 24
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326084 | | 16-DEC-11 | SCOTT HEALTH & SAFETY | | 1,088.31 | | | Negotiable |
| 326085 | | 16-DEC-11 | SEMA CONSTRUCTION INC | | 40,011.12 | | | Negotiable |
| 326086 | | 16-DEC-11 | SEMA CONSTRUCTION INC | | 4,445.68 | | | Negotiable |
| 326087 | | 16-DEC-11 | SIGMA-ALDRICH INC | | 305.22 | | | Negotiable |
| 326088 | | 16-DEC-11 | SOUTHERN CALIFORNIA EDISON COMPANY | | 31,422.87 | | | Negotiable |
| 326089 | | 16-DEC-11 | SOUTHERN COUNTIES LUBRICANTS LLC | | 863.02 | | | Negotiable |
| 326090 | | 16-DEC-11 | THE GAS COMPANY | | 6,438.69 | | | Negotiable |
| 326091 | | 16-DEC-11 | UNDERGROUND SERVICE ALERT OF SOUTHERN | | 663.00 | | | Negotiable |

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|--------|-----------|---|-------------|------------|------------|
| 326092 | 16-DEC-11 | CALIFORNIA WALTERS WHOLESALE ELECTRIC | | 3,204.88 | Negotiable |
| 326093 | 17-DEC-11 | MARSH RISK & INSURANCE SVCS | LOS ANGELES | 15,733.00 | Negotiable |
| 326094 | 22-DEC-11 | AAF INTERNATIONAL | | 1,138.03 | Negotiable |
| 326095 | 22-DEC-11 | AARP HEALTH CARE OPTIONS | | 210.92 | Negotiable |
| 326096 | 22-DEC-11 | ABALLI, ZAIRE | | 51.98 | Negotiable |
| 326097 | 22-DEC-11 | AIRGAS-WEST, INC. | | 661.72 | Negotiable |
| 326098 | 22-DEC-11 | ALMEGA ENVIRONMENTAL & TECHNICAL SERVICES | | 600.00 | Negotiable |
| 326099 | 22-DEC-11 | ANTHEM BLUE CROSS | | 4,037.20 | Negotiable |
| 326100 | 22-DEC-11 | AQUA-METRIC SALES COMPANY | | 936.07 | Negotiable |
| 326101 | 22-DEC-11 | ASHFORD, WALT | | 450.33 | Negotiable |
| 326102 | 22-DEC-11 | ASLIN, RHEA | | 26.47 | Negotiable |
| 326103 | 22-DEC-11 | ASSOCIATED POWER INC | | 2,018.97 | Negotiable |
| 326104 | 22-DEC-11 | AST CORPORATION | | 130,173.47 | Negotiable |
| 326105 | 22-DEC-11 | AT&T | | 2,117.48 | Negotiable |
| 326106 | 22-DEC-11 | AT&T | | 91.25 | Negotiable |
| 326107 | 22-DEC-11 | AT&T | | 47.25 | Negotiable |
| 326108 | 22-DEC-11 | AT&T INTERNET SERVICES | | 1,124.00 | Negotiable |
| 326109 | 22-DEC-11 | AVO TRAINING INSTITUTE, INC. | | 350.00 | Negotiable |
| 326110 | 22-DEC-11 | AWERKAMP, RONALD | | 120.00 | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 25
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326111 | | 22-DEC-11 | AYRES HOTEL AND SUITES (DBA) | | 1,977.00 | | | Negotiable |
| 326112 | | 22-DEC-11 | BAKER RANCH AREA II OA | | 18,115.59 | | | Negotiable |
| 326113 | | 22-DEC-11 | BAKERSFIELD WELL & PUMP CO | | 188,532.00 | | | Negotiable |
| 326114 | | 22-DEC-11 | BARNA, TRACY | | 240.20 | | | Negotiable |
| 326115 | | 22-DEC-11 | BARRIOS, EDWIN | | 60.81 | | | Negotiable |
| 326116 | | 22-DEC-11 | BATTERY SPECIALTIES | | 369.87 | | | Negotiable |
| 326117 | | 22-DEC-11 | BELL, SHELDON AND DEBRA | | 105.22 | | | Negotiable |
| 326118 | | 22-DEC-11 | BERMAN, ROBERT H | | 83.19 | | | Negotiable |
| 326119 | | 22-DEC-11 | BIOMAGIC INC | | 11,599.02 | | | Negotiable |
| 326120 | | 22-DEC-11 | BLACK & VEATCH CORPORATION | | 510,039.49 | | | Negotiable |
| 326121 | | 22-DEC-11 | BLAZICEK, BRETT | | 20.98 | | | Negotiable |
| 326122 | | 22-DEC-11 | BORCHARD SURVEYING & MAPPING, INC. | | 11,572.50 | | | Negotiable |
| 326123 | | 22-DEC-11 | BRENNTAG PACIFIC INC | | 879.00 | | | Negotiable |
| 326124 | | 22-DEC-11 | BUTIER ENGINEERING INC | | 18,544.00 | | | Negotiable |
| 326125 | | 22-DEC-11 | C WELLS PIPELINE MATERIALS INC | | 49,387.77 | | | Negotiable |
| 326126 | | 22-DEC-11 | CALIFORNIA BARRICADE INC | | 7,377.50 | | | Negotiable |
| 326127 | | 22-DEC-11 | CAMPIL FARR INC | | 545.35 | | | Negotiable |
| 326128 | | 22-DEC-11 | CANON BUSINESS SOLUTIONS INC | | 98.42 | | | Negotiable |
| 326129 | | 22-DEC-11 | CANON FINANCIAL SERVICES INC | | 460.12 | | | Negotiable |
| 326130 | | 22-DEC-11 | CARL WARREN & CO | | 3,957.94 | | | Negotiable |
| 326131 | | 22-DEC-11 | CASTANEDA, NATALIE | | 1,649.92 | | | Negotiable |
| 326132 | | 22-DEC-11 | CDW GOVERNMENT LLC | | 188.63 | | | Negotiable |
| 326133 | | 22-DEC-11 | CEDAR CREEK APTS | | 71.88 | | | Negotiable |
| 326134 | | 22-DEC-11 | CHEN, MING CHIH | | 81.13 | | | Negotiable |
| 326135 | | 22-DEC-11 | CHILDTIME CHILDCARE INC | | 1,384.16 | | | Negotiable |
| 326136 | | 22-DEC-11 | CITIGROUP GLOBAL MARKETS INC. | | 245.75 | | | Negotiable |
| 326137 | | 22-DEC-11 | CITY OF LAKE FOREST | | 725,037.98 | | | Negotiable |
| 326138 | | 22-DEC-11 | CITY OF ORANGE | | 230.00 | | | Negotiable |
| 326139 | | 22-DEC-11 | CITY OF TUSTIN | | 341.53 | | | Negotiable |
| 326140 | | 22-DEC-11 | CLAPP, SUSANNE | | 15.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 26
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|
|----------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|

Payment Document : IRWD CHECK

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| 326141 | | 22-DEC-11 | COASTAL TRAFFIC SYSTEMS, INC | | 510.00 | | | Negotiable |
| 326142 | | 22-DEC-11 | COMMERCIAL DOOR OF ORANGE COUNTY, INC. | | 675.40 | | | Negotiable |
| 326143 | | 22-DEC-11 | ONEYBEARE INC | | 1,158.08 | | | Negotiable |
| 326144 | | 22-DEC-11 | CR & R INCORPORATED | | 11.98 | | | Negotiable |
| 326145 | | 22-DEC-11 | CREDENTIAL CHECK CORPORATION | | 228.50 | | | Negotiable |
| 326146 | | 22-DEC-11 | CROSS CREEK APTS | | 61.78 | | | Negotiable |
| 326147 | | 22-DEC-11 | D & G SIGNS | | 903.09 | | | Negotiable |
| 326148 | | 22-DEC-11 | DCSE INC | | 15,120.00 | | | Negotiable |
| 326149 | | 22-DEC-11 | DELALIO, PETER | | 130.39 | | | Negotiable |
| 326150 | | 22-DEC-11 | DELGADO, MANUEL | | 24.65 | | | Negotiable |
| 326151 | | 22-DEC-11 | DEMAYO, BENJAMIN | | 11.11 | | | Negotiable |
| 326152 | | 22-DEC-11 | DEMETER, MICHAEL | | 11.69 | | | Negotiable |
| 326153 | | 22-DEC-11 | DIRECTV INC | | 86.99 | | | Negotiable |
| 326154 | | 22-DEC-11 | DISPLAYIT INC | | 91.07 | | | Negotiable |
| 326155 | | 22-DEC-11 | DOHERTY, MARILYN | | 22.36 | | | Negotiable |
| 326156 | | 22-DEC-11 | EAST ORANGE COUNTY WATER DISTRICT | | 38,764.64 | | | Negotiable |
| 326157 | | 22-DEC-11 | ELECTRICAL SYSTEMS ENGINEERING | | 6,250.00 | | | Negotiable |
| 326158 | | 22-DEC-11 | ENVIRONMENTAL EXPRESS INC | | 881.70 | | | Negotiable |
| 326159 | | 22-DEC-11 | ENVIRONMENTAL WATER MANAGEMENT INC | | 6,100.00 | | | Negotiable |
| 326160 | | 22-DEC-11 | EVERGREEN OIL INC | | 336.50 | | | Negotiable |
| 326161 | | 22-DEC-11 | EXPRESSAIR | | 127.40 | | | Negotiable |
| 326162 | | 22-DEC-11 | FARRELL & ASSOCIATES | | 455.71 | | | Negotiable |
| 326163 | | 22-DEC-11 | FEDEX | | 716.44 | | | Negotiable |
| 326164 | | 22-DEC-11 | FEDEX NATIONAL LTL, INC | | 394.79 | | | Negotiable |
| 326165 | | 22-DEC-11 | FIRST CHOICE SERVICES | | 1,228.29 | | | Negotiable |
| 326166 | | 22-DEC-11 | FISHER SCIENTIFIC COMPANY LLC | | 1,412.31 | | | Negotiable |
| 326167 | | 22-DEC-11 | FLATIRON WEST INC | | 338,883.64 | | | Negotiable |
| 326168 | | 22-DEC-11 | FLEET SOLUTIONS LLC | | 3,867.25 | | | Negotiable |
| 326169 | | 22-DEC-11 | FRANKLIN, ALVIN | | 68.37 | | | Negotiable |
| 326170 | | 22-DEC-11 | FT ZIEBARTH COMPANY | | 227,310.08 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 27
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326171 | | 22-DEC-11 | G.M. SAGER CONSTRUCTION CO, INC | | 18,170.00 | | | Negotiable |
| 326172 | | 22-DEC-11 | GANAHL LUMBER CO. | | 2,761.09 | | | Negotiable |
| 326173 | | 22-DEC-11 | GARCIA, ALEX | | 1,363.44 | | | Negotiable |
| 326174 | | 22-DEC-11 | GATEWAY PACIFIC CONTRACTORS, INC. | | 46,973.04 | | | Negotiable |
| 326175 | | 22-DEC-11 | GATEWAY PACIFIC CONTRACTORS, INC. | | 5,219.22 | | | Negotiable |
| 326176 | | 22-DEC-11 | GCI CONSTRUCTION, INC. | | 8,582.56 | | | Negotiable |
| 326177 | | 22-DEC-11 | GEI CONSULTANTS INC | | 52,045.11 | | | Negotiable |
| 326178 | | 22-DEC-11 | GJG HOLDING LLC | | 16.90 | | | Negotiable |
| 326179 | | 22-DEC-11 | GRAINGER | | 7,510.60 | | | Negotiable |
| 326180 | | 22-DEC-11 | GRAYBAR ELECTRIC COMPANY | | 1,471.35 | | | Negotiable |
| 326181 | | 22-DEC-11 | H2O INNOVATION USA INC | | 9,733.41 | | | Negotiable |
| 326182 | | 22-DEC-11 | HARRINGTON INDUSTRIAL PLASTICS LLC | | 638.75 | | | Negotiable |
| 326183 | | 22-DEC-11 | HARVARD COURT APTS | | 23.09 | | | Negotiable |
| 326184 | | 22-DEC-11 | HILL BROTHERS CHEMICAL COMPANY | | 8,065.63 | | | Negotiable |
| 326185 | | 22-DEC-11 | HOME DEPOT USA INC | | 930.08 | | | Negotiable |
| 326186 | | 22-DEC-11 | HONG, JIN | | 57.55 | | | Negotiable |
| 326187 | | 22-DEC-11 | HOWARD, KEITH | | 15.53 | | | Negotiable |
| 326188 | | 22-DEC-11 | HSIEH BYRON | | 211.79 | | | Negotiable |
| 326189 | | 22-DEC-11 | HUMANA INSURANCE COMPANY | | 25.20 | | | Negotiable |
| 326190 | | 22-DEC-11 | I1 FUELS INC | | 28,657.33 | | | Negotiable |
| 326191 | | 22-DEC-11 | INC IPM | | 15.00 | | | Negotiable |
| 326192 | | 22-DEC-11 | INDUSTRIAL METAL SUPPLY CO | | 195.63 | | | Negotiable |
| 326193 | | 22-DEC-11 | INSITUFORM | | 268,554.56 | | | Negotiable |

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|--------|-----------|--|--|----------|--|------------|
| 326194 | 22-DEC-11 | TECHNOLOGIES INC IRON MOUNTAIN INFORMATION MANAGEMENT INC | | 1,648.87 | | Negotiable |
| 326195 | 22-DEC-11 | IRVINE PACIFIC | | 56.44 | | Negotiable |
| 326196 | 22-DEC-11 | IRVINE PIPE & SUPPLY INC | | 1,011.46 | | Negotiable |
| 326197 | 22-DEC-11 | IRWD-PETTY CASH CUSTODIAN | | 430.49 | | Negotiable |
| 326198 | 22-DEC-11 | JOHN MICHAEL COVAS | | 96.50 | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 28
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326199 | | 22-DEC-11 | KB HOMES | | 14.79 | | | Negotiable |
| 326200 | | 22-DEC-11 | KELLY SERVICES INC | | 3,024.00 | | | Negotiable |
| 326201 | | 22-DEC-11 | KILROY REALTY | | 389.66 | | | Negotiable |
| 326202 | | 22-DEC-11 | KIM, JOHN | | 17.15 | | | Negotiable |
| 326203 | | 22-DEC-11 | KLEIN, CAROL | | 15.00 | | | Negotiable |
| 326204 | | 22-DEC-11 | KPRS CONSTRUCTION SERVICES, INC | | 887,075.59 | | | Negotiable |
| 326205 | | 22-DEC-11 | KS DIRECT LLC | | 5,195.70 | | | Negotiable |
| 326206 | | 22-DEC-11 | L&S CONSTRUCTION INC | | 63,022.50 | | | Negotiable |
| 326207 | | 22-DEC-11 | LAB SAFETY SUPPLY INC | | 200.08 | | | Negotiable |
| 326208 | | 22-DEC-11 | LACUNZA, SCOTT | | 19.39 | | | Negotiable |
| 326209 | | 22-DEC-11 | LAMBERT, PETER AND ANDRA | | 40.21 | | | Negotiable |
| 326210 | | 22-DEC-11 | LAYTON-BELLING & ASSOCIATES | | 1,092.52 | | | Negotiable |
| 326211 | | 22-DEC-11 | LE, DANIEL | | 31.13 | | | Negotiable |
| 326212 | | 22-DEC-11 | LENNAR HOMES | | 15.00 | | | Negotiable |
| 326213 | | 22-DEC-11 | LGC GEOTECHNICAL, INC. | | 990.00 | | | Negotiable |
| 326214 | | 22-DEC-11 | LIANG, HONG | | 21.37 | | | Negotiable |
| 326215 | | 22-DEC-11 | MABAT CHEMICAL SYSTEMS LTD. | | 3,660.00 | | | Negotiable |
| 326216 | | 22-DEC-11 | MAG-TROL | | 269.26 | | | Negotiable |
| 326217 | | 22-DEC-11 | MALCOLM FIRNIE INC | | 745.80 | | | Negotiable |
| 326218 | | 22-DEC-11 | MANDAPAKA, RAMESH | | 45.04 | | | Negotiable |
| 326219 | | 22-DEC-11 | MARSH RISK & INSURANCE SVCS | | 53,979.25 | | | Negotiable |
| 326220 | | 22-DEC-11 | MAUGHAN, BRIAN | | 21.05 | | | Negotiable |
| 326221 | | 22-DEC-11 | MBC APPLIED ENVIRONMENTAL SCIENCES | | 1,000.00 | | | Negotiable |
| 326222 | | 22-DEC-11 | MC MASTER CARR SUPPLY CO | | 922.96 | | | Negotiable |
| 326223 | | 22-DEC-11 | MUCARIA, SUSAN | | 40.18 | | | Negotiable |
| 326224 | | 22-DEC-11 | MUNAKATA, TOMOHIKO | | 17.87 | | | Negotiable |
| 326225 | | 22-DEC-11 | NATIONAL READY MIXED CONCRETE CO | | 602.36 | | | Negotiable |
| 326226 | | 22-DEC-11 | NICOLAS, JOYANNE | | 27.38 | | | Negotiable |
| 326227 | | 22-DEC-11 | NINYO & MOORE | | 209.50 | | | Negotiable |
| 326228 | | 22-DEC-11 | NOH, JOHN | | 15.00 | | | Negotiable |
| 326229 | | 22-DEC-11 | NORTHWOOD PLACE APTS | | 18.01 | | | Negotiable |
| 326230 | | 22-DEC-11 | NOVALES, ERIK | | 24.14 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 29
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326231 | | 22-DEC-11 | OCE NORTH AMERICA INC | | 15,130.96 | | | Negotiable |
| 326232 | | 22-DEC-11 | OLIN CORPORATION | | 15,475.12 | | | Negotiable |
| 326233 | | 22-DEC-11 | ON ASSIGNMENT LAB SUPPORT | | 4,730.24 | | | Negotiable |
| 326234 | | 22-DEC-11 | ONESOURCE DISTRIBUTORS LLC | | 5,903.48 | | | Negotiable |
| 326235 | | 22-DEC-11 | ORANGE COUNTY FIRE AUTHORITY | | 2,411.00 | | | Negotiable |
| 326236 | | 22-DEC-11 | ORANGE COUNTY TREASURER | | 8,066.26 | | | Negotiable |
| 326237 | | 22-DEC-11 | ORANGE, COUNTY OF | | 136.00 | | | Negotiable |
| 326238 | | 22-DEC-11 | PACIFIC COAST BOLT CORP | | 948.20 | | | Negotiable |
| 326239 | | 22-DEC-11 | PARKWAY LAWNMOWER SHOP | | 1,267.10 | | | Negotiable |
| 326240 | | 22-DEC-11 | PASCAL & LUDWIG CONSTRUCTORS | | 407,731.14 | | | Negotiable |

| | | | | |
|--------|-----------|---------------------------------|-----------|------------|
| 326241 | 22-DEC-11 | PASCAL & LUDWIG CONSTRUCTORS | 45,303.46 | Negotiable |
| 326242 | 22-DEC-11 | PASMA | 75.00 | Negotiable |
| 326243 | 22-DEC-11 | PENTON MEDIA | 149.00 | Negotiable |
| 326244 | 22-DEC-11 | PINNACLE LANDSCAPE COMPANY | 785.50 | Negotiable |
| 326245 | 22-DEC-11 | PINNACLE TOWERS LLC | 577.71 | Negotiable |
| 326246 | 22-DEC-11 | PMK ASSOCIATES INC | 6,800.00 | Negotiable |
| 326247 | 22-DEC-11 | POWER DESIGN | 2,906.81 | Negotiable |
| 326248 | 22-DEC-11 | PRAXAIR DISTRIBUTION INC | 161.46 | Negotiable |
| 326249 | 22-DEC-11 | PRINCIPAL LIFE INSURANCE | 24,294.97 | Negotiable |
| 326250 | 22-DEC-11 | PRUDENTIAL OVERALL SUPPLY | 761.62 | Negotiable |
| 326251 | 22-DEC-11 | PSOMAS | 243.00 | Negotiable |
| 326252 | 22-DEC-11 | PTI SAND & GRAVEL INC | 1,696.64 | Negotiable |
| 326253 | 22-DEC-11 | QUALITY ENVIRONMENTAL | 1,363.28 | Negotiable |
| 326254 | 22-DEC-11 | RANCHO ALISAL APTS | 42.81 | Negotiable |
| 326255 | 22-DEC-11 | RANCHO MADERAS APTS | 34.20 | Negotiable |
| 326256 | 22-DEC-11 | RANCHO MARIPOSA APTS | 14.59 | Negotiable |
| 326257 | 22-DEC-11 | RANCHO TIERRA APTS | 26.51 | Negotiable |
| 326258 | 22-DEC-11 | RATZLAFF, HOLLY | 26.60 | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326259 | | 22-DEC-11 | RAVIN, JACK | | 544.95 | | | Negotiable |
| 326260 | | 22-DEC-11 | RAYNER, MARK | | 10.07 | | | Negotiable |
| 326261 | | 22-DEC-11 | REACH EMPLOYEE ASSISTANCE INC | | 785.20 | | | Negotiable |
| 326262 | | 22-DEC-11 | REALESTATE ESTABLISHM | | 12.47 | | | Negotiable |
| 326263 | | 22-DEC-11 | RIDGE LANDSCAPE ARCHITECTS | | 1,120.00 | | | Negotiable |
| 326264 | | 22-DEC-11 | ROBERTS, SARAH | | 23.23 | | | Negotiable |
| 326265 | | 22-DEC-11 | ROHWER, ROBERT H | | 52.64 | | | Negotiable |
| 326266 | | 22-DEC-11 | SAN LEON APTS | | 158.35 | | | Negotiable |
| 326267 | | 22-DEC-11 | SAN MARCO APTS | | 214.78 | | | Negotiable |
| 326268 | | 22-DEC-11 | SAN MARINO APTS | | 167.75 | | | Negotiable |
| 326269 | | 22-DEC-11 | SAN REMO APTS | | 460.89 | | | Negotiable |
| 326270 | | 22-DEC-11 | SAN REMO LLC | | 15.31 | | | Negotiable |
| 326271 | | 22-DEC-11 | SANTA ANA BLUE PRINT | | 3,571.72 | | | Negotiable |
| 326272 | | 22-DEC-11 | SANTA ANA WATERSHED PROJECT | | 18,755.00 | | | Negotiable |
| 326273 | | 22-DEC-11 | SANTIAGO AQUEDUCT COMMISSION | | 35,923.04 | | | Negotiable |
| 326274 | | 22-DEC-11 | SCHROEDER, EARNEST | | 38.97 | | | Negotiable |
| 326275 | | 22-DEC-11 | SCOTT, JEFF | | 30.09 | | | Negotiable |
| 326276 | | 22-DEC-11 | SECURTEC DISTRICT PATROL INC | | 3,700.00 | | | Negotiable |
| 326277 | | 22-DEC-11 | SEPARATION PROCESSES INC | | 4,240.00 | | | Negotiable |
| 326278 | | 22-DEC-11 | SHADY CANYON GOLF CLUB | | 9,800.80 | | | Negotiable |
| 326279 | | 22-DEC-11 | SHAMROCK SUPPLY CO INC | | 302.30 | | | Negotiable |
| 326280 | | 22-DEC-11 | SONG, KYUNG E | | 31.73 | | | Negotiable |
| 326281 | | 22-DEC-11 | SOTODEH, MAHNAZ | | 13.32 | | | Negotiable |
| 326282 | | 22-DEC-11 | SOUTH COAST WATER | | 151.66 | | | Negotiable |
| 326283 | | 22-DEC-11 | SOUTHERN CALIFORNIA EDISON COMPANY | | 1,066.26 | | | Negotiable |
| 326284 | | 22-DEC-11 | SOUTHERN CALIFORNIA EDISON COMPANY | | 176,843.47 | | | Negotiable |
| 326285 | | 22-DEC-11 | SOUTHLAND TOOL MFG INC | | 1,356.62 | | | Negotiable |
| 326286 | | 22-DEC-11 | SPATIAL WAVE, INC. | | 6,000.00 | | | Negotiable |
| 326287 | | 22-DEC-11 | STANFORD COURT APTS | | 2.44 | | | Voided |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 31
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|
| Payment Document : IRWD CHECK | | | | | | | | |

| | | | | |
|--------|-----------|--|-----------|------------|
| 326288 | 22-DEC-11 | STANTEC CONSULTING SERVICES INC. | 5,718.30 | Negotiable |
| 326289 | 22-DEC-11 | STATE BOARD OF EQUALIZATION | 863.00 | Negotiable |
| 326290 | 22-DEC-11 | STATE NET | 2,190.00 | Negotiable |
| 326291 | 22-DEC-11 | STONES, ROGER | 10.26 | Negotiable |
| 326292 | 22-DEC-11 | STRATEGIC DIAGNOSTICS INC | 184.11 | Negotiable |
| 326293 | 22-DEC-11 | T AND S LARSEN MAINTENANCE | 360.00 | Negotiable |
| 326294 | 22-DEC-11 | TAWNY, VANIS | 101.11 | Negotiable |
| 326295 | 22-DEC-11 | TER-STEPHANYAN POGOS | 10.71 | Negotiable |
| 326296 | 22-DEC-11 | TESTAMERICA LABORATORIES, INC | 465.00 | Negotiable |
| 326297 | 22-DEC-11 | THE GAS COMPANY | 1,225.75 | Negotiable |
| 326298 | 22-DEC-11 | TIC-IPG-COMMON | 720.89 | Negotiable |
| 326299 | 22-DEC-11 | TIC-RESORT PROPERTIES | 17,202.79 | Negotiable |
| 326300 | 22-DEC-11 | TIC-RETAIL PROPERTIES | 55.85 | Negotiable |
| 326301 | 22-DEC-11 | TIC-SPECTRUM OFFICE | 324.67 | Negotiable |
| 326302 | 22-DEC-11 | TOTAL TELCO SPECIALISTS INC | 6,830.00 | Negotiable |
| 326303 | 22-DEC-11 | TRIPAC MARKETING INC | 592.17 | Negotiable |
| 326304 | 22-DEC-11 | TROPICAL PLAZA NURSERY INC | 18,659.75 | Negotiable |
| 326305 | 22-DEC-11 | TRUGREEN LANDCARE LLC | 1,550.00 | Negotiable |
| 326306 | 22-DEC-11 | TURTLE ROCK CANYON APTS | 62.02 | Negotiable |
| 326307 | 22-DEC-11 | UNISAN PRODUCTS | 692.63 | Negotiable |
| 326308 | 22-DEC-11 | UNITED STATES POSTAL SERVICE | 108.43 | Negotiable |
| 326309 | 22-DEC-11 | US BANK NAT'L ASSOCIATION NORTH DAKOTA | 75,219.94 | Negotiable |
| 326310 | 22-DEC-11 | US PEROXIDE LLC | 13,795.90 | Negotiable |
| 326311 | 22-DEC-11 | WALTERS WHOLESALE ELECTRIC | 548.99 | Negotiable |
| 326312 | 22-DEC-11 | WARD, GIL | 13.78 | Negotiable |
| 326313 | 22-DEC-11 | WARMINGTON HOMES | 20.92 | Negotiable |
| 326314 | 22-DEC-11 | WAXIE'S ENTERPRISES, INC | 510.82 | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 32
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|----------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 326315 | | 22-DEC-11 | WECK LABORATORIES INC | | 448.50 | | | Negotiable |
| 326316 | | 22-DEC-11 | WESTERN EXTERMINATOR COMPANY | | 147.00 | | | Negotiable |
| 326317 | | 22-DEC-11 | WILKES, TIMOTHY | | 38.35 | | | Negotiable |
| 326318 | | 22-DEC-11 | WINDWOOD GLEN APTS | | 185.73 | | | Negotiable |
| 326319 | | 22-DEC-11 | WOODBRIIDGE WILLOW APTS | | 21.38 | | | Negotiable |
| 326320 | | 22-DEC-11 | WOODBRIIDGE WILLOWS APTS | | 60.71 | | | Negotiable |
| 326321 | | 22-DEC-11 | WU, AARON | | 18.29 | | | Negotiable |
| 326322 | | 22-DEC-11 | WU, TOM | | 39.03 | | | Negotiable |
| 326323 | | 22-DEC-11 | YOUNG, MICHELLE | | 30.27 | | | Negotiable |
| 326324 | | 22-DEC-11 | YU, AICHUAN | | 45.24 | | | Negotiable |
| 326325 | | 22-DEC-11 | ZEBRON CONTRACTING INC | | 7,635.00 | | | Negotiable |
| 326326 | | 22-DEC-11 | ZEE MEDICAL SERVICE CO | | 58.06 | | | Negotiable |
| 326327 | | 22-DEC-11 | Amy McNulty | | 109.25 | | | Negotiable |
| 326328 | | 22-DEC-11 | Cody Bill | | 133.13 | | | Negotiable |
| 326329 | | 22-DEC-11 | Deborah Cherney | | 7.00 | | | Negotiable |
| 326330 | | 22-DEC-11 | Jack Morales | | 210.00 | | | Negotiable |
| 326331 | | 22-DEC-11 | John Withers | | 78.18 | | | Negotiable |
| 326332 | | 22-DEC-11 | Leslie Bonkowski | | 46.46 | | | Negotiable |
| 326333 | | 22-DEC-11 | Martin Perez | | 150.00 | | | Negotiable |
| 326334 | | 22-DEC-11 | Mattias Velardes | | 268.95 | | | Negotiable |
| 326335 | | 22-DEC-11 | Michael Purington | | 150.00 | | | Negotiable |
| 326336 | | 22-DEC-11 | Peer Swan | | 1,335.54 | | | Negotiable |
| 326337 | | 22-DEC-11 | Richard Torres | | 132.00 | | | Negotiable |
| 326338 | | 22-DEC-11 | Scott Nomura | | 102.35 | | | Negotiable |
| 326339 | | 22-DEC-11 | Sharon Reed | | 80.63 | | | Negotiable |
| 326340 | | 22-DEC-11 | Steven LaMar | | 75.96 | | | Negotiable |
| 326341 | | 22-DEC-11 | FLATIRON WEST INC | | 112,050.00 | | | Negotiable |
| 326342 | | 22-DEC-11 | LOCHRIDGE, DAVID RANCHO SANTA MA | | 4,158.00 | | | Negotiable |
| 326343 | | 22-DEC-11 | PALLANTE, MICHELLE SILVERADO | | 1,130.00 | | | Negotiable |
| 326344 | | 23-DEC-11 | MARVIN GARDENS LLC HUNGTINGTO | | 2,593.70 | | | Negotiable |

| | | | | | |
|--------|-----------|---------------------------|------------------|--------|------------|
| 326345 | 29-DEC-11 | CLEARINGHOUSE | N BEA PHOENIX | 528.45 | Negotiable |
| 326346 | 29-DEC-11 | ORDONEZ, CYNTHIA MARIE | OCEANSIDE | 500.17 | Negotiable |

Payment Document Subtotal: 13,961,788.67

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 33
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No


| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|------------------------------|--------------|-----------|---|---------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD Wire | | | | | | | | |
| 9237 | | 13-DEC-11 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 1,331.14 | | | Negotiable |
| 9238 | | 15-DEC-11 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 1,397.39 | | | Negotiable |
| 9239 | | 28-DEC-11 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 1,719.67 | | | Negotiable |
| 9240 | | 28-DEC-11 | U.S. BANK NATIONALST. ASSOCIATION | ST. LOUIS | 3,184.92 | | | Negotiable |
| 9241 | | 28-DEC-11 | BANK OF AMERICA | SAN FRANCISCO | 4,972.61 | | | Negotiable |
| 9242 | | 28-DEC-11 | SUMITOMO MITSUI BANKING CORPORAION | NEW YORK | 1,837.07 | | | Negotiable |
| 9243 | | 28-DEC-11 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 14,189.03 | | | Negotiable |
| 9244 | | 28-DEC-11 | CITIGROUP GLOBAL MARKETS INC. | NEW YORK | 1,430,906.74 | | | Negotiable |
| 9245 | | 28-DEC-11 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 1,395.75 | | | Negotiable |
| 9246 | | 28-DEC-11 | U.S. BANK NATIONALST. ASSOCIATION | ST. LOUIS | 250.00 | | | Negotiable |
| 9247 | | 28-DEC-11 | BANK OF AMERICA | SAN FRANCISCO | 2,520.00 | | | Negotiable |
| 9248 | | 28-DEC-11 | CALPERS | SACRAMENTO | 316,781.11 | | | Negotiable |
| 9249 | | 28-DEC-11 | HELABA LANDESBANK HESSEN-THUERINGEN | NEW YORK | 168.17 | | | Negotiable |
| 9250 | | 28-DEC-11 | BANK OF AMERICA | SAN FRANCISCO | 5,626.74 | | | Negotiable |
| 9251 | | 28-DEC-11 | SUMITOMO MITSUI BANKING CORPORAION | NEW YORK | 3,929.42 | | | Negotiable |
| 9252 | | 28-DEC-11 | MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY | FOUNTAIN | 998,261.57 | | | Negotiable |
| 9253 | | 28-DEC-11 | U.S. BANK NATIONALST. ASSOCIATION | ST. LOUIS | 8,760.74 | | | Negotiable |
| 9254 | | 28-DEC-11 | BANK OF AMERICA MERRILL LYNCH | PAY | 598,272.65 | | | Negotiable |
| 9255 | | 28-DEC-11 | CITIGROUP GLOBAL MARKETS INC. | NEW YORK | 598,272.82 | | | Negotiable |
| 9256 | | 28-DEC-11 | CITIGROUP GLOBAL MARKETS INC. | NEW YORK | 887,791.60 | | | Negotiable |

IRWD Ledger Payment Register For 01-DEC-11 To 31-DEC-11 Report Date: 03-JAN-2012 11:00
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 34
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|------------------------------|--------------|-----------|--|---------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD Wire | | | | | | | | |
| 9257 | | 28-DEC-11 | BANK OF AMERICA | SAN FRANCISCO | 295.00 | | | Negotiable |
| 9258 | | 28-DEC-11 | J.R. FILANC CONSTRUCTION COMPANY INC. | PAY | 2,623,781.47 | | | Negotiable |
| 9259 | | 29-DEC-11 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 69.44 | | | Negotiable |
| 9260 | | 29-DEC-11 | INTERNAL REVENUE SERVICE | FRESNO | 141,508.91 | | | Voided |
| 9261 | | 29-DEC-11 | INTERNAL REVENUE SERVICE | FRESNO | 441,749.62 | | | Negotiable |
| 9262 | | 29-DEC-11 | FRANCHISE TAX BOARD | SACRAMENTO | 125,240.78 | | | Negotiable |
| 9263 | | 29-DEC-11 | EMPLOYMENT DEVELOPMENT DEPARTMENT | W SACRAMENTO | 22,503.20 | | | Negotiable |
| 9264 | | 29-DEC-11 | WILLIAMS, TWYLA | PARKER | 2,183.55 | | | Negotiable |
| 9265 | | 29-DEC-11 | CALIFORNIA DEPARTMENT OF CHILD SUPPORT | SACRAMENTO | 3,609.66 | | | Negotiable |

| | | | | | |
|--------------------|----------------------------|------------------|------------|---------------|------------|
| | | SERVICES | | | |
| 9266 | 29-DEC-11 | EMPLOYEE BENEFIT | PAY | 36,760.79 | Negotiable |
| | | SPECIALIST, INC | | | |
| 9267 | 29-DEC-11 | GREAT WEST | DENVER | 219,024.08 | Negotiable |
| 9268 | 29-DEC-11 | CALPERS | SACRAMENTO | 1,485,830.79 | Negotiable |
| | | | | ----- | ----- |
| | Payment Document Subtotal: | | | 9,984,126.43 | |
| | | | | ===== | ===== |
| | Bank Account Subtotal : | | | 23,945,915.10 | |
| | | | | ===== | ===== |
| Report Count : 936 | Report Total: | | | 23,945,915.10 | |
| | | | | ===== | ===== |

*** End of Report ***

January 23, 2012
Prepared and
Submitted by: K. McLaughlin
Approved by: Paul Cook 

CONSENT CALENDAR

RESOLUTION COMMENDING IRV PICKLER FOR HIS
DEDICATED SERVICE TO THE ORANGE COUNTY WATER DISTRICT

SUMMARY:

Mr. Irv Pickler will be retiring as Board member from the Orange County Water (OCWD) on January 25, 2012. Irvine Ranch Water District wishes to express its sincere appreciation to Mr. Pickler for his many years of exemplary leadership and outstanding service to his community during his tenure at OCWD, and has prepared a resolution (provided as Exhibit "A") for adoption.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2012 –

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT,
ORANGE COUNTY, CALIFORNIA COMMENDING
IRV PICKLER FOR DEDICATED SERVICE TO
ORANGE COUNTY WATER DISTRICT

LIST OF EXHIBITS:

Exhibit "A" – Resolution

EXHIBIT "A"

RESOLUTION NO. 2012-

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT,
ORANGE COUNTY, CALIFORNIA COMMENDING
IRV PICKLER FOR HIS DEDICATED SERVICE TO THE
ORANGE COUNTY WATER DISTRICT

WHEREAS, effective January 25, 2012, Mr. Irv Pickler will retire from the Orange County Water District (OCWD) Board of Directors; and

WHEREAS, Mr. Pickler was selected by the Anaheim City Council to serve on the OCWD Board in January 2007 and re-appointed in 2010 after having served three previous terms from 1992-1995, 1996-2000 and 2000-2002; and

WHEREAS, Mr. Pickler's extensive knowledge of complex water supply issues, his enthusiasm for new and groundbreaking ideas, and his leadership, as exemplified through his role as Chairman of the Joint Cooperative Committee in the development of the world-renowned Groundwater Replenishment System, has helped pave the way for the implementation of innovative water resources projects; and

WHEREAS, Mr. Pickler's life-long commitment to public service includes serving on the Anaheim City Council, Orange County Planning Commission, Orange County Transportation Authority, Orange County Solid and Hazardous Waste Management Advisory Committee, the Water Advisory Committee of Orange County, the Orange County Division of the League of California Cities, the Inter-County Airport Authority, the Joint Powers Authority for the Foothill and Eastern Corridors, and Anaheim's Parks and Recreation Commission; and

WHEREAS, Mr. Pickler's long history of dedication to his community is exemplified by his participation on the Board of Directors for the Anaheim YMCA, the Anaheim Union School District Board, the Anaheim Public Library Board, his involvement with the Boys and Girls Club of Anaheim and the Dayle McIntosh Center, and as a devoted apple-selling member of the Kiwanis Club; and

NOW, THEREFORE, BE IT RESOLVED: The Board of Directors of Irvine Ranch Water District wishes to commend and express its sincere appreciation to Mr. Pickler for his many years of exemplary leadership and outstanding service to his community and the water industry during his tenure at OCWD.

ADOPTED, SIGNED AND APPROVED this 23rd day of January, 2012.

President, Irvine Ranch Water District
and of the Board of Directors thereof

Secretary, Irvine Ranch Water District and
of the Board of Directors thereof

January 23, 2012

Prepared by: K. McLaughlin

Submitted by: G. Heiertz

Approved by: Paul Cook



CONSENT CALENDAR

2012 STATE LEGISLATIVE UPDATE

SUMMARY:

This report provides an update on the 2012 legislative session and IRWD priorities. A copy of the 2012 State Legislative Matrix is attached as Exhibit "A".

BACKGROUND:

The California Legislature returned for the second year of the current two-year session on January 4, 2012. All two-year bills that remain in their House of Origin must be passed out of that house by January 31 in order to remain alive in 2012. The deadline for submitting new proposals to the Legislative Counsel's office is January 27, and the deadline for introducing new bills is February 24. Spot bills must be amended in time to clear their first policy committee by April 27 for fiscal bills and May 11 for non-fiscal bills.

IRWD 2012 Legislative Priorities:

Heavy Duty Fleet Vehicles – Emergency Use: Staff is working with the California Municipal Utilities Association and a coalition of Southern California agencies that are adversely impacted by the South Coast Air Quality Management District's Rule 1196 to address concerns about the Rule. Rule 1196 requires any new additions to a public Heavy Duty Fleet must be either alternative fuel or dual fuel vehicles. This presents significant challenges for water and wastewater agencies in meeting their statutorily required emergency response obligations. The coalition is working to develop a collective document outlining the challenges the Rule presents, examples, and suggested solutions. The group then plans to begin to address this issue administratively with SCAQMD staff and subsequently legislatively, if needed. The coalition includes Metropolitan Water District of Southern California, Los Angeles Department of Water and Power, Riverside Public Utilities, and the Cities of Pasadena and Corona.

Energy and Water Efficiency Partnerships – Customer Information: IRWD submitted comments to the Public Utilities Commission (PUC) on December 20, 2011 related to the Commission's proposed Ruling and Scoping Memo regarding the 2013-2014 Bridge Portfolio. The comments submitted by IRWD and other water agencies urged the PUC to include water-energy nexus programs in the Final Decision and remove barriers to partnership programs between energy and water providers. The IRWD comments urged the PUC to provide a framework to encourage the expansion of water-energy nexus programs and the development of mechanisms to share program costs and limited mutual customer information in ways that protect both the utilities and, most importantly, customers.

IRWD continues to work with Southern California Edison and the West Basin Municipal Water District to determine if a legislative fix is needed to address concerns that have been raised

regarding limited sharing of customer information between the entities participating in the pilot program.

Bona Fide Encumbrancer: Staff met with the Consultant to the Senate Local Government Committee to discuss options for moving forward with IRWD's proposed bona fide encumbrancer clean-up language. The Consultant is generally supportive of the proposed language. However, the proposal may not be appropriate for the Local Government Omnibus bill due to the fact that lien authority issues generally fall under the jurisdiction of the Senate Judiciary Committee. Staff will be meeting with the Senate Judiciary Committee and the Senate Republican Caucus to determine the feasibility of including this proposal in the Local Government Omnibus bill. As an alternative, Assembly Member Solorio has submitted the proposed language to the Legislative Counsel's Office and has expressed interest in running a standalone proposal on this topic for IRWD should the district elect to move in this direction.

The Law of Recycled Water: The Water Reuse Association (WRA)'s comprehensive recycled water legislative proposal has been submitted to the Legislative Counsel's Office. WRA continues to address as many of its members' suggestions as possible and the language is expected to go through several iterations once introduced. Assembly Member Hueso will be the lead author and Assembly Member Huffman will be a co-author. Hueso is interested in becoming the next Chair of the Assembly Water, Parks and Wildlife Committee. Additionally, WRA has received positive feedback on the draft proposal from staff and members of the State Water Resources Control Board, staff at the Department of Health Services, and several environmental groups.

Other 2012 Statewide Issues:

Several two-year-bills of interest to IRWD were scheduled for policy hearings in January including:

AB 19 (Fong) - Building Standards; Water Meters; Multiunit Structures: As introduced, Sierra Club-sponsored AB 19 (Fong) would have required individual meters or sub-meters on new multi-unit developments. The bill went through much iteration due to a wide variety of concerns from a wide variety of audiences. In an attempt to address the tenants' rights concerns that stalled the bill in 2011, the Sierra Club is planning to amend the bill to remove all references to sub-meters and instead require individual meters in all new multiunit structures. IRWD worked with the California Municipal Utilities Association and the Metropolitan Water District of Southern California to educate the Sierra Club about the design feasibility challenges associated with this requirement. AB 19 was scheduled to be heard in the Assembly Housing and Community Development Committee on January 11, 2012 but was pulled from the hearing by the author. The Sierra Club has indicated they will not pursue AB 19 or similar legislation in 2012 but may consider introducing a bill on this topic in 2013.

Audit Reform: Controller Chiang continues to express interest in moving legislation forward to provide the Controller's Office with greater audit authority. He is expected to move his SB 186 (Kehoe), expanding the Controller's audit authority, in June. SB 186 is currently in the Assembly Local Government Committee and therefore not subject to the January deadline. Controller-sponsored AB 1345 (Lara) will be gutted and amended to require audit partner rotation every six years and was scheduled to be heard in the Assembly Appropriations Committee on January 19, 2012.

SB 200 (Wolk) – Sacramento-San Joaquin Delta: As introduced, SB 200 would have required a litany of new conditions for each state agency to meet before that state agency could authorize or take action to implement a conservation measure within the Bay Delta Conservation Plan. A large coalition of water agencies, including IRWD, took an *oppose* position on the previous version of SB 200. However, the bill was gutted and amended to instead address extending the Delta levee subventions program through 2013. This extension would serve as an interim measure until the Delta Stewardship Council complies with its 2009 water package mandate to recommend and prioritize strategic Delta levee investments. The bill was scheduled to be heard in the Senate Appropriations Committee on January 17, 2012

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications meeting on January 19, 2012.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit "A" – IRWD 2012 State Legislative Matrix

EXHIBIT "A"

**IRWD 2011 LEGISLATIVE MATRIX
Updated January 17, 2012**

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status | Notes |
|--|--|--------------------------|--|--|---|
| <u>AB 19</u> Fong (D) | Building Standards: Water Meters: Multiunit Structures | | Requires a water purveyor providing water service to a newly constructed multiunit residential structure or mixed-use residential and commercial structure, including a structure that is part of a common interest development, that submits and application for a water connection after a specified date, to require the installation of the meter to measure water to each unit as a condition of new water service. Exempts certain buildings from these requirements. | 01/04/2012 - From ASSEMBLY Committee on HOUSING AND COMMUNITY DEVELOPMENT with author's amendments. Hearing canceled at the request of the author. | Sponsor: Sierra Club. Reintroduction of AB 1975 (Fong), 2010. 2_Year_Bill |
| <u>AB 83</u> Jeffries (R) | Environment: CEQA Exemption: Recycled Water Pipeline | | Amends existing law regarding California Environmental Quality Act environmental impact reports. Exempts a project for the installation of a new pipeline for the distribution of recycled water within an improved public street, highway, or right-of-way. | 04/11/2011 - In ASSEMBLY Committee on NATURAL RESOURCES: Failed passage. Reconsideration granted. | WRA: Support 2_Year_Bill |
| <u>AB 148</u> Smyth (R) | Local Government: Ethics Training: Disclosure | Watch | Defines the term ethics laws, for purposes of training for officers and employees of a local government, to include compensation setting guidelines as established by specified organizations. Requires the local agency to post the ethics training records of all elected members on the local agency's Internet Web site, if any, and to submit a copy of the records to the Controller. Requires a local agency that has adopted a written attendance compensation policy to post the policy on the local agency's Web site. | 05/27/2011 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. | CSDA - Supportive 2_Year_Bill |
| <u>AB 157</u> Jeffries (R) | Safe, Clean and Reliable Drinking Water Supply Act | Oppose | Reduces the total amount of bonds authorized to be issued pursuant to the Safe, Clean and Reliable Drinking Water Supply Act of 2012. Makes conforming reductions to amounts specified to be allocated from these bond funds for certain purposes. | 01/10/2012 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Failed passage. | 2_Year_Bill |
| <u>AB 246</u> Wieckowski (D) | Water Quality: Enforcement | Oppose | Authorizes a regional water quality control board to delegate to its executive officer the authority to apply for judicial enforcement to the Attorney General, a district attorney, a city attorney of a city with a population that exceeds 750,000, or a city attorney for a city and county. Authorizes | 09/07/2011 - In SENATE. From third reading. To Inactive File. | 2_Year_Bill |

IRWD 2011 LEGISLATIVE MATRIX

Updated January 17, 2012

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status | Notes |
|---|--|--------------------------|--|---|---|
| | | | a district attorney, a city attorney of a city with a specified population to bring civil actions under the Porter-Cologne Water Quality Act and only upon approval of the Attorney General. | | |
| <u>AB 249</u> Berryhill B (R) | Contractors | Watch | Relates to the damages recoverable for residential property construction or improvements by a unlicensed contractor. Defines an unlicensed contractor as a person who has engaged in the business or acted in the capacity of a contractor and who has either never been licensed as a contractor under the Contractors' State License Law or who performed an act or contract after his or her license was suspended pursuant to disciplinary action. | 01/10/2012 - In ASSEMBLY Committee on BUSINESS, PROFESSIONS & CONSUMER PROTECTION: Held in committee. | 2_Year_Bill |
| <u>AB 262</u> Harkey (R) | California Regional Water Quality Control Boards | Watch | Revises the description of the boundaries of the Santa Ana Regional Water Quality Control Board and the San Diego Regional Water Quality Control Board. | 02/18/2011 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS. | 2_Year_Bill |
| <u>AB 392</u> Alejo (D) | Ralph M. Brown Act: Posting Agendas | | Requires the legislative body of a local agency, at least 72 hours before a regular meeting of that body, to post the agenda and staff generated reports that relate to an agenda item for the open session of that regular meeting. Requires the legislative body to post the agenda and the writings on its internet web site or in a public location if the body has not web site. | 05/27/2011 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee. | Sponsor: Realtors CSDA: Oppose 2_Year_Bill |
| <u>AB 403</u> Campos (D) | Public Drinking Water Standards: Hexavalent Chromium | Watch | Requires the Department of Public Health to post its progress on the establishment of primary drinking water standard hexavalent chromium on the department's Internet Web site. Includes the adoption of a primary drinking water standard for hexavalent chromium among the proposed regulations relating to maximum contaminant levels for primary or secondary water standards that are subject to a review by the Department of Finance of not more than 90 days. | 09/06/2011 - In ASSEMBLY. From Unfinished Business. To Inactive File. | |
| <u>AB 457</u> Wagner (R) | Public Works Contracts: Relief for | | Entitles a bidder who successfully challenges the award of a public works contract determined to be invalid due to errors | 05/03/2011 - In ASSEMBLY Committee on BUSINESS, | 2_Year_Bill |

IRWD 2011 LEGISLATIVE MATRIX
Updated January 17, 2012

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status | Notes |
|---------------------------------------|---|--------------------------|---|--|-----------------------------------|
| | Bidders | | or omissions of the public entity to recover costs and attorney's fees incurred in pursuing the challenge. Allows attorney's fees and costs to be awarded to the public entity under specified circumstances. | PROFESSIONS & CONSUMER PROTECTION: Not heard. | |
| <u>AB 550</u> Huber (D) | Sacramento-San Joaquin Delta: Peripheral Canal | Oppose | Prohibits the construction of a peripheral canal that conveys water from a diversion point in the Sacramento River to a location south of the Sacramento-San Joaquin Delta, unless expressly authorized by the Legislature. Requires the Legislative Analyst's Office to complete an economic feasibility analysis prior to the enactment of a statute authorizing the construction of a peripheral canal. Prohibits the construction and operation of a peripheral canal from diminishing water quality. | 01/10/2012 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Failed passage. | 2_Year_Bill |
| <u>AB 576</u> Dickinson (D) | Delta Plan: Financing | | Requires the Delta Stewardship Council to develop a long-term finance plan to pay for the costs of implementing the Delta Plan by a specified date. Prohibits the council from adopting new fees for these purposes unless authorized by statute. Authorizes the council, before adopting and collecting long-term revenue sources, to seek to obtain early funding contributions from entities that may benefit from implementation of the Plan and to track those contributions. | 03/31/2011 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/31/2011 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE. | 2_Year_Bill |
| <u>AB 1048</u> Harkey (R) | Water Quality: San Diego: Recycled and Wastewater | | Requires the State Regional Water Quality Board, San Diego Region, to address levels of fluoride in recycled water and wastewater as part of the board's review of the Water Quality Control Plan for the San Diego Basin. | 01/04/2012 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS. | Sponsor: SDCWA 4/25 - 2_Year_Bill |
| <u>AB 1184</u> Gatto (D) | Public Employees' Retirement Benefits | | Requires the Board of Administration of PERS to develop guidelines and implement program changes to ensure that a contracting agency that creates a significant increase in actuarial liability due to increased compensation bears the associated liability. Requires the system actuary to assess an increase in liability and make adjustments to the employer's rates. Applies the requirements to any significant increase in actuarial liability due to increased compensation paid to a | 09/09/2011 - In ASSEMBLY. From Unfinished Business. To Inactive File. | |

IRWD 2011 LEGISLATIVE MATRIX
Updated January 17, 2012

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status | Notes |
|-----------------------------------|---|--------------------------|--|---|--|
| | | | nonrepresented employee. | | |
| AB 1283 Berryhill B (R) | Safe, Clean, and Reliable Drinking Water Supply Act | | Declares the intent of the Legislature to enact legislation relating to the Safe, Clean, and Reliable Drinking Water Supply Act of 2012. | 02/18/2011 - INTRODUCED. | 2_Year_Bill |
| AB 1354 Huber (D) | Civil Procedure: Discovery: Objections | Oppose | Amends the Civil Discovery Act. Requires a responding party, when that party objects to a demand on the basis of privilege or work product, to provide sufficient factual information in its response for other parties to evaluate the merits of that claim, if necessary, a privilege log. | 01/13/2012 - In ASSEMBLY. Read third time. Passed ASSEMBLY. *****To SENATE. | Sponsor: American Subcontractors Association California 2_Year_Bill |
| SB 27 Simitian (D) | Public Employees' Retirement | | Amends the State Teachers' Retirement Law. Relates to the Defined Benefit Supplement Program and creditable compensation. Relates to the receipt of lump-sum payments. Relates to substitute employees' postretirement compensation. Authorizes penalties for late or improper adjustments to on Cash Balance Benefit Program contributions. Requires a Public Employees' Retirement System participating employer to notify the Board of Administration of payrate changes. | 08/25/2011 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard. | |
| SB 31 Correa (D) | Postgovernment Employment: Restrictions | | Applies the postgovernment employment restrictions of the Political Reform Act of 1974 to other public officials serving as members of local governing boards or commissions with decisionmaking authority. | 01/10/2012 - In SENATE. Read second time and amended. Re- referred to Committee on APPROPRIATIONS. | 2_Year_Bill |
| SB 34 Simitian (D) | Water Resources Investment Act of 2011 | Oppose | Requires revenues and charges collected under the Water Resources Investment Program to be deposited in the state Water Resources Investment Program Fund and a number of regional investment accounts within the fund. Requires money in the regional accounts be for water-related projects and programs. Requires state account moneys be appropriated for specified statewide water-related programs and the Delta plan, mercury contamination in the Sacramento-San Joaquin Delta, and for related bond debt service. | 05/04/2011 - From SENATE Com on GOVERNANCE AND FINANCE: Do pass to Com on APPROPRIATIONS. | 2_Year_Bill |

IRWD 2011 LEGISLATIVE MATRIX
Updated January 17, 2012

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status | Notes |
|-------------------------------|---|--------------------------|---|--|--|
| SB 46 Correa (D) | Public Officials: Compensation Disclosure | Oppose_Amend | Requires every designated employee and other person, except a candidate for public office, who is required to file a statement of economic interests to include a compensation disclosure form that provides compensation information for the preceding calendar year. Requires every agency to post of that agency's Internet Web site information contained on the compensation disclosure form filed by a person required to file a statement of economic interests. Requires the adoption of emergency regulations. | 08/22/2011 - In SENATE. Read third time, urgency clause adopted. Passed SENATE. *****To ASSEMBLY. | Summary of proposed amendments (reflect CSDA/ACWA amendments): (1) changes should build on SCO's current efforts to avoid duplication and tax/ratepayer cost. (2) Compensation should not include expenses. 2_Year_Bill |
| SB 52 Steinberg (D) | Environmental Quality: Jobs and Economic Improvement | | Amends the Environmental Quality Act. Requires that a project result in a specified minimum financial investment that is spent on planning, design, and construction of the project. Requires a lead agency to place the highest priority on feasible measure that will reduce greenhouse gas emissions on the site and in the neighboring communities of the project site. Relates to judicial review of an environmental impact report. Relates to the Judicial Council's reporting requirements. | 01/13/2012 - From SENATE Committee on APPROPRIATIONS: To second reading without further hearing pursuant to Senate Rule 28.8. | Proposal may show up in budget negotiations and/or trailer bills. 2_Year_Bill |
| SB 186 Kehoe (D) | The Controller | | Authorizes the Controller to exercise discretionary authority to perform an audit or investigation of any county, city, special district, joint powers authority, or redevelopment agency. Expands existing law, providing that if reports are not made in a specified manner of if there is reason to believe that reports are false, an investigation may be made and a copy of the results transmitted to the grand jury of the | 06/29/2011 - In ASSEMBLY Committee on LOCAL GOVERNMENT: Failed passage.;06/29/2011 - In ASSEMBLY Committee on LOCAL GOVERNMENT: Reconsideration granted. | |

IRWD 2011 LEGISLATIVE MATRIX
Updated January 17, 2012

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status | Notes |
|-----------------------------|--|--------------------------|---|---|--------------|
| | | | county, to also include a special district, joint powers authority, or redevelopment agency. | | |
| SB 200 Wolk (D) | Delta Levee Maintenance | Oppose | Declares the legislative intent to reimburse eligible local agencies up to a specified percentage of maintenance or improvement or project or no project levees in the Sacramento-San Joaquin Delta until an unspecified date and to increase the reimbursement rate on and after that date, extends the authorization of the Reclamation Board to provide funds to an eligible local agency in the form of an advance in an amount that does not exceed a specified percentage of the estimated state share. | 01/12/2012 - Withdrawn from SENATE Committee on ENVIRONMENTAL QUALITY.;01/12/2012 - Re-referred to SENATE Committee on APPROPRIATIONS. | 2_Year_Bill |
| SB 250 Rubio (D) | Sacramento-San Joaquin Delta: Delta Plan: Facility | | Amends the Sacramento-San Joaquin Delta Reform Act of 2009 which requires the incorporation of the Bay Delta Conservation Plan into the Delta Plan and requires the Bay Plan to include a review and analysis of Delta conveyance alternatives including specified canals and pipelines. Requires the Department of Water Resources development of certain Delta conveyance facilities to be completed on or before a specified date, and the construction of those facilities to be completed by a specified date. | 08/29/2011 - To ASSEMBLY Committee on RULES.;08/29/2011 - From ASSEMBLY Committee on RULES with author's amendments.;08/29/2011 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on RULES. | 2_Year_Bill |
| SB 449 Pavley (D) | Controller: Local Agency Financial Review | | Authorizes the Controller to conduct a preliminary review to determine the existence of a local agency financial problem, and perform an audit upon completion of that review and to convene a local agency financial review committee and to authorize the committee to recommend a financial recovery plan for a local agency requesting assistance. Requires the Controller to report to the Legislature on the actions of the committee and the status of all engagements with local agencies. | 06/29/2011 - In ASSEMBLY Committee on LOCAL GOVERNMENT: Failed passage.;06/29/2011 - In ASSEMBLY Committee on LOCAL GOVERNMENT: Reconsideration granted. | |
| SB 475 Wright (D) | Infrastructure Financing | | Authorizes a local governmental agency to enter into an agreement with a private entity for financing for specified types of revenue generating infrastructure projects. Requires an agreement to include adequate financial resources to perform the agreement. Permits the agreements to lease or | 06/29/2011 - In ASSEMBLY Committee on LOCAL GOVERNMENT: Failed passage.;06/29/2011 - In ASSEMBLY Committee on | |

IRWD 2011 LEGISLATIVE MATRIX

Updated January 17, 2012

| Bill No. Author | Title | IRWD Position | Summary/Effects | Status | Notes |
|--------------------------------|--|--------------------------|--|---|---|
| | | | license to, or provide other permitted uses by, the private entity. | LOCAL GOVERNMENT: Reconsideration granted. | |
| SB 571 Wolk (D) | Water Commission: Water Plan: Water Resources | | Provides for the organization of the State Water Commission as a separate agency in state government. Enacts the Water Resources Investment Planning Act to establish regional water planning agencies and a state water investment plan. Provides the frequency for plan updates. Requires the State Department of Water Resources and regional agencies to submit related reports to the commission. Prescribes the contents of the reports and the purpose for developing the reports. | 04/13/2011 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS. | Informally tied to SB 34 (Simitian) related to a public goods charge on water. 2_Year_Bill |
| SB 900 Steinberg (D) | Regional Water Quality Control Boards: Members | | Amends the Porter-Cologne Water Quality Control Act. Deletes provisions of the act prohibiting a board member from participating in actions that involve the member or a waste discharger with which the member is connected. Specifies that the limitation on the member's financial interest applies only to a disqualifying financial interest within the Political Reform Act. Relates to requirements, qualifications, and to disqualifying factors for regional board members. | 07/01/2011 - In ASSEMBLY. To Inactive File. | |
| SB 911 De Leon (D) | Local Agency Bonds: Reports | | Requires the Chief Fiscal Officer of a local agency issuing bonds to file a report on any project funded with its governing body within 60 days after the close of the agency's fiscal year. Provides that failure to do so on time shall result in a suspension of bond proceeds until the report is submitted. Requires a issuing local agency, upon a request about any expenditure of bond proceeds exceeding a specified amount, to make specified information available with respect to any expenditure or expenditures. | 05/23/2011 - To ASSEMBLY Committee on LOCAL GOVERNMENT. | |

January 23, 2012

Prepared by: K. Welch/M. Hoolihan

Submitted by: K. Burton/G. Heiertz

Approved by: Paul Cook

CONSENT CALENDAR

WATER SUPPLY ASSESSMENT FOR PLANNING AREA 33 (LOTS 105/107 AND 108) GENERAL PLAN AMENDMENT AND ZONE CHANGE

SUMMARY:

In October 2011, staff approved a request by the City of Irvine to complete a Water Supply Assessment (WSA) for the Planning Area 33 (Lots 105/107 and 108) General Plan Amendment and Zone Change to reflect additional residential units. Staff has completed the WSA for Planning Area 33 (Lots 105/107 and 108) and is recommending Board approval of this document.

BACKGROUND:

The City of Irvine's proposed General Plan Amendment and Zone Change (GPA/ZC) for Lots 105, 107 and 108 are within Planning Area 33 bounded by Gateway, Irvine Center Drive, Alton Parkway and Meridian. The project sites combined make up 24.65 acres. A WSA for the proposed Planning Area 33 was completed on June 22, 2009, including Lots 107, 108, 112, and 113 for a total of 3,006 dwelling units. The current WSA request includes an additional 1,350 residential units raising the maximum number of units permitted to a total of 4,356 units associated with the revised land use change.

As a result of the proposed changes in dwelling units and increase in water demand, a new WSA has been completed and the document is provided as Exhibit "A." The WSA for the proposed project is based on information from the IRWD Water Resources Master Plan (WRMP). Preliminary estimates show an increase in potable water demands for this project of 246 AFY and an increase of 2 AFY in non-potable demands associated with this revised land use plan.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This study is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15262 which provides exemption for planning studies.

Consent Calendar: Water Supply Assessment for Planning Area 33 (Lots 105/107 and 108)
General Plan Amendment and Zone Change
January 23, 2012
Page 2

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications meeting on January 19, 2012.

RECOMMENDATION:

THAT THE BOARD APPROVE THE WATER SUPPLY ASSESSMENT FOR PLANNING AREA 33 (LOTS 105/107 AND 108) GENERAL PLAN AMENDMENT AND ZONE CHANGE.

LIST OF EXHIBITS:

Exhibit "A" – Water Supply Assessment for Planning Area 33 (Lots 105/107 and 108)

**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)
Irvine Community Development Company _____
550 Newport Center Drive _____
P.O. Box 6370 _____
Newport Beach, CA 92658-6370 _____

Project Information

Project Title: Planning Area 33 (Lots 105/107 and 108) General Plan Amendment and Zone Change
(City of Irvine Case Numbers 00529481-PGA and 00529482-PZC) (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.
- 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

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 most recent update of that document was adopted June 13, 2011.

In addition to the WRMP and the 2010 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 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. System losses at a rate of approximately 5% are built into the water use factors. 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 2010 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 2032, 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 2032):

- 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 (“MWDOC”). 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 2010 Regional Urban Water Management Plan (RUWMP) shows that MWD can maintain reliable supplies under the conditions that have existed in past dry periods through 2035, 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:

- *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 2015. (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 2032. (Figure 4.)
- With respect to nonpotable water, *currently available* supplies are adequate to meet projected annual demands for both the *baseline* and *with-project* demand projections under both dry-year conditions through the year 2020. (Figures 5, 6, 7 and 8). IRWD is proceeding with the implementation of *under-development* nonpotable supplies, as shown in the Figures, to improve local reliability during dry-year conditions.

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 State Water Project (SWP) operations and supplies in 2008 and subsequent years. On June 4, 2009, a federal biological opinion imposed rules that will further restrict water diversions from the Delta to protect endangered salmon and other endangered fish species. 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 2010 IRP Update). Prior to the 2007 court decision, MWD's Board approved a Delta Action Plan in May 2007 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 cut back on MWD's water supply development targets, MWD brought to its Board a strategy and work plan to update the long-term Integrated Resources Plan (IRP) in December 2007. As part of the IRP Update, MWD developed a region-wide collaborative process that included a broad-based stakeholder involvement. MWD held several stakeholder forums in 2008 and 2009 and the MWD Board adopted the 2010 IRP Update on October 12, 2010. In the 2010 IRP Update, MWD identified changes to the long-term plan and established direction to address the range of potential changes in water supply planning. The IRP also discusses dealing with uncertainties related to impacts of climate change (see additional discussion of this below) as well as actions to protect endangered fisheries. Based on MWD's Findings and Conclusions as stated in the MWD 2010 IRP Update, MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remains unchanged in the 2010 IRP Update, and MWD will accomplish this through its core resources strategies. The 2010 IRP Update emphasizes an evolving approach and suite of actions to address the water supply challenges that are posed by uncertain weather patterns, regulatory and environmental restrictions, water quality impacts and changes in the state and the region. MWD's Adaptive Resource Management Strategy includes three components: Core Resources Strategy, Supply Buffer Implementation and Foundational Actions which together provides the basis for the 2010 IRP Update. The 2010 IRP Update expands the concept of developing a planning buffer from the 2004 IRP Update by

implementing a supply buffer equal to 10 percent of the total retail demand. MWD will collaborate with the member agencies to implement this buffer through complying with Senate Bill 7 which calls for the state to reduce per capita water use 20 percent by the year 2020.

IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD: MWD states it is sufficiently reliable to meet full-service demands at the retail level for all foreseeable hydrologic conditions. For purposes of ensuring a conservative analysis, IRWD has compiled information from the prior "MWD IRP Implementation Report" (October 2010) and MWD's RUWMP (November 2010), to provide information in this assessment relative to how reduced SWP supplies could potentially affect IRWD's supplies from MWD.

Based on IRWD's evaluation of MWD's SWP supplies, IRWD estimates that the 22% used by MWD's October 2007 IRP Implementation 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 2035.¹ 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 2035, 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. In February 2009, MWD adopted a Water Supply Allocation Plan based on its declared level of shortage. In response to potential water shortages and a request by MWD to have water service providers within its service area adopt a water conservation ordinance, in February 2009, IRWD updated Section 15 of its Rules and Regulations – Water Conservation and Water Supply Shortage Program and also updated its Water Shortage Contingency Plan which is a supporting document for Section 15. Section 15 of the Rules and Regulations serves as IRWD's "conservation ordinance". As stated in IRWD's Water Shortage Contingency Plan, use of local supplies, storage and other supply augmentation measures can mitigate shortages, and are assumed to be in use to the maximum extent possible during declared shortage levels.

¹ MWD's 2010 RUWMP cites to DWR's Water Allocation Analysis dated March 22, 2010, which incorporated the Delta smelt biological opinion's effect on SWP operations, export restrictions could reduce deliveries to MWD by 150 to 200 thousand acre-feet for 2010. Assuming this estimated SWP reduction amount is included in the final RUWMP adopted by MWD, that amount in acre feet would be equivalent to about 12% reduction in SWP supplies, a smaller percentage reduction than MWD's 2007 figure of 22% that was used by IRWD for purposes of this analysis.

Under shortage 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 resultant net shortage levels can be addressed by demand reduction programs as described in IRWD's Water Shortage Contingency Plan.

Listed below are Figures provided 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 IRWD evaluates the effect of the 16% reduction through 2032 and shows the effect of current allocation scenarios in all of the five-year increments but 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 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."

In MWD's 2010 IRP Update, MWD recognizes there is a significant uncertainty in the impact of climate change on water supply and changes in weather patterns could significantly affect water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a supply buffer equivalent to 10 percent of total retail demand. This buffer will be implemented through meeting the SB7 water use efficiency goals, implementing aggressive adaptive actions, development of local supplies and transfers.

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 "2008-2009 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.

Per MWD's RUWMP, MWD continues to incorporate current climate change science into its planning efforts. As stated in MWD's RUWMP, the 2010 IRP Update supports the MWD Board adopted principles on climate change by: 1) Supporting reasonable, economically viable, and technologically feasible management strategies for reducing impacts on water supply and 2) Supporting flexible "no regret" solutions that provide water supply and quality benefits while increasing the ability to manage future climate change impacts, and 3) Evaluating staff recommendations regarding climate change and water resources against the California Environmental Quality Act to avoid adverse effects on the environment. 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 the Assessment.

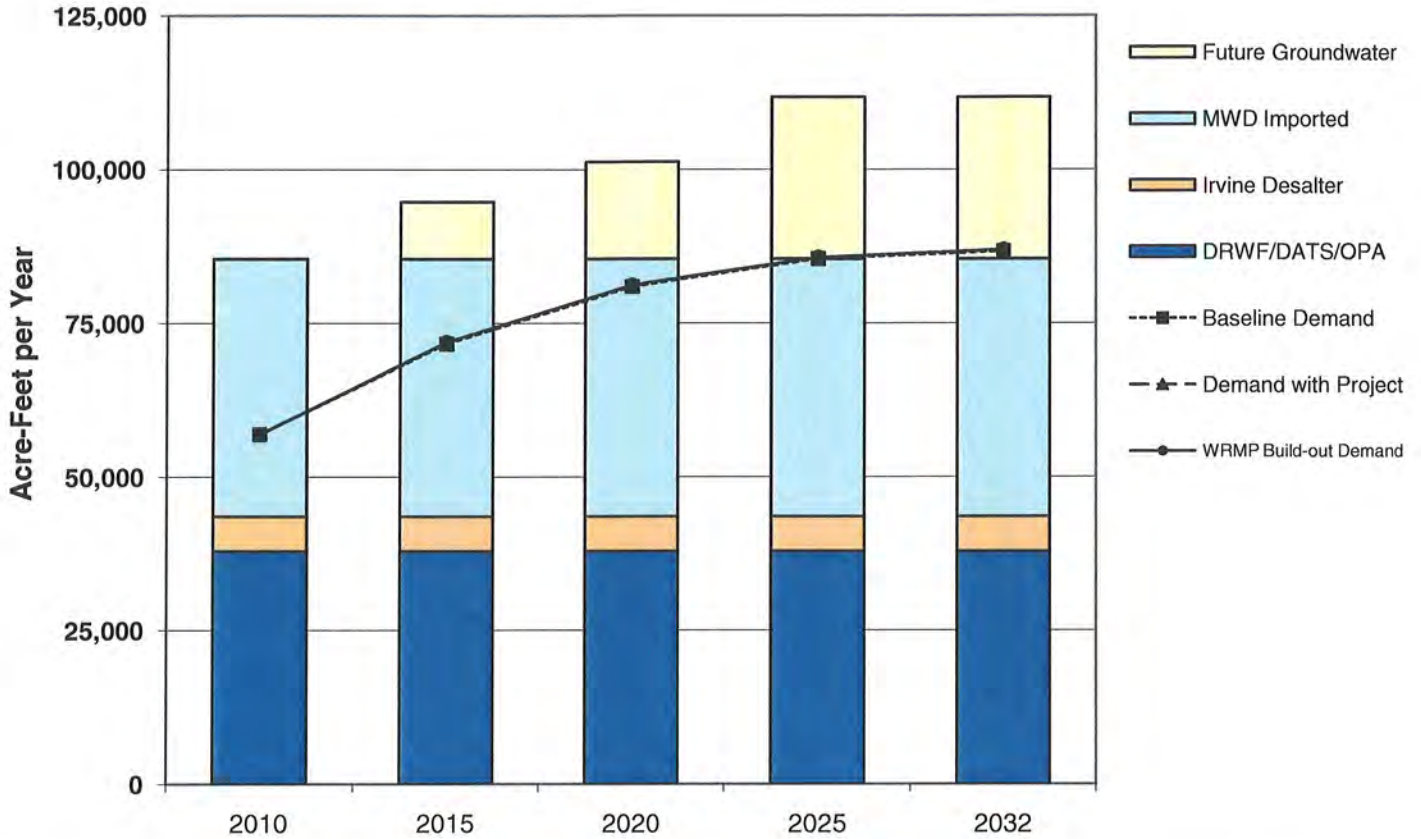
Catastrophic Supply Interruption Planning. MWD has developed Emergency Storage Requirements (2010 RUWMP) to safeguard the region from catastrophic loss of water supply. MWD has made substantial investments in emergency storage and MWD has based its planning on a 100% reduction in its supplies for a period of six months. The emergency plan outlines that under such a catastrophe, non-firm service deliveries would be suspended, and firm supplies would be restricted by a mandatory cutback of 25 percent from normal year demand deliveries. In addition, MWD discusses the long term Delta plan in its 2010 RUWMP (pages 3-18 to 3-21). 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), Figures 5-8 (nonpotable water) and Figures 1a, 2a, and 3a (short term MWD allocation potable water). See also the "Recent Actions on Delta Pumping" above.

**Figure 1
IRWD Normal-Year Supply & Demand - Potable Water**

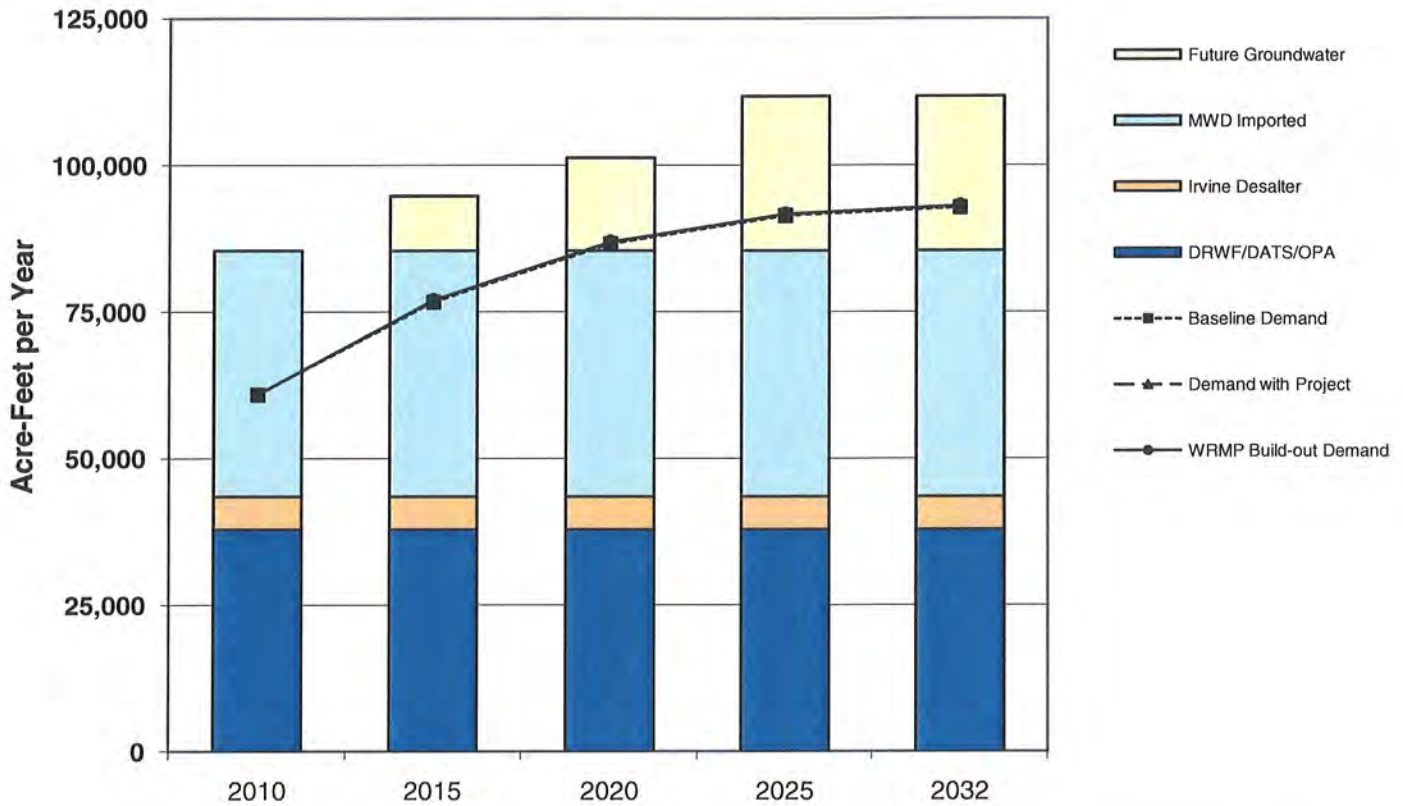


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|---------------|----------------|----------------|----------------|----------------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 41,929 | 41,929 | 41,929 | 41,929 | 41,929 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 85,469 | 101,069 | 107,569 | 118,069 | 118,069 |
| Baseline Demand | 56,915 | 71,697 | 80,961 | 85,445 | 86,735 |
| Demand with Project | 56,915 | 71,927 | 81,203 | 85,687 | 86,980 |
| WRMP Build-out Demand | 56,915 | 71,927 | 81,203 | 85,687 | 86,980 |
| Reserve Supply with Project | 28,555 | 29,142 | 26,366 | 32,382 | 31,089 |

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

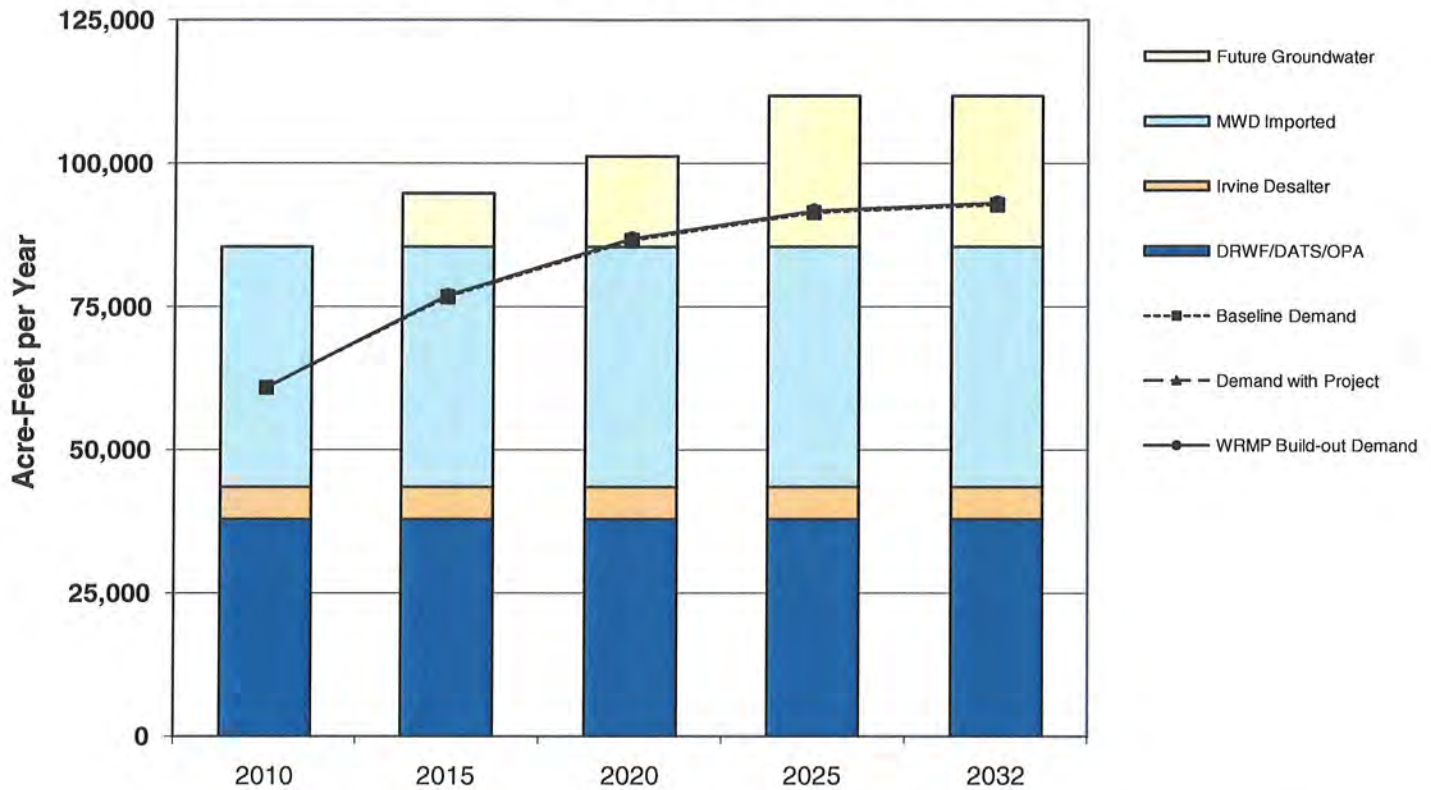


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|---------------|----------------|----------------|----------------|----------------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 41,929 | 41,929 | 41,929 | 41,929 | 41,929 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 85,469 | 101,069 | 107,569 | 118,069 | 118,069 |
| Baseline Demand | 60,899 | 76,716 | 86,629 | 91,426 | 92,806 |
| Demand with Project | 60,899 | 76,962 | 86,888 | 91,685 | 93,069 |
| WRMP Build-out Demand | 60,899 | 76,962 | 86,888 | 91,685 | 93,069 |
| Reserve Supply with Project | 24,571 | 24,108 | 20,682 | 26,384 | 25,000 |

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**

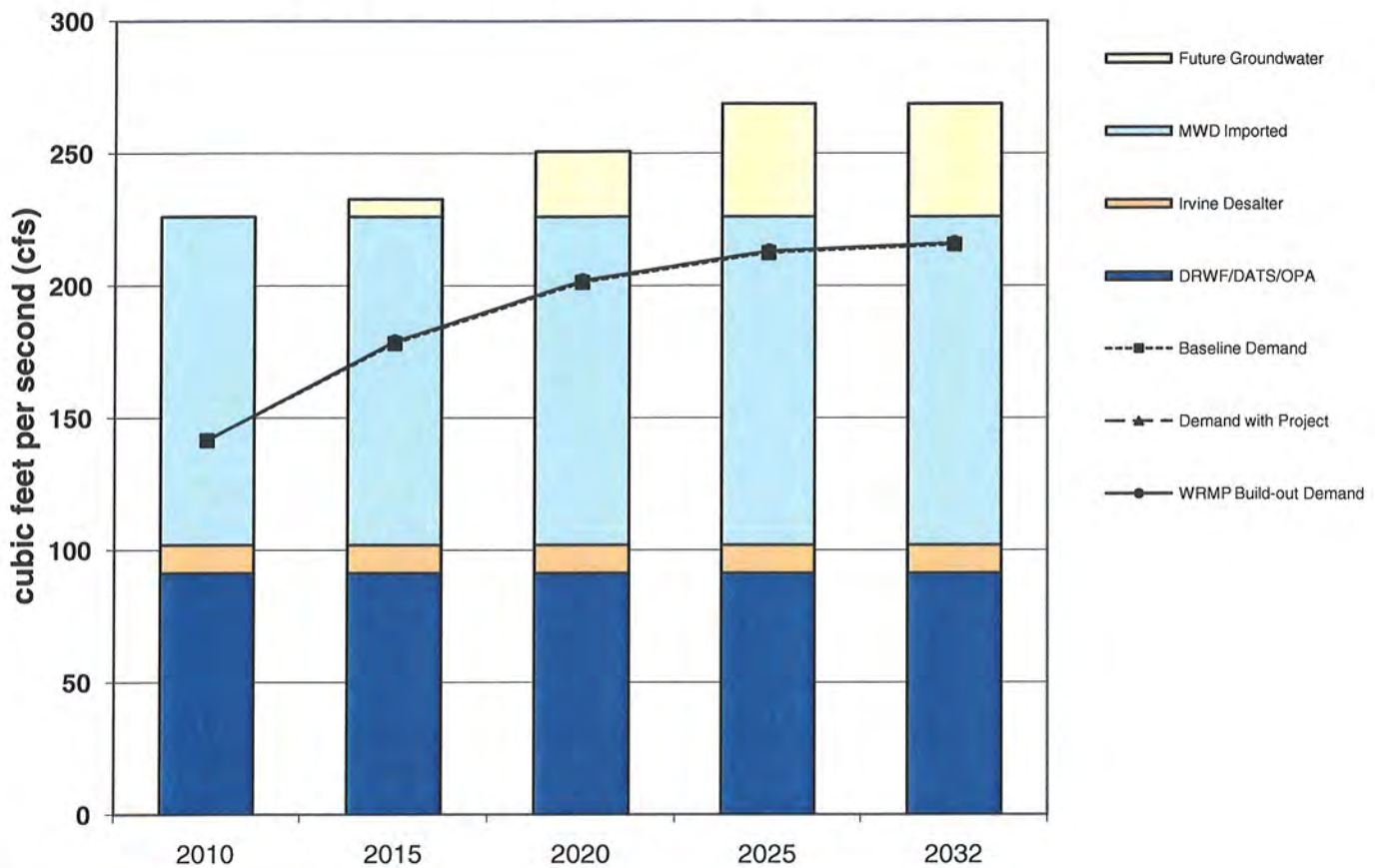


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|-----------------------------------|--------|---------|---------|---------|---------|
| <u>Current Potable Supplies</u> | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 41,929 | 41,929 | 41,929 | 41,929 | 41,929 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| <u>Supplies Under Development</u> | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 85,469 | 101,069 | 107,569 | 118,069 | 118,069 |
| Baseline Demand | 60,899 | 76,716 | 86,629 | 91,426 | 92,806 |
| Demand with Project | 60,899 | 76,962 | 86,888 | 91,685 | 93,069 |
| WRMP Build-out Demand | 60,899 | 76,962 | 86,888 | 91,685 | 93,069 |
| Reserve Supply with Project | 24,571 | 24,108 | 20,682 | 26,384 | 25,000 |

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).

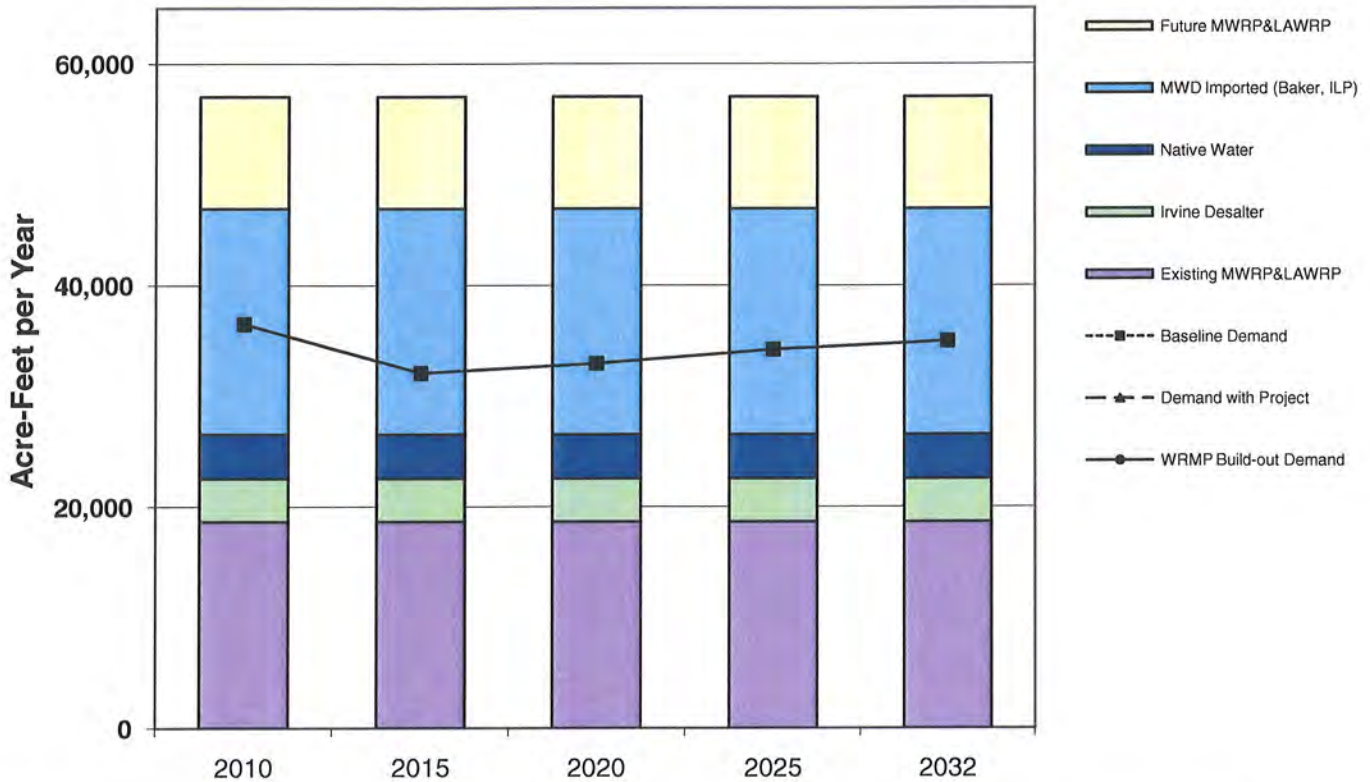
MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 4
IRWD Maximum-Day Supply & Demand - Potable Water**



| (in cfs) | 2010 | 2015 | 2020 | 2025 | 2032 |
|-----------------------------------|-------|-------|-------|-------|-------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 |
| DRWF/DATS/OPA | 91.4 | 91.4 | 91.4 | 91.4 | 91.4 |
| Irvine Desalter | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 |
| Wells 21 & 22 | - | 6.0 | 6.0 | 6.0 | 6.0 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 6.7 | 24.7 | 42.7 | 42.7 |
| Maximum Supply Capability | 226.1 | 238.8 | 256.8 | 274.8 | 274.8 |
| Baseline Demand | 141.5 | 178.3 | 201.3 | 212.4 | 215.6 |
| Demand with Project | 141.5 | 178.8 | 201.9 | 213.0 | 216.2 |
| WRMP Build-out Demand | 141.5 | 178.8 | 201.9 | 213.0 | 216.2 |
| Reserve Supply with Project | 84.6 | 60.0 | 54.9 | 61.8 | 58.6 |

**Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water**

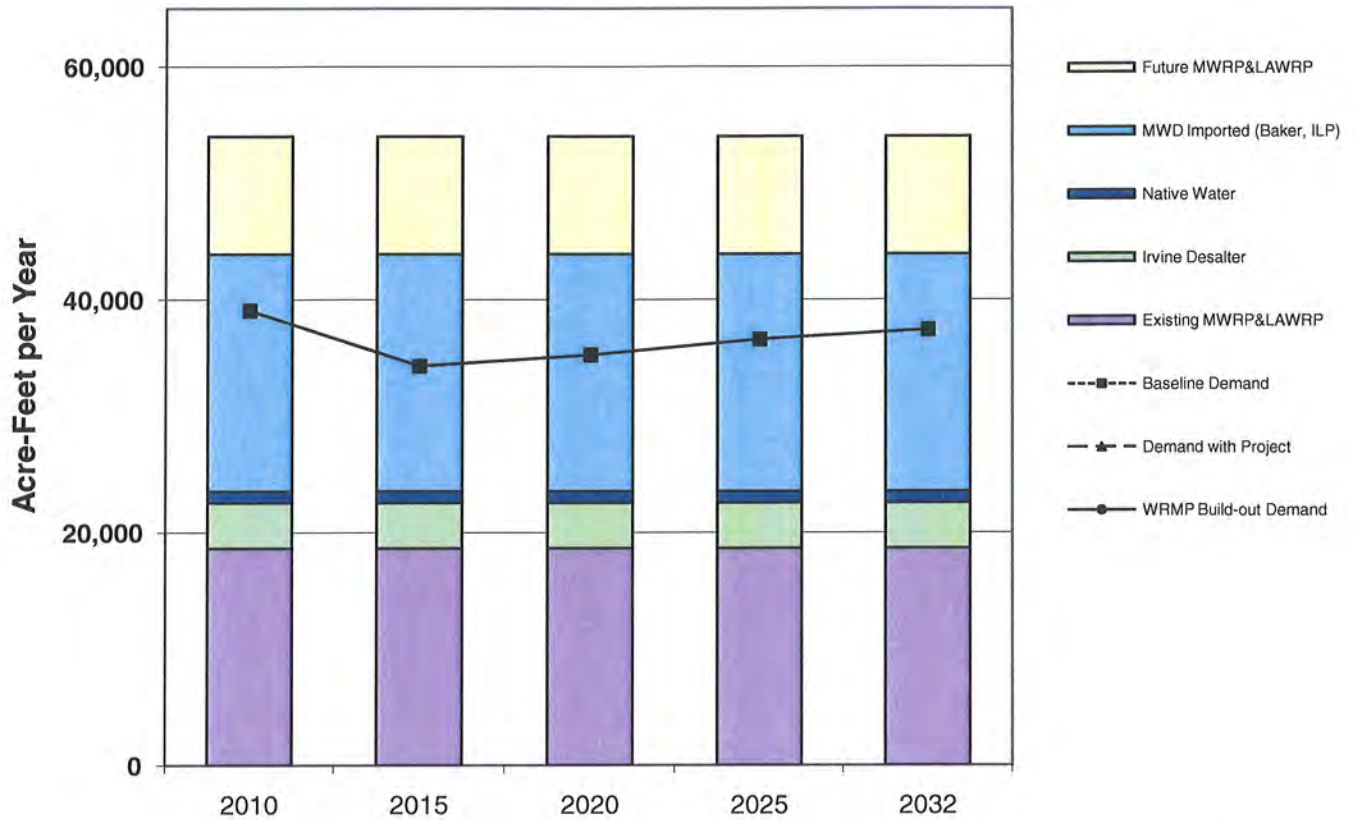


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|--------|--------|--------|--------|--------|
| Current Nonpotable Supplies | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 20,380 | 20,380 | 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 | 36,519 | 32,065 | 32,951 | 34,204 | 34,985 |
| Demand with Project | 36,519 | 32,069 | 32,954 | 34,207 | 34,989 |
| WRMP Build-out Demand | 36,519 | 32,069 | 32,954 | 34,207 | 34,989 |
| Reserve Supply with Project | 20,516 | 20,516 | 24,966 | 24,081 | 22,046 |

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**

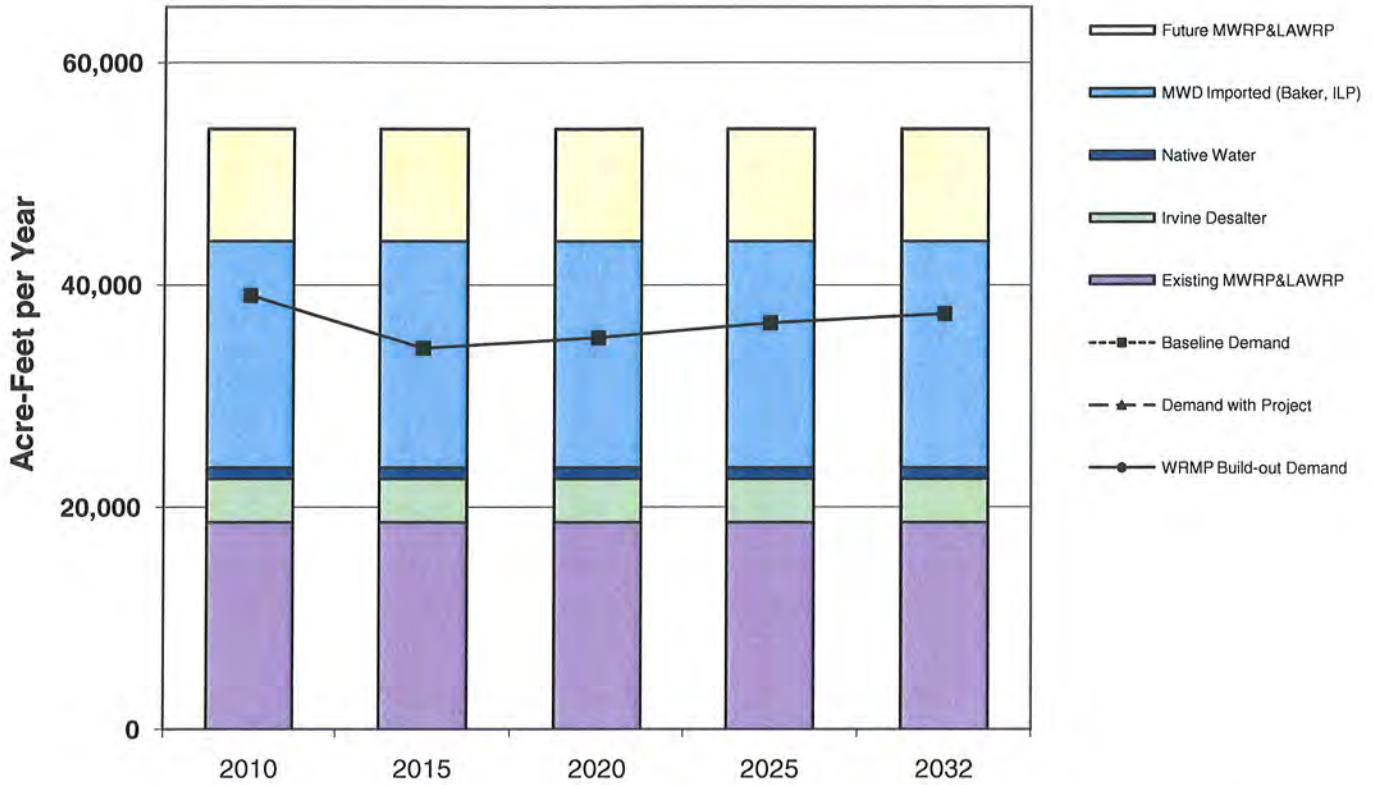


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|--------|--------|--------|--------|--------|
| <u>Current Nonpotable Supplies</u> | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 20,380 | 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 | 39,075 | 34,310 | 35,257 | 36,598 | 37,434 |
| Demand with Project | 39,075 | 34,313 | 35,261 | 36,602 | 37,438 |
| WRMP Build-out Demand | 39,075 | 34,313 | 35,261 | 36,602 | 37,438 |
| Reserve Supply with Project | 14,960 | 19,722 | 18,774 | 17,433 | 16,597 |

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

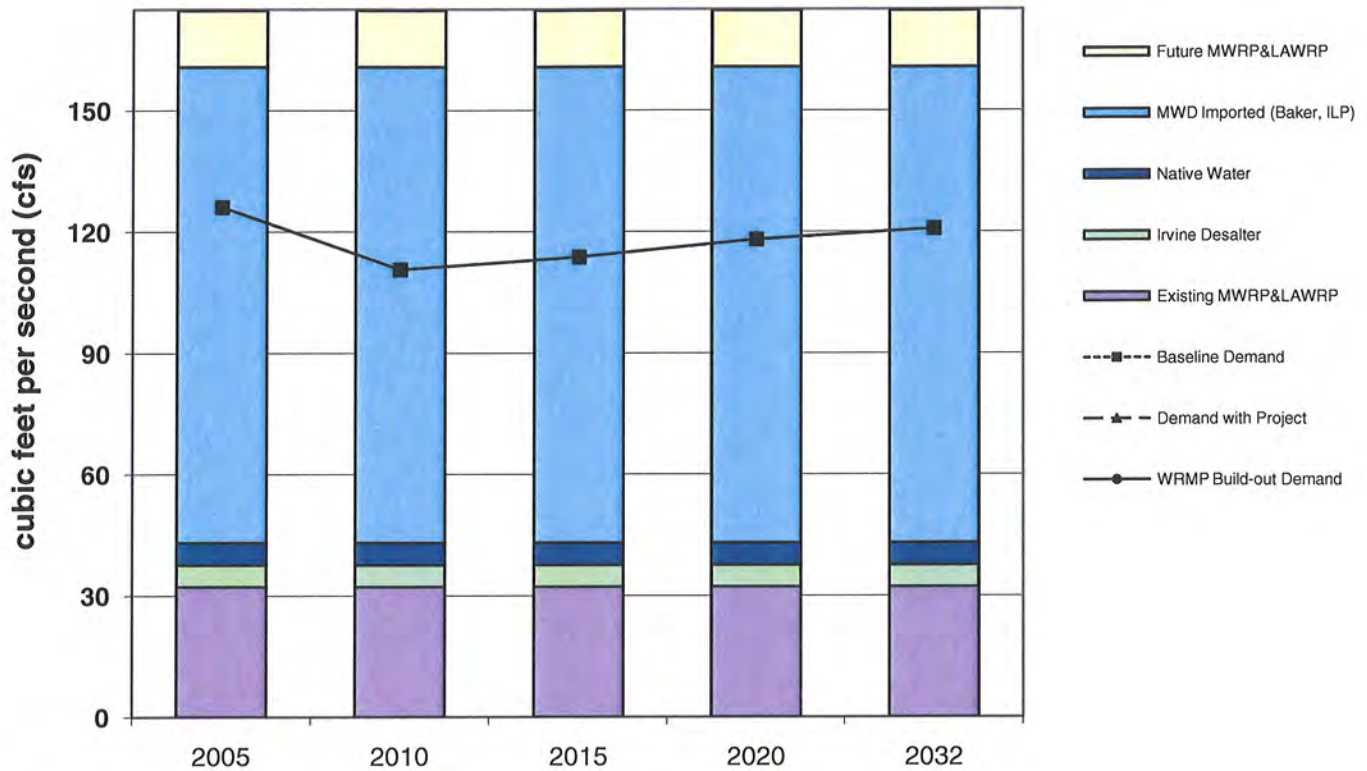


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|--------|--------|--------|--------|--------|
| <u>Current Nonpotable Supplies</u> | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 20,380 | 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 | 39,075 | 34,310 | 35,257 | 36,598 | 37,434 |
| Demand with Project | 39,075 | 34,313 | 35,261 | 36,602 | 37,438 |
| WRMP Build-out Demand | 39,075 | 34,313 | 35,261 | 36,602 | 37,438 |
| Reserve Supply with Project | 14,960 | 19,722 | 18,774 | 17,433 | 16,597 |

Note: Downward trend reflects reduction in agricultural use over time.

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

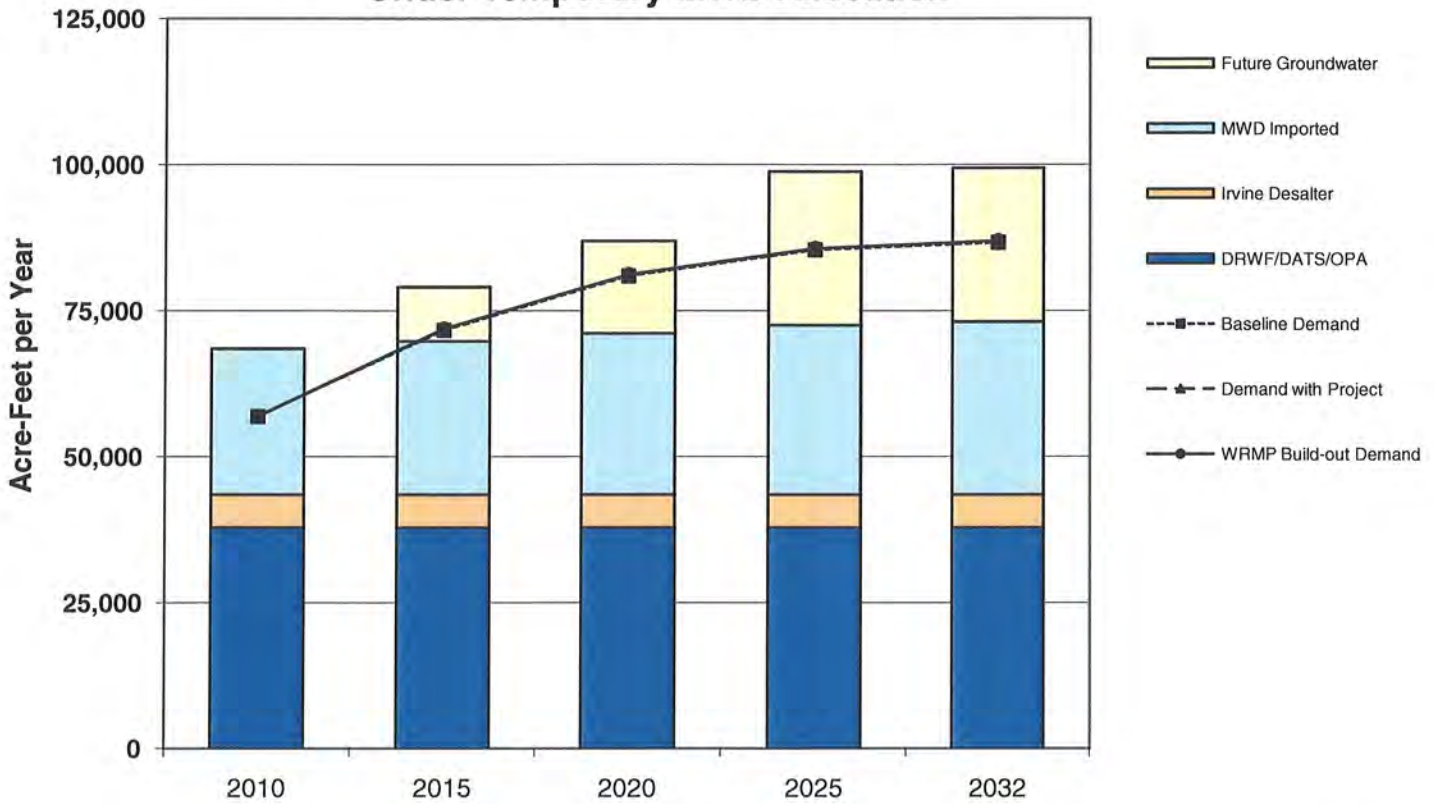
Figure 8
IRWD Maximum-Dry Supply & Demand - Nonpotable Water



| (in cfs) | 2005 | 2010 | 2015 | 2020 | 2032 |
|------------------------------------|-------|-------|-------|-------|-------|
| <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 | 126.1 | 110.7 | 113.8 | 118.1 | 120.8 |
| Demand with Project | 126.1 | 110.7 | 113.8 | 118.1 | 120.8 |
| WRMP Build-out Demand | 126.1 | 110.7 | 113.8 | 118.1 | 120.8 |
| Reserve Supply with Project | 48.6 | 64.0 | 60.9 | 56.6 | 53.9 |

Note: Downward trend reflects reduction in agricultural use over time.

**Figure 1a
IRWD Normal-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation***

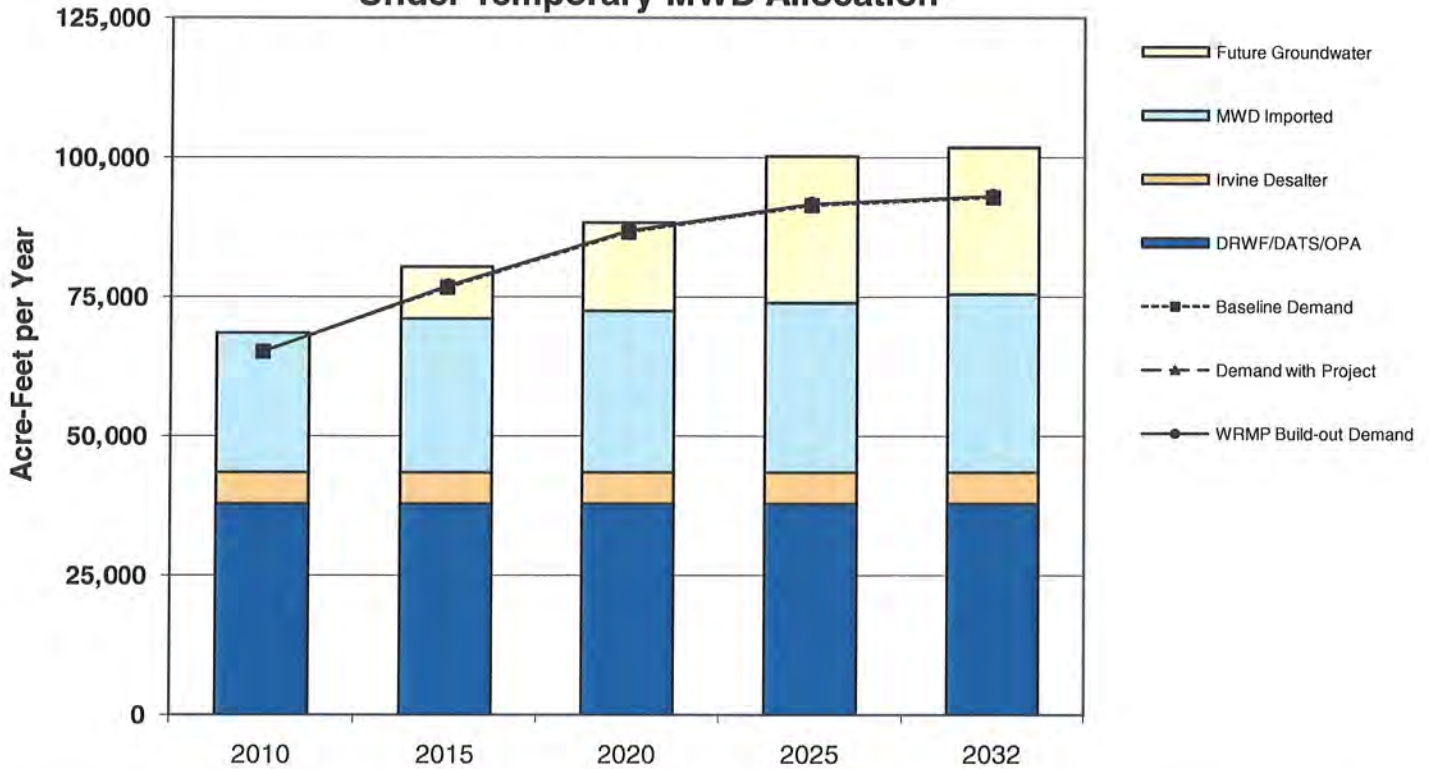


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|-----------------------------------|--------|--------|--------|---------|---------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 25,000 | 26,275 | 27,616 | 29,024 | 29,608 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 68,540 | 85,415 | 93,256 | 105,164 | 105,748 |
| Baseline Demand | 56,915 | 71,697 | 80,961 | 85,445 | 86,735 |
| Demand with Project | 56,915 | 71,927 | 81,203 | 85,687 | 86,980 |
| WRMP Build-out Demand | 56,915 | 71,927 | 81,203 | 85,687 | 86,980 |
| Reserve Supply with Project | 11,625 | 13,488 | 12,052 | 19,477 | 18,767 |

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*

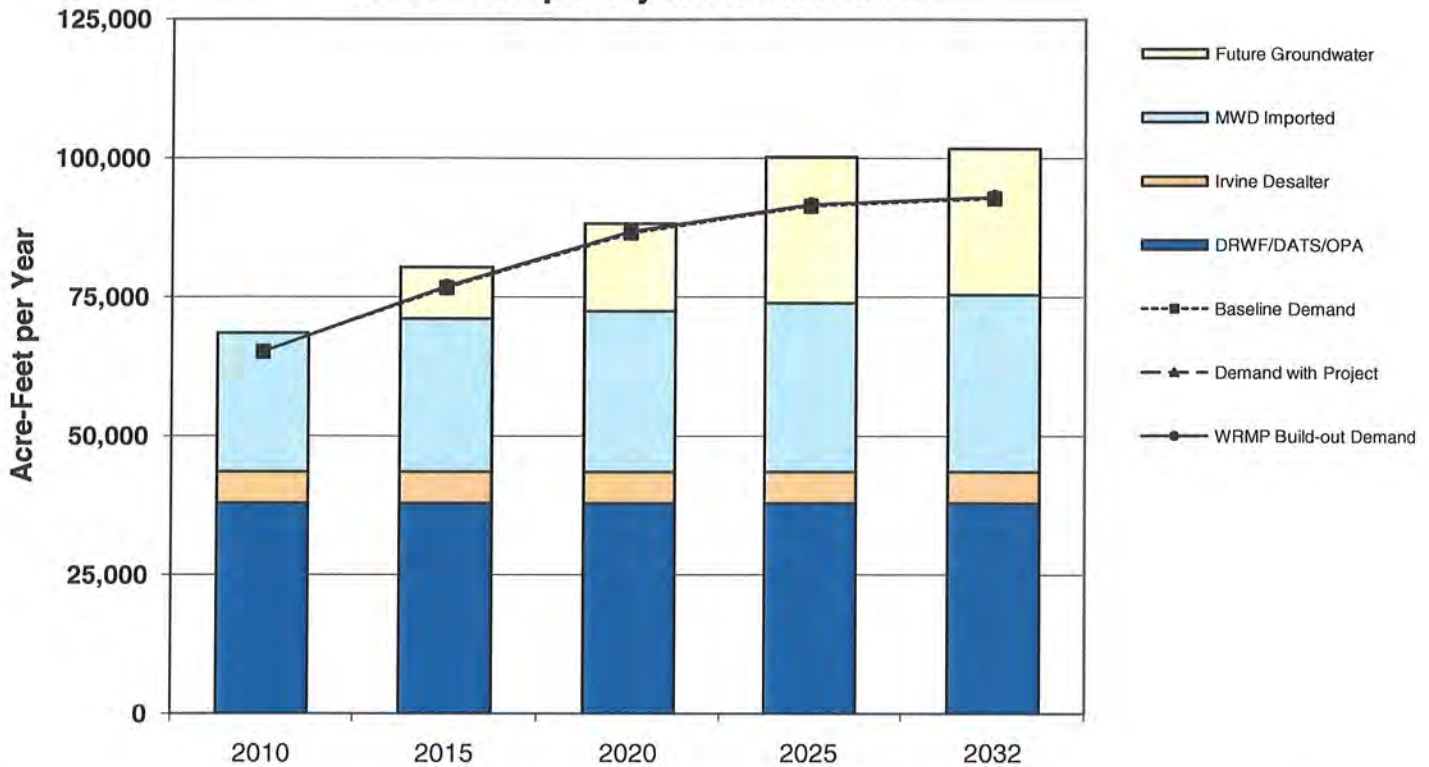


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|-----------------------------------|--------|--------|--------|---------|---------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 25,000 | 27,589 | 28,968 | 30,417 | 31,938 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 68,540 | 86,729 | 94,608 | 106,557 | 108,078 |
| Baseline Demand | 65,162 | 76,716 | 86,629 | 91,426 | 92,806 |
| Demand with Project | 65,162 | 76,962 | 86,888 | 91,685 | 93,069 |
| WRMP Build-out Demand | 65,162 | 76,962 | 86,888 | 91,685 | 93,069 |
| Reserve Supply with Project | 3,378 | 9,767 | 7,721 | 14,872 | 15,009 |

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 | 2032 |
|-----------------------------------|--------|--------|--------|---------|---------|
| <u>Current Potable Supplies</u> | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 25,000 | 27,589 | 28,968 | 30,417 | 31,938 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| <u>Supplies Under Development</u> | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 68,540 | 80,429 | 88,308 | 100,257 | 101,778 |
| Baseline Demand | 65,162 | 76,716 | 86,629 | 91,426 | 92,806 |
| Demand with Project | 65,162 | 76,962 | 86,888 | 91,685 | 93,069 |
| WRMP Build-out Demand | 65,162 | 76,962 | 86,888 | 91,685 | 93,069 |
| Reserve Supply with Project | 3,378 | 3,467 | 1,421 | 8,572 | 8,709 |

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 |
| OPA Well | 1.4 | 1,000 | |
| Deep Aquifer Treatment System-DATS | 10.0 | 8,900 | 2 |
| Wells 21 & 22 | 6.0 | 6,300 | 2 |
| Irvine Desalter | 10.6 | 5,640 | 3 |
| | | | 49,840 |
| Total Potable Current Supplies | 232.1 | | 99,756 |
| 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 | 392.9 | | 155,231 |
| Supplies Under Development | | | |
| Potable Supplies | | | |
| Well 106 | 2.2 | 1,300 | |
| Well 53 | 4.5 | 3,000 | |
| Future OPA Wells | 8.0 | 5,000 | |
| Anaheim wellfield | 10.0 | 6,500 | |
| Wells 51 & 52 | 9.0 | 5,500 | |
| Tustin Legacy wells | 9.0 | 5,000 | 9 |
| | | | 26,300 |
| Total Potable Under Development Supplies | 42.7 | 26,300 | |
| Nonpotable Supplies: Future MWRP&LAWRP Reclaimed | 20.0 | 14,450 | 10 |
| | | | 14,450 |
| Total Under Development | 105.4 | | 40,750 |
| Total Supplies | | | |
| Potable Supplies | 274.8 | | 126,056 |
| Nonpotable Supplies | 180.7 | | 69,925 |
| Total Supplies (Current and Under Development) | 455.6 | | 195,981 |

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 LAW RP 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 & LAW RP 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 | 2010 |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|
| Potable - imported | 29,510 | 43,320 | 44,401 | 28,397 | 36,777 | 19,306 | 19,306 |
| Potable - groundwater | 827 | 38 | 10,215 | 20,020 | 20,919 | 37,160 | 37,160 |
| Nonpotable - reclaimed | 9,196 | 12,399 | 11,589 | 10,518 | 14,630 | 15,296 | 15,296 |
| Nonpotable - groundwater | - | 36 | 816 | 1,834 | 2,890 | 2,285 | 2,285 |
| Nonpotable - native | 11,909 | 3,587 | 2,778 | 5,980 | 4,949 | 7,251 | 7,251 |
| Total | 60,998 | 71,639 | 94,699 | 69,082 | 96,508 | 86,602 | 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, except where otherwise noted, 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).

(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 (DRWF) / 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 Subbasin / 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.

Orange Park Acres (currently available)

On June 1, 2008, through annexation and merger, IRWD acquired the water system of the former Orange Park Acres Mutual Water company, including well [OPA Well]. The well is operated within the Orange County Groundwater Basin.

Wells 21 and 22 (currently available)

IRWD is completing construction of treatment facilities, pipelines and wellhead facilities for Wells 21 and 22. Water supplied through this project will be available by the end of 2012. The wells will be operated within the Orange County Groundwater Basin.

Irvine Wells (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) and the expansion project is under construction. 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 2032. (Initial upgrades that are within existing permit authorizations and CEQA compliance are completed) Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

•NONPOTABLE SUPPLY - IMPORTED⁷

Baker Pipeline (currently available)

⁷ See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

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 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.

• NONPOTABLE SUPPLY - GROUNDWATER

Irvine Subbasin / 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 2035 to ensure that MWD’s 2010 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 (October 2010) showed that MWD can maintain

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.

reliable supplies under the conditions that have existed in past dry periods throughout the period 2015 through 2035. 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 2035. 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 sub-regional 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 2011/12 capital budget on June 13, 2011 (Resolution No. 2011-20), 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 AAA public bond ratings. IRWD has approximately \$601.7 million (water) and \$763.5 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 2010 UWMP, sections 4-D through 4-J.

(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 366,000 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. In addition to Orange County Water District (OCWD) reports listed in the Assessment Reference List, OCWD has also prepared a Long Term Facilities Plan (“LTFP”) which provides updated information and was received by the OCWD Board in July 2009. The LTFP Chapter 3 describes the efforts being undertaken by OCWD to eliminate long-term overdraft in the Basin.

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. OCWD has an optimal basin

⁹ OCWD has also prepared a Long Term Facilities Plan which provides updated information which was received and filed by its Board in July 2009.

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 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: 2009-2010 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/ OPA | Irvine Subbasin (IRWD) | Irvine Subbasin (TIC) | LAWD¹⁰ |
|---------------------------|---------------------------|-------------------------------|------------------------------|--------------------------|
| 2011 | 34,304 | 7,055 | 0 | 0 |
| 2010 | 37,151 | 8,695 | 0 | 3 |
| 2009 | 38,140 | 7,614 | 0 | 0 |
| 2008 | 36,741 | 4,539 | 0 | 16 |
| 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 |

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.

(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 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 | IDP (Potable) | IDP (Nonpotable) |
|--------------------|--------------------|-------------------------|---------------|------------------|
| 2015 | 37,900 | 15,600 | 5,640 | 3,898 |
| 2020 | 37,900 | 22,100 | 5,640 | 3,898 |
| 2025 | 37,900 | 32,600 | 5,640 | 3,898 |
| 2032 | 37,900 | 32,600 | 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

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. This also includes 1,000 AFY for the OPA well.

¹² Under development.

Production Percentage (“BPP”) that OCWD sets based on these factors.¹³ Sufficient replenishment supplies are projected by the OCWD MPR to be 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. Date of prior assessment: June 22, 2009. 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)

2010 Urban Water Management Plan, Irvine Ranch Water District, June, 2011

¹³ OCWD has adopted a basin production percentage of 65% for 2010-11. In prior years OCWD has maintained a basin production percentage that is higher 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.

Integrated Water 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

2008-2009 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District

2009-2010 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

Section 15 of the Rules and Regulations – Water Conservation and Water Supply Shortage Program, Irvine Ranch Water District, February 2009

Water Shortage Contingency Plan, Irvine Ranch Water District, February 2009

2010 Integrated Resources Plan Update, Metropolitan Water District of Southern California, October 2010

Regional Urban Water Management Plan, Metropolitan Water District of Southern California, November 2010

Exhibit A

Depiction of Project Area



Planning Area 33 (Lots 105 and 107/108)
 General Plan Amendment and Zone Change
 Irvine, CA

Exhibit 3
**AERIAL PHOTOGRAPH
 OF PROJECT AND SURROUNDING AREA**

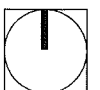


Exhibit B

Uses Included in Project

ENGINEERING & CONSTRUCTION

October 3, 2011

OCT 03 2011

Irvine Ranch Water District
15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000

IRVINE RANCH
WATER DISTRICT

Re: Request for Water Supply Availability 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 a negative declaration is required for the project.

Proposed Project Information

Project Title: PA 33 (Lots 105/107and 108) General Plan Amendment and Zone Change (City of Irvine Case Numbers 00529481-PGA and 00529482-PZC).

Location of project:

Lot 105 is located within City of Irvine Planning Area 33and is bounded by the following streets: Gateway, Irvine Center Drive, Alton Parkway, and Meridian. Lots 107 and 108 are adjoining lots also in City of Irvine Planning Area 33 and are generally bounded by Alton Parkway, Pacifica, Spectrum and SR 133.

- (For projects requiring a new assessment under Water Code §10910 (h).) Previous Water Supply Assessment including this project was prepared on: June 22, 2009. 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

(Enclose maps and exhibits of the project)

Type of Development:

- Residential: No. of dwelling units: 1,350
- 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, processing or industrial park: No. of employees _____
No. of acres _____ Sq. ft. of floor space _____
- Mixed use (check and complete all above that apply)
- Other: _____

Total acreage of project: Lot 105, 14.05 ac: Lots 107/108, 10.6 ac. Total acres 24.65 acres.

Acreage devoted to landscape:

Greenbelt N/A golf course N/A parks N/A
Agriculture N/A other landscaped areas Lot 105, 3.25 ac: Lots 107/108, 2.45 ac. Total acres 5.70 acres (includes on-site recreation area landscape).

Number of schools 0 Number of public facilities 0

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:

None.

What is the current land use of the area subject to a land use change under the project?
The existing General Plan designation is Regional Commercial which permits a mix of land uses including office, retail, commercial, and residential. The current maximum residential development is limited to 3,006 units based on prior approvals and the build out of previously approved residential projects.

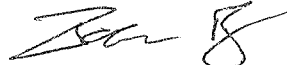
Is the project included in the existing General Plan? No. If no, describe the existing General Plan Designation _____

The existing General Plan designation is Regional Commercial and will remain the same with this application. Consistent with this designation this application would specifically authorize an additional 1,350 residential units raising the maximum number of units permitted to a total of 4,356.

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.

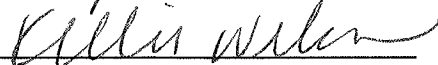
The City acknowledges that the Water Supply Assessment shall not constitute a "will-serve" or in any way entitle the project applicant to service or to any right, priority or allocation in any supply, capacity or facility, and that the issuance of the Water Supply Assessment shall not affect IRWD's obligation 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:  SENIOR PLANNER
JOEL BELDING

REQUEST RECEIVED:

Date: 10/6/11

By: 
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 10/24/11

By: 
Irvine Ranch Water District

January 23, 2012

Prepared by: K. Welch M. Hoolihan

Submitted by: K. Burton/G. Heiertz

Approved by: Paul Cook

CONSENT CALENDAR

VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR SERRANO SUMMIT (TENTATIVE TRACT MAP 17331)

SUMMARY:

In October 2011, staff approved a request by the City of Lake Forest to complete a Verification of Sufficient Water Supplies (WSV) for the Serrano Summit subdivision within the City's Opportunity Study proposed development. Staff has completed the WSV for Serrano Summit and is recommending Board approval of this document.

BACKGROUND:

The City of Lake Forest's proposed Serrano Summit subdivision is within the designation of the Opportunities Study proposed development. IRWD is the applicant for the Serrano Summit subdivision. On January 24, 2005, the Board approved a Water Supply Assessment (WSA) for the Opportunities Study as requested by the City of Lake Forest in accordance with SB 610. The overall WSA was approved for 5,844 dwelling units, 648.7 KSF of mixed use (commercial and industrial). As required under SB 221, and as part of the tract map approval process for projects including 500 or more dwelling units, the City has requested a WSV for Tentative Tract Map 17331, Serrano Summit. The proposed project consists of a maximum of 833 dwelling units or alternatively, 608 units with 114 thousand square feet (KSF) of government facility and office space. This WSV includes associated demands for the 833 dwelling unit alternative which represents the higher of demands for the two alternatives. This is the first WSV requested for this area and is attached as Exhibit "A".

The WSV for the requested tract map is based upon the WSA containing IRWD's determination that a sufficient water supply is available. The completed WSV contains supplemental information to the WSA concerning recent actions on state water supplies. This information, together with the WSA completed by IRWD, reflects IRWD's confirmation that the project water demands, together with demands from any other developments that have previously received a WSV, will-serves or other approvals by IRWD, are, in the aggregate, within the demands identified by that WSA. In accordance with this procedure, this WSV is based on the respective WSA and information contained in the WSV. In addition to reliance on the WSA, the WSV law requires several elements not covered or required in WSAs. These elements are primarily covered in Sections 1(b)(ii), 1(b)(iii), and 1(b)(iv) of the "Detailed Verification" section of the attached WSV.

Estimates show 173 AF per year of potable water demands and 60 AF per year of non-potable demands are associated with the project alternative for 833 dwelling units. These demands were included in the WSA that was completed in January 2005.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This study is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15262 which provides exemption for planning studies.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Policy and Communications meeting on January 19, 2012.

RECOMMENDATION:

THAT THE BOARD APPROVE THE VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR SERRANO SUMMIT (TENTATIVE TRACT MAP 17331).

LIST OF EXHIBITS:

Exhibit "A" – Verification of Sufficient Water Supplies for Serrano Summit (Tentative Tract Map 17331)

**IRVINE RANCH WATER DISTRICT
VERIFICATION OF SUFFICIENT WATER SUPPLY**
Government Code §66473.7

To: *(Lead Agency)*
City of Lake Forest
25550 Commercentre Drive, Suite 100
Lake Forest, CA 92630

(Applicant)
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Project Information

Project Title: Serrano Summit (see Exhibit A)

Tentative Map Application No. 17331 Verification requested prior to tentative map application

Number of residential units in Project: 833

Non-residential uses in Project (type, no. of employees, sq. ft. of floor space, acreage): (see Exhibit B)

Acreage to be devoted to landscape (excluding individual residence yards): (see Exhibit B)

The projected water demand for the Project was included in IRWD's most recently adopted urban water management plan.

A water supply assessment that included the Project was adopted by IRWD on January 24, 2005. A copy is attached hereto and incorporated herein by this reference (see Exhibit C).

Verification of Availability of Sufficient Water Supply

On _____, the Board of Directors of the Irvine Ranch Water District (IRWD) approved the within Verification and made the following determination regarding the above-described Project:

- 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.

The foregoing determination is based on the following Water Supply Verification Information and supporting information in the records of IRWD.

Signature *Date* *Title*

WATER SUPPLY VERIFICATION INFORMATION

Purpose of Verification

Irvine Ranch Water District (“IRWD”) is the public water system that will supply water service (both potable and nonpotable) to the project identified on the cover page of this verification (the “Project”). As a public water system, IRWD is required by Section 66473.7 of the Government Code (the “Verification Law”) to provide the City with a verification of the availability of a sufficient water supply for non-exempt subdivisions of more than 500 residential units in conjunction with (or prior to) the City’s approval of a tentative map. The City has found the Project to include a subdivision that is subject to verification and not exempt under the Verification Law.

The Verification Law provides that a verification shall be supported by substantial evidence, which may include, but is not limited to, any of the following (i) IRWD’s most recently adopted urban water management plan; (ii) a water supply assessment previously adopted for the project under Water Code 10910, *et seq.*; or (iii) other analytical information substantially similar to the assessment of service reliability required by Water Code Section 10635 to be included in the urban water management plan. The Verification Law also specifies the elements to be contained in a verification with respect to (i) supplies relied upon that are not currently available; (ii) reasonably foreseeable impacts of the subdivision on the availability of water resources for agricultural and industrial uses within IRWD’s service area that are not currently receiving water; and (iii) rights to extract additional groundwater needed to supply the subdivision.

A verification does not entitle the Project to service or to any right, priority or allocation in any supply, capacity or facility, or affect IRWD’s obligation to provide service to its existing customers or any potential future customers. In order to receive service, the Project applicant is 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 requirements as specified therein.

Methodology of Verification for Project With Prior Water Supply Assessment

As referenced on the cover page of this verification (the “Verification”), the Project was included within an assessment of water supply approved by IRWD. The Assessment contained IRWD’s determination that a sufficient water supply is available for the Project. As described in the Assessment, IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area. However, upon approval of each assessment containing a determination of a sufficient supply, IRWD attributes the demands identified by that assessment to IRWD’s existing and committed demand. Thereafter, each verification approved by IRWD for a subdivision covered by that assessment is based on the assessment, and reflects IRWD’s confirmation that the water demands of the subdivision, together with any other subdivisions or developments that have previously received verifications, will-serves or other approval by IRWD under the same assessment, are, in the aggregate, within the demand identified by that assessment. In accordance with that procedure, this Verification is based on the Assessment. The Assessment’s determination of sufficiency extends through 2025, and is supplemented herein to include the full 20-year projection required in this Verification.

In addition, this Verification includes the elements required by the Verification Law that are not included within the required contents of assessments.

Supporting Documentation

As noted above, the principal supporting document for this Verification is the Assessment. Other documentation supports the Assessment and this Verification: 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. (The UWMP is required to be updated in years ending with "five" and "zero," and IRWD's most recent update was adopted in June 2011.)

In addition to the Assessment, the most recent WRMP and the 2010 UWMP mentioned above, other supporting documentation referenced herein is found in Section 5 of this Verification. This includes the Metropolitan Water District of Southern California's Regional Urban Water Management Plan (RUWMP) detailing an evaluation by Metropolitan Water District of Southern California (MWD), the wholesaler of IRWD's imported water supplies, of the reliability of MWD's supplies. (2010 RUWMP adopted in November 2010.)

The Verification Law requires written proof of entitlement for "not currently available" (referred to herein as "under development") supplies. The Assessment includes such information for both currently available and under development supplies. 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 of the Assessment. Copies of the summarized items have been provided to the City and can be obtained from IRWD.

Sufficiency Calculation Methodology

The methodology for IRWD's comparison of its demands and supplies is set forth in the Assessment, in the section entitled "Assessment Methodology" and subsections thereof entitled "water use factors; dry-year increases;" "planning horizon;" "assessment of demands;" "assessment of supplies;" and "comparison of demand and supply."

Summary of Results of Demand-Supply Comparisons

The Assessment contains Figures 1 through 8 comparing projected potable and nonpotable water supplies and demands which provide an overview of IRWD potable and nonpotable water supply capabilities through 2032. These Figures have been revised (pages 8 through 19) in order to reflect updated information on supplies, as well as updating the 20-year planning horizon through 2032. In addition, since the date of the approved Assessment for this project (January 2005), IRWD has recalibrated and updated demand projections based on water use and development phasing.

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 State Water Project (SWP) operations and supplies in 2008 and subsequent years. On June 4, 2009, a federal biological opinion imposed rules that will further restrict water diversions from the Delta to protect endangered salmon and other endangered fish species. 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 2010 IRP Update). Prior to the 2007 court decision, MWD's Board approved a Delta Action Plan in May 2007 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 brought to its Board a strategy and work plan to update the long-term Integrated Resources Plan (IRP) in December 2007. As part of the IRP Update, MWD developed a region-wide collaborative process that included a broad-based stakeholder involvement. MWD held several stakeholder forums in 2008 and 2009 and the MWD Board adopted the 2010 IRP Update on October 12, 2010. In the 2010 IRP Update, MWD identified changes to the long-term plan and established direction to address the range of potential changes in water supply planning. The IRP also discusses dealing with uncertainties related to impacts of climate change (see additional discussion of this below) as well as actions to protect endangered fisheries. Based on MWD's Findings and Conclusions as stated in the MWD 2010 IRP Update, MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remains unchanged in the 2010 IRP Update, and MWD will accomplish this through its core resources strategies. The 2010 IRP Update emphasizes an evolving approach and suite of actions to address the water supply challenges that are posed by uncertain weather patterns, regulatory and environmental restrictions, water quality impacts and changes in the state and the region. MWD's Adaptive Resource Management Strategy includes three components: Core Resources Strategy, Supply Buffer Implementation and Foundational Actions which together provides the basis for the 2010 IRP Update. The 2010 IRP Update expands the concept of developing a planning buffer from the 2004 IRP Update by implementing a supply buffer equal to 10 percent of the total retail demand. MWD will collaborate with the member agencies to implement this buffer through complying with Senate Bill 7 which calls for the state to reduce per capita water use 20 percent by the year 2020.

IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD: MWD states it is sufficiently reliable to meet full-service demands at the retail level for all foreseeable hydrologic conditions. For purposes of ensuring a conservative analysis, IRWD has compiled information from the prior "MWD IRP Implementation Report" (October 2007) and MWD's RUWMP (November 2005), to provide information in this assessment relative to how reduced SWP supplies could potentially affect IRWD's supplies from MWD.

Based on IRWD's evaluation of MWD's SWP supplies, IRWD estimates that the 22% used by MWD's October 2007 IRP Implementation 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 2032.¹ 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 2028, 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. In February 2009, MWD adopted a Water Supply Allocation Plan based on its declared level of shortage. In response to potential water shortages and a request by MWD to have water service providers within its service area adopt a water conservation ordinance, in February 2009, IRWD updated Section 15 of its Rules and Regulations – Water Conservation and Water Supply Shortage Program and also updated its Water Shortage Contingency Plan which is a supporting document for Section 15. Section 15 of the Rules and Regulations serves as IRWD's "conservation ordinance". As stated in IRWD's Water Shortage Contingency Plan, use of local supplies, storage and other supply augmentation measures can mitigate shortages, and are assumed to be in use to the maximum extent possible during declared shortage levels. Under shortage 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 resultant net shortage levels can be addressed by demand reduction programs as described in IRWD's Water Shortage Contingency Plan.

Listed below are Figures provided 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

¹ MWD's 2010 RUWMP cites to DWR's Water Allocation Analysis dated March 22, 2010, which incorporated the Delta smelt biological opinion's effect on SWP operations, export restrictions could reduce deliveries to MWD by 150 to 200 thousand acre-feet for 2010. Assuming this estimated SWP reduction amount is included in the final RUWMP adopted by MWD, that amount in acre feet would be equivalent to about 12% reduction in SWP supplies, a smaller percentage reduction than MWD's 2007 figure of 22% that was used by IRWD for purposes of this analysis.

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 "2008-2009 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.

It can be noted that IRWD's above approach is conservative, in that IRWD evaluates the effect of the 16% reduction through 2030 and shows the effect of current allocation scenarios in all of the five-year increments but 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 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."

In MWD's 2010 IRP Update, MWD recognizes there is a significant uncertainty in the impact of climate change on water supply and changes in weather patterns could significantly affect water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a supply buffer equivalent to 10 percent of total retail demand. This buffer will be implemented through meeting the SB7 water use efficiency goals, implementing aggressive adaptive actions, development of local supplies and transfers.

Per MWD's RUWMP, MWD continues to incorporate current climate change science into its planning efforts. As stated in MWD's RUWMP, the 2010 IRP Update supports the MWD Board adopted principles on climate change by: 1) Supporting reasonable, economically viable, and technologically feasible management strategies for reducing impacts on water supply and 2) Supporting flexible "no regret" solutions that provide water supply and quality benefits while increasing the ability to manage future climate change impacts, and 3) Evaluating staff recommendations regarding climate change and water resources against the California Environmental Quality Act to avoid adverse effects on the environment. 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 the Assessment.

Catastrophic Supply Interruption Planning. MWD has developed Emergency Storage Requirements (2010 RUWMP) to safeguard the region from catastrophic loss of water supply. MWD has made substantial investments in emergency storage and MWD has based its planning on a 100% reduction in its supplies for a period of six months. The emergency plan outlines that under such a catastrophe, non-firm service deliveries would be suspended, and firm supplies would be restricted by a mandatory cutback of 25 percent from normal year demand deliveries. In addition, MWD discusses the long term Delta plan in its 2010 RUWMP (pages 3-18 to 3-21). IRWD has addressed supply interruption planning in its WRMP and UWMP.

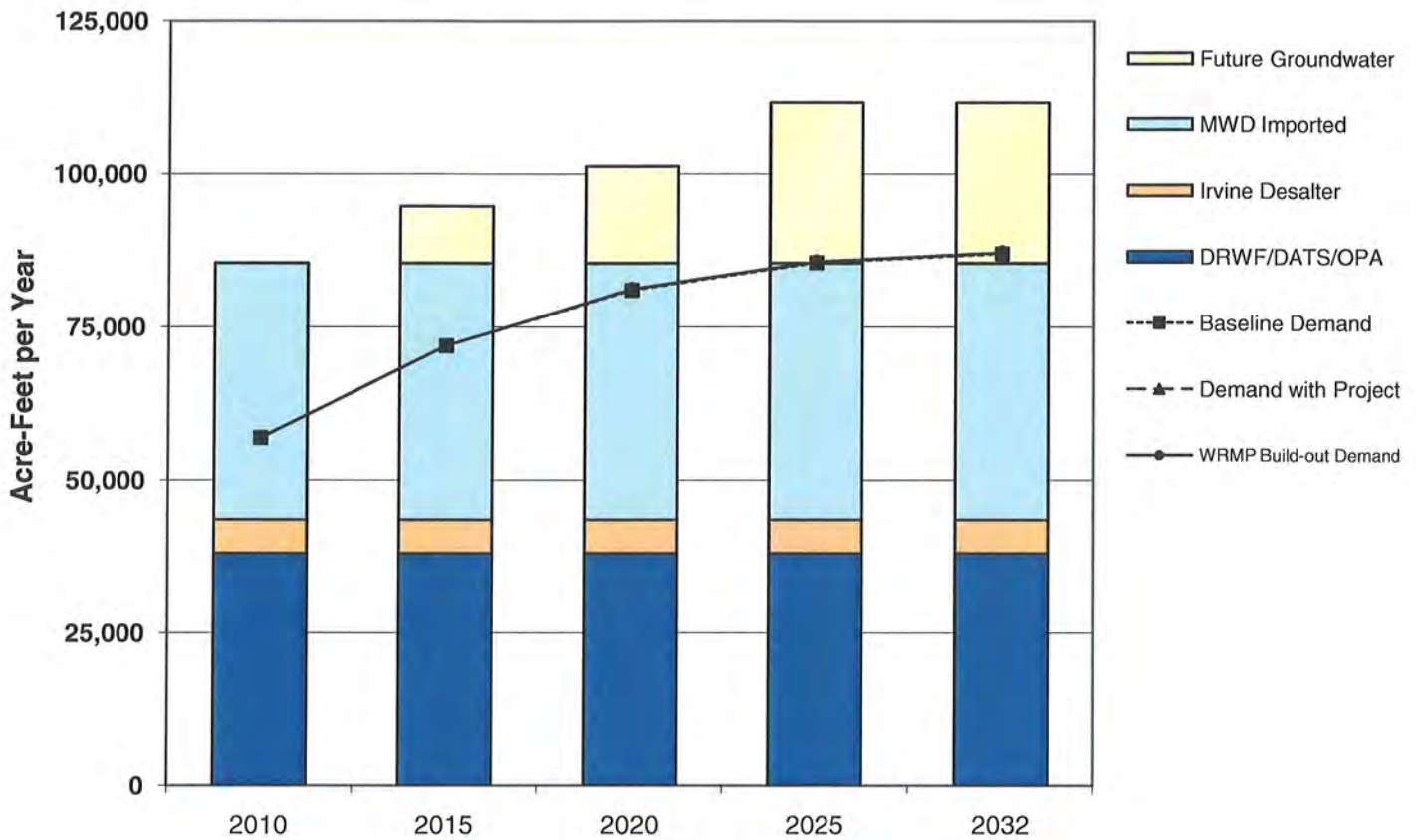
Detailed Verification

1. Determination of sufficiency of water supply

(a) 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), Figures 5-8 (nonpotable water) and Figures 1a, 2a, and 3a (short term MWD allocation potable water). See also the Assessment, Section 1, incorporated herein by reference and "Recent Actions on Delta Pumping" above.

**Figure 1
IRWD Normal-Year Supply & Demand - Potable Water**

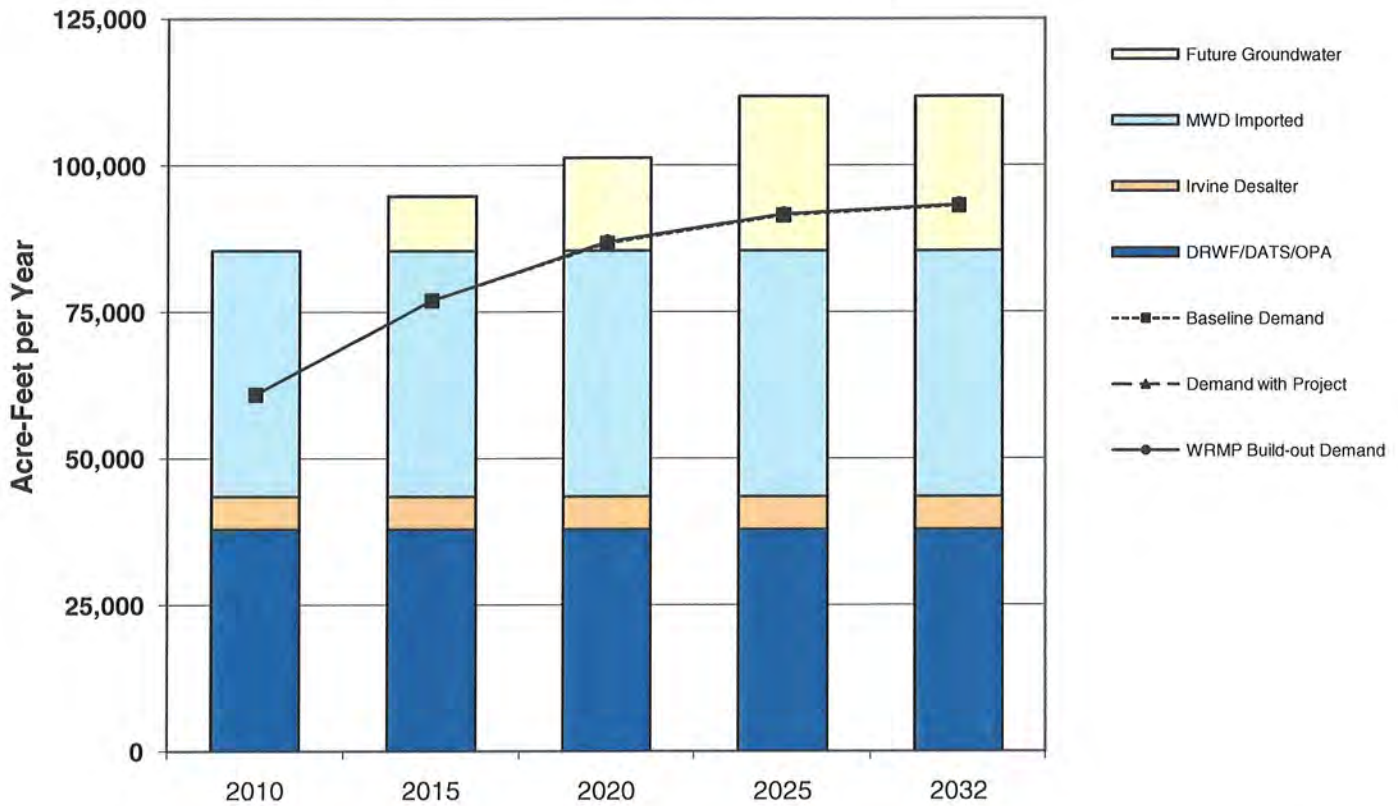


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|---------------|----------------|----------------|----------------|----------------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 41,929 | 41,929 | 41,929 | 41,929 | 41,929 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 85,469 | 101,069 | 107,569 | 118,069 | 118,069 |
| Baseline Demand | 56,915 | 71,927 | 81,031 | 85,514 | 87,025 |
| Demand with Project | 56,915 | 71,927 | 81,203 | 85,687 | 87,198 |
| WRMP Build-out Demand | 56,915 | 71,927 | 81,203 | 85,687 | 87,198 |
| Reserve Supply with Project | 28,555 | 29,142 | 26,366 | 32,382 | 30,871 |

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**

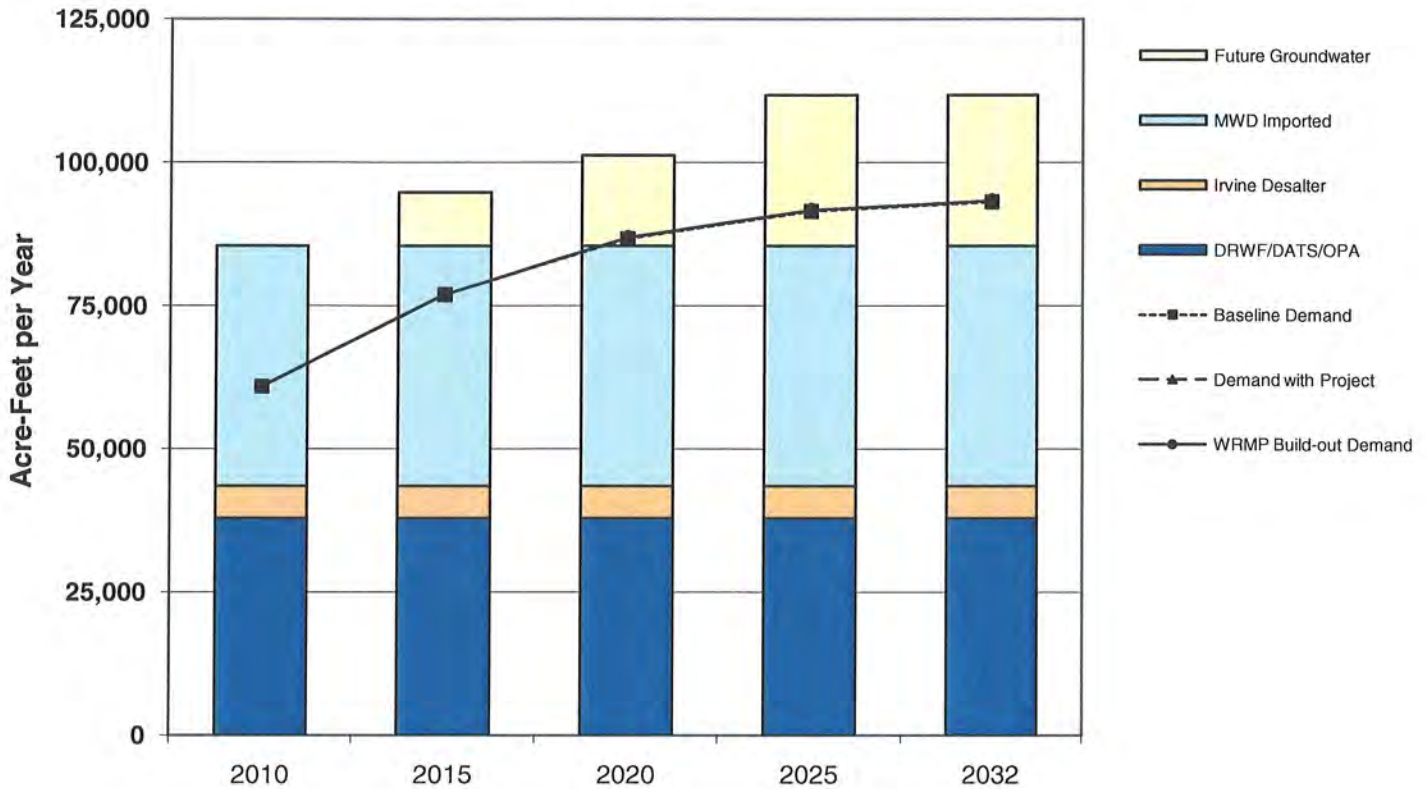


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|---------------|----------------|----------------|----------------|----------------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 41,929 | 41,929 | 41,929 | 41,929 | 41,929 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 85,469 | 101,069 | 107,569 | 118,069 | 118,069 |
| Baseline Demand | 60,899 | 76,962 | 86,703 | 91,501 | 93,117 |
| Demand with Project | 60,899 | 76,962 | 86,888 | 91,685 | 93,302 |
| WRMP Build-out Demand | 60,899 | 76,962 | 86,888 | 91,685 | 93,302 |
| Reserve Supply with Project | 24,571 | 24,108 | 20,682 | 26,384 | 24,767 |

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**

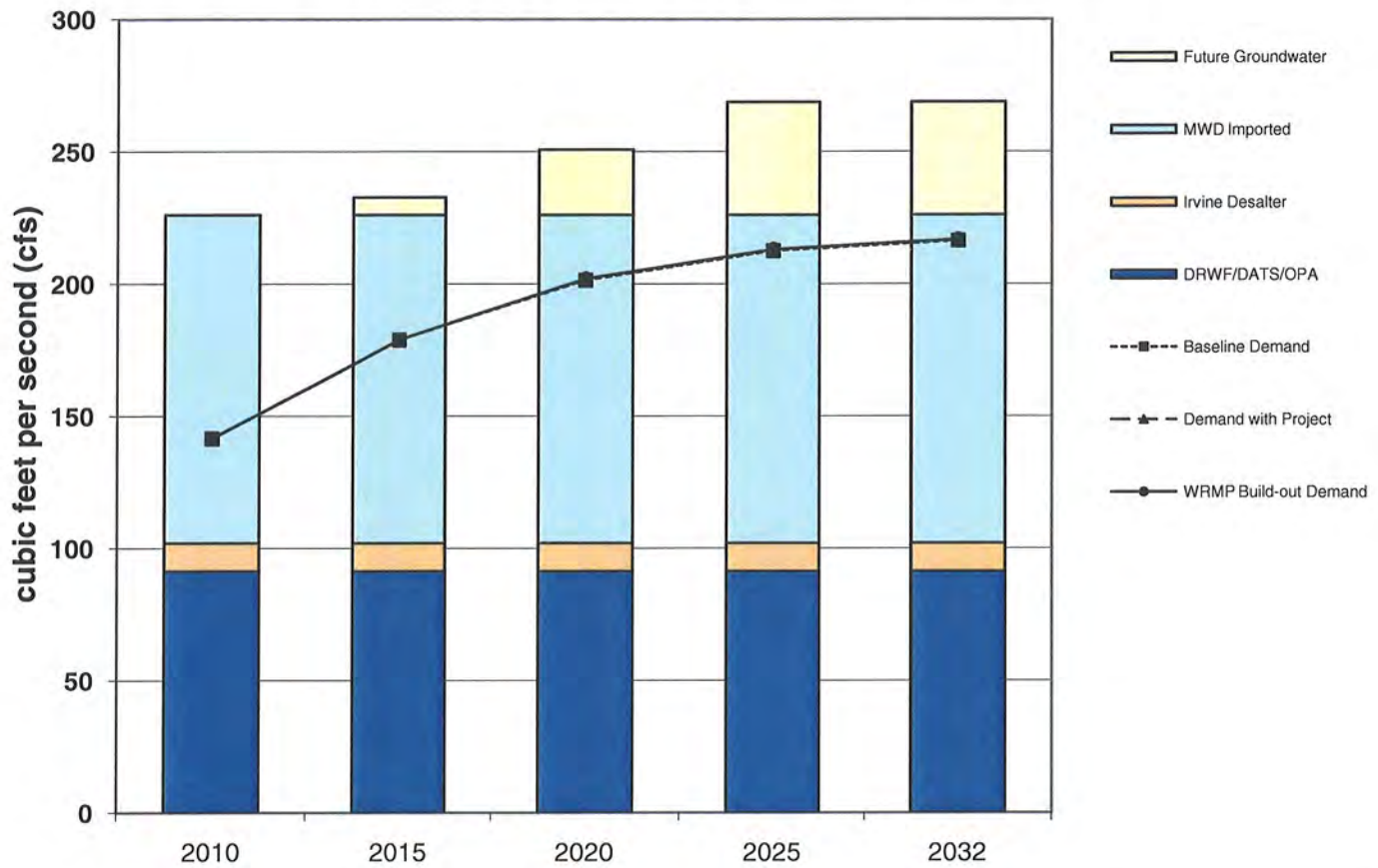


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|---------------|----------------|----------------|----------------|----------------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 41,929 | 41,929 | 41,929 | 41,929 | 41,929 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 85,469 | 101,069 | 107,569 | 118,069 | 118,069 |
| Baseline Demand | 60,899 | 76,962 | 86,703 | 91,501 | 93,117 |
| Demand with Project | 60,899 | 76,962 | 86,888 | 91,685 | 93,302 |
| WRMP Build-out Demand | 60,899 | 76,962 | 86,888 | 91,685 | 93,302 |
| Reserve Supply with Project | 24,571 | 24,108 | 20,682 | 26,384 | 24,767 |

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).

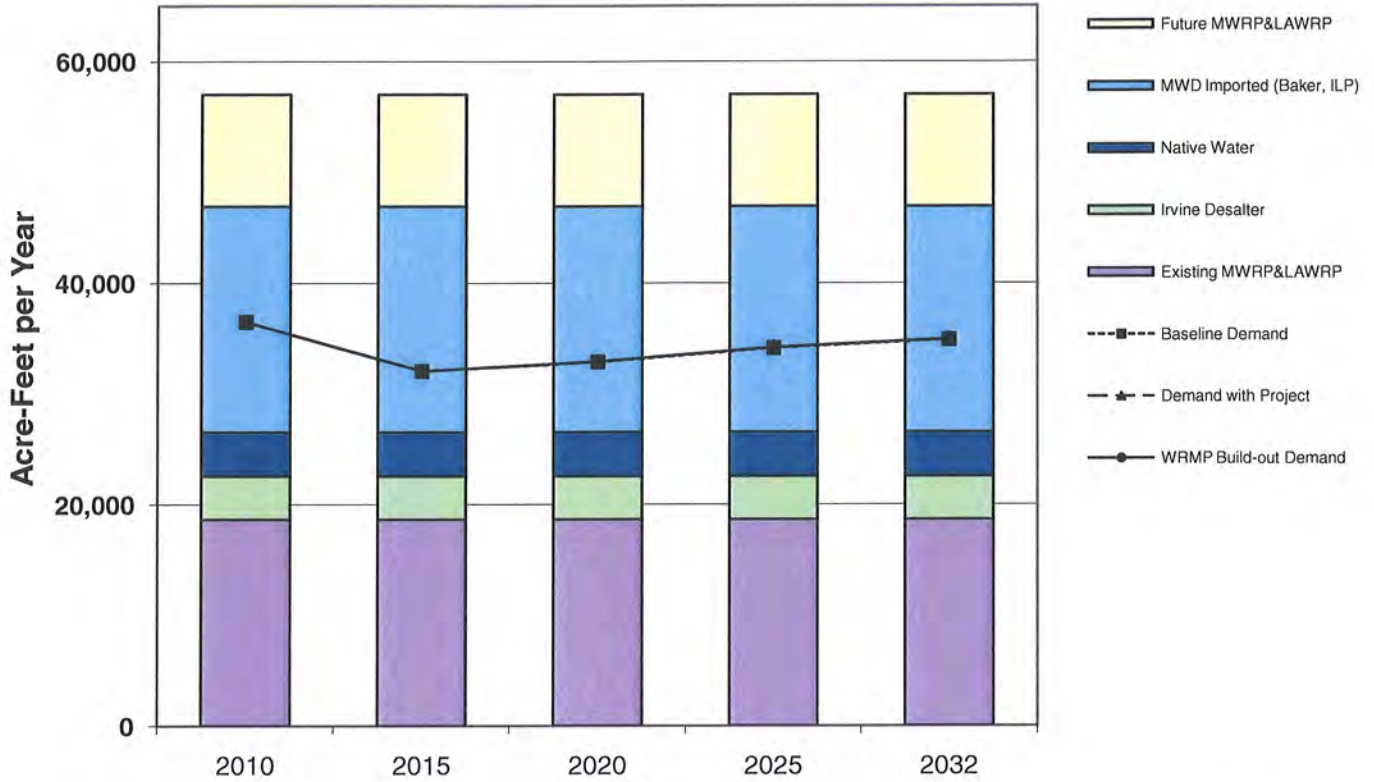
MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

**Figure 4
IRWD Maximum-Day Supply & Demand - Potable Water**



| (in cfs) | 2010 | 2015 | 2020 | 2025 | 2032 |
|-----------------------------------|-------|-------|-------|-------|-------|
| <u>Current Potable Supplies</u> | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 |
| DRWF/DATS/OPA | 91.4 | 91.4 | 91.4 | 91.4 | 91.4 |
| Irvine Desalter | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 |
| Wells 21 & 22 | - | 6.0 | 6.0 | 6.0 | 6.0 |
| <u>Supplies Under Development</u> | | | | | |
| Future Groundwater | - | 6.7 | 24.7 | 42.7 | 42.7 |
| Maximum Supply Capability | 226.1 | 238.8 | 256.8 | 274.8 | 274.8 |
| Baseline Demand | 141.5 | 178.8 | 201.5 | 212.6 | 216.4 |
| Demand with Project | 141.5 | 178.8 | 201.9 | 213.0 | 216.8 |
| WRMP Build-out Demand | 141.5 | 178.8 | 201.9 | 213.0 | 216.8 |
| Reserve Supply with Project | 84.6 | 60.0 | 54.9 | 61.8 | 58.0 |

**Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water**

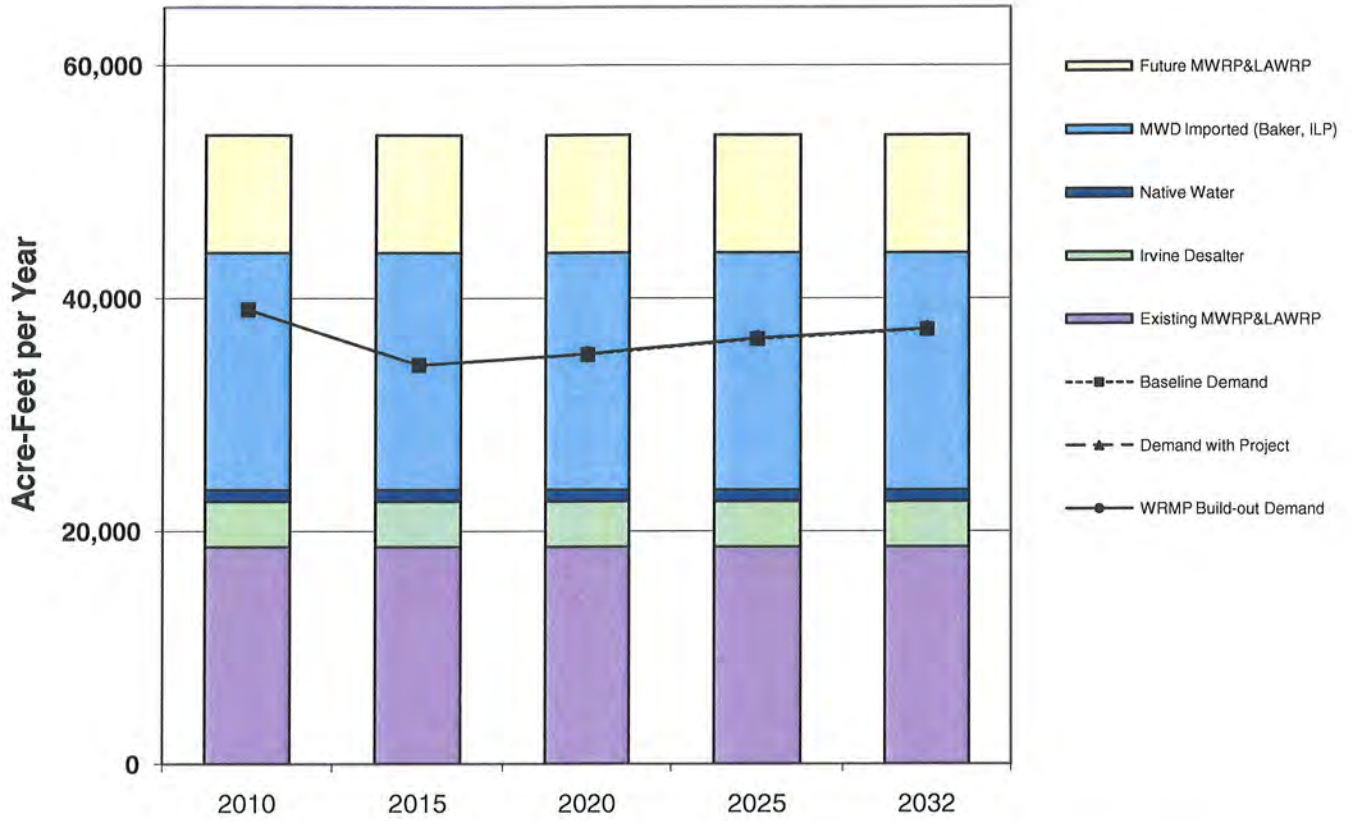


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|--------|--------|--------|--------|--------|
| <u>Current Nonpotable Supplies</u> | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 20,380 | 20,380 | 20,380 | 20,380 | 20,380 |
| Irvine Desalter | 3,898 | 3,898 | 3,898 | 3,898 | 3,898 |
| Native Water | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| <u>Supplies Under Development</u> | | | | | |
| 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 | 36,489 | 32,039 | 32,865 | 34,118 | 34,900 |
| Demand with Project | 36,489 | 32,039 | 32,925 | 34,178 | 34,960 |
| WRMP Build-out Demand | 36,489 | 32,039 | 32,925 | 34,178 | 34,960 |
| Reserve Supply with Project | 20,546 | 20,546 | 24,996 | 24,110 | 22,075 |

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**

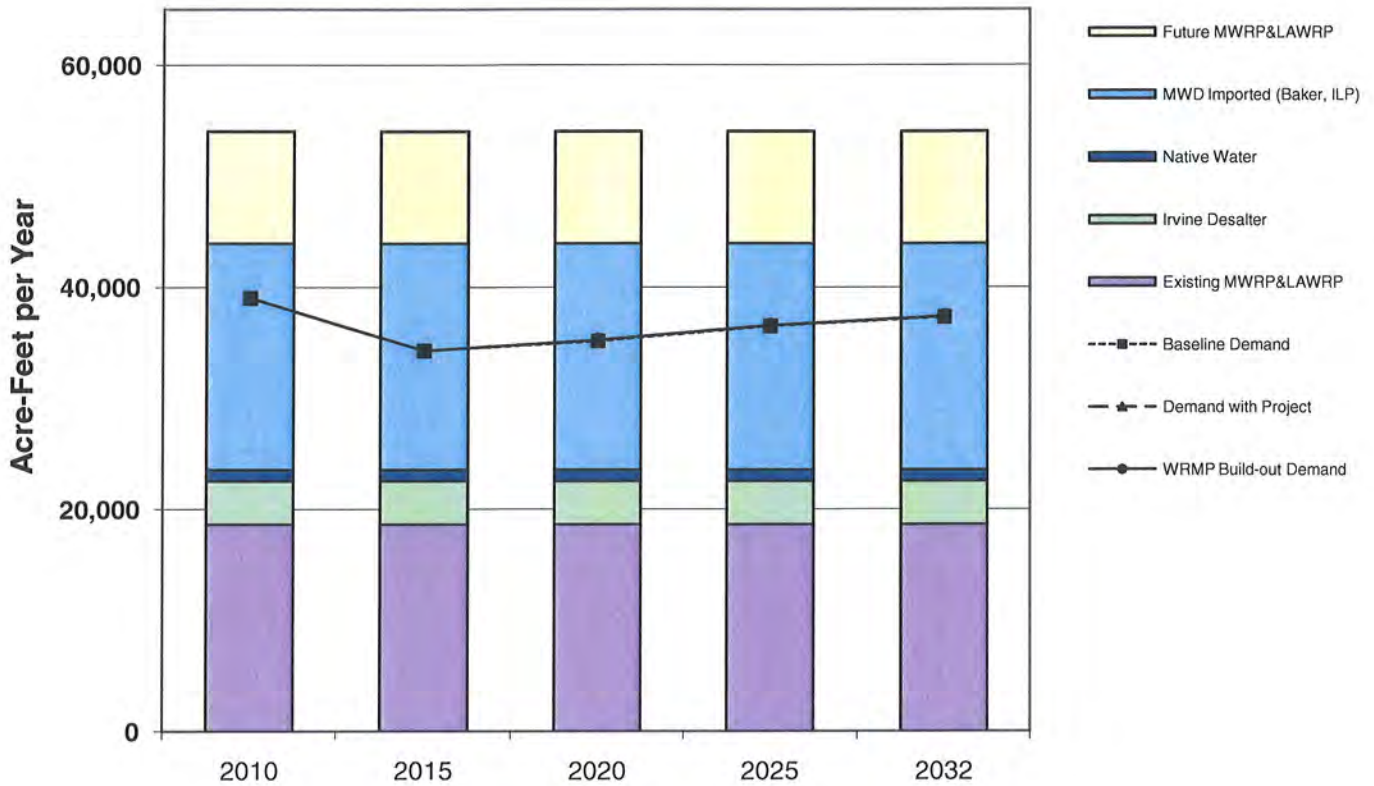


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|--------|--------|--------|--------|--------|
| <u>Current Nonpotable Supplies</u> | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 20,380 | 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 | 39,043 | 34,282 | 35,166 | 36,506 | 37,343 |
| Demand with Project | 39,043 | 34,282 | 35,230 | 36,570 | 37,407 |
| WRMP Build-out Demand | 39,043 | 34,282 | 35,230 | 36,570 | 37,407 |
| Reserve Supply with Project | 14,992 | 19,753 | 18,805 | 17,465 | 16,628 |

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

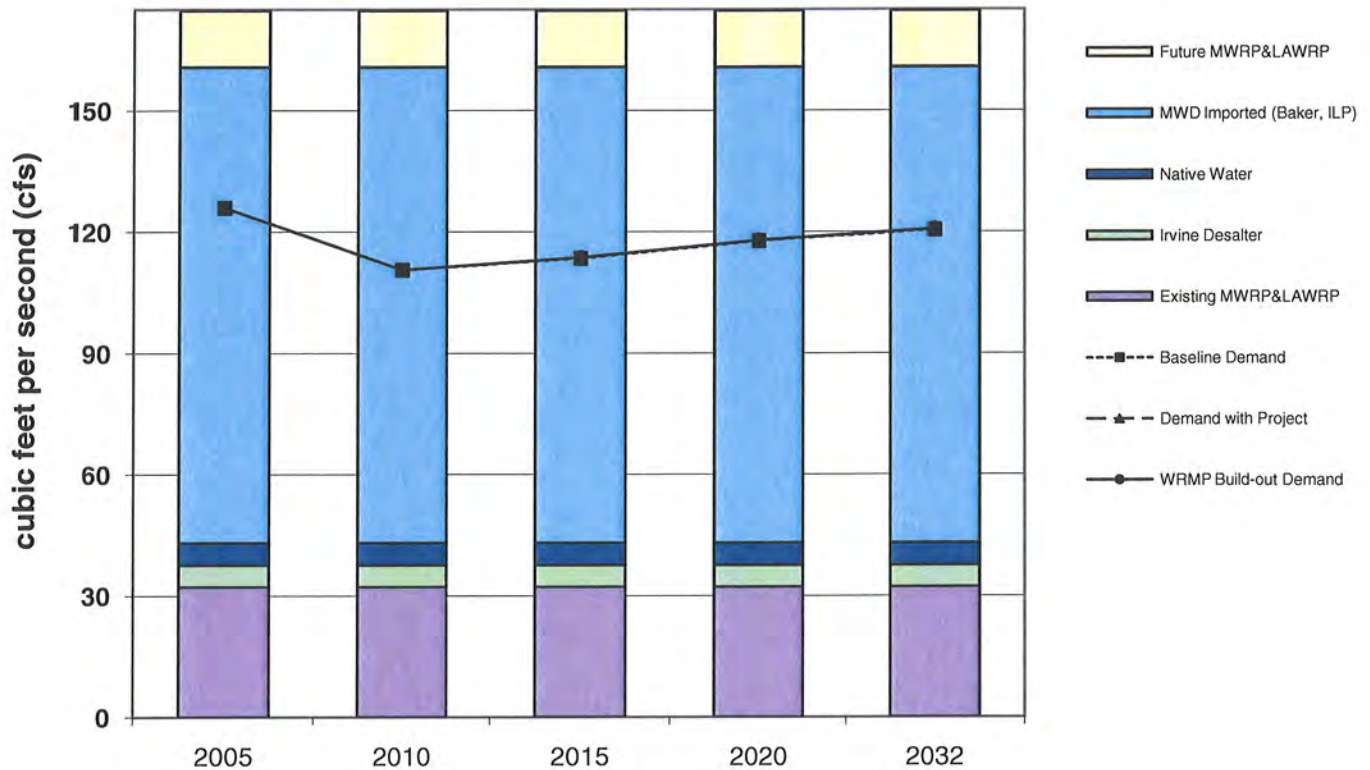


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|------------------------------------|--------|--------|--------|--------|--------|
| <u>Current Nonpotable Supplies</u> | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 20,380 | 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 | 39,043 | 34,282 | 35,166 | 36,506 | 37,343 |
| Demand with Project | 39,043 | 34,282 | 35,230 | 36,570 | 37,407 |
| WRMP Build-out Demand | 39,043 | 34,282 | 35,230 | 36,570 | 37,407 |
| Reserve Supply with Project | 14,992 | 19,753 | 18,805 | 17,465 | 16,628 |

Note: Downward trend reflects reduction in agricultural use over time.

MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

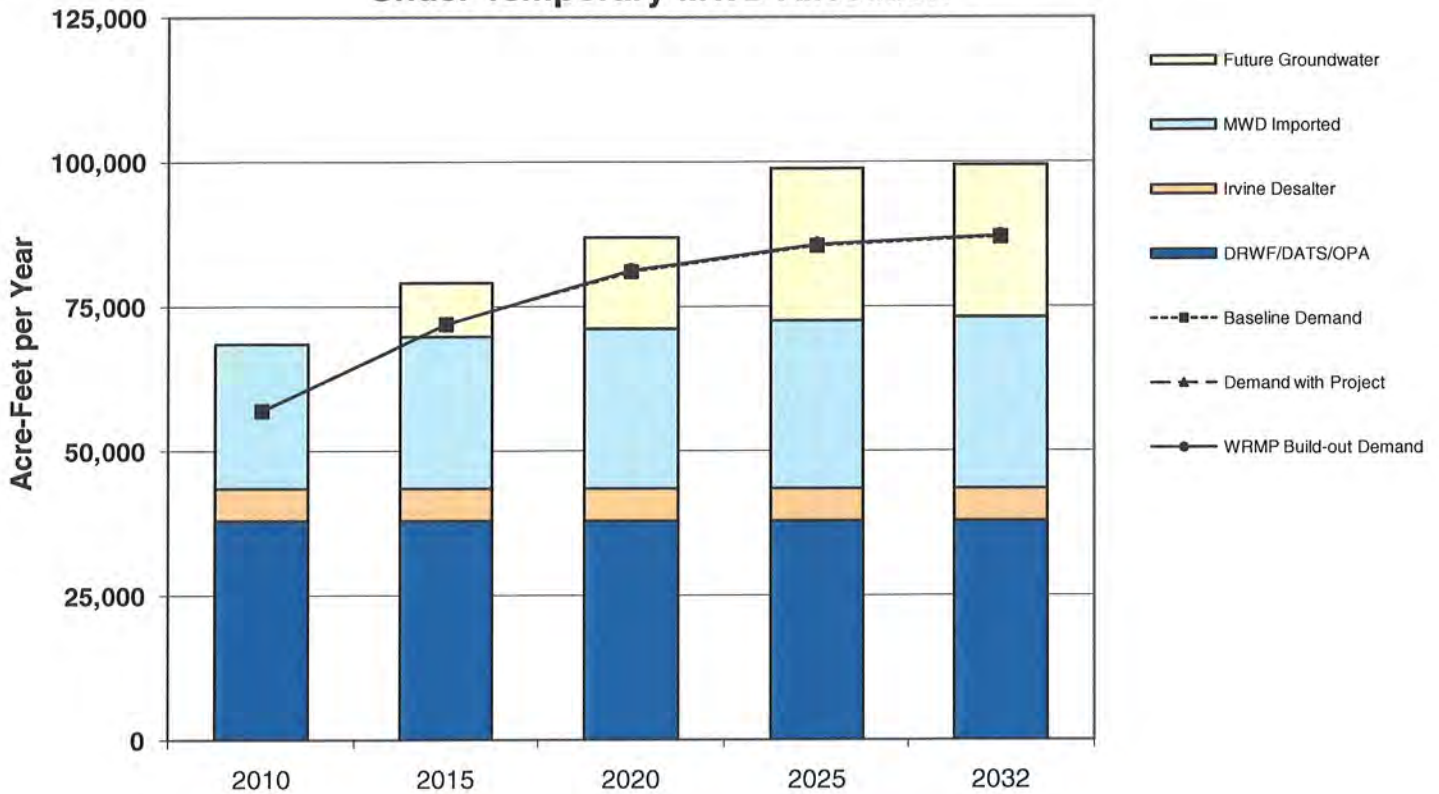
Figure 8
IRWD Maximum-Dry Supply & Demand - Nonpotable Water



| (in cfs) | 2005 | 2010 | 2015 | 2020 | 2032 |
|------------------------------------|-------|-------|-------|-------|-------|
| <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 | 126.0 | 110.6 | 113.5 | 117.8 | 120.5 |
| Demand with Project | 126.0 | 110.6 | 113.7 | 118.0 | 120.7 |
| WRMP Build-out Demand | 126.0 | 110.6 | 113.7 | 118.0 | 120.7 |
| Reserve Supply with Project | 48.7 | 64.1 | 61.0 | 56.7 | 54.0 |

Note: Downward trend reflects reduction in agricultural use over time.

Figure 1a
IRWD Normal-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*

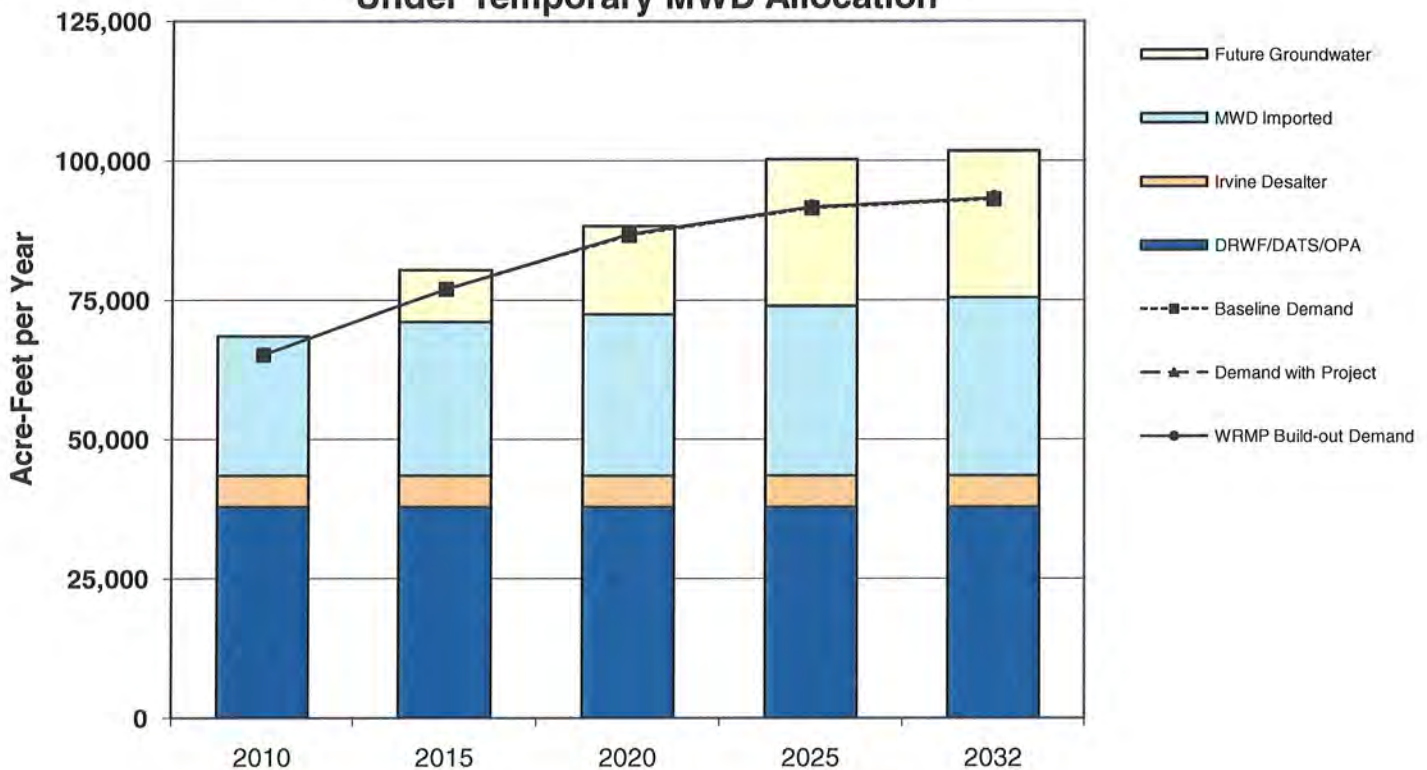


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|-----------------------------------|--------|--------|--------|---------|---------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 25,000 | 26,275 | 27,616 | 29,024 | 29,608 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 68,540 | 85,415 | 93,256 | 105,164 | 105,748 |
| Baseline Demand | 56,915 | 71,927 | 81,031 | 85,514 | 87,025 |
| Demand with Project | 56,915 | 71,927 | 81,203 | 85,687 | 87,198 |
| WRMP Build-out Demand | 56,915 | 71,927 | 81,203 | 85,687 | 87,198 |
| Reserve Supply with Project | 11,625 | 13,488 | 12,052 | 19,477 | 18,550 |

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*

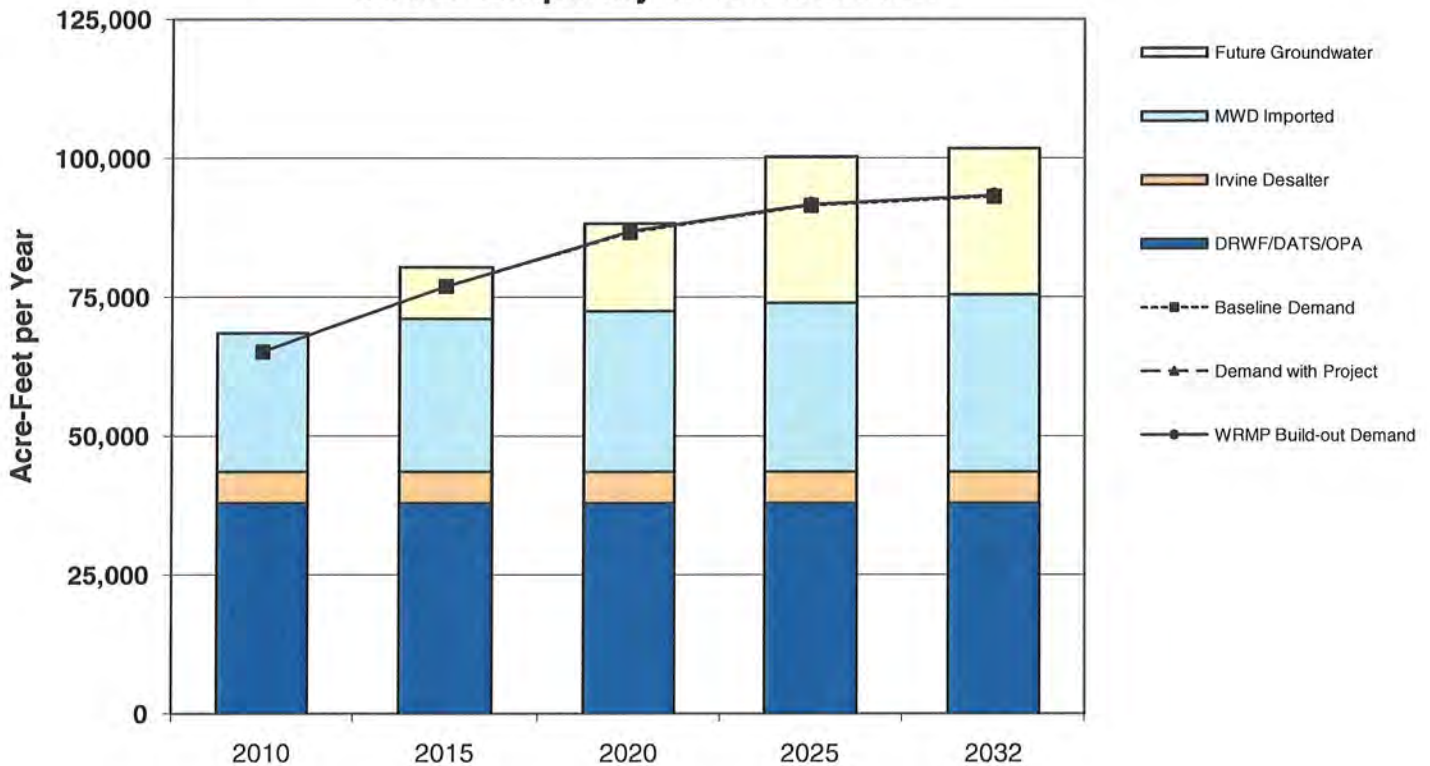


| (in acre-feet per year) | 2010 | 2015 | 2020 | 2025 | 2032 |
|-----------------------------------|--------|--------|--------|---------|---------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 25,000 | 27,589 | 28,968 | 30,417 | 31,938 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 68,540 | 86,729 | 94,608 | 106,557 | 108,078 |
| Baseline Demand | 65,162 | 76,962 | 86,703 | 91,501 | 93,117 |
| Demand with Project | 65,162 | 76,962 | 86,888 | 91,685 | 93,302 |
| WRMP Build-out Demand | 65,162 | 76,962 | 86,888 | 91,685 | 93,302 |
| Reserve Supply with Project | 3,378 | 9,767 | 7,721 | 14,872 | 14,776 |

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 | 2032 |
|-----------------------------------|--------|--------|--------|---------|---------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 25,000 | 27,589 | 28,968 | 30,417 | 31,938 |
| DRWF/DATS/OPA | 37,900 | 37,900 | 37,900 | 37,900 | 37,900 |
| Irvine Desalter | 5,640 | 5,640 | 5,640 | 5,640 | 5,640 |
| Wells 21 & 22 | - | 6,300 | 6,300 | 6,300 | 6,300 |
| Supplies Under Development | | | | | |
| Future Groundwater | - | 9,300 | 15,800 | 26,300 | 26,300 |
| Maximum Supply Capability | 68,540 | 86,729 | 94,608 | 106,557 | 108,078 |
| Baseline Demand | 65,162 | 76,962 | 86,703 | 91,501 | 93,117 |
| Demand with Project | 65,162 | 76,962 | 86,888 | 91,685 | 93,302 |
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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 |
| OPA Well | 1.4 | 1,000 | |
| Deep Aquifer Treatment System-DATS | 10.0 | 8,900 | 2 |
| Wells 21 & 22 | 6.0 | 6,300 | 2 |
| Irvine Desalter | 10.6 | 5,640 | 3 |
| | | | 49,840 |
| Total Potable Current Supplies | 232.1 | | 99,756 |
| 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 | 392.9 | | 155,231 |
| Supplies Under Development | | | |
| Potable Supplies | | | |
| Well 106 | 2.2 | 1,300 | |
| Well 53 | 4.5 | 3,000 | |
| Future OPA Wells | 8.0 | 5,000 | |
| Anaheim wellfield | 10.0 | 6,500 | |
| Wells 51 & 52 | 9.0 | 5,500 | |
| Tustin Legacy wells | 9.0 | 5,000 | 9 |
| | | | 26,300 |
| Total Potable Under Development Supplies | 42.7 | 26,300 | |
| Nonpotable Supplies: Future MWRP&LAWRP Reclaimed | 20.0 | 14,450 | 10 |
| | | | 14,450 |
| Total Under Development | 105.4 | | 40,750 |
| Total Supplies | | | |
| Potable Supplies | 274.8 | | 126,056 |
| Nonpotable Supplies | 180.7 | | 69,925 |
| Total Supplies (Current and Under Development) | 455.6 | | 195,981 |

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))

(b) Factors considered in determining the sufficiency of the water supply:

(i) The availability of water supplies over a historical record of at least 20 years.

| Source | 1980 | 1985 | 1990 | 1995 | 2000 | 2005 | 2010 |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|
| Potable – imported | 29,510 | 43,320 | 44,401 | 28,397 | 36,777 | 19,306 | 19,306 |
| Potable – groundwater | 827 | 38 | 10,215 | 20,020 | 20,919 | 37,160 | 37,160 |
| Nonpotable - reclaimed | 9,196 | 12,399 | 11,589 | 10,518 | 14,630 | 15,296 | 15,296 |
| Nonpotable - imported* | 9,556 | 12,260 | 24,899 | 2,333 | 16,343 | 5,304 | 5,304 |
| Nonpotable – groundwater | - | 36 | 816 | 1,834 | 2,890 | 2,285 | 2,285 |
| Nonpotable – native | 11,909 | 3,587 | 2,778 | 5,980 | 4,949 | 7,251 | 7,251 |
| Total | 60,998 | 71,639 | 94,699 | 69,082 | 96,508 | 86,602 | 86,602 |

See also the Assessment, Section 1, incorporated herein by reference.

The following information is added:

On June 1, 2008, through annexation and merger, IRWD acquired the water system of the former Orange Park Acres Mutual Water company, including well [OPA Well]. The well is operated within the Orange County Groundwater Basin. (See Assessment, Section 2(b) – POTABLE SUPPLY – GROUNDWATER.)

(ii) The applicability of a water shortage contingency analysis prepared pursuant to Water Code Section 10632 that includes actions to be undertaken by IRWD in response to water supply shortages.

The supply and demand comparisons incorporated from the Assessment into this Verification (see 1(a)) do not reflect the implementation of water shortage emergency measures. In February 2009, IRWD updated Section 15 of its Rules and Regulations – Water Conservation and Water Supply Shortage Program and also updated its Water Shortage Contingency Plan, which is a supporting document for Section 15. Section 15 of the Rules and Regulations serves as IRWD’s “conservation ordinance”. As stated in IRWD’s Water Shortage Contingency Plan, use of local supplies, storage and other supply augmentation measures can mitigate shortages, and are assumed to be in use to the maximum extent possible during declared shortage levels. However, in order to be conservative, IRWD has not reduced its single-dry or multiple-dry year demand projections or increased its single-dry or multiple-dry year supply projections in the Assessment to account for any water savings that could be achieved by these measures.

(iii) Reduction by IRWD in water supply allocated to a specific water use sector, pursuant to a resolution, ordinance or contract uses.

The supply and demand comparisons incorporated from the Assessment into this Verification (see 1(a)) do not reflect any allocated reductions by IRWD. As noted under the preceding item (ii), IRWD’s water shortage contingency plan and Rules and Regulations provide for voluntary and mandatory water conservation measures that could be invoked in declared water shortage emergencies. These include reductions to certain water uses. However, in order to be conservative, IRWD has not reduced its single-dry or multiple-dry year demand projections or increased its single-dry or multiple-dry year supply projections in the Assessment to account for water savings that could be achieved by any allocated reductions.

With respect to items (ii) and (iii) above, it is noted that MWD has in effect a management plan for dealing with periodic surplus and shortage conditions, known as Metropolitan Report No. 1150, *Water Surplus and Drought Management Plan (RUWMP, II-15* and also in 2010 RUWMP pages 2-20 through 2-2-22). MWD's demand projections account for the effects of long-term conservation best management practices.

(iv) The amount of water that IRWD can reasonably rely on receiving from other water supply projects, such as conjunctive use, reclaimed water, water conservation, and water transfer, including programs identified under federal, state and local water initiatives such as CALFED and Colorado River tentative agreements, based on the inclusion of information with respect to such supplies in Section 2, below.

Local. IRWD directly relies (for a portion of its full build-out annual demand in single and multiple dry-year projections) on the following under development supplies (see 1(a), above): the Irvine Wells (see the Assessment, Section 2(b)(1)(vi) – “POTABLE SUPPLY – GROUNDWATER”). In addition to Orange County Water District (OCWD) reports listed in the Assessment Reference List, OCWD has also prepared a Long Term Facilities Plan (“LTFP”) which provides updated information and was received by the OCWD Board in July 2009. The LTFP Chapter 3 describes the efforts being undertaken by OCWD to eliminate long-term overdraft in the Basin. OCWD has an optimal basin management target of 100,000 acre-feet of accumulated overdraft which provides sufficient storage space to accommodate increased supplies from one wet year while also provides enough water in storage to offset decreased supplies during a two- to three year drought. (Source: 2009-10 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District).

With the implementation of OCWD's preferred projects, the Basin yield in the year 2030 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.

IRWD's own reclaimed water expansion program is also shown as an under development supply. IRWD also has a currently available reclaimed water supply from its own existing reclamation program. The reclaimed water supplies are discussed in Section 2 below (see the Assessment, Section 1 – Figures 5, 6, 7 and 8 (supplies denominated “MWRP” and “LAWRP”), Section 2(a), and Section 2(b)(1) - “NONPOTABLE SUPPLY – RECLAIMED”), IRWD has prepared a Final Environmental Impact Report for the Michelson Water Reclamation Plant Phase 2 and 3 Capacity Expansion Project (February, 2006) and the expansion project is under construction. 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 2032. (Initial upgrades that are within existing permit authorizations and CEQA compliance are completed.) Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

As noted in the Assessment, IRWD's demand projections reflect the effect of IRWD's water conservation pricing and other conservation practices; in particular, IRWD's water use factors used to derive its demand projections are based on average water use and incorporate the effect of IRWD's tiered-rate conservation pricing and its other long-term water conservation programs. System losses at a rate of approximately 5% are built into the water use factors. As discussed above, IRWD's supply and demand projections do not take into account water

savings that could be achieved by water shortage emergency measures.

Imported. MWD, the supplier of IRWD's imported supplies, relies upon several of the listed projects and programs. MWD supports and provides financial incentives to water reclamation, groundwater recovery, water conservation, ocean desalination and other local resource development programs. MWD calculates its demand forecast by first estimating total retail demand for the region and then factoring in impacts of conservation. Next, it derives projections of local supplies using data on current and expected local supply programs and Integrated Resource Planning (IRP) Local Resource Program Target. The difference between the resulting local demands is the expected regional demand on MWD. These estimates of demands on MWD were developed for a single dry year, multiple dry years and average years. (2010 *RUWMP*, 2-15)

MWD also relies upon the implementation of the CALFED Bay-Delta Program, as an under development supply, to attain an increase in its existing Bay-Delta deliveries. Other under development programs relied upon by MWD are: additional transfers and storage agreements (San Bernardino Valley Municipal Water District Conjunctive-use Program, Westside Valley Transfers, Eastside Valley Transfers); IID/MWD Conservation Program; Interim Surplus Guidelines; San Diego County Water Authority/Imperial Irrigation District Transfer; Palo Verde Irrigation District Land Management Program; and Off-Aqueduct Storage/Transfer Programs. (2010 *RUWMP*, Sections 3.1, 3.2, and 3.3)

In addition to MWD's existing regional supply assessments, the water supply verification has considered MWD information concerning recent events. See the above "Recent Actions on Delta Pumping."

2. Required information concerning *under-development* supplies

(a) Written contracts or other proof of valid rights to the identified supplies

See the Assessment, Section 2(b)(1), incorporated herein by reference. See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to written contracts and other proof related to MWD's supplies.

(b) Adopted capital outlay program to finance delivery of the supplies

See the Assessment, Section 2(b)(2), incorporated herein by reference. 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 2011/12 capital budget on June 13, 2011 (Resolution No. 2011-20), budgeting portions of the funds for such projects. See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to capital outlay programs related to MWD's supplies.

(c) Federal, state and local permits to construct of delivery infrastructure

See the Assessment, Section 2(b)(3), incorporated herein by reference. See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to permits related to MWD's supplies.

(d) Regulatory approvals for conveyance or delivery of the supplies

See the Assessment, Section 2(b)(4), incorporated herein by reference. 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 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to regulatory approvals related to MWD's supplies.

3. Foreseeable impacts of the Project on the availability of water for agricultural and industrial uses in IRWD's service area not currently receiving water

Based on city planning and other information known to IRWD, there are no agricultural or industrial uses in IRWD's service area that are not within either existing and committed demand or future demand, both of which are included within the supply and demand comparison and determination of sufficiency (see 1(a)).

4. Information concerning the right to extract additional groundwater included in the supply identified for the Project:

Where the water supply for the Project includes groundwater, the verification is required to include an evaluation of the extent to which IRWD or the landowner has the right to extract the additional groundwater needed to supply the Project. See the Assessment, Section 2(b)(1), "POTABLE SUPPLY – GROUNDWATER" and "NONPOTABLE SUPPLY – GROUNDWATER," and Section 4, incorporated herein by reference.

5. References

Water Resources Master Plan, Irvine Ranch Water District, March, 2002 (supplemented January, 2004)

2010 Urban Water Management Plan, Irvine Ranch Water District, June 2011

The Regional Urban Water Management Plan for the Metropolitan Water District of Southern California, November, 2005

Integrated Water 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

2008-2009 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District

2009-2010 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

Section 15 of the Rules and Regulations – Water Conservation and Water Supply Shortage Program, Irvine Ranch Water District, February 2009

Water Shortage Contingency Plan, Irvine Ranch Water District, February 2009

2010 Integrated Resources Plan Update, Metropolitan Water District of Southern California, October 2010

2010 Regional Urban Water Management Plan, Metropolitan Water District of Southern California, November 2010

Exhibit A

Depiction of Project Area

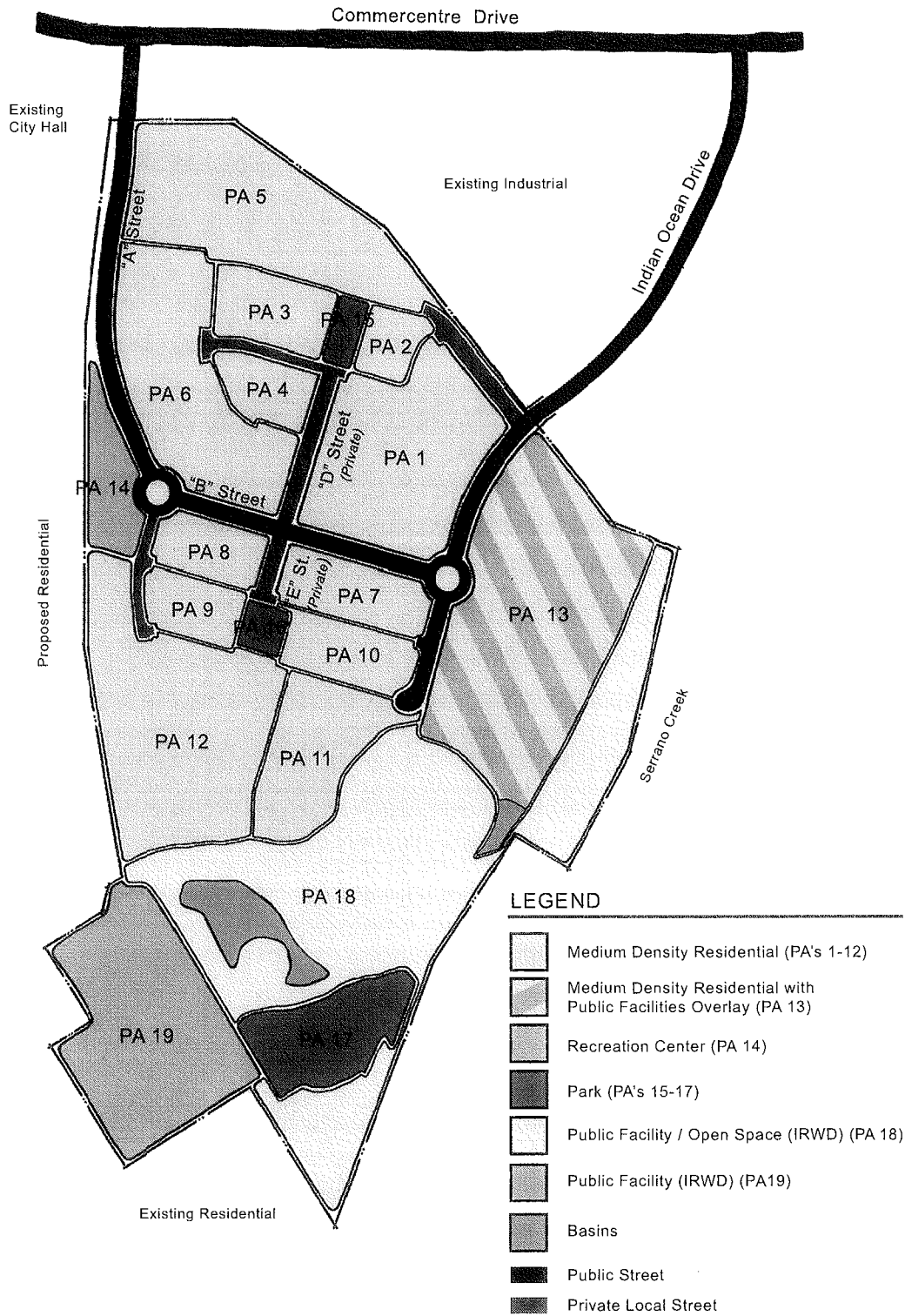


Exhibit B

Non-residential Uses Included in Project



Mayor
Peter Herzog

Mayor Pro Tem
Mark Tetteimer

Council Members
Kathryn McCullough
Marcia Rudolph
Scott Voigts

City Manager
Robert C. Dunek

October 11, 2011

Irvine Ranch Water District
15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000

Re: Request for Verification of Sufficient Water Supplies (Government Code §66473.7(b)(1))

The City of Lake Forest, on behalf of the subdivision applicant, the Irvine Ranch Water District, is requesting a verification of the availability of a sufficient water supply for the below-described project. Under Government Code §66473.7(b)(1), the approving body of a tentative tract map must include a condition in any tentative map that includes a subdivision, a requirement that a sufficient water supply shall be available. Written verification may be requested by the subdivision applicant or the local agency. While the condition shall be incorporated, the City is hereby requesting such verification in advance of project approval.

The City has determined that the subject project (1) includes a subdivision meeting the criteria requiring verification of availability of sufficient water supply, in that it may result in the development of more than 500 dwelling units, and (2) does not fall within one of the statutory exemptions for previously developed urban sites, sites surrounded by urban use, or low-income housing sites.

Proposed Project Information

Project Title: Serrano Summit

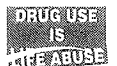
Location of project: Current terminus of Biscayne Bay Drive and Indian Ocean Drive, west of Serrano Creek, north of Wisteria Lane; APNs 104-132-36, 104-132-65, 104-132-84

Planning Area(s): 1-19: See attached Tentative Tract Map and Land Use Plan.

Was the project included as part of a previously completed Water Supply Assessment (Water Code §10910)? yes no

If yes, date and project title of Water Supply Assessment 1/24/2005 Opportunities Study. (See attached).

If no, state reason: CEQA documentation not requiring a Water Supply Assessment was completed prior to January 1, 2002 other: _____



Was a Water Supply Verification previously completed for the project?

yes no

If yes, indicate reason for reverification: tract map expiration new Water Supply Assessment required due to project revisions, changed circumstances or new information.

Tentative Map Application No.* See Tract Number Tentative Tract No.*
17331

Verification is being requested prior to tentative map application (Government Code §66473.7(1) (Indicate next project approval sought: November 15, 2011))

(*A copy of the tentative map application including the proposed subdivision was sent to IRWD on: May 2010, (Government Code §66455.3))

Type of development included in the project:

Residential: No. of dwelling units: 833

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, processing or industrial park: No. of employees _____
No. of acres _____ Sq. ft. of floor space _____

Mixed use (check and complete all above that apply)

Other: Potential Civic Center site with approximately 114,000 square feet of government facility and office space

Total acreage of project: 98.9 (approximately 17 currently developed with Irvine Ranch Water District water treatment facility)

Acreage devoted to landscape:

| | |
|------------------------|------------------|
| Greenbelt | <u>None</u> |
| Golf course | <u>None</u> |
| Parks | <u>5.8 acres</u> |
| Agriculture | <u>None</u> |
| Other landscaped areas | <u>24 acres</u> |

Other factors or uses that would affect the quantity of water needed, such as peak flow requirements:

None

Is the project included in the existing General Plan? Yes

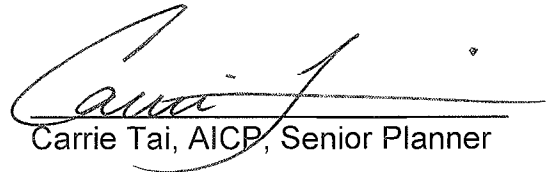
If no, describe the existing General Plan Designation _____

The City acknowledges that IRWD's verification 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 verification, the request will be considered incomplete until IRWD's receipt of the corrected or additional information. If the project changes or the tentative map approval expires after the issuance of a Water Supply Verification, the City will request a new Water Supply Verification if required. In the event of changes in the project, circumstances or conditions of the availability of new information, it will be necessary for the City to request a new Water Supply Assessment prior to completion of the new Water Supply Verification.

The City acknowledges that the Water Supply Verification 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 Verification 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 LAKE FOREST

By:


Carrie Tai, AICP, Senior Planner

REQUEST RECEIVED:

Date: 10/13/11

By: Kellie Wilson
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 10/25/11

By: Kellie Wilson
Irvine Ranch Water District

Exhibit C

Water Supply Assessment

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 2005. With changes that have occurred in land uses since the last update of the UWMP in 2000, IRWD’s year 2020 water demand, as reflected by the WRMP, is currently projected to be approximately 9% lower than the projected demand shown in the 2000 UWMP.)

The land use changes incorporated in the WRMP since the date of the 2000 UWMP include the following:

- In 2001, IRWD consolidated with the neighboring Los Alisos Water District (LAWD), thereby adding the majority of the City of Lake Forest to IRWD's service area. IRWD has now integrated the supplies and demands of the two districts.
- In late 2001, The Irvine Company announced the planned dedication of a large area as permanent open space. The majority of this land is located in the northwestern portion of IRWD (City of Orange sphere of influence), with an additional area near Laguna Canyon Road. IRWD has made appropriate reductions in its demand calculations.
- Proposed development uses have replaced agricultural uses previously used to compute demand for portions of the Project and the adjacent Northern Sphere Area project.
- The alternative proposals for reuse of the MCAS-El Toro property that preceded the current Project had different water demands. To ensure that IRWD would be able to provide a sufficient water supply capacity irrespective of which reuse proposal was implemented, the 1999 WRMP assumed the highest water-demand generating land use plan for the property. This plan, the "Millennium Plan," was subsequently replaced by a non-aviation "great park" alternative. The park proposal resulted in lower overall demand, but higher nonpotable demand (for irrigation) than the Millennium Plan. In the most recent WRMP, the updated water demand information for the park has been substituted for the previous information related to the park proposal.
- All other refinements of future land uses have been included in the WRMP, along with updated information on existing land uses.

In addition to the WRMP and the 2000 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 2000 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 2025, which is considered to represent build-out or "ultimate development". This exceeds the 20-year projection required by the statute (see Water Code Sections 10631 and 10910).

Assessment of demands. Water demands are reviewed in this assessment for three development projections (to 2025):

- 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 ("MWDOC"). 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 projects that through the continued implementation of MWD's supplies under development, it can meet 100 percent of its member agencies' supplemental water demands over the next 20 years, even in a repeat of the worst drought. (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:

- *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 2025. (Figures 1 through 3.)

- Sufficient *currently available* potable supplies are also available to meet annual *full build-out* demands under normal conditions. (Figure 1.)
- Meeting both single- and multiple-dry-year annual demands for *full build-out* will require the completion of a small amount of the *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 including full build-out. (Figure 4.)
- With respect to nonpotable water, *currently available* supplies are more than 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. However, 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 through 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:

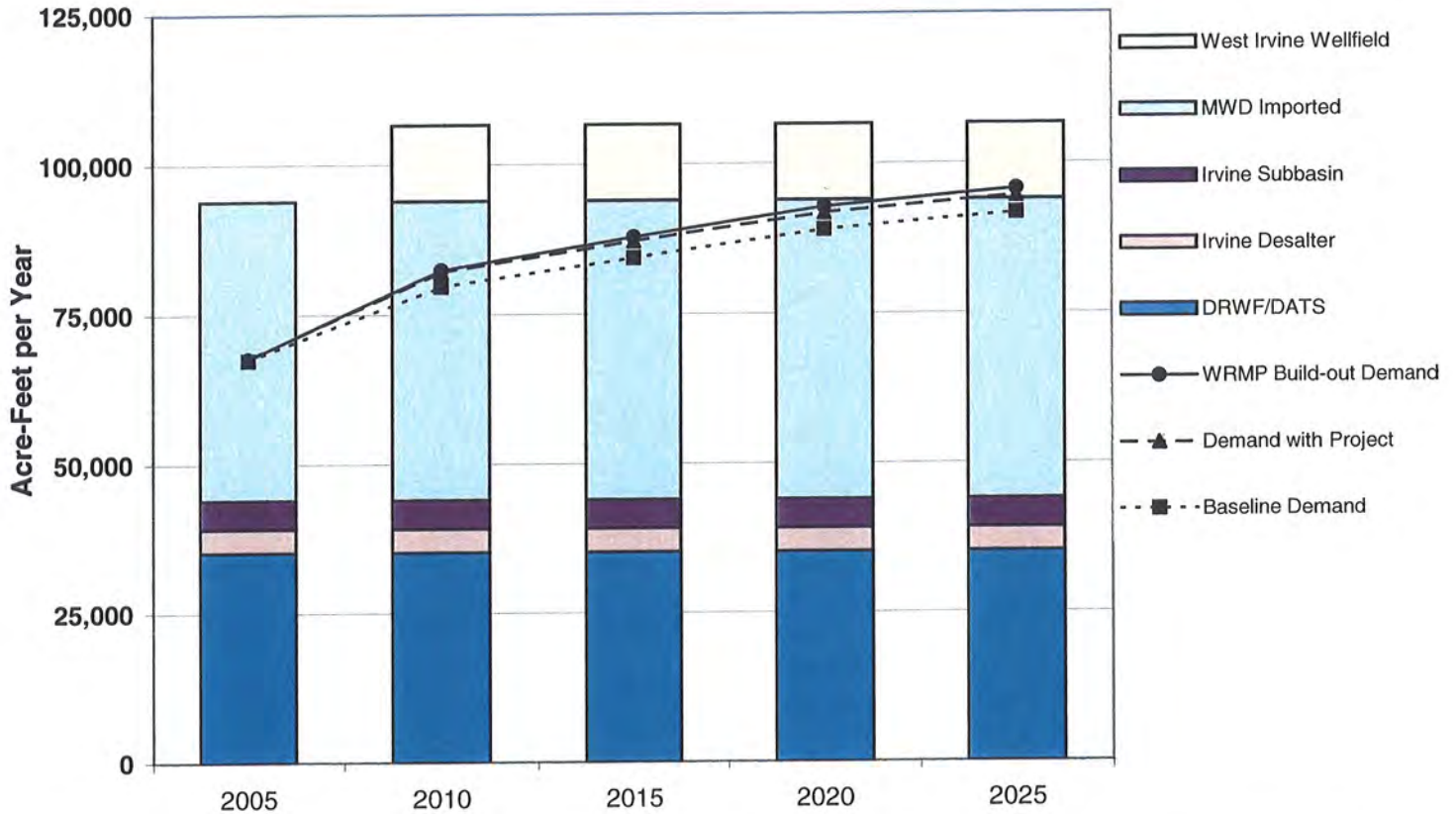
- Significant quantities of "reserve" water supplies (excess of supplies over demands) will be available to serve as a buffer against inaccuracies in demand projections, future changes in land use, or alterations in supply availability.
- The potential exists for the treatment and conversion of some 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.
- Information provided by MWD, as the imported water supplier, concerning the adequacy of its regional supplies, summarized herein, demonstrates MWD's inclusion of margins of safety and reserves in its regional supply assessments.
- 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.

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):

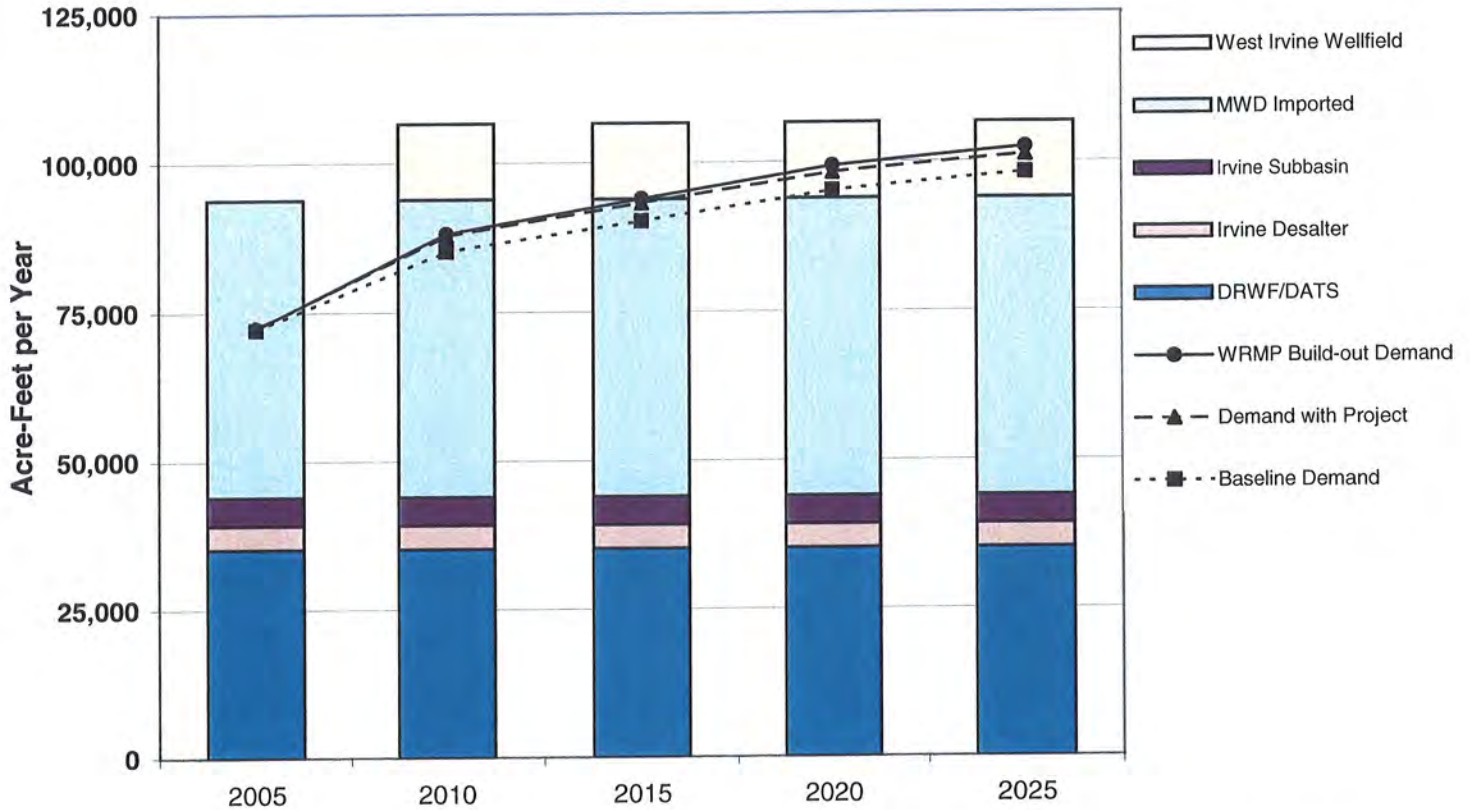
**Figure 1
IRWD Normal-Year Supply & Demand - Potable Water**



| (in acre-feet per year) | 2005 | 2010 | 2015 | 2020 | 2025 |
|------------------------------------|---------------|----------------|----------------|----------------|----------------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 49,916 | 49,916 | 49,916 | 49,916 | 49,916 |
| DRWF/DATS | 35,200 | 35,200 | 35,200 | 35,200 | 35,200 |
| Irvine Subbasin | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| Irvine Desalter | 3,982 | 3,982 | 3,982 | 3,982 | 3,982 |
| Supplies Under Development | | | | | |
| West Irvine Wellfield | - | 12,700 | 12,700 | 12,700 | 12,700 |
| Maximum Supply Capability | 93,898 | 106,598 | 106,598 | 106,598 | 106,598 |
| Baseline Demand | 67,399 | 79,648 | 84,350 | 88,977 | 91,705 |
| Demand with Project | 67,635 | 82,070 | 87,146 | 91,792 | 94,520 |
| WRMP Build-out Demand | 67,635 | 82,402 | 87,819 | 92,807 | 95,654 |
| Reserve Supply with Project | 26,263 | 24,528 | 19,452 | 14,806 | 12,078 |

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).

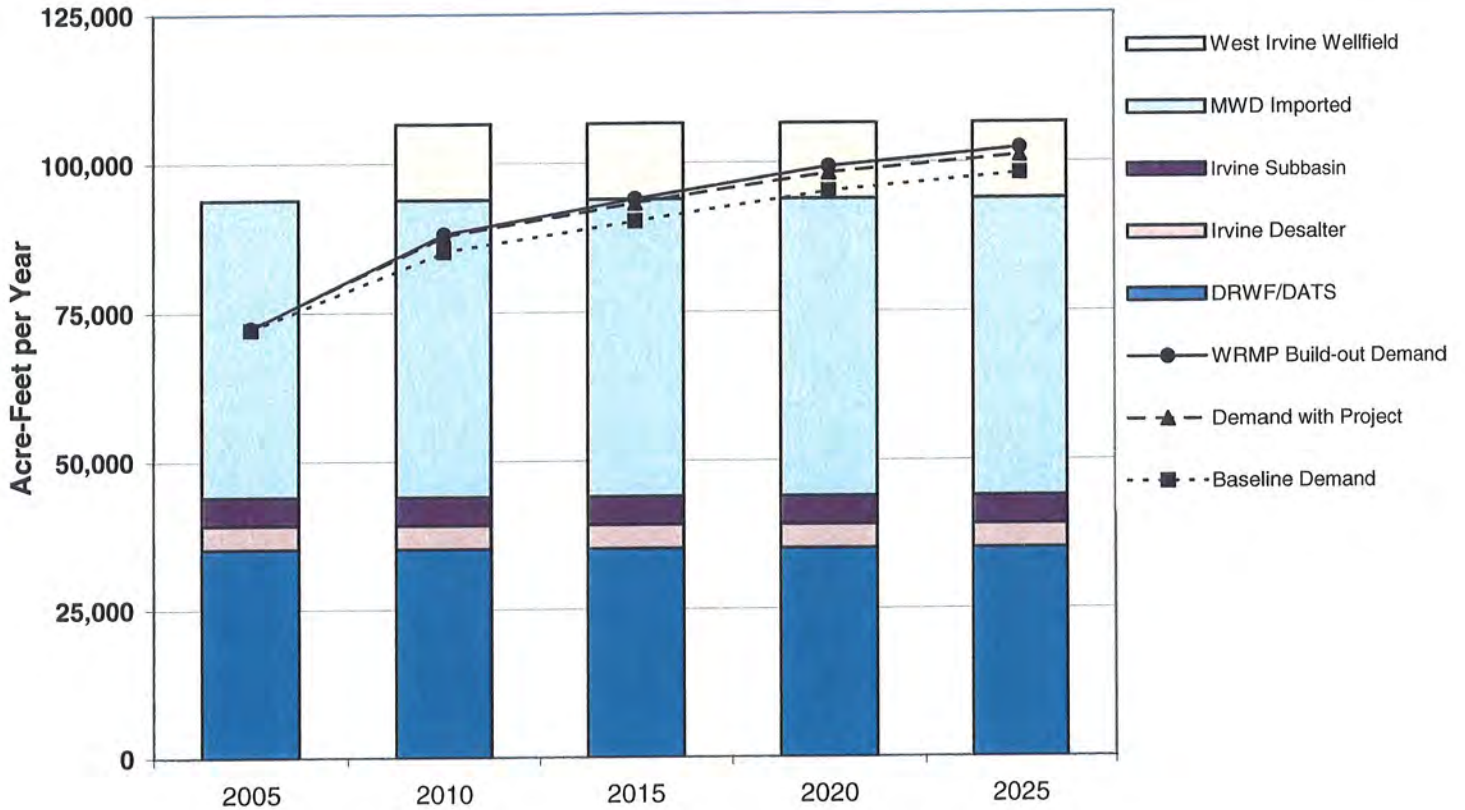
Figure 2
IRWD Single Dry-Year Supply & Demand - Potable Water



| (in acre-feet per year) | 2005 | 2010 | 2015 | 2020 | 2025 |
|-----------------------------------|--------|---------|---------|---------|---------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 49,916 | 49,916 | 49,916 | 49,916 | 49,916 |
| DRWF/DATS | 35,200 | 35,200 | 35,200 | 35,200 | 35,200 |
| Irvine Subbasin | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| Irvine Desalter | 3,982 | 3,982 | 3,982 | 3,982 | 3,982 |
| Supplies Under Development | | | | | |
| West Irvine Wellfield | - | 12,700 | 12,700 | 12,700 | 12,700 |
| Maximum Supply Capability | 93,898 | 106,598 | 106,598 | 106,598 | 106,598 |
| Baseline Demand | 72,117 | 85,223 | 90,254 | 95,206 | 98,124 |
| Demand with Project | 72,369 | 87,815 | 93,246 | 98,217 | 101,136 |
| WRMP Build-out Demand | 72,370 | 88,170 | 93,967 | 99,303 | 102,350 |
| Reserve Supply with Project | 21,528 | 18,783 | 13,351 | 8,380 | 5,462 |

Notes: Supplies identical to Normal-Year based on Report on Metropolitan's Water Supplies (3/25/03) 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).

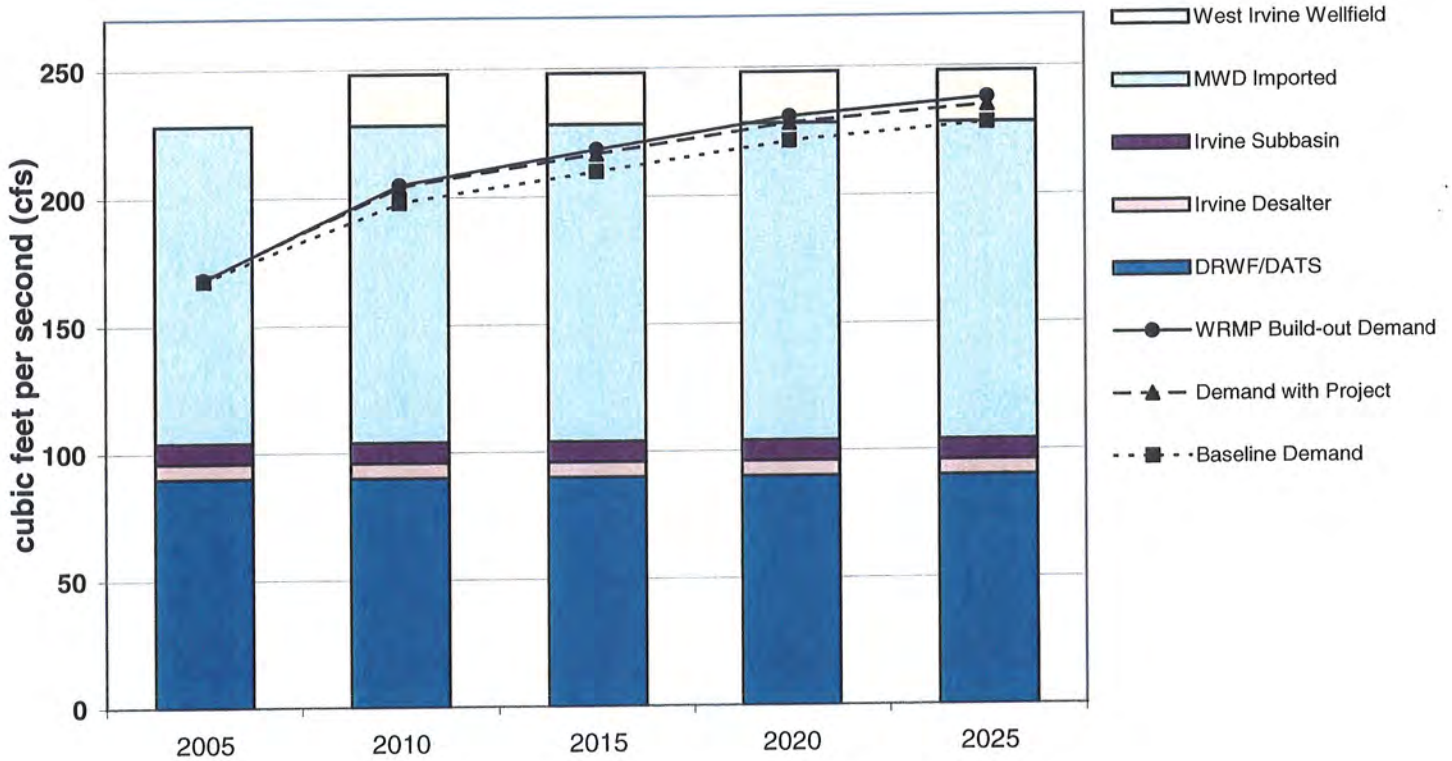
**Figure 3
IRWD Multiple Dry-Year Supply & Demand - Potable Water**



| (in acre-feet per year) | 2005 | 2010 | 2015 | 2020 | 2025 |
|-----------------------------------|--------|---------|---------|---------|---------|
| Current Potable Supplies | | | | | |
| MWD Imported (EOCF#2, AMP, OCF) | 49,916 | 49,916 | 49,916 | 49,916 | 49,916 |
| DRWF/DATS | 35,200 | 35,200 | 35,200 | 35,200 | 35,200 |
| Irvine Subbasin | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| Irvine Desalter | 3,982 | 3,982 | 3,982 | 3,982 | 3,982 |
| Supplies Under Development | | | | | |
| West Irvine Wellfield | - | 12,700 | 12,700 | 12,700 | 12,700 |
| Maximum Supply Capability | 93,898 | 106,598 | 106,598 | 106,598 | 106,598 |
| Baseline Demand | 72,117 | 85,223 | 90,254 | 95,206 | 98,124 |
| Demand with Project | 72,369 | 87,815 | 93,246 | 98,217 | 101,136 |
| WRMP Build-out Demand | 72,370 | 88,170 | 93,967 | 99,303 | 102,350 |
| Reserve Supply with Project | 21,528 | 18,783 | 13,351 | 8,380 | 5,462 |

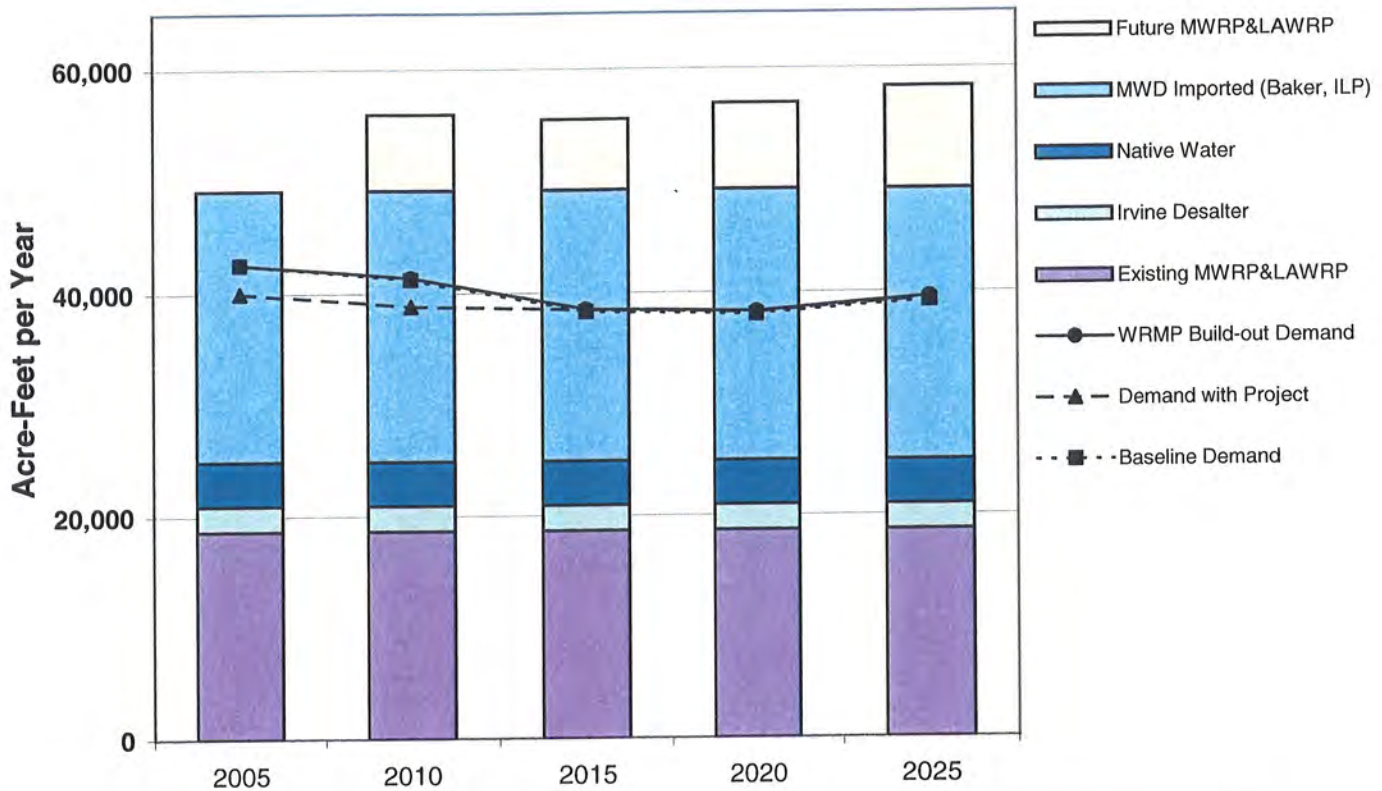
Notes: Supplies identical to Normal-Year based on Report on Metropolitan's Water Supplies (3/25/03) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

Figure 4
IRWD Maximum-Day Supply & Demand - Potable Water



| (in cfs) | 2005 | 2010 | 2015 | 2020 | 2025 |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|
| 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 Subbasin | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| Irvine Desalter | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Supplies Under Development | | | | | |
| West Irvine Wellfield | - | 20.0 | 20.0 | 20.0 | 20.0 |
| Maximum Supply Capability | 228.1 | 248.1 | 248.1 | 248.1 | 248.1 |
| Baseline Demand | 167.6 | 198.0 | 209.7 | 221.2 | 228.0 |
| Demand with Project | 168.2 | 204.0 | 216.7 | 228.2 | 235.0 |
| WRMP Build-out Demand | 168.2 | 204.9 | 218.3 | 230.7 | 237.8 |
| Reserve Supply with Project | 65.3 | 44.1 | 31.4 | 19.9 | 13.1 |

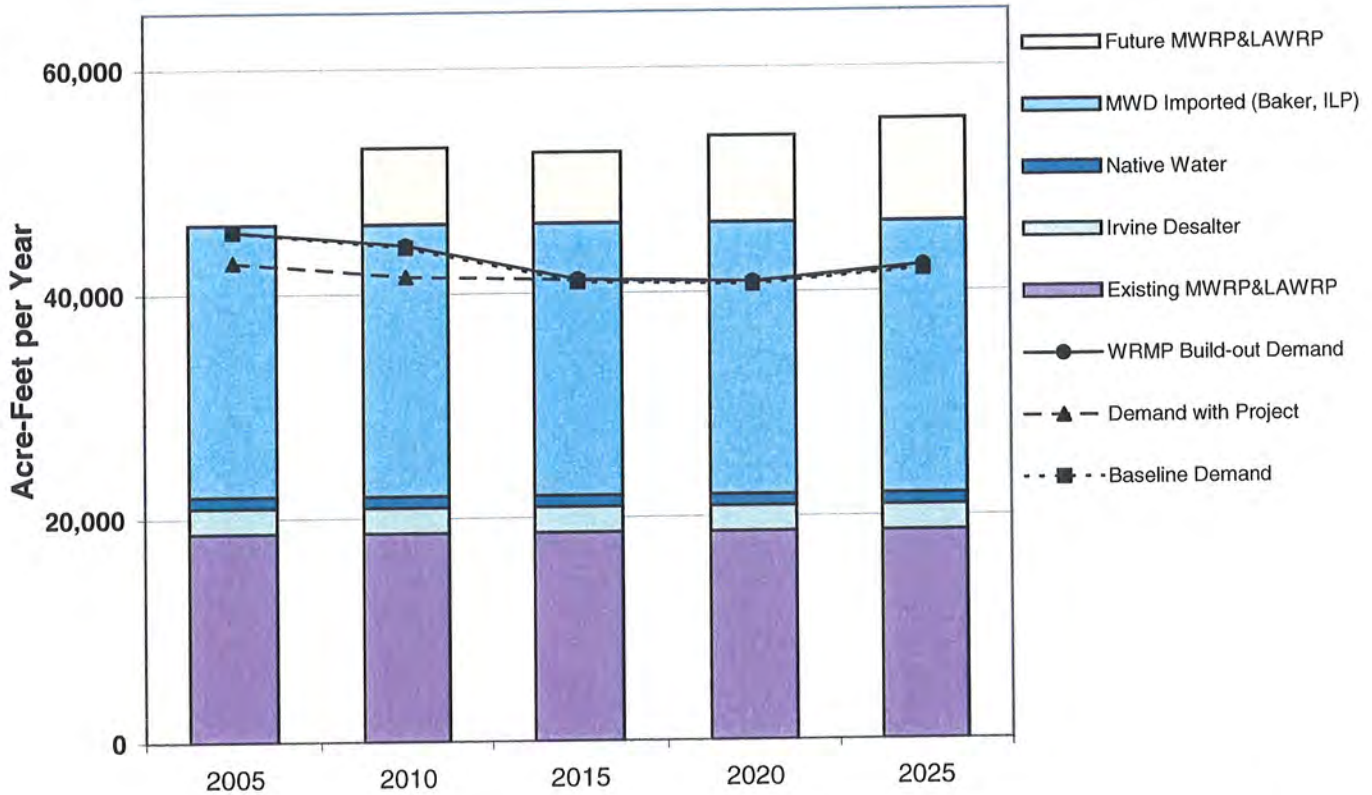
Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water



| (in acre-feet per year) | 2005 | 2010 | 2015 | 2020 | 2025 |
|------------------------------------|---------------|---------------|---------------|---------------|---------------|
| Current Nonpotable Supplies | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 24,262 | 24,262 | 24,262 | 24,262 | 24,262 |
| Irvine Desalter | 2,282 | 2,282 | 2,282 | 2,282 | 2,282 |
| Native Water | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Supplies Under Development | | | | | |
| Future MWRP&LAWRP | - | 6,794 | 6,311 | 7,687 | 9,107 |
| Maximum Supply Capability | 49,201 | 55,995 | 55,512 | 56,888 | 58,308 |
| Demand | | | | | |
| Baseline Demand | 42,580 | 41,247 | 38,303 | 38,020 | 39,231 |
| Demand with Project | 40,027 | 38,835 | 38,481 | 38,199 | 39,410 |
| WRMP Build-out Demand | 42,594 | 41,420 | 38,525 | 38,268 | 39,568 |
| Reserve Supply with Project | 9,174 | 17,160 | 17,030 | 18,689 | 18,898 |

Note: Downward trend reflects reduction in agricultural use over time.

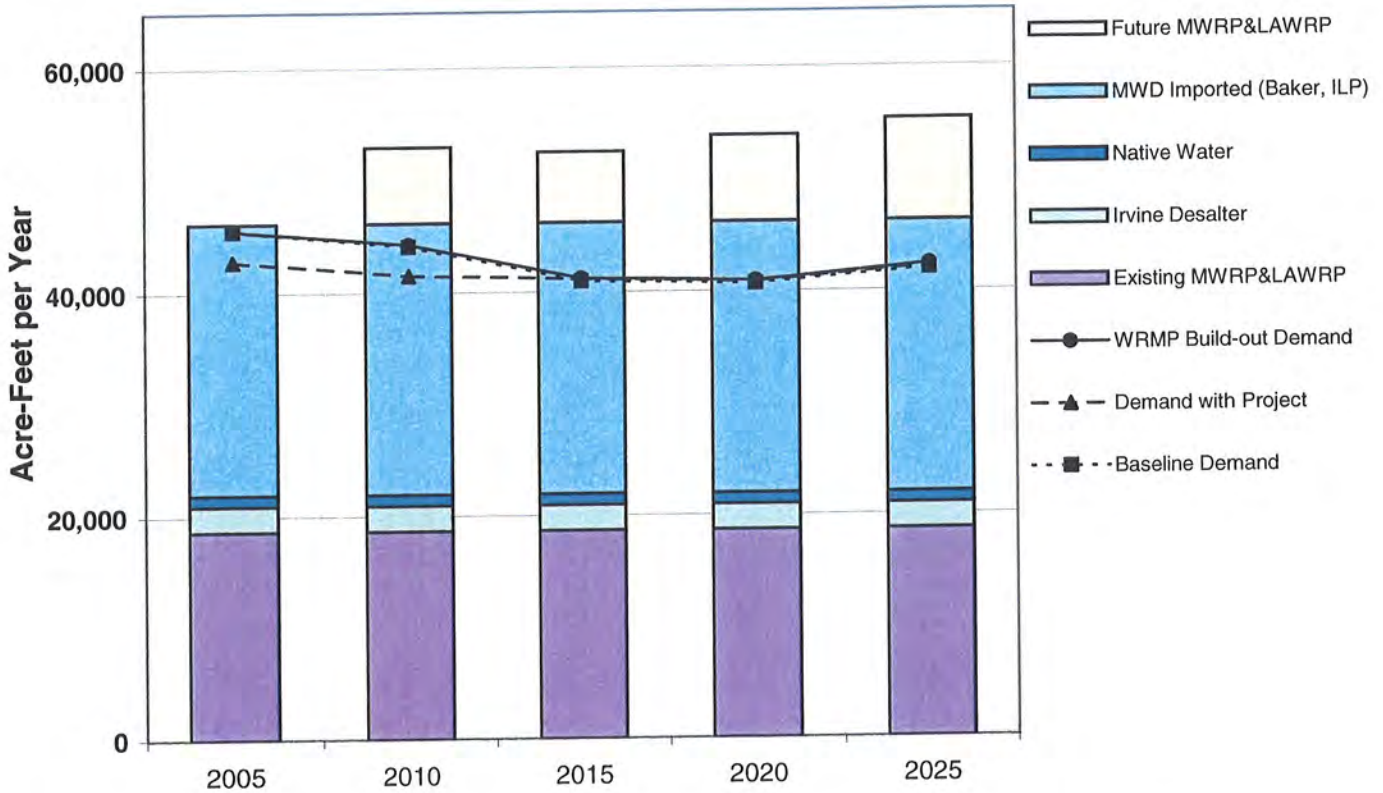
Figure 6
IRWD Single Dry-Year Supply & Demand - Nonpotable Water



| (in acre-feet per year) | 2005 | 2010 | 2015 | 2020 | 2025 |
|------------------------------------|--------|--------|--------|--------|--------|
| Current Nonpotable Supplies | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 24,262 | 24,262 | 24,262 | 24,262 | 24,262 |
| Irvine Desalter | 2,282 | 2,282 | 2,282 | 2,282 | 2,282 |
| Native Water | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Supplies Under Development | | | | | |
| Future MWRP&LAWRP | - | 6,794 | 6,311 | 7,687 | 9,107 |
| Maximum Supply Capability | 46,201 | 52,995 | 52,512 | 53,888 | 55,308 |
| Demand | | | | | |
| Baseline Demand | 45,561 | 44,134 | 40,984 | 40,682 | 41,978 |
| Demand with Project | 42,829 | 41,554 | 41,175 | 40,873 | 42,169 |
| WRMP Build-out Demand | 45,576 | 44,320 | 41,221 | 40,946 | 42,337 |
| Reserve Supply with Project | 3,372 | 11,441 | 11,337 | 13,015 | 13,139 |

Note: Downward trend reflects reduction in agricultural use over time.

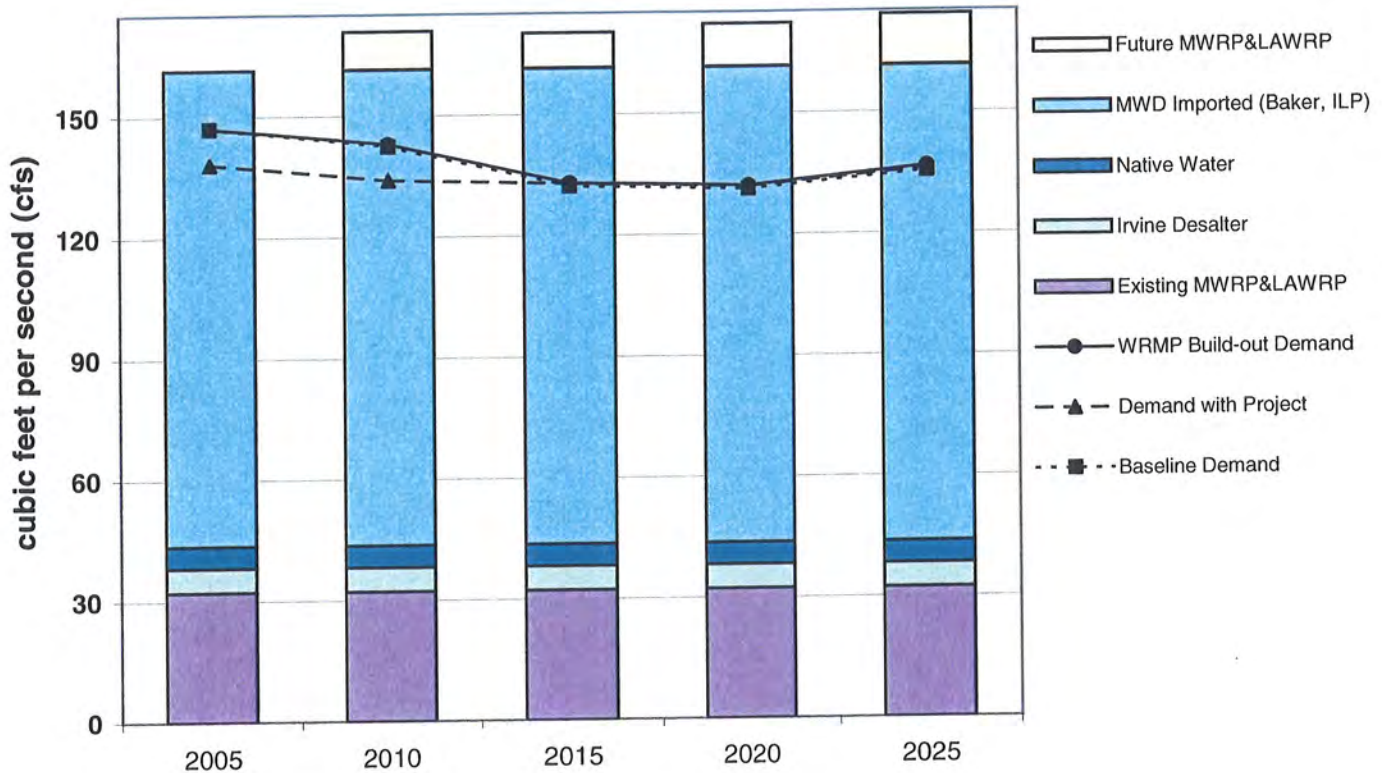
**Figure 7
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water**



| (in acre-feet per year) | 2005 | 2010 | 2015 | 2020 | 2025 |
|------------------------------------|--------|--------|--------|--------|--------|
| Current Nonpotable Supplies | | | | | |
| Existing MWRP&LAWRP | 18,657 | 18,657 | 18,657 | 18,657 | 18,657 |
| MWD Imported (Baker, ILP) | 24,262 | 24,262 | 24,262 | 24,262 | 24,262 |
| Irvine Desalter | 2,282 | 2,282 | 2,282 | 2,282 | 2,282 |
| Native Water | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Supplies Under Development | | | | | |
| Future MWRP&LAWRP | - | 6,794 | 6,311 | 7,687 | 9,107 |
| Maximum Supply Capability | 46,201 | 52,995 | 52,512 | 53,888 | 55,308 |
| Demand | | | | | |
| Baseline Demand | 45,561 | 44,134 | 40,984 | 40,682 | 41,978 |
| Demand with Project | 42,829 | 41,554 | 41,175 | 40,873 | 42,169 |
| WRMP Build-out Demand | 45,576 | 44,320 | 41,221 | 40,946 | 42,337 |
| Reserve Supply with Project | 3,372 | 11,441 | 11,337 | 13,015 | 13,139 |

Note: Downward trend reflects reduction in agricultural use over time.

Figure 8
IRWD Maximum-Dry Supply & Demand - Nonpotable Water



| (in cfs) | 2005 | 2010 | 2015 | 2020 | 2025 |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Current Nonpotable Supplies | | | | | |
| Existing MWRP&LAWRP | 32.2 | 32.2 | 32.2 | 32.2 | 32.2 |
| Irvine Desalter | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| 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 |
| Supplies Under Development | | | | | |
| Future MWRP&LAWRP | - | 9.4 | 8.7 | 10.6 | 12.6 |
| Maximum Supply Capability | 161.4 | 170.8 | 170.1 | 172.0 | 174.0 |
| Demand | | | | | |
| Baseline Demand | 147.0 | 142.4 | 132.3 | 131.3 | 135.5 |
| Demand with Project | 138.2 | 134.1 | 132.9 | 131.9 | 136.1 |
| WRMP Build-out Demand | 147.1 | 143.0 | 133.0 | 132.1 | 136.6 |
| Reserve Supply with Project | 23.2 | 36.7 | 37.2 | 40.1 | 37.9 |

Note: Downward trend reflects reduction in agricultural use over time.

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 |
| Potable - Groundwater | | | |
| Dyer Road Wellfield | 80.0 | 28,000 | 2 |
| Deep Aquifer Treatment System-DATS | 10.0 | 7,200 | 2 |
| Irvine Desalter | 6.0 | 3,982 | 3 |
| Irvine Subbasin | 8.0 | 4,800 | 3 |
| Total Potable Current Supplies | 228.1 | | 93,898 |
| Nonpotable - Reclaimed Water | | | |
| MWRP (18 mgd) | 23.9 | 17,340 | 4 |
| LAWRP (5.5 mgd) | 8.3 | 5,975 | 4 |
| Nonpotable - Imported | | | |
| Baker Aqueduct | 52.7 | 15,262 | 5 |
| Irvine Lake Pipeline | 65.0 | 9,000 | 6 |
| Nonpotable - Groundwater | | | |
| Irvine Desalter-Nonpotable | 6.0 | 2,282 | 7 |
| Nonpotable Native | | | |
| Irvine Lake | 5.5 | 4,000 | 8 |
| Total Nonpotable Current Supplies | 161.4 | | 53,859 |
| Total Combined Current Supplies | 389.5 | | 147,757 |
| Supplies Under Development | | | |
| Potable Groundwater - West Irvine Wellfield | 20.0 | 12,700 | 9 |
| Nonpotable Reclaimed - Future MWRP&LAWRP Reclaimed | 20.0 | 14,450 | 10 |
| Total Supplies (Current and Under Development) | | | |
| Potable Supplies | 248.1 | | 106,598 |
| Nonpotable Supplies | 181.4 | | 68,309 |
| Total Supplies | 429.5 | | 174,907 |

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 1, page 18).

2 Contract amount - See Potable Supply-Groundwater(iii).

3 Contract amount - See Potable Supply-Groundwater (iv) and (v). Maximum day well capacity (cfs) 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 1, page 18).

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 69 years historical average of Santiago Creek Inflow into Irvine Lake.

9 Estimated combined capacity of wells.

10 Future estimated MWRP & LAWRP reclaimed water production.

(2) Quantities received in prior years from existing sources identified in (a)(1):

| Source | 1980 | 1985 | 1990 | 1995 | 2000 |
|--------------------------|--------|--------|--------|--------|--------|
| Potable - imported | 29,510 | 43,320 | 44,401 | 28,397 | 36,777 |
| Potable - groundwater | 827 | 38 | 10,215 | 20,020 | 20,919 |
| Nonpotable - reclaimed | 9,196 | 12,399 | 11,589 | 10,518 | 14,630 |
| Nonpotable - imported* | 9,556 | 12,260 | 24,899 | 2,333 | 16,343 |
| Nonpotable - groundwater | - | 36 | 816 | 1,834 | 2,890 |
| Nonpotable - native | 11,909 | 3,587 | 2,778 | 5,980 | 4,949 |
| Total | 60,998 | 71,639 | 94,699 | 69,082 | 96,508 |

*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.^{1 2}

• POTABLE SUPPLY - IMPORTED³

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"),⁴ 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 agrees to operate the AMP as any other MWD pipeline. MWD has the right to

¹ 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.

² 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.

³ See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

⁴ 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.

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.

(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 (DRWF) / 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.

Irvine Subbasin / Irvine Desalter (currently available)

(iv) First Amended and Restated Agreement, dated March 11, 2002, 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 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 have been 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 will be transferred from TIC to IRWD, and IRWD will assume 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 plans to 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 has reserved water rights from conveyances of its lands as development over the Subbasin has occurred, and under the Irvine Subbasin Agreement TIC will transfer 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 will be delivered into the IRWD potable system, and the remainder will be delivered into the IRWD nonpotable system.

West Irvine Wells (under development)

(vi) IRWD is pursuing the installation of production facilities in the west Irvine portion of the Basin, located approximately between the 55 freeway and Peters Canyon Channel. This supply is considered to be under development; however, one well has been drilled (1992), a site for an additional well and treatment facility has been acquired by IRWD, and IRWD is in negotiation for the purchase of a third well site. The production facilities can be constructed and operated under the Act; no statutory or contractual approval is required to do so. 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 its Waste Water Management and Action Program Final Environmental Impact Report (November, 1979) to address impacts associated with its Wastewater Management and Action Program (WMAP). IRWD plans to increase its capacity on the existing plant sites to produce sufficient reclaimed water to meet the projected demand in the year 2025. (Initial capacity increases that are within existing permit authorizations and CEQA compliance are underway.) Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

•NONPOTABLE SUPPLY - IMPORTED⁵

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 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.

⁵ See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

• 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 appropriate 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.⁶ 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.

⁶ 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 Subbasin / 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. This report, entitled "Report on Metropolitan's Water Supplies" (March 25, 2003) ("MWD Report"), is consistent with MWD's Regional Urban Water Management Plan (December, 2000) ("RUWMP"). The MWD Report indicates that MWD's regional water demand projections used in the RUWMP are 6% to 16% percent higher than the aggregated projections of MWD's member agencies. As stated in the MWD Report, "this difference indicates that Metropolitan's supplies, developed in accordance with this water supply update, provide a level of "margin of safety" or flexibility to accommodate delays in local resource development or adjustments in development plans."

The MWD Report is intended to serve four primary purposes, described therein

"Address recent changes in demand and supply conditions as compared to Metropolitan's December 2000 Regional Urban Water Management Plan and February 11, 2002 *Report on Metropolitan's Supplies*."

"Demonstrate Metropolitan's abilities to meet projected demands over the next 20 years and provide additional resource reserves as a "margin-of-safety" that mitigates against uncertainties in demand projections and risks in implementing supply programs."

"Demonstrate that Metropolitan has a blueprint for water supply reliability and is implementing a comprehensive plan to secure reliable water supplies in accordance with policy principles and objectives established by Metropolitan's Board of Directors."

"Provide a planning tool for local and retail agencies providing local water supplies."

The MWD Report finds "Metropolitan has and will continue to have the capability to develop supplies that are available at least ten years in advance of need and

ensure water supply reliability.” Furthermore, demand and supply comparisons “demonstrate that sufficient supplies can be reasonably relied upon to meet projected supplemental demands and that additional reserve supplies could provide a “margin of safety” to mitigate against uncertainties in demand projections and risks in fully implementing all supply programs under development.”

More particularly, MWD has documented sufficient *currently available* supplies to meet 100% of MWD’s member agencies’ supplemental water demands for 20 years under average-year conditions, for 15 years under multiple dry-year conditions (with 8-26% reserve capacity), and for 15 years under single dry-year conditions (with 8-25% reserve capacity). With the addition of *supplies under development*, MWD will be able to meet 100% of its agencies’ supplemental water needs under all supply and demand conditions through 2030 with 20-25% reserve capacity. Reference is made to the MWD Report for more detailed discussion. It is anticipated that MWD will revise its regional supply availability analysis annually 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 Assessment Law provides for the use of UWMP information to support water supply assessments. In accordance with these provisions, IRWD is entitled to rely upon the conclusions of the MWD Report. IRWD has not been made aware of any significant changes that would adversely affect those conclusions. In a detailed May 14, 2003 report, San Diego County Water Authority (SDCWA) questioned several conclusions of the MWD Report. MWD has provided a reply dated July 17, 2003, containing a general response that SDCWA’s assertions are based on outdated water resource management strategies. MWD’s reply discusses several MWD supply capabilities which MWD states were overlooked by SDCWA, and is accompanied by MWD’s detailed responses to the specific criticisms.

MWD’s margin of safety in its demand projections and 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 west Irvine 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 west Irvine wells (PR No.19540) and the MWRP expansion (PR Nos. 202147 and 20276), IRWD has adopted its fiscal year 2004/05 capital

budget on June 14, 2004 (Resolution No. 2004-20), 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 \$720 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.

(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.

(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.

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. Water has not been produced from the Irvine Desalter, which has not been constructed, but other Irvine Subbasin water has been produced by IRWD. As described under Potable Supply - Groundwater, paragraph (iv), TIC also holds water rights and contractual entitlements to the Irvine Subbasin groundwater, but existing contract provides that those rights and entitlements will be transferred to IRWD. 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 2000 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"). 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 297,192 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. 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. OCWD also operates the basin to keep the target dewatered basin storage at 200,000 acre-feet as an appropriate accumulated overdraft. If the Basin is too full, artesian conditions can occur along the coastal area, causing rising water and water logging, an adverse 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: 2002-2003 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)

(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 ⁷ |
|--------------------|-----------|------------------------|-----------------------|-------------------|
| 2004 | 30,265 | 1,938 | 3,079 | 101 |
| 2003 | 24,040 | 2,132 | 4,234 | 598 |
| 2002 | 25,855 | 2,533 | 5,075 | 744 |
| 2001 | 20,377 | 1,687 | 3,967 | 543 |
| 2000 | 20,580 | 2,890 | 4,862 | 346 |

(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 the its Dyer Road Wellfield (including the Deep Aquifer Treatment System), in the main portion of the Basin.

Although TIC's production from the Subbasin has declined as its use of the Subbasin for agricultural water has diminished, OCWD's and other historical production records for the Subbasin show that production has been as high as 13,000 AFY. Under the Irvine Subbasin Agreement, all of the Subbasin production capability will be turned over by TIC to IRWD. Plans are also underway to expand IRWD's main Orange County Groundwater Basin supply, with wells in the West Irvine Wellfield (characterized as *under-development* supplies 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.)

⁷ 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.

The following table summarizes future IRWD groundwater production from currently available and under-development supplies.

(In AFY)

| Year (ending 6/30) | DRWF ⁸ | W Irvine ⁹ | Subbasin ¹⁰ | IDP (Potable) | IDP (Nonpotable) |
|--------------------|-------------------|-----------------------|------------------------|---------------|------------------|
| 2005 | 35,200 | 0 | 4,800 | 3,982 | 2,282 |
| 2010 | 35,200 | 12,700 | 4,800 | 3,982 | 2,282 |
| 2015 | 35,200 | 12,700 | 4,800 | 3,982 | 2,282 |
| 2020 | 35,200 | 12,700 | 4,800 | 3,982 | 2,282 |
| 2025 | 35,200 | 12,700 | 4,800 | 3,982 | 2,282 |

(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 examined future Basin conditions and capabilities, water supply and demand, and identified projects to meet increased replenishment needs of the basin. According to the OCWD MPR, production from the Basin can be maintained at 75% of the Basin producers' 2020 demand level, including demands from areas in IRWD and other producers to be annexed to OCWD.¹¹

Sufficient replenishment supplies are projected by the OCWD MPR to be 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

⁸ 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.

⁹ Under development.

¹⁰ Subbasin potable water production (other than Irvine Desalter Project). Amounts shown are available as potable-quality production, without treatment.

¹¹ OCWD adopted a basin production percentage of 66% for 2004 and the basin production percentage could be further reduced. This is anticipated by IRWD to be 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. This reduction is 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.

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. Date of prior 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)

2000 Urban Water Management Plan, Irvine Ranch Water District/Los Alisos Water District, December, 2000

The Regional Urban Water Management Plan for the Metropolitan Water District of Southern California, December, 2000

Southern California's Integrated Resources Plan, Metropolitan Water District of Southern California, March, 1996

Report on Metropolitan's Water Supplies, Metropolitan Water District of Southern California, March 25, 2003

Master Plan Report, Orange County Water District, April, 1999

2002-2003 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District

Review of Report on Metropolitan's Water Supplies, San Diego County Water Authority Water Policy Committee board letter, May 14, 2003

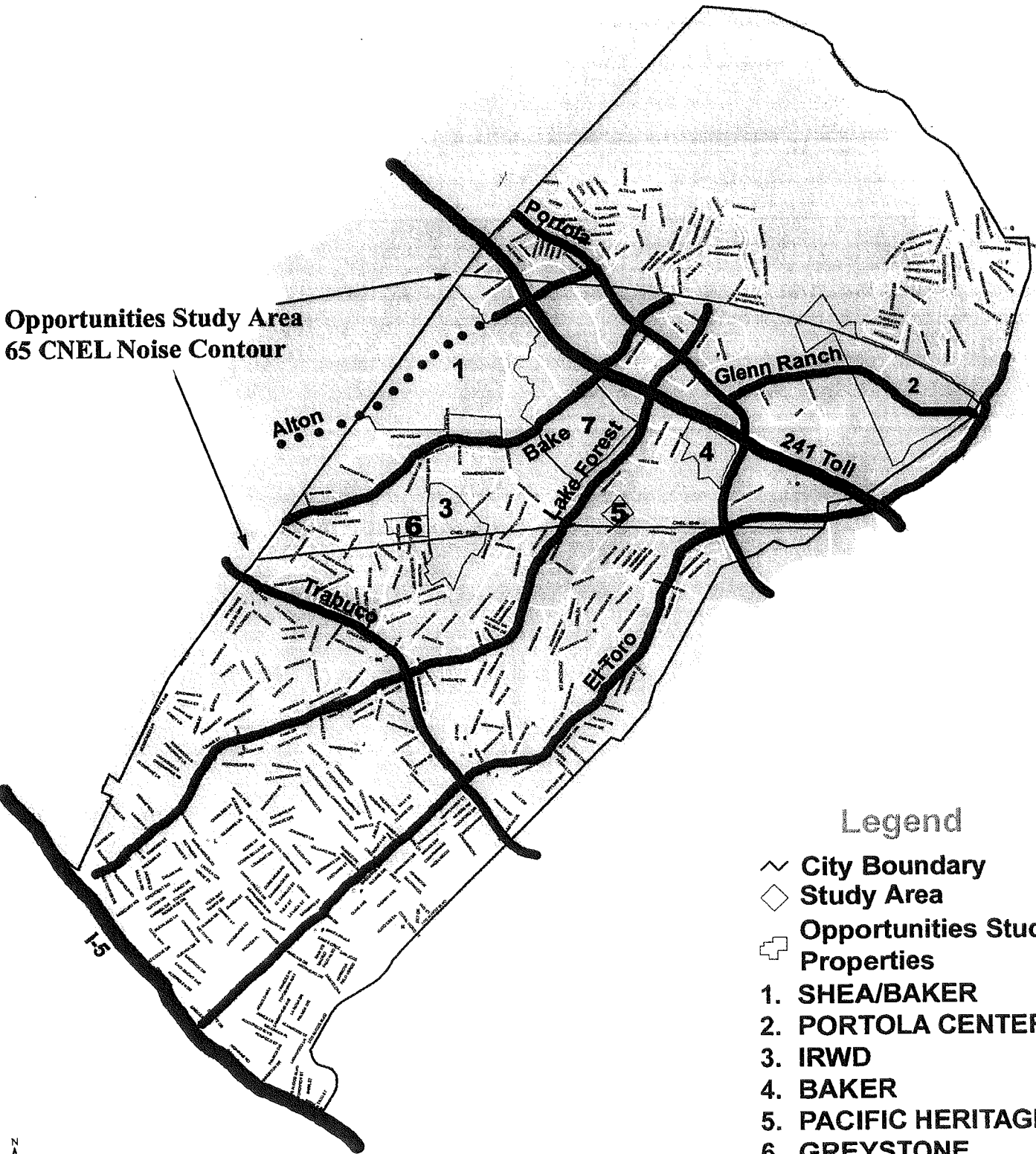
Response to San Diego County Water Authority Review of the "Report on Metropolitan's Water Supplies", Metropolitan Water District of Southern California letter, July 17, 2003

Exhibit A

Depiction of Project Area



Opportunities Study Properties



Opportunities Study Area
65 CNEL Noise Contour

Legend

- ~ City Boundary
- ◊ Study Area
- ⊕ Opportunities Study Properties
- 1. SHEA/BAKER
- 2. PORTOLA CENTER
- 3. IRWD
- 4. BAKER
- 5. PACIFIC HERITAGE
- 6. GREYSTONE
- 7. NAKASE

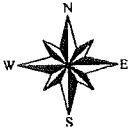
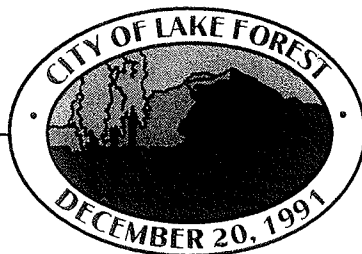


Exhibit B

Uses Included in Project



Mayor
Peter Herzog

Mayor Pro Tem
Helen Wilson

Council Members
Richard Dixon
Kathryn McCullough
Marcia Rudolph

City Manager
Robert C. Dunek

October 11, 2004

ENGINEERING AND PLANNING

OCT 13 2004

IRVINE RANCH
WATER DISTRICT

Irvine Ranch Water District
15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000

Re: Request for Water Supply Availability Assessment (Water Code §10910 *et seq.*)

The City of Lake Forest 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: Opportunities Study

Location of project: The proposed project focuses on approximately 950 acres of vacant land located in the City of Lake Forest, Orange County, north and south of the Foothill Transportation Corridor and adjacent to the former MCAS El Toro. The project area is the area formerly encumbered by the 65 Community Noise Equivalent Level (CNEL) contours, which restricted the development of noise-sensitive land uses in the project area due to aircraft flight patterns at the former MCAS El Toro (see Figure 1 in the attached Project Description). There are thirteen vacant properties within the project area, ranging in size from four acres to 380 acres. Eleven properties are south of the Foothill Transportation Corridor and two are north of the Corridor. The majority of the properties are not contiguous. Eight properties are involved with the Opportunities Study, totaling approximately 950 acres.

- No Water Supply Assessment has been prepared for this project or area. This application requests a Water Supply Assessment, because this project meets the criteria for preparation of a Water Supply Assessment.
- 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: 5,844
 Mixed Use - Shopping center or business, Commercial office, Industrial, manufacturing, processing or industrial park: Sq. ft. of floor space 648,720
 Other: _____

Please see the attached project description and absorption schedule for more detailed information on the project and development timing.

Total acreage of project: 950

Acreage devoted to landscape:

Greenbelt/Landscaped Slopes/Landscaped Medians 115 golf course 0 parks 96

Agriculture 0 other landscaped areas none

Number of schools Approx. 1 - 2 Number of public facilities Community Center (44,000 sq ft) and City Hall (44,000 sq ft)

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:

None

What is the current land use of the area subject to a land use change under the project?

The properties that are part of the Opportunities Study total more than 950 acres. The properties are vacant land; however, the majority of this land has been permitted for development of more than seven million square feet of industrial and commercial land uses

Is the project included in the existing General Plan? Yes; the properties are designated for commercial and office land uses.

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.

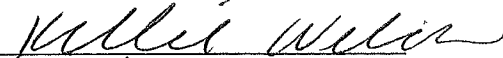
The City acknowledges that the Water Supply Assessment shall not constitute a "will-serve" or in any way entitle the project applicant to service or to any right, priority or allocation in any supply, capacity or facility, and that the issuance of the Water Supply Assessment shall not affect IRWD's obligation 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 LAKE FOREST

By: 
Jeremy Krout, Associate Planner

REQUEST RECEIVED:

Date: 
Oct. 28, 2004
By: _____
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 11/4/04
By: 
Irvine Ranch Water District

Attachments: Absorption Schedule
Project Description

January 23, 2012

Prepared by: S. Malloy

Submitted by: K. Burton

Approved by: Paul Cook 

CONSENT CALENDAR

MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND BIOSOLIDS AND ENERGY RECOVERY FACILITIES VARIANCES

SUMMARY:

The Biosolids and Energy Recovery Facilities are currently being designed. Portions of the work related to the Biosolids project are being constructed by J. R. Filanc Construction Co. with the Michelson Water Recycling Plant (MWRP) Phase 2 Expansion and Flood Protection Improvements project. Additional effort is needed by the various consultants working on the above projects to complete specific tasks. Staff recommends that the Board:

- Authorize the General Manager to execute Variance No. 3, in the amount of \$30,000, with Environ for engineering services to complete the air permit application package for the MWRP Biosolids and Energy Recovery Facilities;
- Authorize the General Manager to execute Variance No. 2, in the amount of \$71,810.40, with ARCADIS-US/Malcolm Pirnie for construction management and inspection services for the MWRP Biosolids and Energy Recovery Facilities;
- Authorize the General Manager to execute Variance No. 10, in the amount of \$85,500, with Black & Veatch for additional engineering services regarding power distribution and design of the indicator pile program for the MWRP Biosolids and Energy Recovery Facilities; and
- Authorize the General Manager to execute Variance No. 11, in the amount of \$74,000, with VA Consulting for engineering services during construction for the MWRP Flood Protection Improvements.

BACKGROUND:

Variance No. 3 with Environ

The Biosolids and Energy Recovery Facilities are currently being designed. Environ was contracted by IRWD to prepare the air permit application for submittal to the South Coast Air Quality Management District (SCAQMD) in parallel with the design work being performed by Black & Veatch. Variance No. 3 with Environ, in the amount of \$30,000, attached as Exhibit "A", for additional engineering services includes the following tasks:

1. Update and revise the emission calculations due to changing the energy production equipment from a fuel cell to microturbines and the increased number of biogas utilization operating scenarios. Re-run the air emission health risk assessment model for the new equipment and operating scenarios;
2. Revise the permit application based on the changes listed above;
3. Provide additional staff time to address questions from SCAQMD after the permit has been submitted; and

4. Expend additional effort to calculate the combined potential to emit (PTE) for the existing liquid treatment facilities and the proposed biosolids to assess the combined facility's Title V major source status.

Per a previously approved variance, Environ's schedule to submit a draft air permit application to IRWD is the end of January 2012. No significant revision to this schedule is anticipated due to approval of Variance No. 3.

Variance No. 2 with ARCADIS-US/Malcolm Pirnie

ARCADIS-US/Malcolm Pirnie has been providing construction management and inspection services for the MWRP Phase 2 Expansion and Flood Protection Improvements project since September 2009. Sludge and storm water piping and electrical ductbanks related to the MWRP Biosolids and Energy Recovery Facilities will be installed as part of the MWRP Phase 2 Expansion. Contract Change Order Nos. 43 and 52, in the combined amount of \$1,416,725.71, were previously approved to install these pipes and ductbanks.

The work area of the Biosolids piping and ductbanks is within the area that the ARCADIS-US/Malcolm Pirnie inspector is inspecting. Filanc is scheduled to begin work on the storm water pipeline immediately to allow timely completion of the floodwall. Filanc plans to complete the storm water pipeline within eight weeks, and the ARCADIS-US/Malcolm Pirnie inspector is available to perform the work within Filanc's time frame. The remaining sludge piping and electrical ductbanks is scheduled to be installed this summer. Since the ARCADIS-US/Malcolm Pirnie inspector and construction manager are already on-site, this work can be performed efficiently as daily inspection will average only 2.5 hours per day over a short duration.

Variance No. 2 with ARCADIS-US/Malcolm Pirnie, in the amount of \$71,810.40, attached as Exhibit "B", is for additional construction management and inspection services for the sludge and storm water piping and electrical ductbanks.

Variance No. 10 with Black & Veatch

Several design revisions were required due to the decision to switch from use of a fuel cell to microturbines to generate power on site. Due to the complexity of the foundation for the biosolids facilities and the challenging soils conditions, Black & Veatch's geotechnical subconsultant requires additional authorization to address more details in designing the biosolids indicator piles. Variance No. 10 with Black & Veatch, in the amount of \$85,500, attached as Exhibit "C", for additional engineering services includes the following tasks:

1. Evaluate changes to the Preliminary Design Report (PDR) regarding power distribution related to switching from use of a fuel cell to microturbines;
2. Evaluate changes to the PDR regarding standby power related to switching from use of a fuel cell to microturbines;
3. Prepare draft power distribution and standby power special study;
4. Conduct a power distribution and standby power workshop;

5. Perform electrical, structural, and mechanical design revisions related to switching from use of a fuel cell to microturbines; and
6. Implement changes to the indicator pile program.

Variance No. 11 with VA Consulting

Since September 2009, VA Consulting has been providing engineering services during construction for the Flood Protection Improvements project. The anticipated construction completion date of the flood protection improvements is October 31, 2012, which is six months longer than originally anticipated at the time of project bid.

Variance No. 11 with VA Consulting, in the amount of \$74,000, attached as Exhibit "D", for additional engineering services includes the following:

1. MWRP Overall Fencing Plan – VA Consulting will prepare security fencing plans for the overall MWRP Phase 2 Expansion and the proposed Biosolids and Energy Recovery Facilities site.
2. Letter of Map Revision (LOMR) Application Package – VA Consulting will complete the LOMR application package for submittal to Federal Emergency Management Agency (FEMA).
3. Process LOMR Package with City of Irvine - VA Consulting will process the LOMR package with the City of Irvine, the community's Floodplain Administrator, as defined and required by FEMA.
4. Submit LOMR Package to FEMA - Upon City endorsement, the LOMR application package will be submitted directly to FEMA on behalf of the City. The LOMR will be issued by FEMA upon the completion of their review.
5. Construction Support Services - This task provides for additional engineering support services during construction of the Floodwall primarily due to addressing changed field conditions.
6. Meetings and Coordination - This task includes attendance of various meetings as requested by IRWD.
7. Floodwall Improvement Record Drawing - This task provides for preparation of record drawings to include additional as-built items that were changed in the field during construction.

FISCAL IMPACTS:

The Biosolids and Energy Recovery Facilities, Project 20847 (1617), is included in the FY 2011-12 Capital Budget. The existing budget and Expenditure Authorization are sufficient to fund Variance No. 3 with Environ, Variance No. 2 with ARCADIS-US/Malcolm Pirnie, and Variance No. 10 with Black & Veatch.

The Flood Protection Improvements, Project 20542 (1150) and Project 30542 (1118), are included in the FY 2011-12 Capital Budget. The existing budgets and Expenditure Authorizations are sufficient to fund Variance No. 11 with VA Consulting.

ENVIRONMENTAL COMPLIANCE:

The Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements, Projects 20214, 20542, 30214, and 30542 are subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report, SCH # 2005051174, was certified by the lead agency on February 27, 2006.

The Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities is subject to CEQA and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, a Supplemental Environmental Impact Report (SEIR) is being prepared. Staff anticipates bringing the SEIR to the Board for adoption in August 2012.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 19, 2012.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 3, IN THE AMOUNT OF \$30,000, WITH ENVIRON FOR ENGINEERING SERVICES TO COMPLETE THE AIR PERMIT APPLICATION PACKAGE FOR THE MICHELSON WATER RECYCLING PLANT (MWRP) BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 20847 (1617); AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 2, IN THE AMOUNT OF \$71,810.40, WITH ARCADIS-US/MALCOLM PIRNIE FOR CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES FOR THE MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 20847 (1617); AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 10 IN THE AMOUNT OF \$85,500 WITH BLACK & VEATCH FOR ENGINEERING SERVICES FOR THE MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES, PROJECT 20847 (1617); AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 11 WITH VA CONSULTING FOR ENGINEERING SERVICES IN THE AMOUNT OF \$74,000 FOR MWRP FLOOD PROTECTION IMPROVEMENT, PROJECTS 20542 (1150) AND 30542 (1118).

LIST OF EXHIBITS:

- Exhibit "A" – Variance No. 3 – Environ
- Exhibit "B" – Variance No. 2 – ARCADIS-US/Malcolm Pirnie
- Exhibit "C" – Variance No. 10 – Black & Veatch
- Exhibit "D" – Variance No. 11 – VA Consulting, Inc.

EXHIBIT "A"

IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Project Title: MWRP Biosolids Handling & Energy Recovery Facility File No.: _____
 Date: December 23, 2011
 Variance No.: #3
 Project No.: 20759/20847 Project No. 20759/20847
 Purchase Order No.: 124442

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (attach any back-up material):
See attached scope of work

Engineering & Management Cost Impact:

| Classification | Manhours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|---------------------|----------|--------------|----------|--------------|------------|-----------------|
| Principal | 23 | \$250 | \$5,750 | \$600 | | \$6,350 |
| Manager 8 | 38 | \$175 | \$6,650 | \$600 | | \$7,250 |
| Senior Associate 6B | 103 | \$145 | \$14,935 | \$1,365 | | \$16,300 |
| Support | 1 | \$60 | \$60 | \$40 | | \$100 |
| Total \$ = | | | | | | \$30,000 |

Schedule Impact:


| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|------------------------------------|-------------------|-------------------|---------------|
| 1 | Emission Calculations | March 2011 | January, 2012 | January, 2012 |
| 2 | Preparation of Permit Applications | March 2011 | January, 2012 | January, 2012 |
| 3 | Communication with SCAQMD | April 2011 | As needed | As needed |
| 4 | Conference calls/meetings | As needed | As needed | As needed |
| 5 | CEQA air quality assistance | As needed | As needed | As needed |
| 6 | Facility PTE | --- | January, 2012 | January, 2012 |

Required Approval Determination:

| | |
|--|--|
| Total Original Contract <u>\$19,000</u> Previous Variances \$ <u>42,600</u> This Variance <u>\$30,000</u> Total Sum of Variances <u>\$72,600</u> New Contract Amount <u>\$91,600</u> Percentage of Total Variances to Original Contract <u>482</u> % | <input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. <input type="checkbox"/> Board: Single Variance greater than \$60,000. <input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher. |
|--|--|

ENGINEER/CONSULTANT: ENVIRON International Corporation IRVINE RANCH WATER DISTRICT
 Company Name

Project Engineer/Manager _____ Date _____
Julia C. Foster 12/23/2011
 Engineer's/Consultant's Management _____ Date _____


 Department Director _____ Date _____
 General Manager/Comm./Board _____ Date _____

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: MWRP Biosolids Handling & Energy Recovery Facility

Project No.: 20759 Project Manager: _____

| Variance No. | Description | Dates | | Variance Amount |
|--------------|---|-----------|----------|-----------------|
| | | Initiated | Approved | |
| 1 | Revision/addition of tasks related to project changes | 10/29/10 | 11/10/10 | \$26,500 |
| 2 | Revision/addition of tasks related to project changes | 10/11/11 | 10/21/11 | \$16,100 |
| 3 | Revision/addition of tasks related to project changes | 12/23/11 | | \$30,000 |
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ENVIRON

December 23, 2011

Via Electronic Mail (In PDF)

Steve Malloy
Principal Engineer – Capital Projects
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618

**Re: Additional Scope of Work and Cost Estimate for
Irvine Ranch Water District (IRWD) MWRP Biosolids Project Air Permitting**

Dear Mr. Malloy:

Per our discussions with Carl Spangenberg, ENVIRON International Corporation (ENVIRON) has prepared this authorization request for additional work not anticipated in the original February 19, 2010 scope of work and the subsequent Variances #1 and #2 approved November 4, 2010 and October 14, 2011.

Revised Scope of Work

This section presents the revised scope of work, including the original February 19, 2010 scope (authorized by the April 29, 2010 Notice to Proceed PR 20759), Variance #1 authorized on November 4, 2010, Variance #2 authorized on October 14, 2011 and additional work needed to complete the preparation of the permit application for the B&V design.

Task 1: Emission Calculations

The original scope, Variance #1, and Variance #2 included the following tasks:

- Refine the emission calculations prepared based on the HDR design.
- Provide additional updates to the emission calculations based on minor changes to the proposed process.
- Perform a health risk assessment of the toxic air contaminants that may include air dispersion modeling dispersion using SCREEN3 for equipment included in original project description.
- Conduct specific calculations to confirm regulatory compliance for all applicable regulations.
- Reassess and calculate emissions based on the B&V design.

Since receiving authorization on the original scope and follow-up Variances, additional information has been received by Black & Veatch and IRWD that will require further updates to the emission calculations including revision of emission factors used, addition of more devices (e.g. additional microturbines), and a change in anticipated operating scenarios. In addition, the original scope of work assumed SCREEN3 modeling would only be required for the devices included in the original project design. Based on recent information, SCREEN3 modeling may be required for additional devices which will require further work. For this purpose, ENVIRON requests additional budget to encompass this expanded scope to finalize the emission

calculations based on the project description provided to date. This scope of work assumes that no additional modeling beyond SCREEN3 will be needed.

Task 2: Preparation of the Permit Application

Under the original February 2010 scope of work, ENVIRON included the following:

“The permit application includes preparation of a process description including a description of each emission point and the history of the current operations at the facility. The write-up will also include a summary of ENVIRON’s regulatory review of local, state, and federal regulations as they apply to the proposed project. In addition ENVIRON will prepare a description of how the emissions were calculated, complete the applicable SCAQMD forms and calculate the application fees. The application will be prepared according to the requirements for Certified Permitting Professionals (CPP) which should help to expedite the SCAQMD’s review of the permit application.”

Due to changes in the operating scenarios and the equipment list provided in the original application and Variances #1 and #2, ENVIRON will need to spend additional time revising the draft application to incorporate the proposed changes. For this purpose, ENVIRON requests additional budget to encompass this expanded scope to finalize the permit application based on the project description provided to date.

Task 3: Communication with SCAQMD

Under the original February 2010 scope of work, ENVIRON included the following:

“After the permit application is submitted to the SCAQMD, ENVIRON will assist the SCAQMD permit engineer regarding any follow-up questions that may arise. This will help to expedite the permit application and help IRWD obtain appropriate permit conditions.”

With Variance #1, an increase in scope was included to cover one in-person meeting at the SCAQMD (an application submittal meeting). Variance #2 was approved to incorporate additional SCAQMD meeting preparation work and for a 1-hour follow-up conference call with SCAQMD after the application is submitted to address comments or questions the SCAQMD may have. ENVIRON has included additional budget to account for additional communications with the SCAQMD to address comments or questions on the application.

Task 4: Conference Calls, Project Management, and Miscellaneous Tasks

Under the original February 2010 scope of work, ENVIRON included the following:

“This task will cover the costs of conference calls and meetings that ENVIRON may have with HDR and IRWD regarding the permit application. In addition, the task will cover general project management costs and minor miscellaneous tasks that may arise outside of the scope of tasks 1 through 3.”

In order to accommodate the new project design and requested assistance, ENVIRON included in Variance #1 additional budget for the August 4, 2010 kick-off meeting with B&V and three additional conference calls to discuss the B&V design and related air emissions. Additional conference calls beyond those included in the previous authorization have occurred and will be needed before receiving the final permit. Variance #2 included four additional 1-hour conference calls to finalize the application and address post-submittal comments and questions from the SCAQMD. No further change in Task 4 is requested under this revised scope of work.

Task 5: California Environmental Quality Act (CEQA) Air Quality Assistance

At the request of IRWD, ENVIRON will also coordinate with IRWD's subcontractor tasked with preparing the CEQA analysis document in order to provide assistance with the required air quality analysis. Work under this task will be conducted with prior approval of IRWD on an as-needed basis. Costing includes 4 conference calls and a review and general comment of the draft air quality impact section of the draft EIR.

Task 6: Existing Facility Potential to Emit

At the request of IRWD, Variance #2 included calculation of the existing facility's potential to emit (PTE) for purposes of assessing the facility's Title V major source status with operation of the proposed biosolids project. This task assumed that IRWD will provide details on the existing equipment and previous emission factors and/or methodologies used for estimating emissions for the facility. Additional time was needed to track down additional emission factors not provided by IRWD as assumed under Variance #2, as well as to verify/correct information used in previous Annual Emission Reports or applications for purposes of calculating the facility-wide PTE. In addition, ENVIRON will need to update the PTE calculations based on revised information being gathered by IRWD. For this purpose, ENVIRON requests additional budget to encompass this expanded scope to finalize the existing facility-wide PTE.

Schedule

Due to changes in the project design, the estimated delivery date of the draft permit application has been moved from March, 2011 to January, 2012. We anticipate requiring two weeks to complete the draft once the final outstanding pieces of information are received for the application and the potential to emit calculations for the entire facility, assuming additional modeling beyond the SCREEN3 assessment assumed in the February 2010 proposal is not needed. Based on the anticipated date for receiving this information, ENVIRON estimates completion of the draft application by the beginning/middle of January, 2012.

Cost Estimate

The estimated total cost for the post-February 2010 and Variances #1 and #2 additional scope of work items is \$30,000, for a total budget of \$91,600. The cost estimate does not include the SCAQMD permitting fees. Costs are based on a time-and-materials basis using our current rates and the terms and conditions approved under the April Notice to Proceed PR 20759. The costs are split out by task in the table below for informational purposes only.

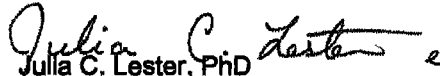
| Original Task Number/Description | Original Scope/Variations #1 & #2 Cost | Additional Scope Cost | Total Cost |
|---|--|-----------------------|-----------------|
| Task 1 Emission Calculations | \$18,700 | \$10,000 | \$28,700 |
| Task 2. Preparation of the Permit Application | \$5,800 | \$10,000 | \$15,800 |
| Task 3. Communication with SCAQMD | \$8,500 | \$5,000 | \$13,500 |
| Task 4. Conference Calls, Project Management, and Miscellaneous Tasks | \$15,900 | -- | \$15,900 |
| Task 5. CEQA Air Quality Assistance | \$8,000 | -- | \$8,000 |
| Task 6. Facility-wide PTE Calculations | \$4,700 | \$5,000 | \$9,700 |
| Total | \$61,600 | \$30,000 | \$91,600 |

| Category (Proposed Variance #3) | Hours | Cost |
|---------------------------------|------------|-----------------|
| Principal | 23 | \$6,350 |
| Manager 8, 9 & 10 | 38 | \$7,250 |
| Associate 4, 5, 6, 6B, 7 | 103 | \$16,300 |
| Support and Miscellaneous | 1 | \$100 |
| Total: | 165 | \$30,000 |

Please feel free to call Julia Lester at (213) 943-6329 or Rachel Velthuisen at (213) 943-6349 if you have any comments or questions about this proposal.

Sincerely,


Rachel Velthuisen, PhD
Manager


Julia C. Lester, PhD
Principal

RV:nv

p:\Irvine ranch water district\0524406a mwrp biosolids permit assist\admin\lrwd permitting scope of work update 122311.docx

EXHIBIT "B"

IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

& Project Title: MWRP Phase 2 Expansion & Flood Protection Improvements Construction Management and Inspection Services

Project No.: 20214, 20542, 30214, 30542 Date: January 4, 2012
Purchase Order No.: 501694 (Oracle) Variance No.: 2

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (attach any back-up material):

Provide construction inspection services for MWRP Biosolids and Energy Recovery Facilities PR 20847 (Oracle 1617) piping and ductbanks installed through Change Order No. 43 and 52 of MWRP Phase 2 Expansion & Flood Protection Improvements

Engineering & Management Cost Impact:

| Classification | Manhours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|----------------------------|----------|--------------|-------------|--------------|------------|--------------------|
| Sr. Construction Inspector | 300 | \$141.61 | \$42,483.00 | | | \$42,483.00 |
| Sr. Construction Inspector | 30 | \$212.42 | \$6,372.60 | | | \$6,372.60 |
| Sr. Resident Engineer | 120 | \$191.29 | \$22,954.80 | | | \$22,954.80 |
| | | | | | | |
| Total \$ = | | | | | | \$71,810.40 |

Schedule Impact:

| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|------------------|-------------------|-------------------|--------------|
| n/a | | n/a | n/a | n/a |
| | | | | |
| | | | | |

Required Approval Determination:

| | |
|--|---|
| Total Original Contract <u>\$1,684,108.19</u> | <input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. |
| Previous Variances <u>\$466,492.24</u> This Variance <u>\$ 71,810.40</u> | <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. |
| Total Sum of Variances <u>\$ 538,302.64</u> New Contract Amount <u>\$2,222,410.83</u> | <input type="checkbox"/> Board: Single Variance greater than \$60,000. |
| Percentage of Total Variances to Original Contract <u>31.9 %</u> | <input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher. |

ENGINEER/CONSULTANT: ARCADIS-US

Company Name

[Signature] 1/4/2012
Project Engineer/Manager Date

[Signature] 1/4/2012
Engineer's/Consultant's Management Date

IRVINE RANCH WATER DISTRICT

[Signature] 1/4/12
Department Director Date

General Manager/Comm./Board Date

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: MWRP Phase 2 Expansion & Flood Protection Improvements Construction Management and Inspection Services

Project No.: _____ Project Manager: Steve Malloy/Billy Stewart

| Variance No. | Description | Dates | | Variance Amount |
|--------------|---|-----------------|---------------|-----------------|
| | | Initiated | Approved | |
| 1 | Inspection Services | September 2010 | Sept 30, 2010 | \$466,492.24 |
| 2 | Construction Management and Inspection Services for Biosolids Pipelines and Ductbanks | January 5, 2012 | | \$71,810.40 |
| | | | | |
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The Water Division of ARCADIS

Mr. Steve Malloy
Principal Engineer – MWRP Phase 2 Construction
Irvine Ranch Water District
3512 Michelson Drive
Irvine, CA 92612

Malcolm Pirnie/ARCADIS
8001 Irvine Center Drive
Suite 1100
Irvine
California 92618
Tel 949.450.9901
Fax 949.450.9902
www.arcadis-us.com

WATER SERVICES

Subject:

Construction Inspection and Construction Management Services for 36-inch Biosolids Storm Drain, PR 20847 (1617)

Date:

December 19, 2011

Dear Mr. Malloy:

Contact:

David May

It is my pleasure to submit this letter proposal for providing construction inspection and construction management services for the 36-inch Biosolids Storm Drain and Various Piping and Ductbanks project, PR 20847 (1617). We propose Glenn Suchor, Sr. Construction Inspector, to perform these services. Glenn is currently providing inspection services for IRWD, including the MWRP Phase 2 Expansion and Flood Protection Improvements, PR 20214, 20542, 30314, and 30542 (1599, 1150, 1706, and 1118) and the Mezzanine Conversion, PR 11422, 21422, 31422 (1388, 1120, 1156). Ron Esmilla, Sr. Resident Engineer, will perform construction management services.

Phone:

949.450.4006

Email:

david.may@arcadis-us.com

The services will include:

1. Providing daily construction observation and inspection services to determine if the work performed is in substantial conformance with the Construction Contract Documents;
2. Recording and reporting any deviations from the Construction Contract Documents;
3. Preparing observer's daily reports and submitting them on a regular, timely basis;
4. Coordinating construction activities with the Irvine Ranch Water District staff, contractor, public agencies, and other pertinent parties;
5. Assisting in the review of construction progress payments;

Imagine the result

Proposal: IRWD – Biosolids Storm Drain

B-3

6. Coordination between IRWD staff, Black & Veatch, HDR, and the Contractor;
7. Review contractor redlines; and
8. Taking construction photos.

We propose the following hourly rates and schedule to perform the work:

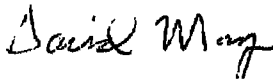
- Glenn's rate of \$141.61 for a total cost of \$42,483.00 assuming 2.5 hours per day, 5 days a week over an 6-month period,
- Glenn's overtime rate of \$212.42 for a total cost of \$6,372.60, assuming 10% overtime, and
- Ron's rate of \$191.29 for a total cost of \$22,954.80, assuming 5 hours per week over 24 weeks.

The total cost of the proposal is \$71,810.40.

I may be contacted at 949.450.4006 if you have any questions.

Sincerely,

Malcolm Pirnie/ARCADIS



David May, PE
Principal-In-Charge

Copies:
File

Exhibit "C"

IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Project Title: MWRP File No.: _____
Biosolids & Energy Recovery Facilities Date: January 4, 2012
 Project No.: 20847 (1617) Variance No.: 10
 Purchase Order Nos.: 126171-01, 02, 03, 04 and 500907, 502146, 504607 Project No. 20847

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (*attach any back-up material*):
Black & Veatch identified several design changes needed to the Preliminary Design Report (PDR) regarding: (1) power distribution, (2) standby power requirements, and (3) the pile testing program, and IRWD staff concurred with these changes. The recommended design changes need to be evaluated and implemented. See attachments for further details.

Engineering & Management Cost Impact:

| Classification | Man-hours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|------------------------------------|-----------|--------------|----------|--------------|------------|---------------|
| See Attachments for Details | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Total \$ = | | | | | | 85,500 |

Schedule Impact (no overall impact to project schedule):

| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|------------------------|-------------------|-------------------|-------------------|
| 6 | Draft Study (Var. #10) | None | 56 days | February 15, 2012 |
| 6 | Final Study (Var. #10) | None | 84 days | March 7, 2012 |
| 6 | Complete DS3 Design | April 15, 2012 | 0 days | April 15, 2012 |
| 6 | Complete Final Design | May 25, 2012 | 0 days | May 25, 2012 |

Required Approval Determination:

| | |
|---|--|
| Total Original Contract \$ <u>12,883,316</u> Previous Variances \$ <u>1,635,930</u> This Variance \$ <u>85,500</u> Total Sum of Variances \$ <u>1,721,430</u> New Contract Amount \$ <u>14,604,746</u> Percentage of Total Variances to Original Contract <u>13.4%</u> | <input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. <input checked="" type="checkbox"/> Board: Single Variance greater than \$60,000. <input type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher. |
|---|--|

ENGINEER/CONSULTANT: Black & Veatch Corp.

IRVINE RANCH WATER DISTRICT

Darwin Budwiska Jan. 4, 2012
 Project Engineer/Manager Date

SLM Kim L. Burt 1/4/12
 Department Director Date

[Signature] Jan. 4, 2012
 Engineer's/Consultant's Management Date

 General Manager/Comm./Board Date

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

| Project Title: <u>MWRP Biosolids and Energy Recovery Facilities</u> | | | | |
|---|--|-----------|----------|-----------------|
| Project No.: <u>20847 (1617)</u> Project Manager: <u>Carl Spangenberg</u> | | | | |
| Variance No. | Description | Dates | | Variance Amount |
| | | Initiated | Approved | |
| 1 | OpenCEL, Egg-Shaped Digesters, P Recovery, Risk Mgmt, HAZOP, Upsize Dryer System to 6,000 kg/hr. | 01-13-11 | 01-31-11 | \$783,000 |
| 2 | Solids Receiving Facility and Upsizing Dryer to 7,000 kg/hr. | 01-13-11 | 01-31-11 | \$458,000 |
| 3 | Additional geotechnical field investigation services and additional geotechnical seismic analysis and recommendations. | 03-07-11 | 03-07-11 | \$20,360 |
| 4 | Prepare and Conduct Presentation to the Board Technology Ad Hoc Committee | 03-30-11 | 04-04-11 | \$27,500 |
| 5 | Conduct Additional 2-Day HAZOP | 04-22-11 | 04-26-11 | \$29,800 |
| 6 | Prepare a Biogas Utilization Validation Study | 04-26-11 | 05-26-11 | \$87,500 |
| 7 | Prepare a Foundation Design Alternatives Study | 05-18-11 | 06-21-11 | \$57,610 |
| 8 | Modify Heat Dryer Size to 6,000 kg/hour | 07-22-11 | 08-23-11 | \$83,600 |
| 9 | Modify Digester Foundation & Conduct Test Pile Program | 07-22-11 | 08-23-11 | \$88,560 |
| 10 | Modify Power Distribution, Standby Power, & Pile Testing | 01-04-12 | Pending | \$85,500 |

VARIANCE 10 ATTACHMENT

Design Modifications to Standby Power, Power Distribution, and Test Pile Program

| Variance Task | Description |
|--|---|
| Evaluate PDR Power Distribution Changes Required | Evaluate changes necessary to the PDR power distribution design and make recommendations to IRWD. |
| Evaluate PDR Standby Power Changes Required | Evaluate changes necessary to the PDR standby power design and make recommendations to IRWD. |
| Prepare Draft Special Study | Prepare a Draft Special Study summarizing design change requirements and prepare conceptual design recommendations. |
| Conduct Review Workshops & Finalize Special Study | Conduct two review workshops with IRWD. Based on review comments by IRWD, finalize the Special Study. |
| Perform Electrical, Structural, and Mechanical Design Revisions. | Develop new drawings and specifications and revise existing drawings and specifications. |
| Implement Changes to the Test Pile Program | Implement changes to the test pile program to incorporate revisions to the geotechnical report, the test pile locations and geometry, and pile shop drawings. |

Engineering & Management Cost Impact

| | Project Director/VP | Project Manager 3 | Engineer 7 | QC Engineer | Engineer 3 | Technician 3 & Clerical | Manhours | Expense/Sub-Consultant | Total \$ |
|--|---------------------|-------------------|------------|-------------|------------|-------------------------|------------|------------------------|-----------------|
| Hourly Rate | \$300 | \$220 | \$220 | \$200 | \$135 | \$95 | | | |
| Variance 10 | | | | | | | | | |
| Evaluate PDR Power Distribution Changes | 2 | 4 | 16 | | 16 | 4 | 42 | \$0 | \$7,540 |
| Evaluate PDR Standby Power Changes | 2 | 4 | 16 | | 16 | 4 | 42 | \$0 | \$7,540 |
| Prepare Draft Special Study | 4 | 8 | 28 | | 16 | 16 | 72 | \$200 | \$13,000 |
| Conduct Workshops and Finalize Special Study | | 2 | 12 | | | 4 | 18 | \$100 | \$3,580 |
| Perform Elec., Structural, and Mechanical Design Revisions | | 8 | 56 | 20 | 80 | 88 | 252 | \$100 | \$37,340 |
| Implement Changes to the Test Pile Program | | 8 | 8 | | | | 16 | \$13,000 | \$16,820 |
| Total - Variance 10 | 8 | 34 | 136 | 20 | 128 | 116 | 442 | \$13,400 | \$65,500 |

Project Schedule Impact - None

| Task Description | Current Schedule | New Schedule |
|--|------------------|--------------|
| Prepare Draft Special Study (Variance #10) | NA | 2/15/2012 |
| Prepare Final Special Study (Variance #10) | NA | 3/7/2012 |
| DS3 Design Completion Date (no change) | 4/15/2012 | 4/15/2012 |
| Final Design Completion Date (no change) | 5/25/2012 | 5/25/2012 |

**IRVINE RANCH WATER DISTRICT
MWRP BIOSOLIDS & ENERGY RECOVERY FACILITIES**

**VARIANCE #10: (1) REVISED ELECTRICAL POWER DISTRIBUTION
DESIGN, (2) NEW STANDBY ENGINE-GENERATOR, AND (3) PILE TESTING
PROGRAM MODIFICATIONS**

SCOPE OF WORK

BACKGROUND

Currently, Southern California Edison (SCE), provides two separate services to the MWRP at 4.16 kV through 12 kV to 4.16 kV step-down transformers. These two services originate from different substations providing a level of redundancy in power supply to the plant. Both existing step-down transformers are rated at 3,750 kVA, which therefore limits the amount of power that can be delivered to the plant through a single SCE service. With the addition of the new Phase 2 Expansion facility loads and the new Biosolids Facilities, it is not possible to power the entire plant load from only one or two SCE services. As a result, a new third service from SCE is required. The new service will tap into both of the existing SCE services at a new line-up of 12 kV switchgear. This switchgear then feeds power to a new SCE step-down transformer. This particular configuration benefits from being able to obtain 12 kV power from either of the two SCE 12 kV lines for added redundancy and reliability.

The Preliminary Design Report (PDR) was the basis of the scope of work and fee proposal by Black & Veatch for this project. The PDR included the following design criteria:

- A fuel cell was included to utilize biogas from the anaerobic digesters for onsite power generation.
- Power from the fuel cell was distributed only to the biosolids facilities.
- There was no standby generator included in the biosolids facilities design, only provisions for bring a portable generator onsite to connect to the biosolids grid.

A detailed evaluation by Black & Veatch and confirmed with IRWD staff identified several design changes necessary to achieve the design goals for the project, as follows:

- Based on a special study performed by B&V and confirmed by IRWD, microturbines were identified as the preferred alternative for biogas utilization. B&V agreed to perform the detailed design for the microturbine facilities at the same fee as the original fuel cell. However, there were implications of having microturbines versus a fuel cell when the overall power distribution design was evaluated. This additional power distribution system redesign work is outside the detailed design area for the microturbines.
- B&V advised IRWD that the power generated by the fuel cell or the microturbines is in excess of what is needed at the biosolids facility alone. It is

necessary to distribute at least some power to the liquid treatment facilities, and this resulted in the need for power distribution redesign to evaluate connecting to existing transformers.

- Upon evaluation of the critical loads needed for the biosolids facility, B&V recommended a new permanent standby power generator in lieu of a portable generator that, by NEC Article 701, does not provide standby power (only supplemental power when a portable unit is available). Neither the fuel cell or microturbine can meet the strict code definition of standby power; therefore, a new diesel engine-generator was recommended and IRWD staff concurred. Standby power is important in providing power to process loads deemed critical in the event utility power is lost. Additionally, the standby power would be available to keep the microturbines operational (and eliminate the need to flare digester gas).

Regarding the pile testing program, a preliminary pile testing program was developed jointly by B&V, IRWD, and NMG Geotechnical, Inc. upon approval of Variance #9 in July 2011. After further design development of the biosolids facilities, there were changes to the number of piles, the length of the piles, and pile elevations that could not be anticipated. Also, additional rounds of shop drawing reviews of the test piles were required that were more than anticipated, but necessary to properly define the piles for this program. These design changes and additional effort are included in this variance.

PURPOSE

The purpose of Variance #10 is to evaluate changes to the project design for (1) power distribution, (2) standby power, and (3) the pile testing program, and implement these changes into the design.

EVALUATION TASKS

A. Evaluate PDR Power Distribution Changes Required

1. Evaluate PDR power distribution issues.
2. Evaluate the interconnection of the Fuel Cell/Microturbine with new and existing power distribution system.
3. Evaluate redundancy and reliability of SCE service and power generated by a Fuel Cell/Microturbine
4. Coordinate parallel operation of Fuel Cell/Microturbine with new and existing SCE service, including meeting with SCE

B. Evaluate PDR Standby Power Changes Required

1. Determine critical loads at the Biosolids Facilities.
2. Determine standby power source to provide power to critical loads.

3. Prepare preliminary power distribution functional diagram detailing normal and standby power distribution.
4. Recommend standby diesel generator size based on critical loads.

C. Prepare New Special Study

1. Description of new SCE service to Biosolids Facilities
2. Address interconnection of power generated by Fuel Cell/Microturbine with power distribution system at both the biosolids and liquid treatment facilities
3. Accommodate parallel operation of fuel cell/microturbine with SCE (at biosolids Facilities or existing Liquid Treatment plant) or fuel cell/microturbine with standby power source.
4. Prepare a list of critical loads at the biosolids facilities and how they are to operate upon loss of utility power.
5. Identify design changes required.

D. Conduct Review Workshops and Finalize Report

1. Present Special Study to District
2. Revise the Special Study per District comments
3. Prepare workshop meeting minutes
4. Finalize Special Study and deliver 10 copies to District

E. Perform Electrical, Structural, and Mechanical Design Revisions

1. Create new P&ID for standby diesel engine-generator
2. Create new control descriptions for sequencing critical loads after loss of utility power
3. Revise power distribution functional diagram to include interconnection of standby diesel engine-generator
4. Create new electrical site plan and schematics
5. Revise switchgear drawings and specs
6. Create new mechanical site plan, sections, and details
7. Create new structural site plan, sections, and details

F. Implement Changes to the Pile Testing Program

1. Update the Geotechnical Report to reflect design changes
2. Revise the locations, geometry, and elevations for the test piles
3. Perform additional shop drawing reviews



NMG
Geotechnical, Inc.

January 4, 2012

Project No. 10199-01

To: Black and Veatch
15615 Alton Parkway, Suite 300
Irvine, California 92618

Attention: Mr. Dan Buhrmaster

Subject: Request for Variance Related to Foundation Design Support, Report Finalization and Test Pile Program, Proposed Irvine Ranch Water District Biosolids and Energy Recovery Center, Michelson Water Reclamation Plant, City of Irvine, California

Per our recent communications, NMG Geotechnical, Inc. (NMG) has prepared this request for additional project budget for the subject services. Some of these services were included in concept in the scope of the last approved change order dated July 18, 2011 (approved at the end of August). In part, this variance request reflects actual efforts required versus our estimates back in July for certain tasks (described below). The majority of the test pile program tasks remain to be completed such as the actual pile monitoring and pile driving inspections. We have reviewed our cost estimates for those future services and conclude that those estimates are still valid, even with the changes in number and lengths of the test piles. We believe the reduced number of planned test piles (24 instead of 27) is offset by the increased length of many of the piles (90 footers).

The three primary areas of this request include

- 1) Finalization of foundation designs and final report,
- 2) Test pile program development, and
- 3) Project management.

ADDITIONAL SERVICES

The additional efforts and services of this variance are as follows:

1. Finalizing the foundation design parameters to match the changes in structure locations including foundation elevations was considerably more involved than anticipated. The site layout changes were significant enough that we re-drafted and/or re-formatted all of our profiles as well as the overall geotechnical map. One profile location (D-D') had to be shifted to reflect the final digester alignments. Review of pile layouts and finalizing pile and foundation design inputs for many of the structures and especially for the digester complex took much more time than originally estimated. The BV report comments (53 items) were addressed and a number of report tables (structural descriptions, pile design parameters) were either deleted or updated for the final report. Prior to the report

finalization, we also assisted you in the preparing your interim Foundation Alternatives Report to IRWD.

2. The time and effort to determining the number of test piles, their locations, their dimensions and the logistics of the test pile program was considerably beyond our estimate. Laying out the test pile program involved numerous conference calls, meetings, and correspondence with BV, IRWD, and Foundation Pile Company (and their structural engineers). Various exhibits and tables were prepared for this purpose that went through numerous revisions and refinements. Review efforts for the test pile submittals from the foundation contractor were also more than anticipated (still being wrapped up at this writing). We were also asked to review and comment on the specifications for the test pile program.
3. The level of project management for carrying out the above tasks, including correspondence between all the involved parties exceeded our prior estimate.

ESTIMATED ADDITIONAL COST BREAKDOWN

From actual charges, we estimate the following division of extra costs for the above described tasks:

| ITEM | PRIOR ESTIMATE | ADDITIONAL COST |
|---|----------------|-----------------|
| Finalize pile foundation parameters and finalizing exploration report | \$2,000 | \$6,500 |
| Test Pile Program | \$1,500 | \$5,000 |
| Project Management | \$1,000 | \$1,500 |
| | | |
| Total Variance Request | | \$13,000 |

If you have any questions regarding this request, please contact our office. We appreciate the continued opportunity to assist you on this project.

Respectfully submitted,

NMG GEOTECHNICAL, INC.


Ted Miyake, RCE 44864
Principal Engineer

TM/je

Distribution: (1) Addressee

EXHIBIT "D"
IRVINE DISTRICT
PROFESSIONAL SERVICES VARIANCE

Project Title: SAN DIEGO CREEK FLDWALL IMPROV. File No.: 20542 and 30542
 Date: December 29, 2011
 Variance No.: 11

Project No.: 20542 and 30542
 Purchase Order No.: 502492

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (*attach any back-up material*):
Provide additional engineering services for the San Diego Creek Floodwall Improvement project.

Engineering & Management Cost Impact:

| Classification | Manhours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|---|----------|--------------|----------|--------------|------------|-----------------|
| 1. Meetings and Coordination | | | | | | \$12,000 |
| 2. Construction Support Services | | | | | | \$35,000 |
| 3. Floodwall Improvement Record Drawings | | | | | | \$3,000 |
| 4. MWRP Overall Fencing Plan | | | | | | \$7,500 |
| 5. Letter of Map Revision Application Package | | | | | | \$7,500 |
| 6. Process LOMR Package with City of Irvine | | | | | | \$3,500 |
| 7. Submit LOMR Package to FEMA | | | | | | \$5,500 |
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| | | | | | | |
| Total \$ = | | | | | | \$74,000 |

Schedule Impact:

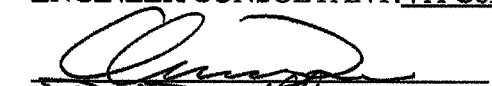
| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|------------------|-------------------|-------------------|--------------|
| 1-7 | See above | April 2012 | 160 Days | October 2012 |
| | | | | |
| | | | | |


Required Approval Determination:

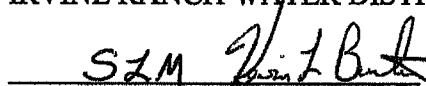
| | | |
|--|--------------------|---|
| Total Original Contract | <u>\$426,692</u> | <input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. |
| Previous Variances | <u>\$614,600</u> | <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. |
| This Variance | <u>\$ 74,000</u> | <input type="checkbox"/> Board: Single Variance greater than \$60,000. |
| Total Sum of Variances | <u>\$688,600</u> | <input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher. |
| New Contract Amount | <u>\$1,115,292</u> | |
| Percentage of Total Variances to Original Contract | <u>161.4</u> % | |

ENGINEER/CONSULTANT: VA Consulting, Inc.

IRVINE RANCH WATER DISTRICT


 Project Engineer/Manager _____
 Date 12/29/2011


 Engineer's/Consultant's Management _____
 Date 12/29/2011

SZM 
 Department Director _____
 Date 1/9/12

General Manager/Comm./Board _____
 Date _____

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: SAN DIEGO CREEK FLOODWALL IMPROVEMENT

Project No.: 20542 and 30542 Project Manager: STEVE MALLOY

| Variance No. | Description | Dates | | Variance Amount |
|--------------|--|-----------|----------|-----------------|
| | | Initiated | Approved | |
| 1 | Floodwall align. Alt. | 11/8/07 | 11/26/07 | \$88,600 |
| 2 | University Lift Station Earthen Berm | 10/31/08 | 11/05/08 | \$28,500 |
| 3 | Value Engineering | 11/19/08 | 12/02/08 | \$10,500 |
| 4 | Campus Drive Access/Fldwall Phasing | 1/12/09 | 1/29/09 | \$67,200 |
| 5 | Additional Geotech. Service for CLOMR | 3/4/2009 | 3/23/09 | \$75,200 |
| 6 | Fldwall Plan Revision | 5/11/2009 | 5/26/09 | \$156,200 |
| 7 | Riparian View at Michelson Roadway Widengin | 8/6/2009 | 10/23/29 | \$6,900 |
| 8 | Riparian View Widening, Campus Dr Access, plan rev | 9/8/2009 | 10/23/09 | \$82,500 |
| 9 | SJM Wall Plan Rev Add'l Permitting | 2/3/2010 | 2/24/10 | \$49,500 |
| 10 | OCFCD Permit Processing and Add'l Const Suppot | 8/30/2010 | 9/30/10 | \$49,500 |
| 11 | Construction Support, MWRP Fencing&LOMR | 12/29/11 | | \$74,000 |
| | | | | |
| | | | | |
| | | | | |



December 29, 2011

Mr. Steven L. Malloy, P.E.
Irvine Ranch Water District
3512 Michelson Drive
Irvine, CA 92612

Dear Steve:

This letter is a variance request to provide additional construction support engineering services related to the construction of the San Diego Creek Floodwall Improvements at the Irvine Ranch Water District (IRWD) Michelson Water Reclamation Plant (MWRP) (our Agreement and Notice to Proceed dated May 30, 2007, Project No. 20542 (1150) and 30542 (1118)).

This variance request includes providing additional engineering support services required during the construction of the floodwall. The services include continuing construction coordination, shop drawing reviews, respond to RFIs, attending meetings, as requested, additional record drawing preparation, as the floodwall improvements have been changed or will be changed during construction due to differences between utility locations shown on record drawings and utility locations uncovered during the construction.

This request also provides for the preparation of an overall MWRP fencing plan which will integrate with the floodwall to provide security for the plant. Furthermore, in anticipation of the completion of the floodwall improvements, this variance request also provides for the preparation of a Letter of Map Revision (LOMR) application package and supporting technical documents, and the processing with the City of Irvine and FEMA to formally remove the MWRP from the floodplain as conditionally approved by FEMA pending the completion of the floodwall improvements and the submittal of the As-Built Plans for the floodwall.

The total amount of this change order request is \$74,000. A detailed scope of work (Exhibit "A") and fees (Exhibit "B") are included with this letter. We will perform our services on a time and materials, not-to-exceed basis in accordance with our original contract and fee schedule.

We look forward to continuing to work with you on this project. If you have any questions or would like to discuss this change order request, please call Roger Chung at (949) 474-1401 extension 271 or myself at extension 212.

Sincerely,

A handwritten signature in black ink, appearing to read 'Max P. Vahid', written over a white background.

Max P. Vahid
President and CEO

MPV/cjt

Encl: Exhibit "A" – Scope of Work
Exhibit "B" – Fees

cc: Roger Chung; Contracts

X:\Projects\267_2100\Admin\CO#111267_2100-Proposal_rev1.d

VA Consulting, Inc.
Corporate Office
Orange County Division
6400 Oak Canyon, Suite 150
Irvine, CA 92618

Phone 949.474.1400
Fax 949.261.8482



EXHIBIT "A"
SAN DIEGO CREEK FLOODWALL IMPROVEMENTS
ADDITIONAL CONSTRUCTION SUPPORT

SCOPE OF WORK

1. Meetings and Coordination

This task includes attendance of various meetings as requested by IRWD. This task includes a total of 80 man-hours for attendance at meetings and participating in coordination activities during the course of the construction.

2. Construction Support Services

This task provides for engineering support services during construction of the Floodwall improvements. The services include review and respond to shop drawings, review and respond to RFI's, and conducting field observation during construction in order to verify that the floodwall is being constructed in substantial conformance to the construction plans. The anticipated construction completion date is October 31, 2012, which is 6 months longer than originally anticipated at the time of our original construction support proposal.

3. Floodwall Improvement Record Drawings

This task provides for preparation of record drawings to include additional as-built items that were changed in the field during construction. This task includes a total of 20 man-hours for the preparation of record drawings.

4. MWRP Overall Fencing Plan

This task provides for preparation of the MWRP overall fencing drawings to integrate with the floodwall improvement, MWRP Phase 2 Expansion and the proposed Bio-Solid improvements. It is anticipated that the fencing plan will be prepared on a 1"=40' scale and will include location, height and types of fencing required for the security of the MWRP perimeter. This task includes 3 submittals to IRWD for review and comments and the incorporation of IRWD comments after each review.

5. Letter of Map Revision (LOMR) Application Package

This task provides for the completion of necessary FEMA MT-2 Forms required for the completion of the LOMR application package. The application package will include a set of the Engineer-of-Record As-Built plans for the floodwall, the final IRWD board adopted MWRP Flood Protection Operation and Maintenance Plan (O&M), and a redlined/annotated FIRM showing the LOMR proposed floodplain revisions. The LOMR application package will be stamped and signed by the Engineer-of-Record responsible for its contents.

6. Process LOMR Package with City of Irvine

Floodplain changes within any community that participates in the National Flood Insurance Program (NFIP) can only be requested by the Floodplain Administrator for that community. In this instance, the Floodplain Administrator is the City of Irvine. Thus, the City will need to review and endorse the LOMR application package prior to its submittal to FEMA. The City's review will include a verification, or plan-check, of the completeness of the LOMR application package. This task provides for responding to comments issued by the City

during their reviews and incorporating City requested changes to the LOMR application package as appropriate.

7. **Submit LOMR Package to Federal Emergency Management Agency**

Upon City endorsement, the LOMR application package will be submitted directly to FEMA on behalf of the City. Along with the application package, the relevant review fees will be required to be paid by IRWD. The LOMR application package will then be forwarded to FEMA's engineering consultant for review of its technical components. Following the technical review, FEMA staff will perform an administrative review of the application package to verify compliance with current FEMA regulations. During both review processes, comments and questions may be issued by FEMA to the attention of the Engineer-of-Record responsible for the LOMR application contents. VA anticipates that FEMA may comment and request additional design data pertaining to the changes to the floodwall plan that has transpired during the construction process. The LOMR will be issued by FEMA upon the completion of their review.

January 23, 2012 *JS*
Prepared by: S. Malloy/C. Spangenberg
Submitted by: K. Burton *KRB*
Approved by: Paul Cook */ Paul Cook*

CONSENT CALENDAR

BUREAU OF RECLAMATION WATERSMART GRANT APPLICATION FOR MWRP MICROTURBINE SYSTEM PROJECT

SUMMARY:

The Bureau of Reclamation is accepting applications for grant funding under its 2012 Fiscal Year WaterSMART Program that is designed to leverage funding through cost-sharing for water and energy efficiency projects in the west. Staff recommends that the Board:

- Authorize submitting a grant application for the Michelson Water Recycling Plant (MWRP) Microturbine System Project (a component of the MWRP Biosolids Project), and;
- Adopt a resolution authorizing the District to apply for funding of up to \$1.5 million with a matching fund requirement of at least 50 percent and committing the District to meeting established requirements for receipt of the funding.

BACKGROUND:

The Bureau of Reclamation, through its WaterSMART grant funding program, is providing leveraged funding for water sustainability and energy projects in the west. The MWRP Microturbine System Project falls into the eligible project funding category for “energy and efficiency projects that increase the use of renewable energy sources or result in energy savings in the management and delivery of water.”

The MWRP Microturbine System Project is a component of the MWRP Biosolids and Energy Recovery Facility Project and will produce power using biogas in order to efficiently expand recycled water production at MWRP. The MWRP Microturbine System Project includes the installation of four 250 kilowatt microturbines for a total installed power production capacity of 1 megawatt. The microturbine system will be furnished to provide continuous energy production from a blend of biogas (75-100%) and natural gas (0-25%) that will enhance the plant’s energy efficiency to support the production of more recycled water at the MWRP Phase 2 Expansion Project.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7; a Supplemental Environmental Impact Report (SEIR) is being prepared. Staff anticipates bringing the SEIR to the Board for adoption in August 2012.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 19, 2012.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE STAFF TO APPLY FOR THE BUREAU OF RECLAMATION WATERSMART GRANT WITH A MAXIMUM AWARD OF \$1.5 MILLION IN TOTAL FUNDING TO INCREASE THE USE OF RENEWABLE ENERGY, ENERGY USE AND EFFICIENCY, WATER USE, AND COMMIT TO AUTHORIZING MATCHING FUNDS OF AT LEAST FIFTY PERCENT; AGREE TO MEET ESTABLISHED DEADLINES FOR ENTERING INTO A COOPERATIVE AGREEMENT; AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2012 –

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE RANCH WATER DISTRICT AUTHORIZING SUBMISSION OF A GRANT APPLICATION FOR MICHELSON WATER RECYCLING PLANT MICROTURBINE SYSTEM PROJECT TO THE DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION, POLICY AND ADMINISTRATION

LIST OF EXHIBITS:

Exhibit "A" – Resolution for Michelson Water Recycling Plant Microturbine System Project

EXHIBIT "A"

RESOLUTION NO. 2012-
RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT AUTHORIZING SUBMISSION OF
A GRANT APPLICATION FOR THE MICROTURBINE SYSTEM PROJECT AT
MICHELSON WATER RECLAMATION PLANT
TO THE DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION, POLICY AND ADMINISTRATION

WHEREAS the Department of the Interior, Bureau of Reclamation, Policy and Administration (Reclamation) has released a Funding Opportunity Announcement to provide federal grant funding under the WaterSMART: Water and Energy Efficiency Grants for Fiscal Year (FY) 2012; and

WHEREAS Reclamation is seeking applications from eligible water or power delivery agencies to cost share 50 percent or more with Reclamation on projects that save water, improve energy efficiency, address endangered species and other environmental issues, and facilitate transfers to new uses; and

WHEREAS the Irvine Ranch Water District is eligible to submit an application for grant funding up to \$1.5 million for its Microturbine System Project at Michelson Water Recycling Plant with a cost share of 50 percent or more of the total project costs.

NOW, THEREFORE, the Board of Directors of IRVINE RANCH WATER DISTRICT DOES HEREBY RESOLVE, DETERMINE and ORDER as follows:

Section 1. The General Manager of the Irvine Ranch Water District or his/her designee is hereby authorized to submit an application to Reclamation for grant funding up to \$1.5 million for the Microturbine System Project at Michelson Water Recycling Plant.

Section 2. The Board of Directors of the Irvine Ranch Water District has reviewed and supports the application for a grant from Reclamation for the construction of the Microturbine System Project at Michelson Water Recycling Plant.

Section 3. The Irvine Ranch Water District hereby agrees and further confirms that it has the capability to provide its cost share funding (50 percent or more of the total project costs) as specified in the application's project funding plan.

Section 4. The General Manager or his/her designee is hereby authorized to enter into a cooperative agreement and any amendments thereto with Reclamation on behalf of the Irvine Ranch Water District.

Section 5. The General Manager or his/her designee is hereby authorized to work with Reclamation to meet the established deadlines for entering into a cooperative agreement.

Section 6. That the Secretary is hereby authorized to certify a copy of this resolution to accompany the grant application.


ADOPTED, SIGNED AND APPROVED this 23rd day of January 2012.

**President, IRVINE RANCH WATER
DISTRICT and the Board of Directors there of**

**Secretary, IRVINE RANCH WATER
DISTRICT and the Board of Directors there of**

**APPROVED AS TO FORM:
BOWIE, ARNESON, WILES & GIANONE
Legal Counsel-IRWD**

By: _____

January 23, 2012 ^{MS}
Prepared by: H. Cho/M. Cortez
Submitted by: K. Burton ^{KLB}
Approved by: Paul Cook 

CONSENT CALENDAR

PORTOLA ZONE 9 RESERVOIR ACCESS ROAD REPAIR – BUDGET ADDITION, EXPENDITURE AUTHORIZATION, AND CONSULTANT SELECTION

SUMMARY:

The Portola Zone 9 Reservoir Access Road Repair Project will rebuild the condemned access road to the Portola Zone 9 Reservoir. Staff recommends that the Board:

- Authorize the addition to the FY 2011-12 Capital Budget for the Portola Zone 9 Reservoir Access Road Project in the amount of \$94,600;
- Approve an Expenditure Authorization in the amount of \$94,600 for the Portola Zone 9 Reservoir Access Road Project; and
- Authorize the General Manager to execute a sole source agreement with NMG Geotechnical in the amount of \$59,158 for the Portola Zone 9 Reservoir Access Road Project.

BACKGROUND:

The Portola Zone 9 Reservoir was built in 1998 in Whiting Ranch Wilderness Park to serve the Zone 9 system in Portola Hills. Originally, the reservoir was accessed by a dirt access road off Santiago Canyon Road. There are two other longer access roads to the reservoir through the wilderness park from Foothill Ranch and from the Portola Zone 9 Booster Pump Station (BPS). All three roads are also used by Orange County Parks (OC Parks) to maintain the park, the Orange County Fire Authority (OCFA) for rescue and fire fighting, and Southern California Edison (SCE) to maintain their high voltage power lines. A location map showing the reservoir and access roads is attached as Exhibit "A".

In 2005, the slopes failed at two locations on the access road off Santiago Canyon Road leading the County of Orange to condemn the access road. The access road from the Portola Zone 9 BPS has also eroded over the years in one section as it is located in an active landslide. Since 2005, staff has used the longer access road from Foothill Ranch to get to the reservoir. This road is impassable during and immediately following rain storms which prevents staff from collecting water quality samples from the Portola Zone 9 Reservoir.

In August 2011, staff contacted OC Parks, SCE, and OCFA about working on a cooperative project to re-open the condemned access road from Santiago Canyon Road. OC Parks expressed interest in the project and in sharing costs for a feasibility study to determine what the options are to re-open the access road from Santiago Canyon Road and the access road from the Portola Zone 9 BPS. OCFA supports re-opening the road but does not have any money to contribute to the project. SCE also said they have no money to contribute to the project.

Staff and OC Parks staff developed a scope of work for the feasibility study and received a proposal from NMG Geotechnical which is attached as Exhibit “B”. The feasibility study will take soil borings on the two failed roads and provide design alternatives for road repair. Staff contacted NMG Geotechnical because they have background on the project as they studied the access road slope failure in 2005. Staff and OC Parks staff reviewed the proposal for \$59,158 and recommend contracting with NMG Geotechnical for the work. Staff and OC Parks also agreed to share the cost of the feasibility study with NMG Geotechnical contracting with IRWD and OC Parks reimbursing IRWD for half of the cost through a purchase order.

FISCAL IMPACTS:

The Portola Zone 9 Reservoir Access Road Repair, Project 11618 (3531), is not included in the FY 2011-12 Capital Budget. Staff requests the addition of Project 11618 (3531) to the FY 2011-12 Capital Budget and an Expenditure Authorization as shown in the table below. An Expenditure Authorization is attached as Exhibit “C”.

| Project No. | Current Budget | Addition <Reduction> | Total Budget | Existing EA | This EA Request | Total EA Request |
|--------------|----------------|----------------------|--------------|-------------|-----------------|------------------|
| 11618 (3531) | \$-0- | \$94,600 | \$94,600 | \$-0- | \$94,600 | \$94,600 |

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 on January 19, 2012.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION TO THE FY 2011-12 CAPITAL BUDGET IN THE AMOUNT OF \$94,600, FOR THE PORTOLA ZONE 9 RESERVOIR ACCESS ROAD REPAIR, PROJECT 11618 (3531); APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$94,600 FOR THE PORTOLA ZONE 9 RESERVOIR ACCESS ROAD REPAIR, PROJECT 11618 (3531); AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSULTANT AGREEMENT IN THE AMOUNT OF \$59,158 WITH NMG GEOTECHNICAL FOR THE PORTOLA ZONE 9 RESERVOIR ACCESS ROAD REPAIR, PROJECT 11618 (3531).

Consent Calendar: Portola Zone 9 Reservoir Access Road Repair – Budget Addition,
Expenditure Authorization, Consultant Selection
January 23, 2012
Page 3

LIST OF EXHIBITS:

Exhibit “A” – Location Map
Exhibit “B” – NMG Geotechnical Proposal
Exhibit “C” – Expenditure Authorization

EXHIBIT "A"

Portola Zone 9 Reservoir Access Road

WHITING RANCH
WILDERNESS PARK

Santiago Canyon Rd

Whiting Spur Rd

SLOPE FAILURE;
ROAD CONDEMNED

Mustard Rd

Whiting Spur Rd

PORTOLA ZONE 9
RESERVOIR

Water Tank Rd

TO FOOTHILL
RANCH

ZONE 9
PIPELINE

Whiting Rd

LANDSLIDE AREA;
ROAD ERODED TO
NARROW DIRT PATH

Dreaded Hill Rd

Whiting Rd

TO PORTOLA
ZN 9 BPS

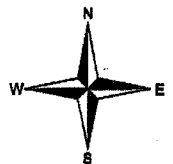


EXHIBIT "B"



December 2, 2011

Project No. 11111-01

To: Irvine Ranch Water District
Michelson Water Reclamation Plant
3512 Michelson Drive
Irvine, California 92612

Attention: Mr. Harry Cho

Subject: Updated Proposal for Geotechnical Exploration for Repair Alternatives for Two Access Roads at Whiting Ranch Wilderness Park, OC Parks, County of Orange, California

INTRODUCTION

At your request, NMG Geotechnical, Inc. (NMG) has prepared this proposal for geotechnical exploration to evaluate and provide alternative remedial recommendations for repair of two access roads in Whiting Ranch Wilderness Park. The two dirt access roads serve the Whiting Ranch Wilderness Park, provide access to Irvine Ranch Water Districts' (IRWD) Portola Zone 9 Reservoir and water transmission main, and provide access to Southern California Edison's (SCE) electrical transmission right-of-way through the park. The roads also serve as emergency access for OCFA and medical response teams as well as for maintenance for IRWD and SCE. The roads and related issues that will be evaluated consist of the following:

- The Whiting Spur road extends south from Santiago Canyon Road, approximately 1,400 linear feet up to the reservoir pad. The roadway elevations are from near 1,410 feet msl on Santiago Canyon Road, up to 1,480 feet msl at the tank. This road was an old ranch road that was designated on the IRWD Zone 9 Reservoir plans as the main access to the tank when the reservoir was constructed (see attached references; RBF, 1998 as-built plans). This road currently has three areas of surficial failures that restrict use of the roadway due to instability and safety issues.
- An approximately 300-foot-long portion of the access road that extends from the Santiago Reservoir to the southeast toward the Portola Hills Zone 8 Reservoir and Pump Station. This road is referred to as Whiting Road. This portion of road is where shallow landslides exist and where the Zone 9 reservoir transmission main line was constructed on a pile foundation. We understand that this portion of roadway was washed out during a storm in February and March 1998. Based on our field observations, it appears that the roadway has not been repaired since that time.

Our scope of services will include drilling, sampling and downhole logging of three large diameter, bucket-auger borings to depths of 40 to 60 feet deep, laboratory testing, geotechnical analysis and development of alternative remedial recommendations for the repair of both of these roadways. The alternative remedial designs will be preliminary for consideration by IRWD, OC Parks and SCE for budgeting purposes. Additional analysis and design may be needed for the final design of the remediation.

Our proposal and cost estimate are based on review of the prior project plans and geotechnical reports (reference list attached) provided by IRWD and OC Public Works; a background review of published geologic maps and reports; our field meetings on September 1, 2011 with IRWD, OCRDMD and OC Parks and on October 11, 2011, with IRWD, OC Parks, Orange County Fire Authority (OCFA) and SCE; and our experience on similar landslide and hillside projects. This proposal was updated with comments from IRWD and the OC Parks.

PROPOSAL ASSUMPTIONS AND GEOTECHNICAL ISSUES

Our proposal scope and estimated costs are based on the following assumptions:

- Entry to the site will be provided by the OC Parks. NMG will obtain an entry Permit from OC Parks. NMG will provide the boring location and access maps and insurance documentation as typically requested during the permitting process and permit fees will be waived as part of the cooperative agreement.
- Access to the site will be from the three following locations: 1) from Santiago Canyon Road; 2) along the "Water Tank Road" from the Foothill Ranch Reservoir site; and 3) from the Portola Hills Zone 8 reservoir site. We understand that IRWD will establish access from Santiago Canyon Road by moving the K-rail for our entry, and then replacing the K-rail after we have unloaded and accessed the site with the track-mounted, limited-access drill rig. The drill rig will be tracked to the first boring location on Whiting Spur Road. The drill rig will then be tracked over to the landslide area. The drill sites will be accessed by work trucks from both Foothill Ranch and Portola Hills tank sites since we cannot cross the narrow slide area on the Whiting Spur with vehicles. The two existing wood bollards on Whiting Spur road near the tank will also need to be removed for our trucks to access near the boring location. These bollards will then need to be reinstalled by others.
- OC Parks will close roads used as trails by hikers and bikers during days of drilling. If we have to leave a drill rig on a boring location overnight, the boring will be covered with plywood, the drill rig bucket will be placed over the top of the plywood, and the area would be marked with cones and tape for the night. The drilling and access will take approximately four days of field work and will be completed on weekdays during normal park operating hours.
- If the project is delayed into the rains or long-term storms, additional costs may be incurred during the field investigation portion of the work.
- This proposal does not include addition of erosion control after our investigation. If erosion control measures (such as gravel bags, straw waddles, etc.) are needed, this would be an additional cost unless it is performed by the County or IRWD. However, by using the track-

mounted limited access drill rig, the impact to the site should be significantly reduced since we would not need to clear vegetation for the track-mounted rig.

- Prevailing wage will apply for the drill rig costs since this is a public funded project and is reflected in the Field Exploration portions of the cost estimate.

SCOPE OF SERVICES

Our scope of services below is for the combined exploration with three borings on both Whiting Spur Road and Whiting Road.

1. **Background and Field Reconnaissance:** We will review published and unpublished maps and report pertinent to the geologic and geotechnical conditions of the site. Field meetings were attended with representative of the IRWD, OC Parks and OC Public Works on September 1, 2011, and with IRWD, OC Parks, OCFA and SCE on October 11, 2011.
2. **Field Exploration:** Our field work will include the following steps:
 - a) Stake boring locations, call Underground Service Alert (USA), and meet with IRWD to locate existing pipeline.
 - b) One large diameter bucket-auger boring will be drilled on the road above Santiago Canyon Road. This boring will be drilled to a depth of 40 feet, sampled and downhole-logged by an engineering geologist. This boring is needed to confirm favorable geologic conditions, assess weathering and fracture patterns and allow sampling for laboratory testing.
 - c) Two bucket-auger borings will be drilled in the landslide area. These borings will be drilled to a depth of 40 feet, sampled and downhole-logged by an engineering geologist. These borings are needed to determine the depth and conditions of the landslide materials and allow sampling for laboratory testing.
3. **Laboratory Testing:** Laboratory testing will be performed on selected soil samples to evaluate shear strengths and other engineering properties of the earth materials.
4. **Geotechnical Analysis:** Our analysis includes development of boring logs, maps and cross-sections, and evaluation of laboratory data. Our analysis will include slope stability analyses evaluation and development of alternative remedial grading measures for the repair of the access roads.
5. **Report Preparation:** We will prepare a geotechnical report with our findings and preliminary alternative recommendations. This report will include illustrations for the repair alternatives, including maps and cross-sections. Our report will provide alternative remedial grading measures for the repair of access roads and will include maps, sections and remedial grading quantities for each alternative repair at the landslide. We will interact with contractors to provide a "ballpark" cost estimate for different alternatives and as requested, we will include these cost estimates in our report.

6. **Project Coordination and Meetings:** We have included ten additional hours of principal time for project coordination and meetings.
7. **Survey and Topographic Map:** NMG will subcontract with Guida Survey to prepare a topographic map that shows the study area(s) at 1 inch equals 40 feet, with 1 foot contours. They will also provide a colored Ortho Photo of the site(s).
8. **Reimbursables:** This task will cover reproduction, messenger/delivery and mailing costs and other outside costs associated with the report and map preparation.

We have also included an alternative item to provide perspective drawings showing the different remedial options. In order to provide these visual simulations of the potential remedial grading alternatives we have included the services of a subconsultant, Digital Preview. NMG will provide our maps and cross sections and work with Digital Preview to prepare three different renderings at each site for the different options being considered. These drawings will be used within the different agencies to present the final view of options to help decide the selected alternative.

Please note that our proposed services do not include environmental analysis and requirements for CEQA.

ESTIMATED COST

We have provided separate costs for the two access road project. The following summaries provide Option 1 – Whiting Spur Only and Option 2 – Whiting Road Only, and Option 3 – Both Whiting Spur and Whiting Road. All three of these options include the Alternative for Perspective Drawings for the different remedial options. More detailed summaries of these scopes of services are provided in the attached Table 1 for all three options. If only one part of the work is authorized, costs for items such as permitting, mobilization, drill rig costs, analysis, and report costs (assuming one report would be prepared at each site), must be included for each option (loss of efficiency).

OPTION 1 – WHITING SPUR ONLY

| Proposed Tasks | Cost |
|--|-----------------|
| 1. Background and Field Reconnaissance | \$ 2,688 |
| 2. Field Exploration | \$ 8,040 |
| 3. Laboratory Testing | \$ 1,027 |
| 4. Geotechnical Analysis | \$ 5,854 |
| 5. Report Preparation | \$ 3,702 |
| 6. Project Coordination and Meetings | \$ 720 |
| 7. Survey and Topographic Map | \$ 5,934 |
| 8. Reimbursables | \$ 500 |
| Alternative – Perspective Drawings | \$ 6,078 |
| TOTAL: | \$35,543 |

OPTION 2 – WHITING ROAD ONLY

| Proposed Tasks | Cost |
|--|------------------|
| 1. Background and Field Reconnaissance | \$ 2,688 |
| 2. Field Exploration | \$10,728 |
| 3. Laboratory Testing | \$ 2,054 |
| 4. Geotechnical Analysis | \$ 7,784 |
| 5. Report Preparation | \$ 4,652 |
| 6. Project Coordination and Meetings | \$ 960 |
| 7. Survey and Topographic Map | \$ 5,934 |
| 8. Reimbursables | \$ 500 |
| Alternative – Perspective Drawings | \$ 6,318 |
| TOTAL: | \$ 41,618 |

OPTION 3 – BOTH WHITING SPUR AND WHITING ROAD

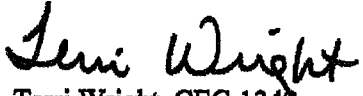
| Proposed Tasks | Cost |
|--|------------------|
| 1. Background and Field Reconnaissance | \$ 4,128 |
| 2. Field Exploration | \$15,354 |
| 3. Laboratory Testing | \$ 2,142 |
| 4. Geotechnical Analysis | \$10,434 |
| 5. Report Preparation | \$ 6,930 |
| 6. Project Coordination and Meetings | \$ 1,200 |
| 7. Survey and Topographic Map | \$ 8,706 |
| 8. Reimbursables | \$ 800 |
| Alternative – Perspective Drawings | \$ 9,464 |
| TOTAL: | \$ 59,158 |

We propose to perform our services on a not-to-exceed basis in accordance with the attached Professional Fee Schedule. If unforeseen or unanticipated events (such as hard drilling, caving, bad weather, additional scope, etc.) occur during our study, we will contact you as soon as practical. The total cost will not be exceeded without your prior authorization.

If you have any questions regarding this proposal, please contact our office. We appreciate this opportunity to provide our services.

Respectfully submitted,

NMG GEOTECHNICAL, INC.


Terri Wright, CEG 1343
Principal Geologist


Ted Miyake, RCE 44864
Principal Engineer

TW/TM/je

Attachments: References
Figure 1 – Map Showing Proposed Boring Locations
Table 1 – Scope of Services and Cost Estimate
Professional Fee Schedule

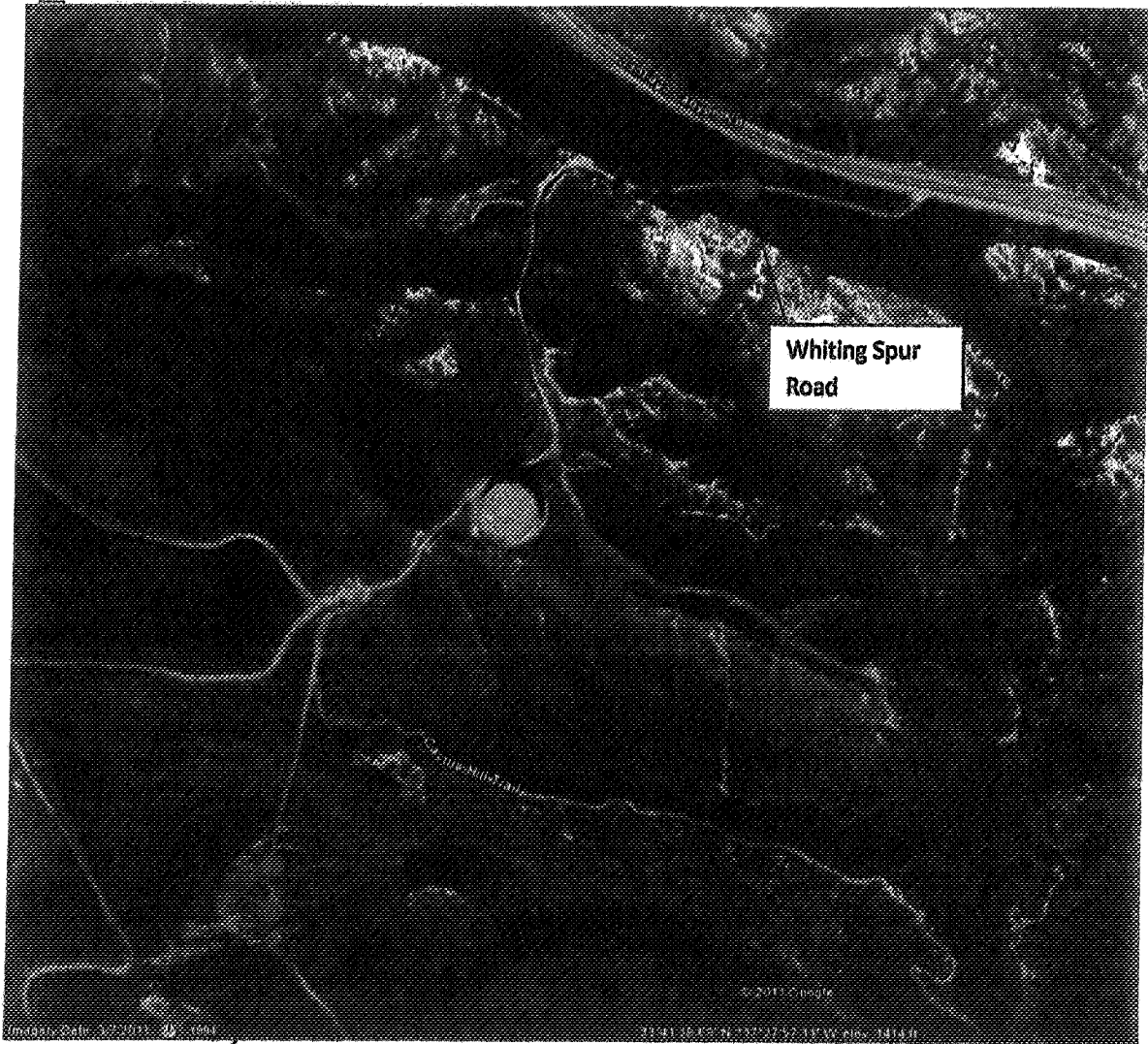
Distribution: (1) Addressee (electronic copy)

REFERENCES

- Boyle, 2007, Whiting Spur Road Erosion Damage Evaluation, Project No. 22048.04, dated March 2007.
- County of Orange, 1998, Access Road to Whiting Ranch @ Santiago Canyon Road, memorandum prepared by David N. Marshall, Manager Construction, dated August 12, 1998.
- County of Orange Public Facilities & Resources Department, 2000, Whiting Ranch Access road from Santiago Canyon Road, memorandum prepared by Ken E. Smith, Materials Engineer, dated August 4, 2004.
- County of Orange Resources and Development Management Department, 2004, Reservoir Access Road in Whiting Ranch Wilderness Park, letter prepared by RDMD to IRWD, dated August 4, 2004.
- County of Orange Resources and Development Management Department, 2005, Slope Stability Above and Adjacent to Santiago Canyon Road, Below Whiting Road, Memorandum by Steven G. Martindale, Engineering Geologist and Hamid Abedzadeh, Senior Civil Engineer, dated January 30, 2006.
- County of Orange Resources and Development Management Department, 2005, Slope Stability Above and Adjacent to Santiago Canyon Road, Below Whiting Road, memorandum by Steven G. Martindale, Engineering Geologist, dated June 24, 2005.
- County of Orange Resources and Development Management Department, 2005, Update of Condition of Slope between Santiago Canyon Road and Whiting Road, memorandum by Steven G. Martindale, Engineering Geologist, dated August 30, 2005.
- County of Orange Resources and Development Management Department, 2006, Update of Condition of Slope between Santiago Canyon road and Whiting Road, and Whiting Road above this slope, memorandum by Steve G. Martindale, Engineering Geologist, dated January 30, 2006.
- Goffman, McCormick & Urban, Inc., 1995, Report of Geotechnical Studies, Whiting Ranch Wilderness Park, Zone 9 Domestic Water Reservoir and Inlet/Outlet Pipeline, Irvine Ranch Water District, Irvine, California, Project No. 95-11, dated July 13, 1995.
- Goffman, McCormick & Urban, Inc., 1995, Geotechnical Recommendations Pertaining to Pipeline Design and Construction Through the Active Landslide Area, Zone 9 Reservoir and Transmission Main, Whiting Ranch Park, Irvine Ranch Water District, Project No. 95-11, dated November 6, 1995.
- Goffman, McCormick & Urban, Inc., 1996, Results of Geotechnical Investigation, Zone 9 Reservoir Transmission Main through Active Landslide Area, Whiting Ranch Wilderness Park, Project No. 96-16, dated April 24, 1996.
- Goffman, McCormick & Urban, Inc., 1995, Submittal of Landslide Damage Photographs, Whiting Ranch Zone 9 Reservoir, Project No. 96-16, dated March 25, 1998.

REFERENCES (Cont'd)

- Goffman, McCormick & Urban, Inc., 1999, Geotechnical Observations and Recommendations, Landslide Damage Due to 1998 Storm, Zone 9 Reservoir Transmission Main Through Active Landslide Area, Whiting Ranch Wilderness Park, Project No. 96-16, dated January 19, 1999.
- Goffman, McCormick & Urban, Inc., 1999, Geotechnical Observations, Landslide Movement, Zone 9 Reservoir Transmission Main through Active Landslide Area, Whiting Ranch Wilderness Park, Project No. 96-16, dated October 28, 1999.
- Goffman, McCormick & Urban, Inc., 1999, Geotechnical Services and Budget Increase Request – Observations of the Installation of Additional Drilled Piles and Existing Conditions of Santiago Canyon Road Access Road, Zone 9 Reservoir and Transmission Main, Whiting Ranch Wilderness Park, Project No. 96-16, dated December 15, 1999.
- Robert Bein, William Frost & Associates (RBF), 1998, Whiting Ranch Wilderness Park Zone 9 Domestic Water Reservoir and Transmission Main, As-built Plans (42 sheets) sign dated January 16, 1998.



Whiting Road

Whiting Spur
Road

Map showing Proposed Boring Locations (●)
Whiting Ranch Wilderness Area
Figure 1

TABLE 1
Scope of Services and Cost Estimate

| Task | Staff Category | Hours | Unit | Cost |
|---|------------------|-------|-------|-----------------|
| Option 1 - Whiting Spur Only | | | | |
| GEOTECHNICAL PORTION | | | | |
| 1. Background Review and Field Reconnaissance | | | | |
| Background Review | Senior Staff | 6 | \$88 | \$528 |
| | Principal | 10 | \$120 | \$1,200 |
| Field Mapping and Reconnaissance/Field Meetings | Principal | 8 | \$120 | \$960 |
| | Subtotal: | | | \$2,688 |
| 2. Field Exploration | | | | |
| Bee Hive Removal | | | | \$150 |
| Entry Permit Application | Senior Staff | 8 | \$88 | \$704 |
| Stake Borings, Call USA, Meet w/ IRWD to locate utilities | Senior Staff | 4 | \$88 | \$352 |
| One Bucket Auger Borings: Limited Access Rig | Senior Staff | 18 | \$88 | \$1,584 |
| | Principal | 4 | \$120 | \$480 |
| Drill Rig Rental (Prevailing Wage) | | 18 | \$265 | \$4,770 |
| | Subtotal: | | | \$8,040 |
| 3. Laboratory Testing | | | | |
| Moisture Density | | 6 | \$22 | \$132 |
| Direct Shear (Undisturbed) | | 1 | \$220 | \$220 |
| Direct Shear (Residual) | | 1 | \$550 | \$550 |
| Atterberg Limits | | 1 | \$125 | \$125 |
| | Subtotal: | | | \$1,027 |
| 4. Geotechnical Analysis | | | | |
| Map, Cross-Sections, Boring Logs | Senior Staff | 10 | \$88 | \$880 |
| | Principal | 4 | \$120 | \$480 |
| Laboratory Data | Project | 4 | \$103 | \$412 |
| Slope Stability | Project | 8 | \$103 | \$824 |
| | Principal | 6 | \$120 | \$720 |
| Remedial Design Alternatives | Project | 6 | \$103 | \$618 |
| | Principal | 10 | \$120 | \$1,200 |
| Principal Review | Principal | 6 | \$120 | \$720 |
| | Subtotal: | | | \$6,854 |
| 5. Report Preparation, Reproduction and Delivery | | | | |
| | Project | 10 | \$103 | \$1,030 |
| | Principal | 14 | \$120 | \$1,680 |
| | Tech Illustrator | 10 | \$65 | \$650 |
| | Word Processor | 6 | \$67 | \$402 |
| | Subtotal: | | | \$3,762 |
| 6. Project Coordination and Meetings | | | | |
| | Principal | 6 | \$120 | \$720 |
| | Subtotal: | | | \$720 |
| 7. Survey and Topographic Map | | | | |
| NMG Coordination with Survey | Senior Staff | 8 | \$88 | \$704 |
| | Principal | 4 | \$120 | \$480 |
| Subconsultant - Guida Survey | | | | \$4,750 |
| | Subtotal: | | | \$5,934 |
| 8. Reimbursables | | | | |
| | | | | \$500 |
| | Subtotal: | | | \$500 |
| GEOTECHNICAL AND SURVEY TOTAL: | | | | \$28,485 |
| ALTERNATIVE ITEM - PERSPECTIVE DRAWINGS SHOWING REMEDIAL GRADING OPTIONS | | | | |
| 1. NMG to provide input for design | | | | |
| | Project | 6 | \$103 | \$618 |
| | Principal | 8 | \$120 | \$960 |
| | Subtotal: | | | \$1,578 |
| 2. Subconsultant - Digital Preview Designer | | | | |
| Aerial Oblique Photographs | | | | \$1,800 |
| Drawings for Whiting Spur (3) | | | | \$2,700 |
| | Subtotal: | | | \$4,500 |
| ALTERNATIVE ITEM TOTAL: | | | | \$6,078 |
| OPTION 1 TOTAL: | | | | \$34,543 |

TABLE 1
Scope of Services and Cost Estimate

| Task | Staff Category | Hours | Unit | Cost |
|---|------------------|-------|-------|-----------------|
| Option 2 - Whiting Road Only | | | | |
| GEOTECHNICAL PORTION | | | | |
| 1. Background Review and Field Reconnaissance | | | | |
| Background Review | Senior Staff | 6 | \$88 | \$528 |
| | Principal | 10 | \$120 | \$1,200 |
| Field Mapping and Reconnaissance/Field Meetings | Principal | 8 | \$120 | \$960 |
| | Subtotal: | | | \$2,688 |
| 2. Field Exploration | | | | |
| Entry Permit Application | Senior Staff | 8 | \$88 | \$704 |
| Stake Borings, Call USA, Meet w/ IRWD to locate utilities | Senior Staff | 4 | \$88 | \$352 |
| Two Bucket Auger Borings: Limited Access Rig | Senior Staff | 24 | \$88 | \$2,112 |
| | Principal | 10 | \$120 | \$1,200 |
| Drill Rig Rental (Prevailing Wage) | Drill Rig | 24 | \$285 | \$6,840 |
| | Subtotal: | | | \$10,728 |
| 3. Laboratory Testing | | | | |
| Moisture Density | | 12 | \$22 | \$264 |
| Direct Shear (Undisturbed) | | 2 | \$220 | \$440 |
| Direct Shear (Residual) | | 2 | \$550 | \$1,100 |
| Atterberg Limits | | 2 | \$125 | \$250 |
| | Subtotal: | | | \$2,054 |
| 4. Geotechnical Analysis | | | | |
| Map, Cross-Sections, Boring Logs | Senior Staff | 14 | \$88 | \$1,232 |
| | Principal | 6 | \$120 | \$720 |
| Laboratory Data | Project | 6 | \$103 | \$618 |
| Slope Stability | Project | 10 | \$103 | \$1,030 |
| | Principal | 6 | \$120 | \$720 |
| Remedial Design Alternatives | Project | 8 | \$103 | \$824 |
| | Principal | 18 | \$120 | \$1,920 |
| Principal Review | Principal | 6 | \$120 | \$720 |
| | Subtotal: | | | \$7,784 |
| 5. Report Preparation, Reproduction and Delivery | | | | |
| | Project | 12 | \$103 | \$1,236 |
| | Principal | 16 | \$120 | \$1,920 |
| | Tech Illustrator | 16 | \$65 | \$1,040 |
| | Word Processor | 8 | \$57 | \$456 |
| | Subtotal: | | | \$4,652 |
| 6. Project Coordination and Meetings | | | | |
| | Principal | 8 | \$120 | \$960 |
| | Subtotal: | | | \$960 |
| 7. Survey and Topographic Map | | | | |
| NMG Coordination with Survey | Senior Staff | 8 | \$88 | \$704 |
| | Principal | 4 | \$120 | \$480 |
| Subconsultant Cost - Guida Survey | | | | \$4,750 |
| | Subtotal: | | | \$5,934 |
| 8. Reimbursables* | | | | |
| | | | | \$500 |
| | Subtotal: | | | \$500 |
| GEOTECHNICAL AND SURVEY TOTAL: | | | | \$38,300 |
| ALTERNATIVE ITEM - PERSPECTIVE DRAWINGS SHOWING REMEDIAL GRADING OPTIONS | | | | |
| 1. NMG to provide input for design | | | | |
| | Project | 6 | \$103 | \$618 |
| | Principal | 10 | \$120 | \$1,200 |
| | Subtotal: | | | \$1,818 |
| 2. Subconsultant - Digital Preview Designer | | | | |
| Aerial Oblique Photographs | | | | \$1,800 |
| Drawings for Whiting Road (3) | | | | \$2,700 |
| | Subtotal: | | | \$4,500 |
| ALTERNATIVE TOTAL: | | | | \$6,318 |
| OPTION 2 TOTAL: | | | | \$41,618 |

TABLE 1
Scope of Services and Cost Estimate

| Task | Staff Category | Hours/ | Unit | Cost |
|---|------------------|--------|-------|-----------------|
| Option 3 - Exploration of Both Whiting Spur and Whiting Road Areas | | | | |
| 1. Background Review and Field Reconnaissance | | | | |
| Background Review | Senior Staff | 8 | \$88 | \$528 |
| | Principal | 14 | \$120 | \$1,680 |
| Field Mapping and Reconnaissance/Field Meetings | Principal | 18 | \$120 | \$1,920 |
| | Subtotal: | | | \$4,128 |
| 2. Field Exploration | | | | |
| Bee Hive Removal | | | | \$150 |
| Entry Permit Application | Senior Staff | 8 | \$88 | \$704 |
| Stake Borings, Call USA, Meet w/ IRWD to locate utilities | Senior Staff | 4 | \$88 | \$352 |
| Three Bucket Auger Borings: Limited Access Rig (4 days) | Senior Staff | 36 | \$88 | \$3,168 |
| | Principal | 12 | \$120 | \$1,440 |
| Drill Rig Rental (Prevailing Wage) | | 36 | \$285 | \$9,540 |
| | Subtotal: | | | \$15,384 |
| 3. Laboratory Testing | | | | |
| Moisture Density | | 16 | \$22 | \$352 |
| Direct Shear (Undisturbed) | | 2 | \$220 | \$440 |
| Direct Shear (Residual) | | 2 | \$550 | \$1,100 |
| Atterberg Limits | | 2 | \$125 | \$250 |
| | Subtotal: | | | \$2,142 |
| 4. Geotechnical Analysis | | | | |
| Map, Cross-Sections, Boring Logs | Senior Staff | 18 | \$88 | \$1,584 |
| | Principal | 12 | \$120 | \$1,440 |
| Laboratory Data | Project | 8 | \$103 | \$824 |
| Slope Stability | Project | 12 | \$103 | \$1,236 |
| | Principal | 6 | \$120 | \$980 |
| Remedial Design Alternatives | Project | 10 | \$103 | \$1,030 |
| | Principal | 20 | \$120 | \$2,400 |
| Principal Review | Principal | 8 | \$120 | \$980 |
| | Subtotal: | | | \$10,434 |
| 5. Report Preparation, Reproduction and Delivery | | | | |
| | Project | 20 | \$103 | \$2,060 |
| | Principal | 25 | \$120 | \$3,000 |
| | Tech Illustrator | 20 | \$65 | \$1,300 |
| | Word Processor | 10 | \$67 | \$670 |
| | Subtotal: | | | \$6,930 |
| 6. Project Coordination and Meetings | | | | |
| | Principal | 10 | \$120 | \$1,200 |
| | Subtotal: | | | \$1,200 |
| 7. Survey and Topographic Map | | | | |
| NMG Coordination with Survey | Senior Staff | 12 | \$88 | \$1,056 |
| | Principal | 8 | \$120 | \$720 |
| Subconsultant Cost - Guide Survey | | | | \$8,930 |
| | Subtotal: | | | \$9,706 |
| 8. Reimbursables | | | | |
| | | | | \$800 |
| | Subtotal: | | | \$800 |
| GEOTECHNICAL AND SURVEY TOTAL: | | | | \$48,694 |
| ALTERNATIVE ITEM - PERSPECTIVE DRAWINGS SHOWING REMEDIAL GRADING OPTIONS | | | | |
| 1. NMG to provide input for design | | | | |
| | Project | 8 | \$103 | \$824 |
| | Principal | 12 | \$120 | \$1,440 |
| | Subtotal: | | | \$2,264 |
| 2. Subconsultant - Digital Preview Designer | | | | |
| Aerial Oblique Photographs | | | | \$1,800 |
| Drawings for Whiting Spur (3) | | | | \$2,700 |
| Drawings for Whiting Road (3) | | | | \$2,700 |
| | Subtotal: | | | \$7,200 |
| ALTERNATIVE TOTAL: | | | | \$9,464 |
| OPTION 3 TOTAL: | | | | \$59,158 |



PROFESSIONAL FEE SCHEDULE

HOURLY RATES BY STAFF CATEGORY

| | |
|---|-------|
| Principal and Associate Engineer/Geologist..... | \$120 |
| Project Engineer/Geologist | \$103 |
| Senior Staff Engineer/Geologist..... | \$ 88 |
| Supervisory Technician | \$ 88 |
| Staff Engineer/Geologist | \$ 79 |
| Senior Project Technician | \$ 79 |
| Project Technician..... | \$ 72 |
| Staff Technician..... | \$ 65 |
| CAD Drafter/Technical Illustrator | \$ 65 |
| Word Processor..... | \$ 57 |
| Technical Assistant | \$ 47 |

LABORATORY TESTING

| | | | |
|---|--------|--------------------------------------|-------|
| Moisture Content..... | \$ 13 | Consolidation | \$175 |
| Moisture Content & Density..... | \$ 22 | - For time-rate, add \$35/increment | |
| Atterberg Limits..... | \$125 | - For remolded, add \$50/specimen | |
| Particle-Size Sieve Analysis | \$ 80 | - For reload, add \$100/cycle | |
| Finer than No. 200 Sieve..... | \$ 50 | Hydroconsolidation/Collapse | \$100 |
| Hydrometer Analysis | \$ 85 | Undisturbed Direct Shear | \$180 |
| Maximum Dry Density | \$190 | Undisturbed Direct Shear – Slow..... | \$275 |
| Maximum Dry Density with Oversize Particle..... | \$230 | Remolded Direct Shear | \$225 |
| Caitrans 216 Maximum Density | \$170 | Remolded Direct Shear – Slow..... | \$350 |
| Sand Equivalent..... | \$ 70 | Residual Direct Shear | \$550 |
| Soluble Sulfate Content..... | \$ 50 | R-Value..... | \$195 |
| Expansion Index..... | \$140 | Asphalt Maximum Density | \$190 |
| Concrete Compression (per cylinder) | \$ 25 | Grout Prisms (4) | \$100 |
| CMU Grouted Prisms | | Shotcrete Panel..... | \$100 |
| . Compression Test ≤8" x 8" x 16" | \$ 180 | | |
| . Compression Test >8" x 8" x 16" | \$ 250 | | |

NOTES

1. No additional charges for field vehicle usage, nuclear gauge, or overtime work.
2. Heavy equipment (i.e. drill rig, backhoe, CPT) charges will be invoiced at cost.
3. Delivery and outside reproduction charges will be invoiced at cost (reimbursable costs).
4. Outside laboratory test charges will be invoiced at cost.

IRVINE RANCH WATER DISTRICT EXHIBIT "C"

Expenditure Authorization

Project Name: PORTOLA ZONE 9 RESERVOIR ACCESS ROAD REPAIR

Project No: 11618 EA No: 1

ID Split: Miscellaneous

Project Manager: CORTEZ, MALCOLM

Project Engineer: CHO, HARRY

Request Date: January 3, 2012

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: | \$0 |
| This Request: | \$94,600 |
| Total EA Requests: | \$94,600 |
| Previously Approved Budget: | \$0 |
| Budget Adjustment Requested this EA: | \$94,600 |
| Updated Budget: | \$94,600 |
| Budget Remaining After This EA | \$0 |

Comments: Oracle 3531

| Phase | This EA Request | Previous EA Requests | EA Requests to Date | This Budget Request | Previous Budget | Updated Budget | Start | Finish |
|--|------------------|----------------------|---------------------|---------------------|-----------------|------------------|-------|--------|
| ENGINEERING DESIGN - IRWD | 20,000 | 0 | 20,000 | 20,000 | 0 | 20,000 | 1/12 | 8/12 |
| ENGINEERING DESIGN - OUTSIDE | 60,000 | 0 | 60,000 | 60,000 | 0 | 60,000 | 1/12 | 8/12 |
| DESIGN STAFF FIELD SUPPORT | 5,000 | 0 | 5,000 | 5,000 | 0 | 5,000 | 1/12 | 8/12 |
| ENGINEERING - CA&I IRWD | 0 | 0 | 0 | 0 | 0 | 0 | 9/12 | 2/13 |
| ENGINEERING - CA&I OUTSIDE | 0 | 0 | 0 | 0 | 0 | 0 | 9/12 | 2/13 |
| CONSTRUCTION FIELD SUPPORT | 0 | 0 | 0 | 0 | 0 | 0 | 9/12 | 2/13 |
| CONSTRUCTION | 0 | 0 | 0 | 0 | 0 | 0 | 9/12 | 2/13 |
| LEGAL | 1,000 | 0 | 1,000 | 1,000 | 0 | 1,000 | 1/12 | 2/13 |
| Contingency - 10.00% Subtotal | \$8,600 | \$0 | \$8,600 | \$8,600 | \$0 | \$8,600 | | |
| Subtotal (Direct Costs) | \$94,600 | \$0 | \$94,600 | \$94,600 | \$0 | \$94,600 | | |
| Estimated G/A - 180.00% of direct labor* | \$45,000 | \$0 | \$45,000 | \$45,000 | \$0 | \$45,000 | | |
| Total | \$139,600 | \$0 | \$139,600 | \$139,600 | \$0 | \$139,600 | | |
| Direct Labor | \$25,000 | \$0 | \$25,000 | \$25,000 | \$0 | \$25,000 | | |

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

Harry Cho

1/4/12

Department Director:

Kevin L. Burton

1/6/12

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 \$143,000. 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 1.150-2.

January 23, 2012 *DS*
Prepared by: K. Lew/M. Cortez
Submitted by: K. Burton *KLB*
Approved by: Paul Cook */ Paul Cook*

CONSENT CALENDAR

PLANNING AREA 40 CYPRESS VILLAGE PHASE 2 BUDGET, EXPENDITURE AUTHORIZATIONS, CONSTRUCTION CONTRACT, AND SUPPLEMENTAL REIMBURSEMENT AGREEMENT

SUMMARY:

Irvine Community Development Company (ICDC) is currently developing Planning Area 40 Cypress Village (PA 40) which includes the construction of streets, storm drains, domestic water, sewer, and recycled water improvements. As part of the project, ICDC will construct the IRWD capital facilities under a Supplemental Reimbursement Agreement. The Phase 2 IRWD capital facilities include approximately 1,300 feet of 12-inch diameter domestic water pipeline, 1,300 feet of 8-inch diameter recycled water pipeline and 2,700 feet of 6-inch diameter recycled water pipeline. Staff recommends that the Board:

- Authorize the addition of Project 11605 in the amount of \$194,700 and Project 31605 in the amount of \$216,700 to the FY 2011-12 Capital Budget;
- Approve Expenditure Authorizations for Project 11605 in the amount of \$194,700 and Project 31605 in the amount of \$216,700;
- Authorize the General Manager to execute a Supplemental Reimbursement Agreement with ICDC for design and construction of capital facilities within the PA 40 development; and
- Approve a construction contract in the amount of \$232,900.55 to the Reimbursement Agreement with ICDC for PA 40 to construct Phase 2 IRWD Capital Facilities.

BACKGROUND:

IRWD and ICDC have had a Reimbursement Agreement (RA) for construction of IRWD capital facilities in place since May 1997. Under this RA, a Supplemental Reimbursement Agreement serves to define the improvements to be designed and constructed within a specific Planning Area as well as the estimated reimbursable costs.

Planning Area 40 Cypress Village (PA 40) is bounded by Trabuco Road to the north, the Great Park to the east, the I-5 to the south, and Jeffrey Road to the west. The PA 40 Site Map is provided as Exhibit "A". ICDC is nearing completion of IRWD Capital Facilities construction for PA 40 Phase 1 under a Supplemental Reimbursement Agreement specific to PA 40 Phase 1 approved by the Board in January 2011. ICDC is now moving forward with Phase 2 construction of the PA 40 development. The Phase 2 construction will concentrate on the backbone facilities within the streets of Roosevelt and Tulip. The required IRWD domestic water, sewer, and recycled water capital facilities are documented in PA 40 Sub-Area Master Plan, as prepared by Stantec in January 2011 and shown in the capital system maps, which are provided as Exhibit "B".

The Phase 2 capital facilities will consist of approximately 1,300 feet of 12-inch diameter domestic water pipeline, 1,300 feet of 8-inch diameter recycled water pipeline, and 2,700 feet of

Consent Calendar: Planning Area 40 Cypress Village Phase 2 Budget, Expenditure Authorization, Construction Contract, and Supplemental Reimbursement Agreement

January 23, 2012

Page 2

6-inch diameter recycled water pipeline. The design and construction of the IRWD facilities will be performed under an ICDC contract through the terms of a Supplemental Reimbursement Agreement between IRWD and ICDC. The Supplemental Reimbursement Agreement, attached as Exhibit “C”, has been reviewed by IRWD’s legal counsel.

ICDC retained Wilson Mikami to prepare the PA 40 Phase 2 improvement plans. ICDC received bids from six contractors on September 15, 2011 for the PA 40 Phase 2 Improvements. Clearwater was the lowest bidder for the IRWD facilities with a bid amount of \$232,900.55 as shown in Exhibit “D”. In addition, ICDC has received consultant proposals for geotechnical soils testing and surveying during construction in the respective amounts of \$5,200 and \$4,875. ICDC will also contract with Wilson Mikami for engineering services during construction for a not-to-exceed amount of \$30,000. Staff has reviewed the consultant proposals and the construction bids and found the amounts to be acceptable.

A summary of the Phase 2 costs under this Supplemental Reimbursement Agreement is shown below.

| | |
|---|------------------------------|
| Design Engineering (Wilson Mikami) | \$ 16,720.00 |
| Design Geotechnical (GMU) | \$ 1,080.00 |
| Construction (Clearwater) | \$232,900.55 |
| Construction Soils Testing (LCG) | \$ 5,200.00 |
| Construction Surveying (Adams Streeter) | \$ 4,875.00 |
| Engineering Support during Construction | \$ 30,000.00 (not-to-exceed) |
| ICDC Administration Fee (1%) | \$ <u>2,329.00</u> |
| | \$293,104.55 |

FISCAL IMPACTS:

Funding for IRWD’s capital facilities will require the addition of Projects 11605 (1346) and 31605 (1229) to the FY 2011-12 Capital Budget and approval of Expenditure Authorizations in the amounts shown in the table below and in Exhibit “E”.

| Project No. | Current Budget | Addition <Reduction> | Total Budget | Existing EA | This EA Request | Total EA Request |
|--------------|----------------|----------------------|------------------|--------------|------------------|------------------|
| 11605 | \$-0- | \$194,700 | \$194,700 | \$-0- | \$194,700 | \$194,700 |
| 31605 | \$-0- | \$216,700 | \$216,700 | \$-0- | \$216,700 | \$216,700 |
| TOTAL | \$-0- | \$411,400 | \$411,400 | \$-0- | \$411,400 | \$411,400 |

The above funding provides for the reimbursement costs to ICDC for the design and construction of IRWD capital facilities, staff time, and consultant support during construction.

ENVIRONMENTAL COMPLIANCE:

The construction of the capital facilities for Planning Area 40 is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, Environmental Impact Report SCH #2000071014 was certified by the City of Irvine, the lead agency for this project, on February 29, 2008.

COMMITTEE STATUS:

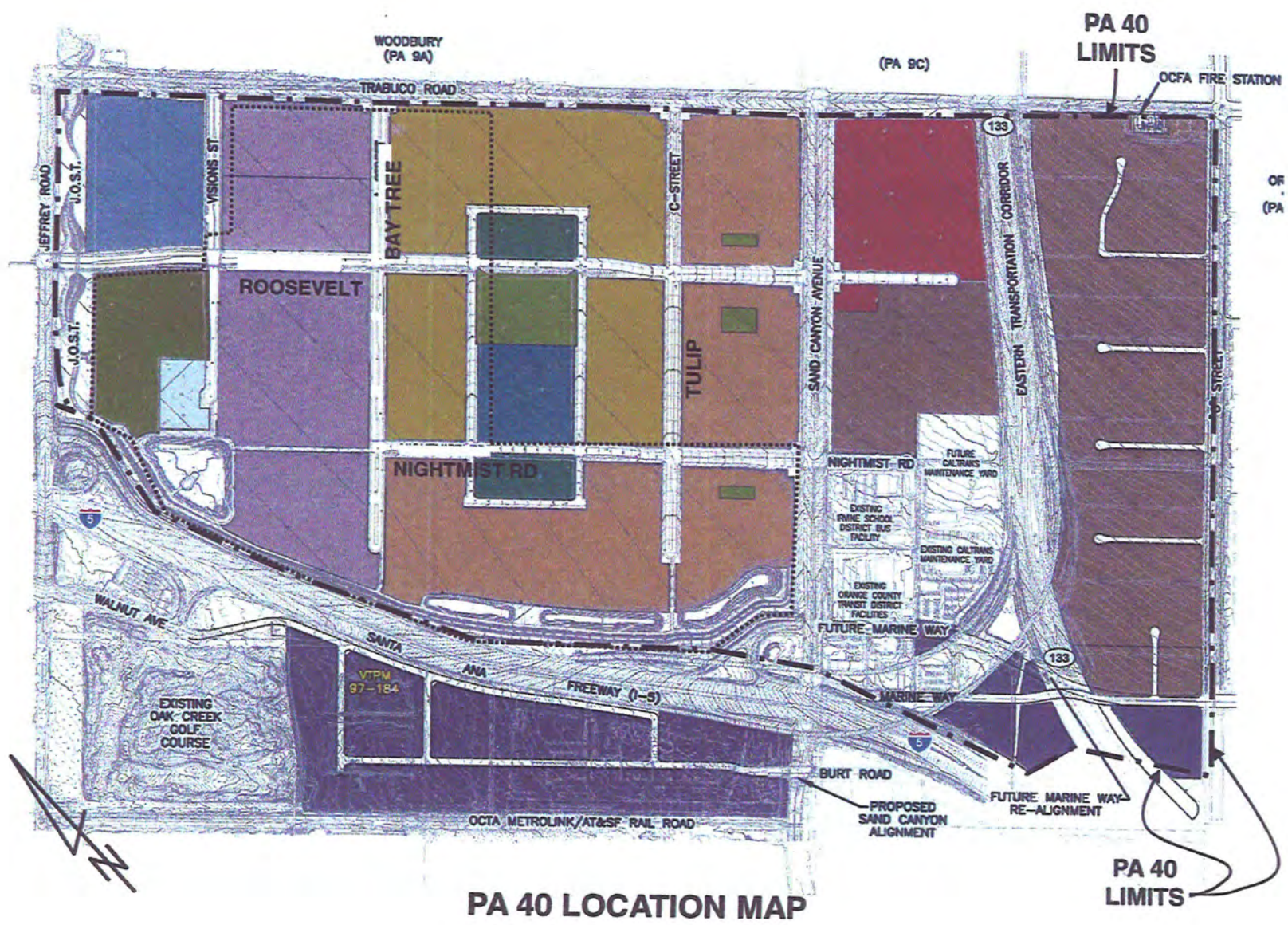
This item was reviewed by the Engineering and Operations Committee on January 19, 2012.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 11605 (1346) FOR \$194,700 AND PROJECT 31605 (1229) FOR \$216,700 TO THE FY 2011-12 CAPITAL BUDGET; APPROVE EXPENDITURE AUTHORIZATIONS FOR PROJECT 11605 (1346) FOR \$194,700 AND PROJECT 31605 (1229) FOR \$216,700; AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SUPPLEMENTAL REIMBURSEMENT AGREEMENT WITH THE IRVINE COMMUNITY DEVELOPMENT COMPANY FOR THE DESIGN AND CONSTRUCTION OF THE IRWD FACILITIES WITHIN PLANNING AREA 40 CYPRESS VILLAGE; AND APPROVE A CONSTRUCTION CONTRACT IN THE AMOUNT OF \$232,900.55 TO THE REIMBURSEMENT AGREEMENT WITH ICDC FOR PLANNING AREA 40 CYPRESS VILLAGE TO CONSTRUCT PHASE 2 IRWD CAPITAL FACILITIES, PROJECTS 10605 (1346) AND 31605 (1229).

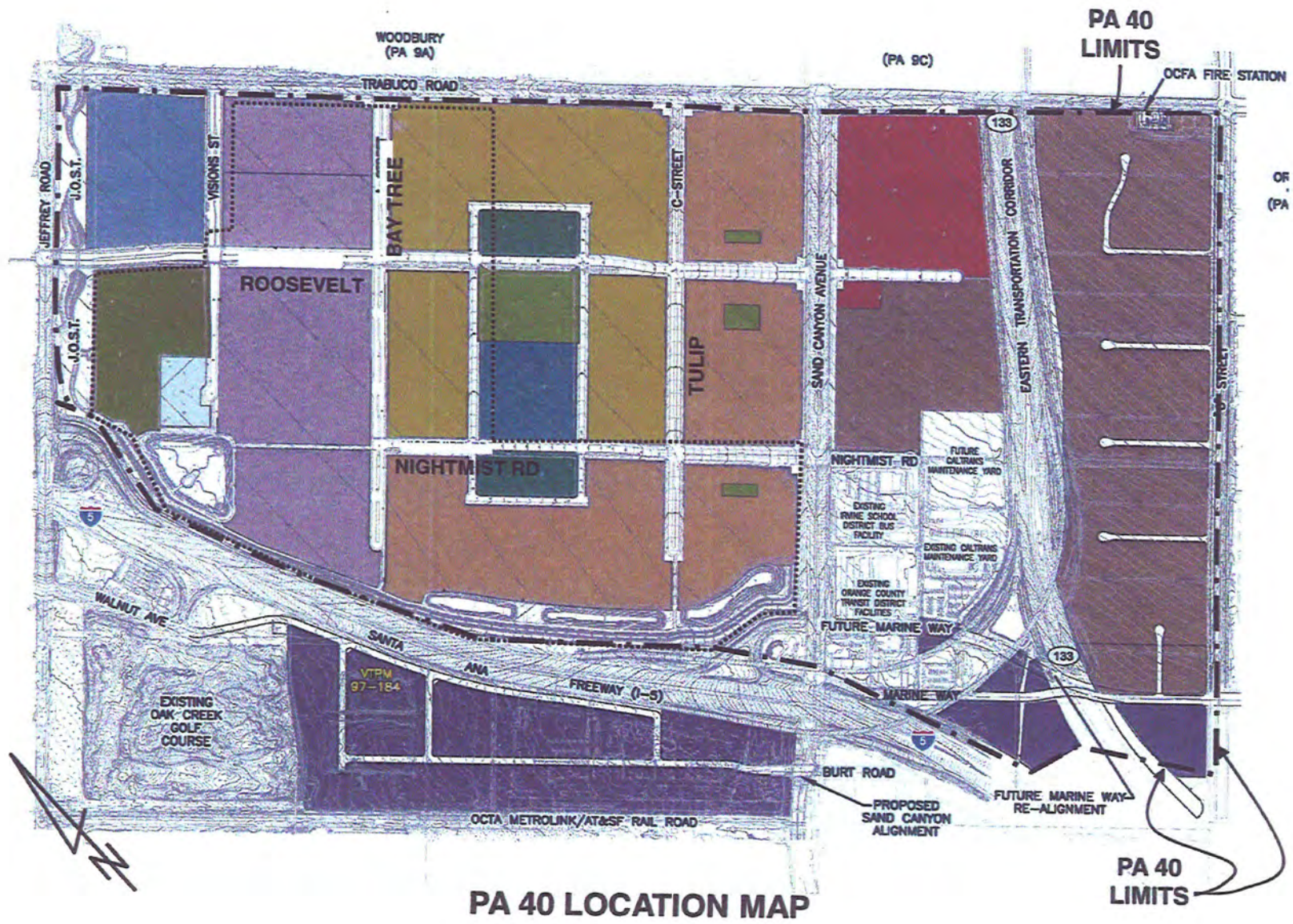
LIST OF EXHIBITS:

- Exhibit "A" – Planning Area 40 Location Map
- Exhibit "B" – Capital System Maps
- Exhibit "C" – Supplemental Reimbursement Agreement
- Exhibit "D" – Bid Summary for Construction of IRWD Capital Facilities
- Exhibit "E" – Expenditure Authorizations



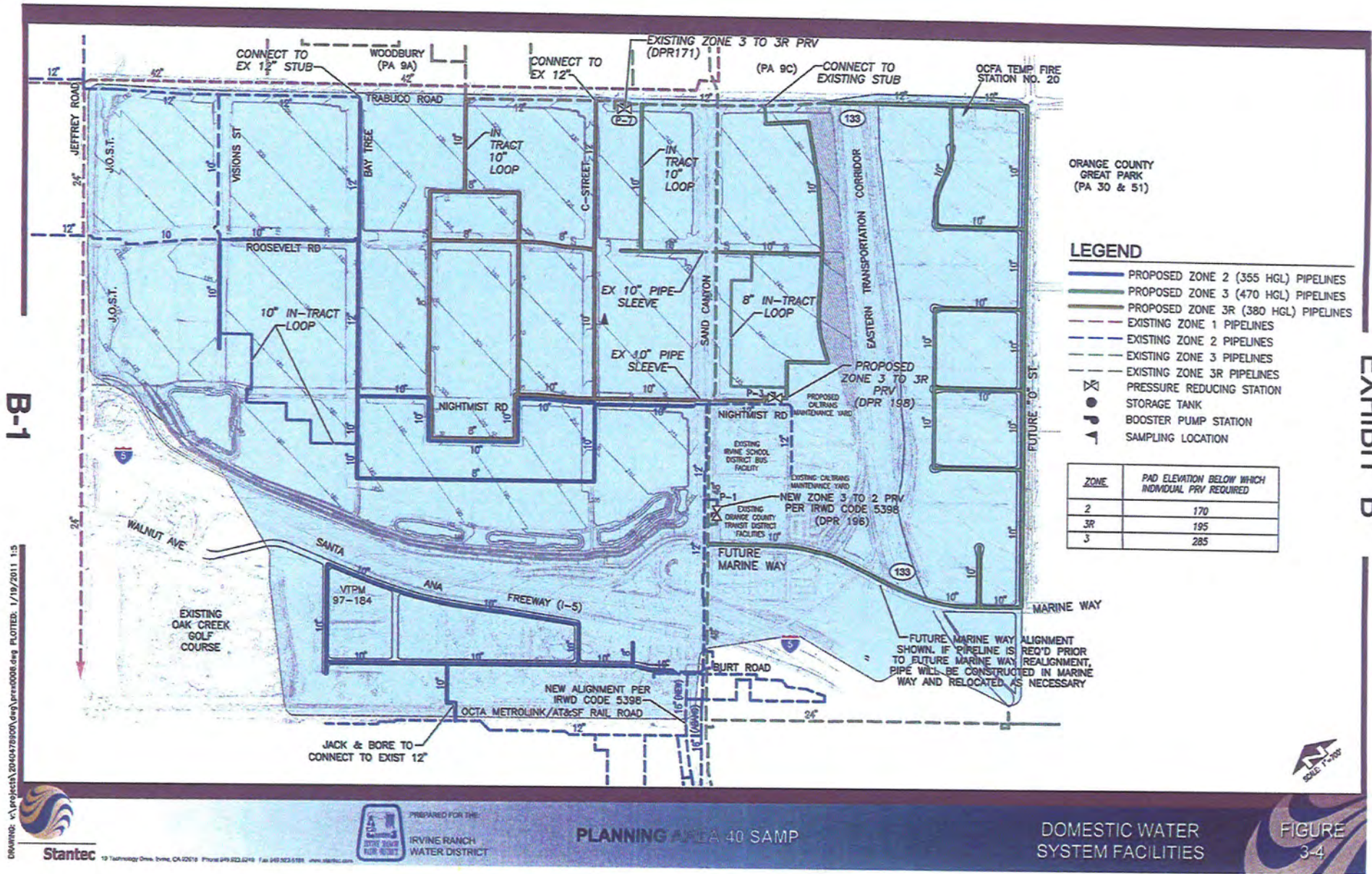
PA 40 LOCATION MAP

EXHIBIT "A"



PA 40 LOCATION MAP

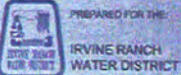
EXHIBIT "A"



DRAWING: \\proj\cs\1\20140428\000\proj\res\0008.dwg PLOTTED: 1/19/2011 1:5



19 Technology Drive, Irvine, CA 92618 Phone 949.822.2419 Fax 949.252.5188 www.stantec.com



PLANNING AREA 40 SAMP

DOMESTIC WATER SYSTEM FACILITIES



FIGURE 3-4

B-2

0:\projects\1204047800\dwg\area0004.dwg PLOTTED: 1/19/2011 1:56 P



Stantec

19 Technology Drive, Irvine, CA 92618 | Phone 949.822.2249 | Fax 949.822.8188 | www.stantec.com



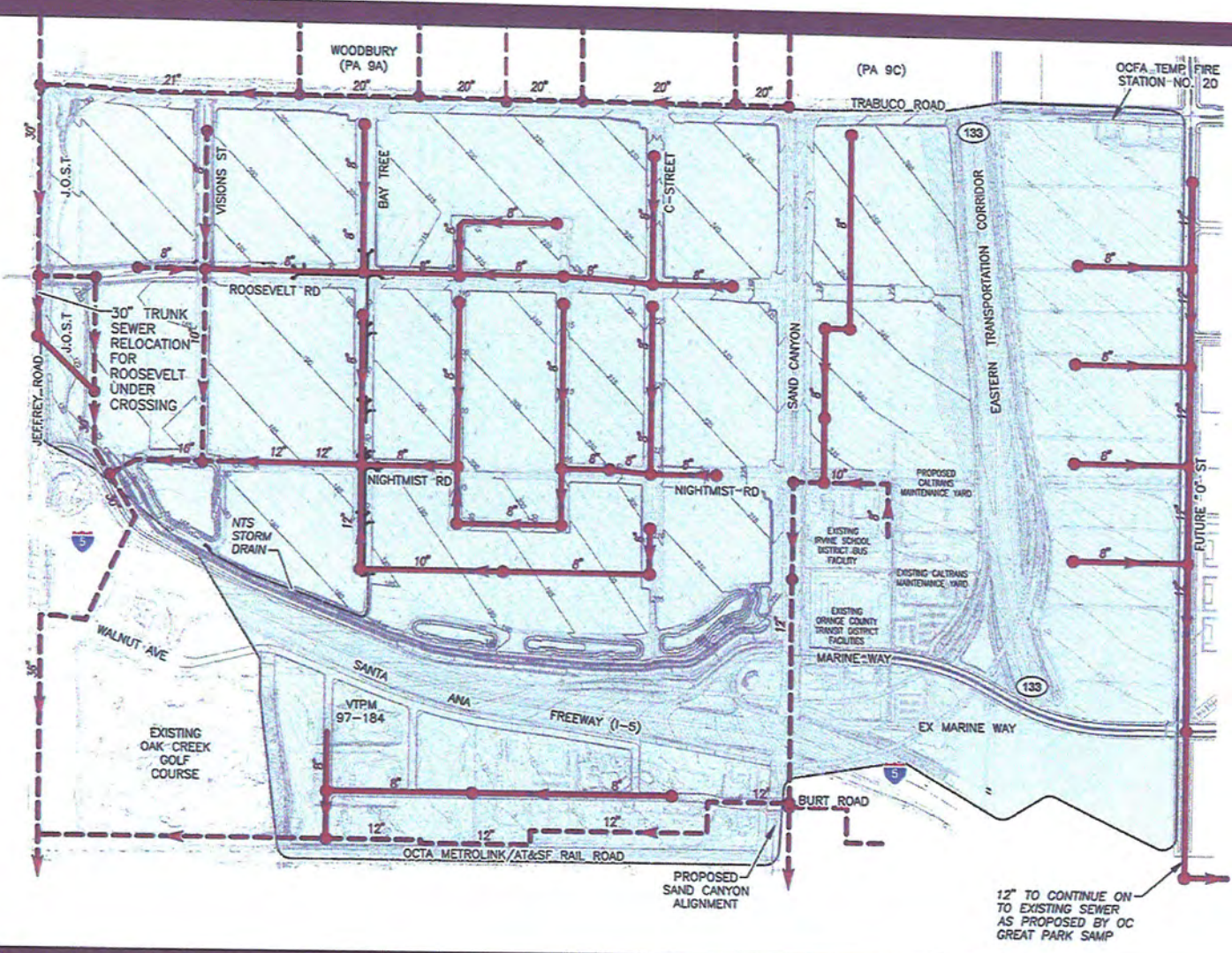
PREPARED FOR THE
IRVINE RANCH
WATER DISTRICT

PLANNING AREA 40 SAMP

SEWER COLLECTION SYSTEM FACILITIES



FIGURE
4-1



LEGEND

- PROPOSED SEWER ALIGNMENT
- - - - - EXISTING SEWER ALIGNMENT

NOTE: ALL PIPES ARE 8" UNLESS OTHERWISE NOTED.

12" TO CONTINUE ON
TO EXISTING SEWER
AS PROPOSED BY OC
GREAT PARK SAMP

Exhibit "C"

Exhibit "A"
to
Reimbursement Agreement

SUPPLEMENTAL REIMBURSEMENT AGREEMENT

BY AND BETWEEN

IRVINE RANCH WATER DISTRICT

AND

THE IRVINE 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 The Irvine Company ("TIC"). All capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Reimbursement Agreement.

WHEREAS, IRWD and TIC 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.
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]

Approximately 5,000 linear feet of 12-inch diameter domestic water main; approximately 6,600 linear feet of 12-inch diameter trunk sewer; approximately 1,000 linear feet of 30-inch diameter trunk sewer; and approximately 31,200 linear feet of 6-inch to 16-inch diameter recycled water mains. 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 \$10,382,500.

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: "The "Costs" shall also include consultant design and consultant construction administration assistance.

6. In accordance with Section 10 of the Reimbursement Agreement, TIC 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 TIC shall include the following language in its agreements with any consultant or contractor retained by TIC 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

THE IRVINE COMPANY

By: _____
General Manager

By: _____
Title: _____

By: _____
Title: _____

Exhibit "I"
to
Supplemental Reimbursement Agreement

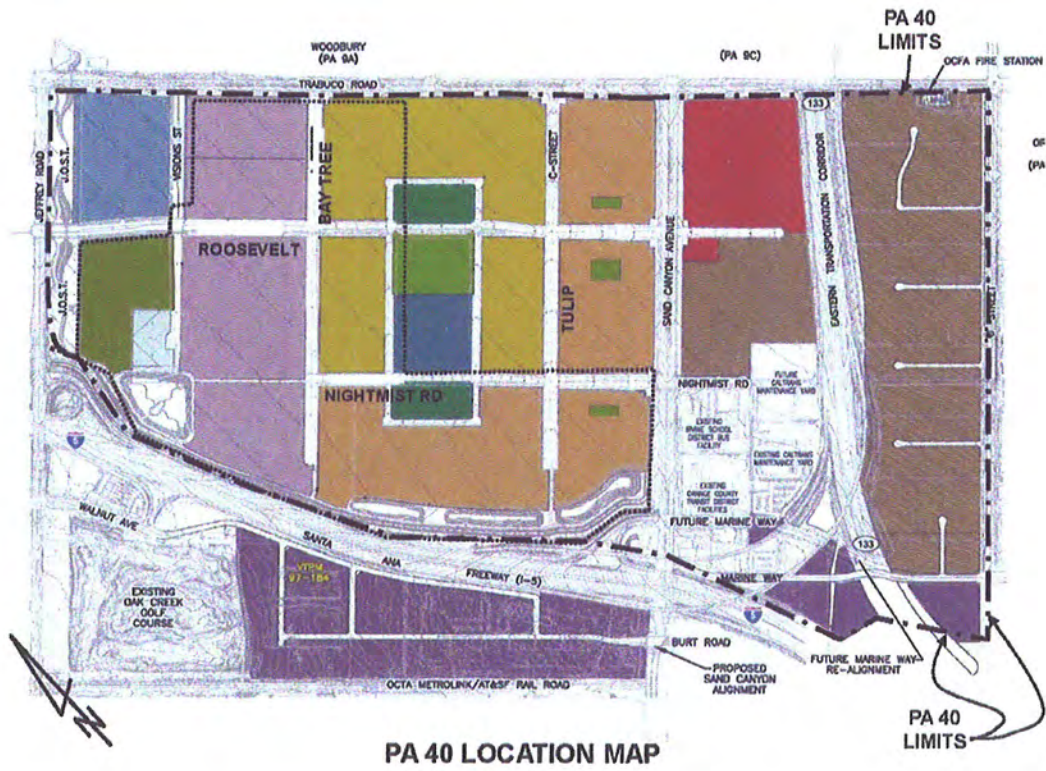


Exhibit "2"
to
Supplemental Reimbursement Agreement
Assignment Agreement

This ASSIGNMENT AGREEMENT is made as of _____, 20____, by and between THE IRVINE COMPANY, a corporation, dba Irvine Industrial Company ("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:

THE IRVINE COMPANY, a corporation,
dba Irvine Industrial 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

Insert description of Capital Facilities from Section 3 of Supplemental Reimbursement Agreement: _____

Contractor's Name: _____

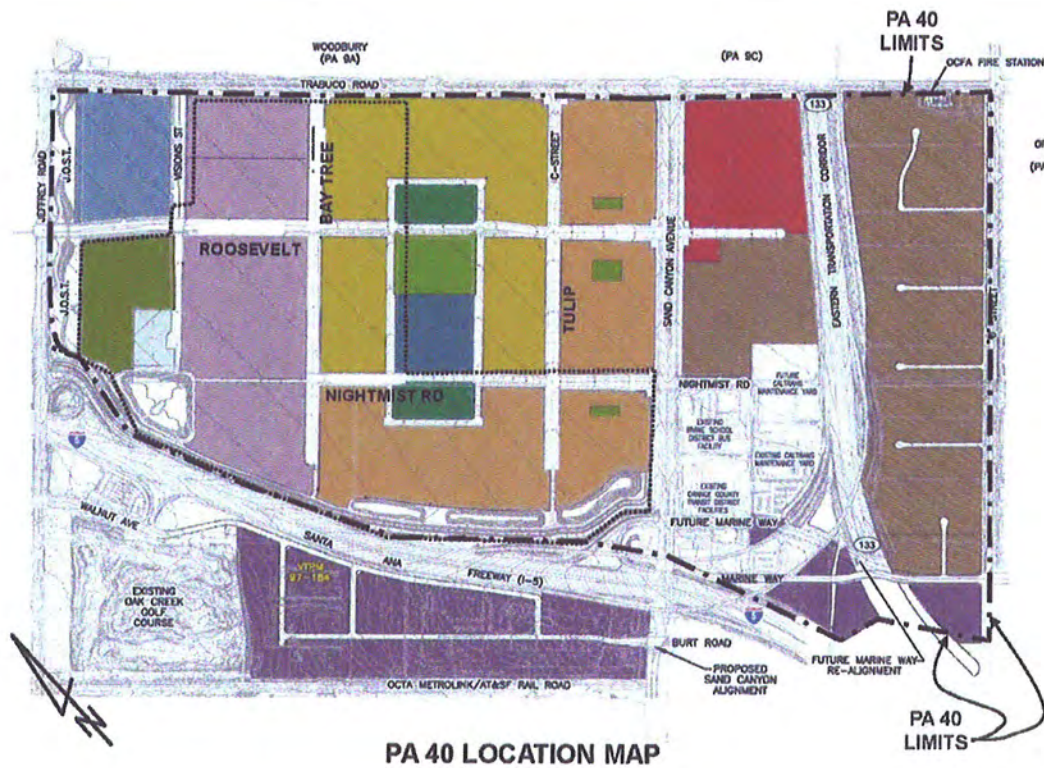
License No. _____

Address: _____

Phone #: _____ Fax #: _____

Contact Person: _____

Exhibit "I"
to
Supplemental Reimbursement Agreement



PA 40 LOCATION MAP

Exhibit "2"
to
Supplemental Reimbursement Agreement

Assignment Agreement

This ASSIGNMENT AGREEMENT is made as of _____, 20____, by and between THE IRVINE COMPANY, a corporation, dba Irvine Industrial Company ("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:

THE IRVINE COMPANY, a corporation,
dba Irvine Industrial 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

Insert description of Capital Facilities from Section 3 of Supplemental Reimbursement Agreement: _____

Contractor's Name: _____

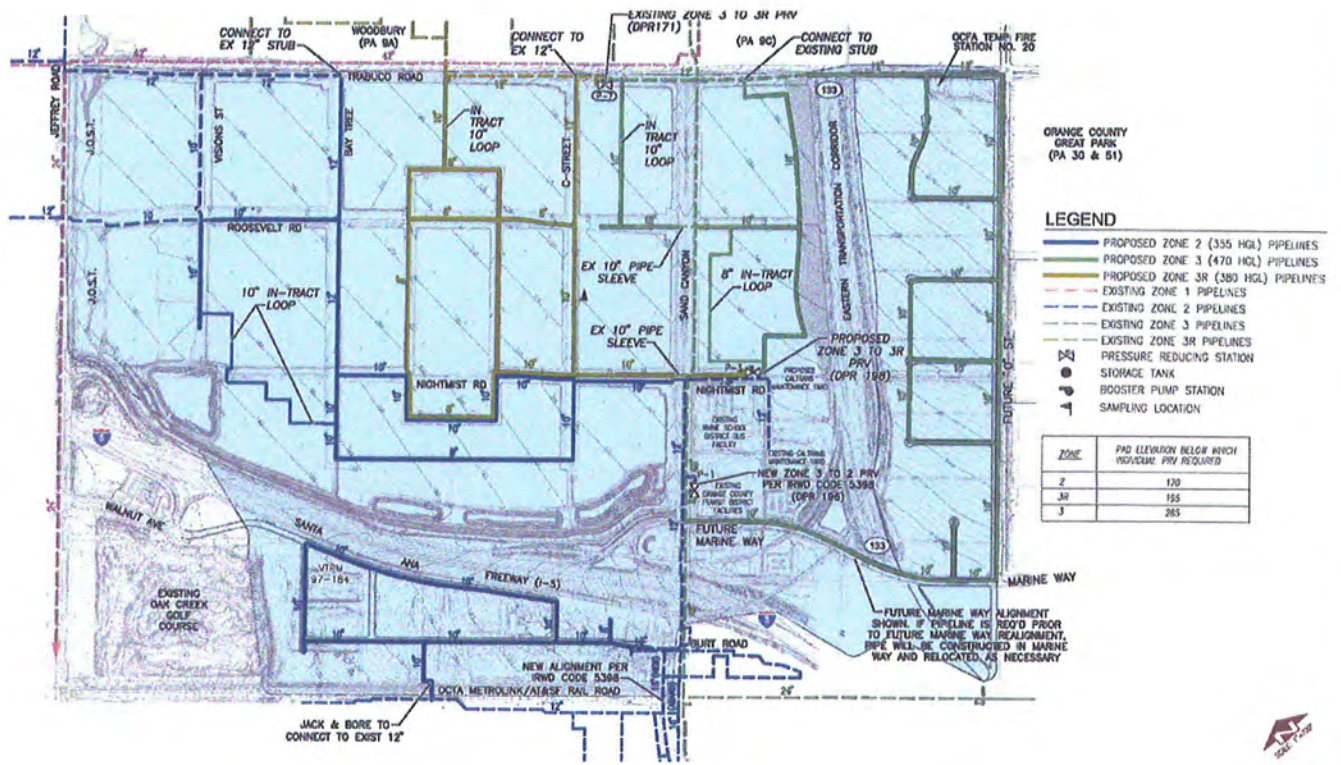
License No. _____

Address: _____

Phone #: _____ Fax #: _____

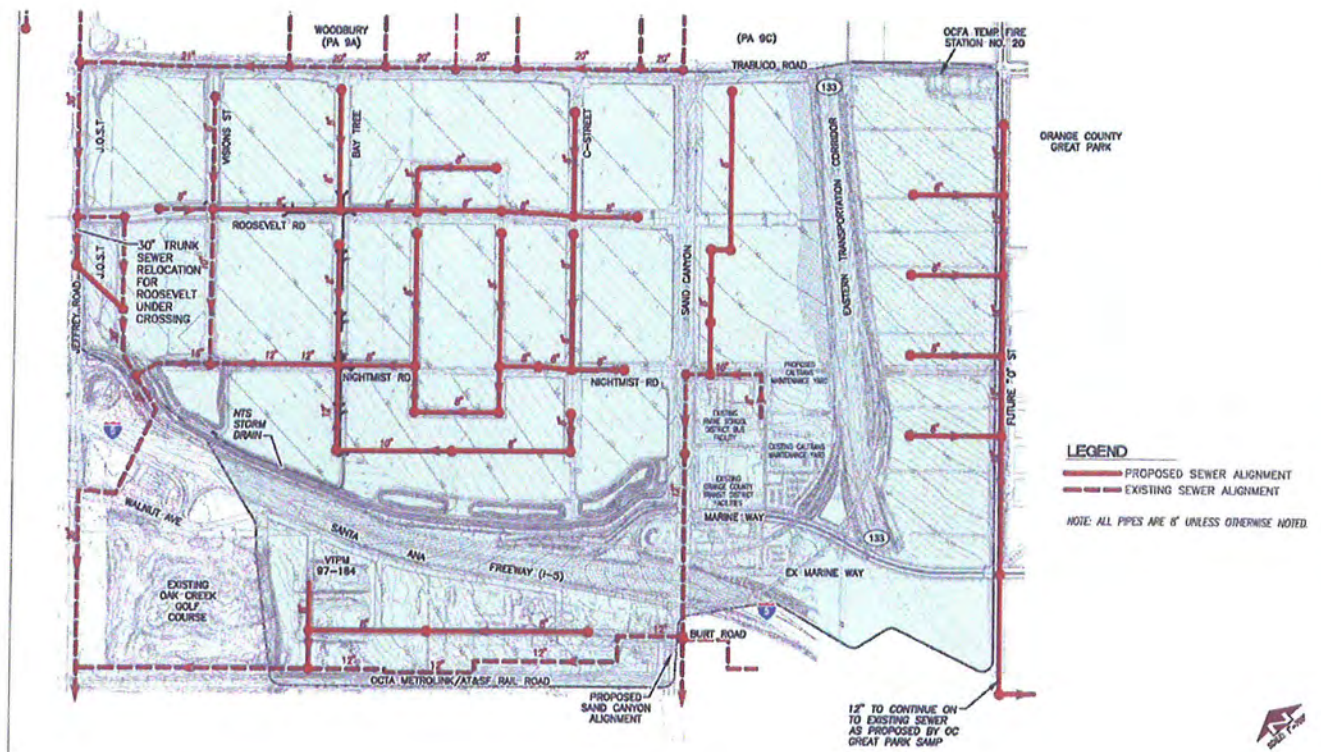
Contact Person: _____

Exhibit "3"
to
Supplemental Reimbursement Agreement



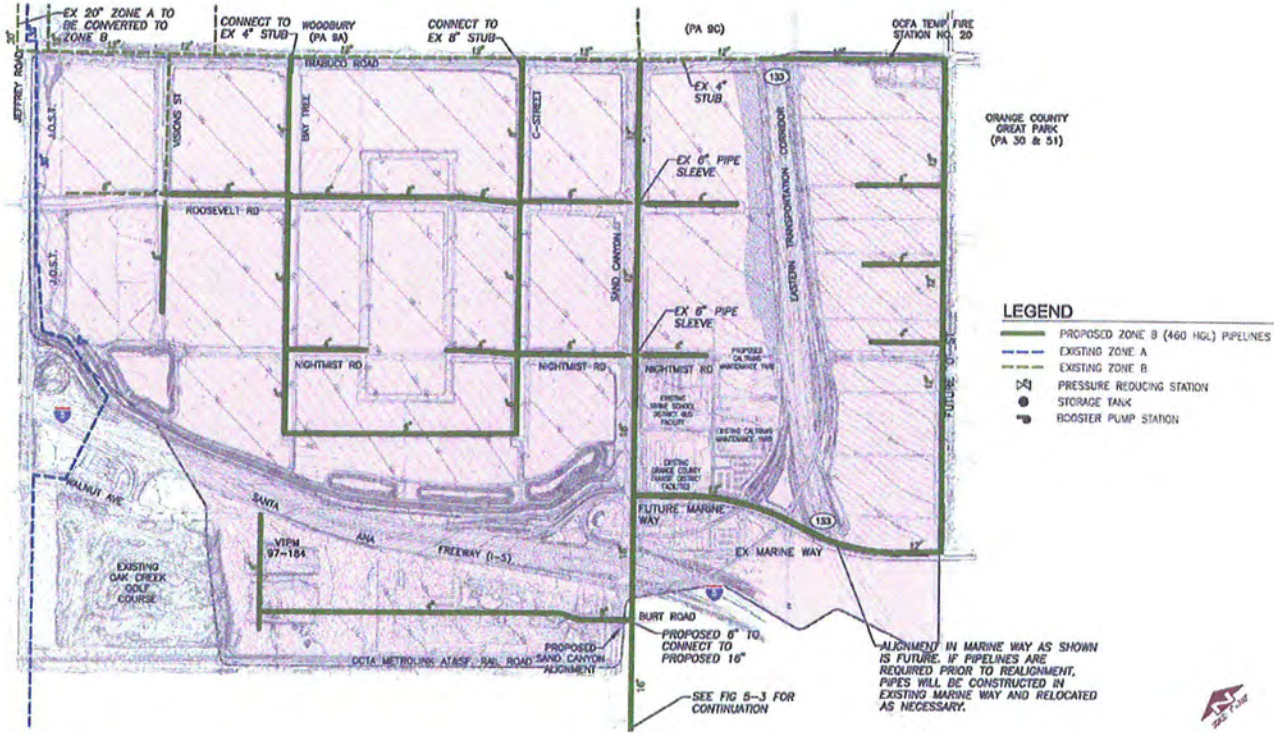
Domestic Water System Facilities

Exhibit "3"
to
Supplemental Reimbursement Agreement



Sewer System Facilities

Exhibit "3"
to
Supplemental Reimbursement Agreement



Non-Potable System Facilities

BID SUMMARY
CYPRESS VILLAGE (PA 40)
BACKBONE PUBLIC STREET IMPROVEMENTS
WET UTILITIES - CONTRACT "B3"

IRWD CAPITAL FACILITIES
 TASK PG ID: LD-0040.ST.33.cnd01

| | | | | | | |
|------------------------------------|--------------------------|-------------------|-----------------------|---------------------|-----------------------|----------------------------|
| ENGINEERS ESTIMATE WILSON WIKAM | LOW BIDDER CLEARWATER | 2ND BIDDER LAS | 3RD BIDDER BOUREAU | 4TH BIDDER FYDAQ | 5TH BIDDER KENNEDY | 6TH BIDDER STEVE BUBALO |
|------------------------------------|--------------------------|-------------------|-----------------------|---------------------|-----------------------|----------------------------|

DECLINED AFTER PRE-BID
ARB, INC.



| ITEM DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL | UNIT PRICE | TOTAL | UNIT PRICE | TOTAL | UNIT PRICE | TOTAL | UNIT PRICE | TOTAL | UNIT PRICE | TOTAL | |
|---|-------|------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|--------------|--|
| K. DETAILABLE ITEMS | | | | | | | | | | | | | | | |
| The following items may or may not be part of the Contract: | | | | | | | | | | | | | | | |
| G. GENERAL - IRWD CAPITAL FACILITIES - TRACT #7429 | | | | | | | | | | | | | | | |
| MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT PRICE SECTIONS G-1) | 1 | LS | \$4,000.00 | \$4,000.00 | \$250.00 | \$250.00 | \$5,000.00 | \$5,000.00 | \$3,000.00 | \$3,000.00 | \$2,000.00 | \$2,000.00 | \$2,000.00 | \$2,000.00 | |
| PAYMENT AND PERFORMANCE BONDS (SECTIONS G-1) | 1 | LS | \$2,500.00 | \$2,500.00 | \$1,100.00 | \$1,100.00 | \$4,000.00 | \$4,000.00 | \$5,775.00 | \$5,775.00 | \$4,370.53 | \$4,370.53 | \$9,500.00 | \$9,500.00 | |
| DEVELOP CONSTRUCTION WATER (SECTIONS G-1) | 1 | LS | \$1,000.00 | \$1,000.00 | \$250.00 | \$250.00 | \$1,800.00 | \$1,800.00 | \$300.00 | \$300.00 | \$1,500.00 | \$1,500.00 | \$750.00 | \$750.00 | |
| TRAFFIC CONTROL (SECTIONS G-1) | 1 | LS | \$2,000.00 | \$2,000.00 | \$250.00 | \$250.00 | \$5,200.00 | \$5,200.00 | \$3,100.00 | \$3,100.00 | \$1,000.00 | \$1,000.00 | \$1,500.00 | \$1,500.00 | |
| H. IRWD DOMESTIC WATER CAPITAL FACILITIES | | | | | | | | | | | | | | | |
| INSTALL 12" AWWA PVC C-300, PRESSURE CL 200 WATER MAIN | 1,271 | LF | \$48.00 | \$61,008.00 | \$48.25 | \$51,157.75 | \$44.00 | \$55,824.00 | \$48.00 | \$59,496.00 | \$45.37 | \$57,825.27 | \$89.40 | \$118,711.40 | |
| 12" CL. 150 B.F.V. (FE X FE) PER IRWD SPECIFICATIONS - MATERIAL ONLY | 0 | EA | \$2,500.00 | \$15,000.00 | \$1,000.00 | \$8,000.00 | \$2,700.00 | \$16,200.00 | \$2,200.00 | \$13,200.00 | \$2,970.21 | \$17,657.29 | \$2,100.00 | \$12,600.00 | |
| INSTALL 12" D.I. TEE (FE X FE X FE) & THRUST BLOCK PER IRWD STD. NO. W-10 | 1 | EA | \$800.00 | \$800.00 | \$1,205.00 | \$1,205.00 | \$850.00 | \$850.00 | \$880.00 | \$880.00 | \$0.01 | \$0.01 | \$840.00 | \$840.00 | |
| CUT-IN 12" D.I. TEE (FE X FE X FE) & THRUST BLOCK PER IRWD STD. NO. W-10 | 0 | EA | \$4,100.00 | | N/A | | N/A | | N/A | | | N/A | | | |
| INSTALL 12" D.I. 45° BEND (PO X PO) & THRUST BLOCK PER IRWD STD. NO. W-10 | 2 | EA | \$480.00 | \$960.00 | \$515.00 | \$1,030.00 | \$400.00 | \$800.00 | \$378.00 | \$740.00 | \$0.01 | \$0.02 | \$450.00 | \$900.00 | |
| INSTALL FIRE HYDRANT ASSEMBLY (SHORT SIDE OF STREET) PER IRWD STD. NO. W-8 WITH BLUE REFLECTIVE PAVEMENT MARKER PER C.C.F.A. GUIDELINES | 2 | EA | \$3,800.00 | \$7,200.00 | \$4,250.00 | \$8,700.00 | \$5,000.00 | \$10,000.00 | \$4,800.00 | \$9,200.00 | \$4,941.15 | \$9,282.30 | \$4,900.00 | \$9,800.00 | |
| REMOVE EXISTING FIRE HYDRANT & 6" PIPE UP TO THE EXISTING GATE VALVE & RE-INSTALL BEHIND PROPOSED CURB PER IRWD STD. NO. W-8 | 1 | EA | \$750.00 | \$750.00 | \$500.00 | \$500.00 | \$2,800.00 | \$2,800.00 | \$3,800.00 | \$3,800.00 | \$4,250.50 | \$4,250.50 | \$3,500.00 | \$3,500.00 | |
| INSTALL 1" AIR & VACUUM RELEASE VALVE PER IRWD STD. NO. W-11 | 1 | EA | \$1,500.00 | \$1,500.00 | \$2,405.00 | \$2,405.00 | \$2,850.00 | \$2,850.00 | \$3,300.00 | \$3,300.00 | \$2,320.87 | \$2,320.87 | \$3,500.00 | \$3,500.00 | |
| INSTALL 4" BLOW-OFF ASSEMBLY PER IRWD STD. NO. W-14 | 1 | EA | \$2,400.00 | \$2,400.00 | \$6,800.00 | \$6,800.00 | \$7,000.00 | \$7,000.00 | \$5,800.00 | \$5,800.00 | \$4,127.38 | \$4,127.38 | \$7,400.00 | \$7,400.00 | |
| INSTALL 12" (FE X PO) ADAPTER | 4 | EA | \$250.00 | \$900.00 | \$1,080.00 | \$4,360.00 | \$370.00 | \$1,480.00 | \$370.00 | \$1,480.00 | \$0.04 | \$1.60 | \$275.00 | \$1,100.00 | |
| REMOVE EXISTING 1" AIR VAC & 2" COPPER LINE UP TO CORP. STOP & RE-INSTALL BEHIND PROPOSED CURB PER IRWD STD. NO. W-11 | 1 | EA | \$750.00 | \$750.00 | \$500.00 | \$500.00 | \$2,000.00 | \$2,000.00 | \$4,000.00 | \$4,000.00 | \$5,200.00 | \$5,200.00 | \$1,800.00 | \$1,800.00 | |
| INSTALL 12" FLANGED COUPLING ADAPTER | 2 | EA | \$250.00 | \$500.00 | \$50.00 | \$100.00 | \$50.00 | \$100.00 | \$1,700.00 | \$3,400.00 | \$0.01 | \$0.02 | \$500.00 | \$1,000.00 | |
| REMOVE & RELOCATE EXISTING 2-WIRE TEST STATION & TEST BOX PER IRWD STD. GP-1 & GP-8 | 1 | EA | \$800.00 | \$800.00 | \$500.00 | \$500.00 | \$1,500.00 | \$1,500.00 | \$1,700.00 | \$1,700.00 | \$2,750.00 | \$2,750.00 | \$300.00 | \$300.00 | |
| REMOVE & DISPOSE OF EXISTING AIR-VAC, BLOW ASSEMBLY & OPTS | 1 | LS | \$300.00 | \$300.00 | \$500.00 | \$500.00 | \$1,500.00 | \$1,500.00 | \$2,400.00 | \$2,400.00 | \$5,500.00 | \$5,500.00 | \$3,000.00 | \$3,000.00 | |
| REMOVE & DISPOSE OF EXISTING 12" DIP. DOMESTIC WATER LINE | 60 | LF | \$12.00 | \$720.00 | \$9.85 | \$591.00 | \$7.00 | \$420.00 | \$4.00 | \$240.00 | \$50.00 | \$3,000.00 | \$40.00 | \$2,400.00 | |
| REMOVE EXISTING 12" B.F.V. & INSTALL BLIND FLANGE & THRUST BLOCK PER IRWD STD. NO. W-10 | 1 | LS | \$400.00 | \$400.00 | \$875.00 | \$875.00 | \$1,350.00 | \$1,350.00 | \$800.00 | \$800.00 | \$4,500.00 | \$4,500.00 | \$2,500.00 | \$2,500.00 | |
| ADJUST VALVE GAP TO BASE GRADE | 10 | EA | \$210.00 | \$2,100.00 | \$115.00 | \$1,150.00 | \$350.00 | \$3,500.00 | \$310.00 | \$3,100.00 | \$325.00 | \$3,250.00 | \$500.00 | \$5,000.00 | |
| ADJUST VALVE GAP TO FINAL GRADE | 10 | EA | \$210.00 | \$2,100.00 | \$180.00 | \$1,800.00 | \$300.00 | \$3,000.00 | \$350.00 | \$3,500.00 | \$325.00 | \$3,250.00 | \$525.00 | \$5,250.00 | |
| IRWD RECLAIMED WATER CAPITAL FACILITIES | | | | | | | | | | | | | | | |
| INSTALL 12" AWWA C-151 DIP. CLASS 200 PER IRWD STD. NO. W-17 | 30 | LF | \$38.00 | \$1,140.00 | \$160.00 | \$5,400.00 | \$140.00 | \$4,200.00 | \$184.00 | \$4,020.00 | \$185.29 | \$4,957.50 | \$95.00 | \$2,850.00 | |
| 12" CL. 150 B.F.V. (FE X FE) PER IRWD SPECIFICATIONS - MATERIAL ONLY | 1 | EA | \$2,500.00 | \$2,500.00 | \$1,000.00 | \$1,000.00 | \$2,700.00 | \$2,700.00 | \$2,200.00 | \$2,200.00 | \$2,970.21 | \$2,970.21 | \$2,100.00 | \$2,100.00 | |
| INSTALL 8" AWWA PURPLE PVC C-800, PRESSURE CLASS 200 PER IRWD STD. NO. W-17 | 1,310 | LF | \$21.00 | \$27,510.00 | \$23.30 | \$30,523.00 | \$25.00 | \$32,750.00 | \$38.00 | \$50,090.00 | \$27.14 | \$35,653.40 | \$50.00 | \$65,500.00 | |
| INSTALL 6" AWWA PURPLE PVC C-800, PRESSURE CLASS 200 PER IRWD STD. NO. W-17 | 2,888 | LF | \$15.00 | \$43,320.00 | \$17.60 | \$51,237.28 | \$20.00 | \$57,760.00 | \$22.00 | \$63,096.00 | \$23.42 | \$67,186.56 | \$37.00 | \$108,116.00 | |
| 6" CL. 150 B.F.V. (FE X FE) PER IRWD SPECIFICATIONS - MATERIAL ONLY | 12 | EA | \$1,850.00 | \$19,800.00 | \$1,825.00 | \$12,420.00 | \$1,375.00 | \$16,500.00 | \$1,340.00 | \$16,080.00 | \$2,160.10 | \$26,161.20 | \$1,200.00 | \$14,400.00 | |
| INSTALL 6" D.I. 45° BEND (FE X FE) & THRUST BLOCK PER IRWD STD. NO. W-10 | 1 | EA | \$250.00 | \$250.00 | \$380.00 | \$380.00 | \$185.00 | \$185.00 | \$260.00 | \$260.00 | \$0.01 | \$0.01 | \$195.00 | \$195.00 | |
| INSTALL 6" D.I. CROSS (FE X FE X FE) & THRUST BLOCK PER IRWD STD. NO. W-10 | 4 | EA | \$450.00 | \$1,800.00 | \$760.00 | \$3,040.00 | \$315.00 | \$1,260.00 | \$380.00 | \$1,520.00 | \$0.01 | \$0.04 | \$355.00 | \$1,420.00 | |
| INSTALL 6" D.I. 11.25° BEND (PO X PO) & THRUST BLOCK PER IRWD STD. NO. W-10 | 8 | EA | \$225.00 | \$1,800.00 | \$240.00 | \$1,920.00 | \$135.00 | \$1,080.00 | \$190.00 | \$1,520.00 | \$0.01 | \$0.08 | \$210.00 | \$1,680.00 | |
| INSTALL 6" D.I. 45° BEND (PO X PO) & THRUST BLOCK PER IRWD STD. NO. W-10 | 4 | EA | \$225.00 | \$900.00 | \$250.00 | \$1,000.00 | \$145.00 | \$580.00 | \$270.00 | \$900.00 | \$0.01 | \$0.04 | \$225.00 | \$900.00 | |
| INSTALL 6" D.I. REDUCER (FE X FE) & THRUST BLOCK PER IRWD STD. NO. W-10 | 2 | EA | \$320.00 | \$640.00 | \$325.00 | \$650.00 | \$185.00 | \$370.00 | \$204.00 | \$408.00 | \$0.01 | \$0.02 | \$210.00 | \$420.00 | |
| CUT-IN 12"X12" D.I. TEE (FE X FE X FE) & THRUST BLOCK PER IRWD STD. NO. W-10 | 1 | EA | \$4,100.00 | \$4,100.00 | \$1,630.00 | \$1,630.00 | \$700.00 | \$700.00 | \$1,300.00 | \$1,300.00 | \$4,500.00 | \$4,500.00 | \$8,000.00 | \$8,000.00 | |
| INSTALL BOTTOM DRAIN BLOWOFF ASSEMBLY PER IRWD STD. NO. W-14 | 1 | EA | \$3,500.00 | \$3,500.00 | \$8,625.00 | \$8,625.00 | \$7,000.00 | \$7,000.00 | \$5,600.00 | \$5,600.00 | \$5,355.22 | \$5,355.22 | \$8,000.00 | \$8,000.00 | |
| INSTALL 1" AIR & VACUUM RELEASE VALVE PER IRWD STD. NO. W-11 | 8 | EA | \$1,500.00 | | N/A | | N/A | | N/A | | N/A | | N/A | | |
| INSTALL TEMPORARY FLUSH-OUT ASSEMBLY PER IRWD STD. NO. W-12 | 1 | EA | \$750.00 | \$750.00 | \$1,465.00 | \$1,465.00 | \$1,300.00 | \$1,300.00 | \$780.00 | \$780.00 | \$3,392.75 | \$3,392.75 | \$200.00 | \$200.00 | |
| INSTALL 6" D.I. (FE X PO) ADAPTER | 2 | EA | \$130.00 | \$260.00 | \$135.00 | \$270.00 | \$165.00 | \$330.00 | \$184.00 | \$368.00 | \$0.01 | \$0.02 | \$135.00 | \$270.00 | |

D-1

208 Elements, subject to Finance and Project Management Approval.
 and Settings\cscms\Desktop\BID SUMMARY (PA 40) STREET IMP. IRW BID SUMMARY.XLS

EXHIBIT "D"

BID SUMMARY
 CYPRESS VILLAGE (PA 40)
 BACKBONE PUBLIC STREET IMPROVEMENTS
 WET UTILITIES - CONTRACT "B3"

IRWD CAPITAL FACILITIES

| | | ENGINEER'S ESTIMATE | | LOW BIDDER | | 2ND BIDDER | | 3RD BIDDER | | 4TH BIDDER | | 5TH BIDDER | | 6TH BIDDER | | DECLINED AFTER PRE-BID ARB, INC. |
|---|--------|---------------------|---------------------|------------|---------------------|------------|---------------------|------------|---------------------|------------|---------------------|------------|---------------------|--------------|---------------------|-------------------------------------|
| | | WILSON MIRANI | | CLEARWATER | | L&S | | BOUDREAU | | FYDAR | | KENNEDY | | STEVE BUBALO | | |
| INSTALL 6" D.I. (FE X PO) ADAPTER | 9 EA | \$160.00 | \$1,440.00 | \$105.00 | \$945.00 | \$135.00 | \$1,215.00 | \$180.00 | \$1,260.00 | \$3.01 | \$3.09 | \$105.00 | \$945.00 | \$300.00 | \$4,500.00 | |
| REMOVE & DISPOSE OF EXISTING FLUSH-OUT ASSEMBLY, 45° BEND, & PORTION OF EXISTING 6" LINE & JOIN EXISTING | 1 LS | \$3,000.00 | \$3,000.00 | \$350.00 | \$580.00 | \$4,000.00 | \$4,000.00 | \$2,800.00 | \$2,680.00 | \$5,200.00 | \$5,200.00 | \$2,300.00 | \$2,300.00 | \$1,000.00 | \$1,000.00 | |
| INSTALL 12" FLANGED COUPLING ADAPTER | 1 EA | \$4,300.00 | \$4,300.00 | \$100.00 | \$100.00 | \$960.00 | \$960.00 | \$1,020.00 | \$1,020.00 | \$3.01 | \$3.01 | \$275.00 | \$275.00 | \$1,000.00 | \$1,000.00 | |
| REMOVE & DISPOSE OF EXISTING FLUSH-OUT ASSEMBLY & JOIN EXISTING RECYCLED WATER MAIN | 1 EA | \$250.00 | \$250.00 | \$945.00 | \$945.00 | \$2,800.00 | \$2,650.00 | \$1,500.00 | \$1,500.00 | \$1,500.00 | \$1,500.00 | \$2,300.00 | \$2,300.00 | \$900.00 | \$900.00 | |
| REMOVE AND DISPOSE OF EXISTING TEE, GATE VALVES, AIR-VAC, BLOW ASSEMBLY & CPTS AND RECONNECT 12" MAINLINE WITH 12" PVC C-200 & GASKETED PVC CLOSURE COLLARS PER IRWD SEC. 15064 | 1 LS | \$2,800.00 | \$2,800.00 | \$250.00 | \$250.00 | \$4,500.00 | \$4,500.00 | \$1,900.00 | \$1,900.00 | \$7,500.00 | \$7,500.00 | \$3,500.00 | \$3,500.00 | \$2,000.00 | \$2,000.00 | |
| SLURRY SEAL AND ABANDON EXISTING 6" RECYCLED WATER LINE | 150 LF | \$17.00 | \$2,550.00 | \$3.10 | \$465.00 | \$12.00 | \$1,800.00 | \$14.00 | \$1,488.00 | \$2.50 | \$340.00 | \$10.00 | \$1,300.00 | \$5.00 | \$500.00 | |
| ADJUST VALVE CAP TO BASE PAVE GRADE | 13 EA | \$250.00 | \$3,250.00 | \$115.00 | \$1,495.00 | \$300.00 | \$4,500.00 | \$310.00 | \$4,030.00 | \$325.00 | \$4,225.00 | \$500.00 | \$8,500.00 | \$300.00 | \$3,000.00 | |
| ADJUST VALVE CAP TO FINAL GRADE | 13 EA | \$250.00 | \$3,250.00 | \$180.00 | \$2,340.00 | \$300.00 | \$3,900.00 | \$340.00 | \$4,420.00 | \$325.00 | \$4,225.00 | \$525.00 | \$8,500.00 | \$300.00 | \$3,000.00 | |
| SUBTOTAL DELETABLE IRWD CAPITAL IMPROVEMENTS (SECTIONS G-I) | | | \$295,780.00 | | \$217,000.00 | | \$273,785.00 | | \$202,919.00 | | \$207,679.35 | | \$456,707.40 | | \$586,600.00 | |
| M. ADDITIONAL IRWD CAPITAL FACILITIES - TRACT 17420 | | | | | | | | | | | | | | | | |
| IRWD DOMESTIC WATER CAPITAL FACILITIES | | | | | | | | | | | | | | | | |
| INSTALL 12" X 6" D.I. TEE (FE X FE X FE) & THRUST BLOCK PER IRWD STD. NO. W-18 | 2 EA | \$800.00 | \$1,600.00 | \$1,285.00 | \$2,570.00 | \$890.00 | \$1,780.00 | \$2,300.00 | \$4,600.00 | \$900.00 | \$1,800.00 | \$430.00 | \$860.00 | \$1,500.00 | \$3,000.00 | |
| INSTALL FIRE HYDRANT ASSEMBLY (LONG SIDE OF STREET) PER IRWD STD. NO. W-6 WITH BLUE REFLECTIVE PAVEMENT MARKER PER C.C.F.A. GUIDELINES | 2 EA | \$3,690.00 | \$7,380.00 | \$5,290.00 | \$11,000.00 | \$8,100.00 | \$12,200.00 | \$8,000.00 | \$12,000.00 | \$5,593.15 | \$11,186.30 | \$5,300.00 | \$11,000.00 | \$8,500.00 | \$17,000.00 | |
| INSTALL 12" D.I. 11.25° BEND (PO X PO) & THRUST BLOCK PER IRWD STD. NO. W-19 | 2 EA | \$480.00 | \$960.00 | \$515.00 | \$1,030.00 | \$350.00 | \$700.00 | \$185.00 | \$370.00 | \$0.01 | \$0.02 | \$450.00 | \$900.00 | \$1,500.00 | \$3,000.00 | |
| IRWD RECLAIMED WATER CAPITAL FACILITIES | | | | | | | | | | | | | | | | |
| 6" R.W.G.V. CLASS 150 (FE X FE) FOR DBP SECTION; PER IRWD STD. NO. W-22 | 1 EA | \$2,250.00 | \$2,250.00 | \$1,240.00 | \$1,340.00 | \$1,000.00 | \$1,000.00 | \$1,200.00 | \$1,200.00 | \$2,248.41 | \$2,248.41 | \$1,500.00 | \$1,500.00 | \$2,000.00 | \$2,000.00 | |
| SUBTOTAL ADDITIONAL IRWD CAPITAL FACILITIES (SECTION M) | | | \$13,010.00 | | \$15,900.00 | | \$15,868.00 | | \$18,170.00 | | \$18,434.73 | | \$18,260.00 | | \$25,000.00 | |
| TOTAL DELETABLE IRWD CAPITAL IMPROVEMENTS (SECTIONS G-I AND M) | | | \$247,770.00 | | \$232,900.00 | | \$289,653.00 | | \$221,089.00 | | \$226,114.08 | | \$474,967.40 | | \$611,600.00 | |

D-2

IRVINE RANCH WATER DISTR EXHIBIT "E"

Expenditure Authorization

Project Name: PA 40 PHASE 2 POTABLE WATER SYSTEM FACILITIES
 Project No: 11605 EA No: 1
 Project Manager: CORTEZ, MALCOLM
 Project Engineer: LEW, KELLY
 Request Date: January 4, 2012

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: | \$194,700 |
| Total EA Requests: | \$194,700 |
| Previously Approved Budget: | \$0 |
| Budget Adjustment Requested this EA: | \$194,700 |
| Updated Budget: | \$194,700 |
| 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 - OUTSIDE | 20,000 | 0 | 20,000 | 20,000 | 0 | 20,000 | 9/11 | 12/11 |
| ENGINEERING - CA&I IRWD | 20,000 | 0 | 20,000 | 20,000 | 0 | 20,000 | 1/12 | 12/13 |
| ENGINEERING - CA&I OUTSIDE | 10,000 | 0 | 10,000 | 10,000 | 0 | 10,000 | 1/12 | 12/13 |
| CONSTRUCTION FIELD SUPPORT | 5,000 | 0 | 5,000 | 5,000 | 0 | 5,000 | 1/12 | 12/13 |
| CONSTRUCTION | 120,000 | 0 | 120,000 | 120,000 | 0 | 120,000 | 1/12 | 12/13 |
| LEGAL | 2,000 | 0 | 2,000 | 2,000 | 0 | 2,000 | 9/11 | 12/13 |
| Contingency - 10.00% Subtotal | \$17,700 | \$0 | \$17,700 | \$17,700 | \$0 | \$17,700 | | |
| Subtotal (Direct Costs) | \$194,700 | \$0 | \$194,700 | \$194,700 | \$0 | \$194,700 | | |
| Estimated G/A - 180.00% of direct labor* | \$45,000 | \$0 | \$45,000 | \$45,000 | \$0 | \$45,000 | | |
| Total | \$239,700 | \$0 | \$239,700 | \$239,700 | \$0 | \$239,700 | | |
| Direct Labor | \$25,000 | \$0 | \$25,000 | \$25,000 | \$0 | \$25,000 | | |

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

Kelly Lew

1/4/12

Department Director:

Lewis L Burton

1/6/12

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 \$245,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. The project is made under Treasury Regulation Section 1.150-

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: PA 40 PHASE 2 NONPOTABLE WATER SYSTEM FACILITIES

Project No: 31605 EA No: 1

ID Split: Miscellaneous

Project Manager: CORTEZ, MALCOLM

Project Engineer: LEW, KELLY

Request Date: January 4, 2012

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: | \$216,700 |
| Total EA Requests: | \$216,700 |
| Previously Approved Budget: | \$0 |
| Budget Adjustment Requested this EA: | \$216,700 |
| Updated Budget: | \$216,700 |
| 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 - OUTSIDE | 20,000 | 0 | 20,000 | 20,000 | 0 | 20,000 | 9/11 | 12/11 |
| ENGINEERING - CA&I IRWD | 20,000 | 0 | 20,000 | 20,000 | 0 | 20,000 | 1/12 | 12/13 |
| ENGINEERING - CA&I OUTSIDE | 10,000 | 0 | 10,000 | 10,000 | 0 | 10,000 | 1/12 | 12/13 |
| CONSTRUCTION FIELD SUPPORT | 5,000 | 0 | 5,000 | 5,000 | 0 | 5,000 | 1/12 | 12/13 |
| CONSTRUCTION | 140,000 | 0 | 140,000 | 140,000 | 0 | 140,000 | 1/12 | 12/13 |
| LEGAL | 2,000 | 0 | 2,000 | 2,000 | 0 | 2,000 | 9/11 | 12/13 |
| Contingency - 10.00% Subtotal | \$19,700 | \$0 | \$19,700 | \$19,700 | \$0 | \$19,700 | | |
| Subtotal (Direct Costs) | \$216,700 | \$0 | \$216,700 | \$216,700 | \$0 | \$216,700 | | |
| Estimated G/A - 180.00% of direct labor* | \$45,000 | \$0 | \$45,000 | \$45,000 | \$0 | \$45,000 | | |
| Total | \$261,700 | \$0 | \$261,700 | \$261,700 | \$0 | \$261,700 | | |
| Direct Labor | \$25,000 | \$0 | \$25,000 | \$25,000 | \$0 | \$25,000 | | |

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

Kelly Lew (W) _____ 1/4/12

Department Director:

Ravi L. Bantua _____ 1/6/12

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 \$267,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This expenditure is an official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2

January 23, 2012

Prepared by: J. McGehee /R. Mori

Submitted by: K. Burton

Approved by: Paul Cook 

ACTION CALENDAR

PLANNING AREA 18 ZONE 3-4 AND ZONE B-C BOOSTER PUMP STATIONS PRELIMINARY DESIGN REPORT CONSULTANT SELECTION

SUMMARY:

Three booster pump stations are proposed to serve Planning Area 18 (PA 18): domestic water, emergency domestic water, and recycled water. The domestic water and emergency domestic water booster pump stations will deliver water from Zone 3 to Zone 4 while the recycled water booster pump station will deliver water from Zone B to Zone C. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with SAIC Energy (SAIC), Environmental & Infrastructures, LLC (formerly R.W. Beck, Inc.) in the amount of \$88,594 for engineering design services for the PA 18 Zone 3-4 and the Zone B-C Booster Pump Stations Preliminary Design Report (PDR).

BACKGROUND:

In early 2007, a Request for Proposals (RFP) for Professional Engineering Services for Capital Improvement Plans for PA 18 was issued. Staff reviewed proposals and recommended the Board authorize the General Manager to execute a Professional Services Agreement with R.W. Beck, Inc. for engineering services in the amount of \$421,972 to complete preliminary and final design of the domestic and recycled water pump stations. After completion of the PDR in early 2010, Irvine Community Development Company (ICDC) halted progress on the PA 18 development and final design was placed on hold.

ICDC has since restarted new work on the development and in September 2011, the PA 18 Sub-Area Master Plan (SAMP) was updated to reflect revised land uses and to assess the impacts the revised land uses have on the proposed domestic water, recycled water, and collections facilities serving the area.

Professional Services Agreement to SAIC

The original 2007 Professional Services Agreement was issued to R.W. Beck, Inc. On November 8, 2011, SAIC issued an Assignment of Agreement letter, attached as Exhibit "A", stating that SAIC had acquired R.W. Beck. The project manager originally in charge of the preliminary and final design efforts with R.W. Beck remains under the employment of SAIC, and staff believes that SAIC will most efficiently and cost effectively complete the revised work as the management, staff, background, and engineering documents have been transferred to SAIC. However, since the execution of the original Professional Services Agreement, the terms and conditions of IRWD's Professional Services Agreement have been updated. For this reason, staff is recommending re-issuance of the Professional Services Agreement to SAIC.

Scope of Work and Fee

After completion of the revised SAMP, staff requested a scope of work and fee from SAIC to update the PDR with the recent development changes, new pump station locations, and the inclusion of a new Zone 3 to 4 domestic water emergency booster pump station that provides redundancy for the closed-loop domestic water system. The locations of the proposed facilities are attached as Exhibit "B".

The scope of work includes updating the previous PDR to include the new pump station locations, the new emergency booster pump station, and the associated facility configuration changes resulting from the updated SAMP. An updated hydraulic analysis will be performed, as well as updates to the grading, piping, electrical and instrumentation, landscaping, and irrigation. The Scope of Work and Fee, in the amount of \$88,594, for engineering design services for the PA 18 Zone 3-4 and the Zone B-C Booster Pump Stations PDR is attached as Exhibit "C".

Staff recommends authorizing SAIC to complete the preliminary design phase work and then anticipates placing the project on hold due to ICDC's intermittent progress on PA 18. The goal is to sufficiently advance the preliminary design efforts now to ensure that the final design can be completed within a reasonable timeframe upon the restart of development activities for PA 18.

FISCAL IMPACTS:

Project 10446 (1648) for the PA 18 Zone 3-4 Booster Pump Station and Project 30446 (1063) for the PA 18 Zone B-C Booster Pump Station are included in the FY 2011-12 Capital Budget. Expenditure Authorizations were previously approved to fund the design efforts.

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, as the lead agency, the City of Irvine certified an Environmental Impact Report (SCH #2005051099) on June 15, 2006.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on January 19, 2012.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH SAIC ENERGY, ENVIRONMENTAL & INFRASTRUCTURES, LLC IN THE AMOUNT OF \$88,594 FOR ENGINEERING DESIGN SERVICES FOR THE PLANNING AREA 18 ZONE 3-4 AND THE ZONE B-C BOOSTER PUMP STATIONS PRELIMINARY DESIGN REPORT, PROJECTS 10446 (1648) AND 30446 (1063).

LIST OF EXHIBITS:

Exhibit "A" – SAIC Assignment of Agreement Dated 11/08/11 for R.W. Beck

Exhibit "B" – Location Map

Exhibit "C" – SAIC Scope of Work and Fee

EXHIBIT "A"



November 8, 2011

Sent via email

Mr. Rich Mori
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92619-7000

Subject: Assignment of Agreement Dated 03/28/07

Dear Mr. Mori,

As you may know, on August 1, 2009, Science Applications International Corporation (SAIC) acquired R. W. Beck Group, Inc. (R. W. Beck), a consultancy specializing in advancing the business of energy, water, and waste infrastructure. This acquisition resulted in R. W. Beck becoming a wholly owned subsidiary of SAIC.

SAIC's acquisition of R. W. Beck has provided an opportunity for the organization to expand the value of its customer solutions and to provide seamless delivery across the entire lifecycle of infrastructure project completion. SAIC has now consolidated the capabilities and experience of R. W. Beck into **SAIC Energy, Environment & Infrastructure, LLC**. From analyzing and integrating leading technologies to designing, building and operating infrastructure systems, we apply deep domain experience to strengthen our customers' enterprises and help them thrive in a capital-constrained, complex world.

R. W. Beck's core technical and business consulting are now a central part of a broader portfolio of services. Your current R. W. Beck Project Manager and supporting project team members are now SAIC Energy, Environment & Infrastructure, LLC employees and will remain committed to providing quality services.

In accordance with the provisions of your contract with R. W. Beck, we are requesting that the Irvine Ranch Water District provide written approval for R. W. Beck to assign and transfer the subject contract and all associated delivery/task orders to SAIC Energy, Environment & Infrastructure, LLC. Your Project Manager will continue to manage the project and ensure a seamless transition of our responsibilities under the contract. Please note that as a subsidiary of SAIC, the company is included in SAIC's insurance policies so there will be no change in coverage.

SAIC Energy, Environment & Infrastructure, LLC

For your reference, payment information for **SAIC Energy, Environment & Infrastructure, LLC** is:

Remit to Address:

SAIC Energy, Environment & Infrastructure, LLC
Box 223563
Pittsburgh, PA 15251-2563

EFT Remittance Information:

The Bank of New York Mellon
ABA Routing Number: 043000261
Account Name: SAIC Energy, Environment & Infrastructure, LLC
Account Number: 0267602

Tax ID No. 20-1659855

Please signify your approval of this assignment in the space below and return within five days of receipt. If you have any questions or need further information, please do not hesitate to contact me at 949-596-8967.

Sincerely,

SAIC ENERGY, ENVIRONMENT & INFRASTRUCTURE, LLC

Cynthia Paredes
Sr. Administrative Assistant
6 Venture, Suite 290
Irvine, CA 92618

APPROVED:

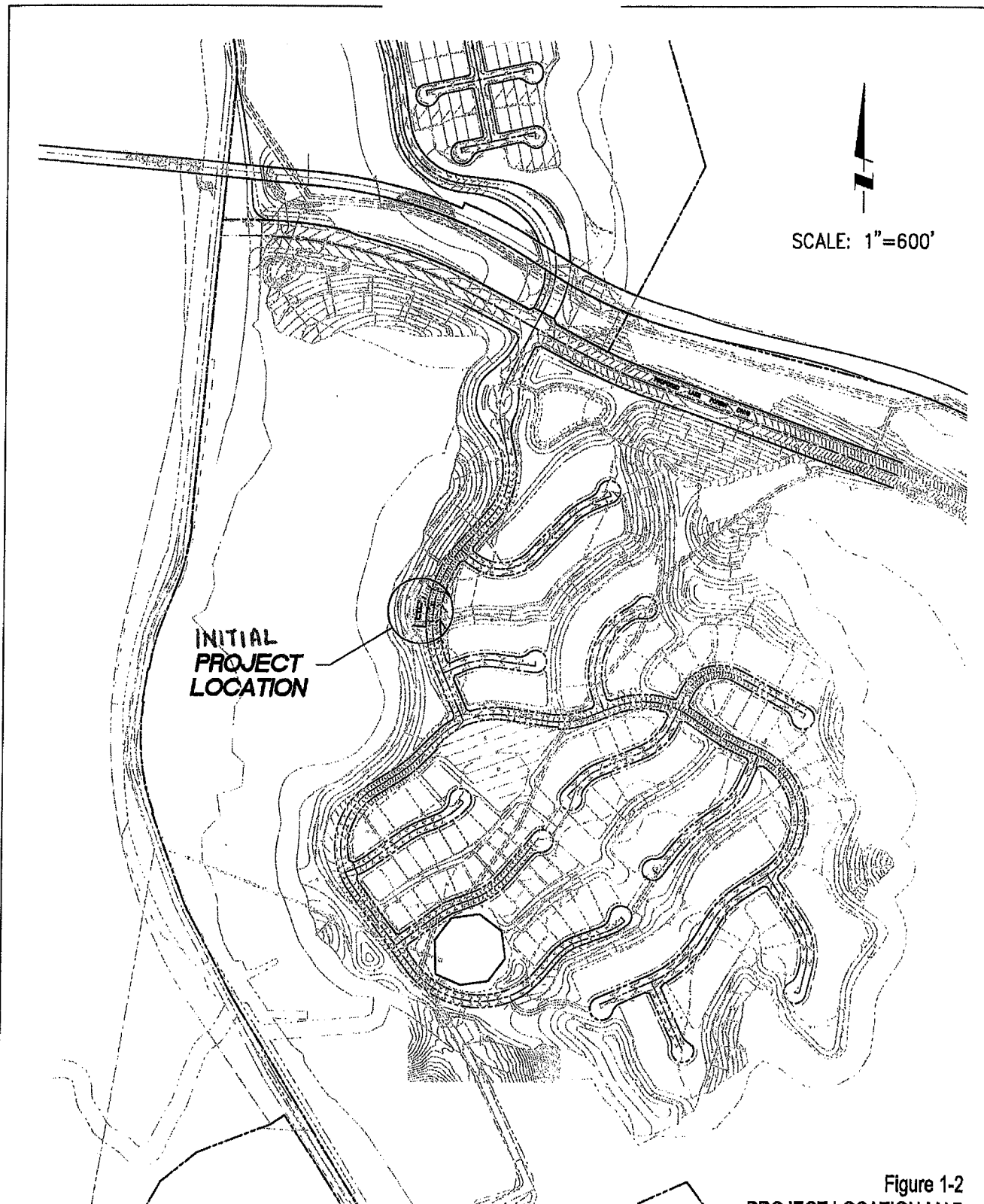
Name: _____
Authorized Representative for Irvine Ranch Water District

Title: _____

Date: _____

SAIC Energy, Environment & Infrastructure, LLC

EXHIBIT "B"



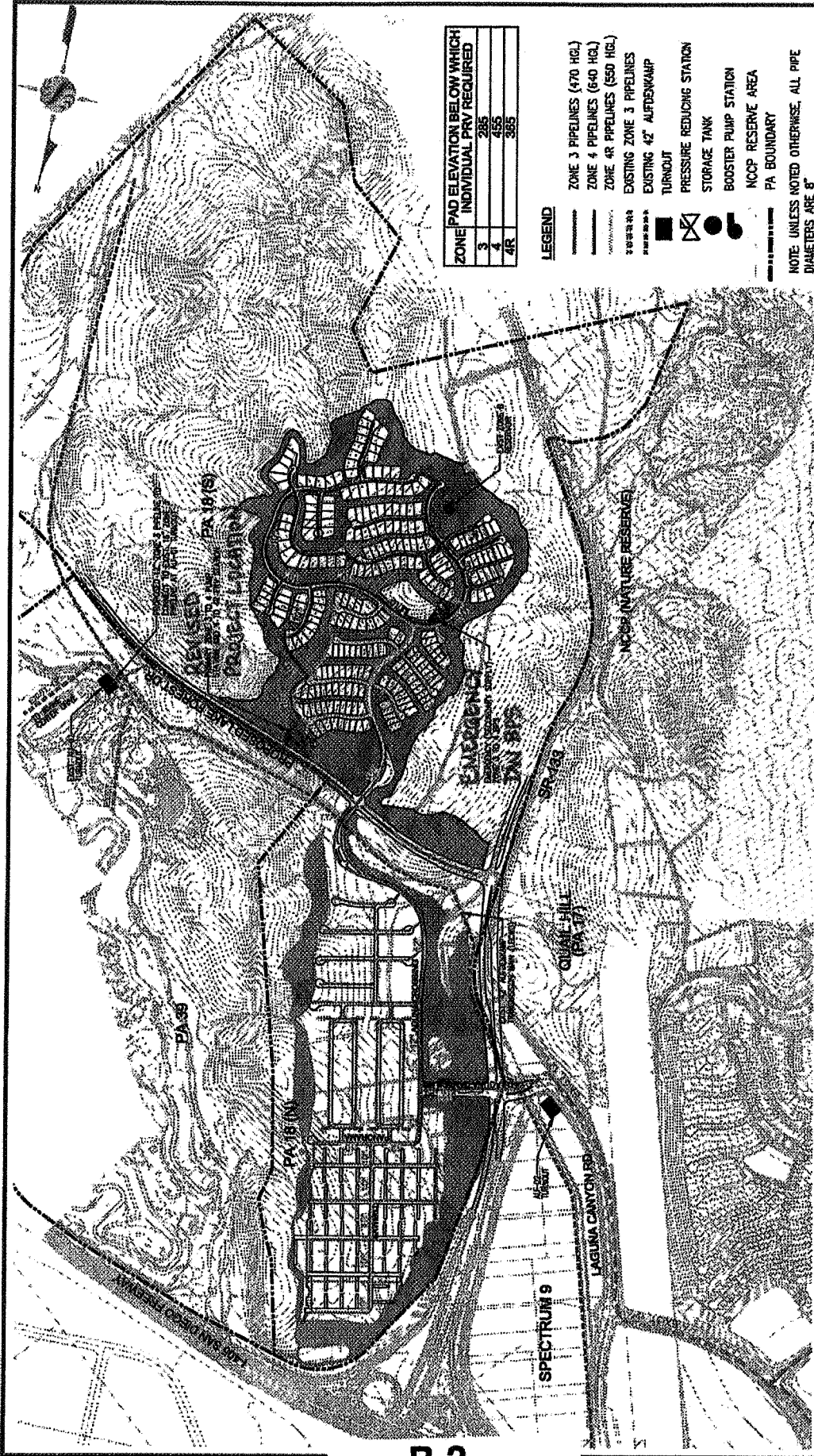
INITIAL
PROJECT
LOCATION

SCALE: 1"=600'



Figure 1-2
PROJECT LOCATION MAP
ZONE 3 TO ZONE 4 AND ZONE B TO ZONE C
BOOSTER PUMP STATIONS
IRVINE RANCH WATER DISTRICT





| ZONE | PAD ELEVATION BELOW WHICH INDIVIDUAL PAV REQUIRED |
|------|---|
| 3 | 288 |
| 4 | 455 |
| 4R | 385 |

LEGEND

- ZONE 3 PIPELINES (470 HGL)
- ZONE 4 PIPELINES (640 HGL)
- ZONE 4R PIPELINES (550 HGL)
- EXISTING ZONE 3 PIPELINES
- EXISTING 42" ALTPENKAMP
- TURNOUT
- PRESSURE REDUCING STATION
- STORAGE TANK
- BOOSTER PUMP STATION
- NCCP RESERVE AREA
- PA BOUNDARY

NOTE: UNLESS NOTED OTHERWISE, ALL PIPE DIAMETERS ARE 8"

B-2

DRAWING: v:\projects\204060701\dwg\pwp004.dwg PLOTTED: 8/16/

**PLANNING AREA 18 SAMP UPDATE
PROPOSED DOMESTIC
WATER FACILITIES**



IRVINE RANCH
WATER DISTRICT



PREPARED FOR: IRVINE RANCH WATER DISTRICT

FIGURE

3-3

Exhibit "C"

Scope of Work - Domestic Water Zone 3 to 4 and Recycled Water Zone B to C Booster Pump Stations

The following scope of work has been revised to reflect the updates that are required to the existing Planning Area 18 Zone 3 to 4 and B to C Booster Pump Stations PDR report (dated January 2010) to account for site location and booster facility configuration changes. The site location for the Domestic Water Zone 3 to 4 and Recycled Water Zone B to C booster pump stations has changed to a location along the south side of Lake Forest Drive between Romano and Bake Parkway (see attached site map). The proposed location is no longer directly adjacent to planned residential development and will therefore be re-designed as an above-ground facility. The following preliminary design report scope will include only information that is being updated from the previous PDR to account for these revisions.

Task 1 – Preliminary Design Report

The Domestic Water Zone 3 to 4 and Recycled Water Zone B to C booster pump stations will be combined into a single above ground facility and one Preliminary Design Report shall be prepared for both booster pump stations. The previously completed PA18 Zone 3 to 4 and B to C Booster Pump Station PDR, dated January 2010, will be updated to reflect the combined facility. The updated PDR shall be completed in accordance with requirements identified in Chapter V of the District's Design Process Manual. In addition to the general items discussed in the Design Process Manual, SAIC will address the following items:

A. Hydraulic Analysis & Pump Control

The Domestic Water Zone 3 to 4 and Recycled Water Zone B to C Booster Pump Stations will provide flow to closed-loop systems. SAIC will review the pumping capacity for each pump based on the current demand forecasts in the PA 18 SAMP update (dated June 2011). SAIC will revise the hydraulic conditions of each pump based on the new site location and verify or revise the pump selections accordingly. System hydraulics will be verified by modeling the system as necessary and a comprehensive study will be performed to determine the potential of surge on the proposed Zone 4 and Zone C closed loop systems. Due to the increased distance of the booster station from the Zone B reservoir, a suction side surge analysis will also be performed.

B. Grading Plans

SAIC will prepare a preliminary grading plan for the new BPS site.

C. BPS Site Layout and Piping Plans

A conceptual site layout and piping plan will be prepared which includes site location, access road alignment, proposed Zone 4 to 4R PRV, valves/meter/meter vaults, electrical transformers/panels, generator, pipelines/storm drains, surge facilities, and all ancillary facilities. An updated analysis of the pump station and electrical/instrumentation equipment layout will be performed to determine the correct sizing to accommodate the necessary equipment. SAIC anticipates the pump stations will be located in a combined above-ground facility.

D. Electrical/Instrumentation

We will update preliminary operational schemes including Process and Instrumentation diagram, single line diagram, control equipment list, and method of integration into the District's existing SCADA system to reflect any revisions. This proposal excludes obtaining SCE's approval for the proposed electrical services.

E. Site Landscaping and Irrigation

Given the proposed location of the pump station site being directly adjacent to Lake Forest Drive, extensive landscaping and irrigation is not anticipated. However, SAIC will perform a review of the site landscaping and irrigation system requirements for the BPS site. The PDR will describe any special situation affecting the proposed landscaping and/or irrigation system design.

F. Project Schedule

A comprehensive schedule will be prepared using Microsoft Project. The schedule will identify early completion requirements and critical path items identified by the project team.

G. Estimates of Probable Construction Costs

A preliminary construction cost estimate will be prepared for the proposed pump station in accordance with District standards.

H. Team Meetings

SAIC will schedule and lead meetings with the District's PDR Team to assure that all design, operational, and maintenance issues are being addressed. An agenda and meeting minutes including a summary of action items will be prepared for each meeting. A total of six ninety-minute PDR Team meetings are anticipated.

I. Technical Specifications

Preliminary drawing and specification lists will be reviewed and updated in the PDR Report.

J. Deliverables

SAIC will provide 10 copies of handouts and minutes for each meeting, 10 copies of the "Draft PDR," 10 copies of the "Final PDR," and an electronic copy of all documents. SAIC will present the "Draft PDR" to the District's PDR Team prior to the comment period.

Scope of Work - Domestic Water Zone 3 to 4 Emergency Standby Booster Pump Station

The following scope of work has been provided to reflect the addition of a proposed Domestic Water emergency standby booster station to serve Planning Area 18 Zone 4. The Domestic Water emergency standby booster station was added in the revised PA18 SAMP prepared by Stantec, dated June 2011. According to the revised PA 18 SAMP, the proposed Domestic Water Zone 3 to 4 BPS referenced in the scope of work above is the sole source of supply to the PA18 South development, thus requiring a secondary pump station as an emergency supply for fire protection. The proposed emergency standby booster station will be located at a proposed community park, as indicated on Figure 3-3 of the revised PA 18 SAMP. The following preliminary design report scope will include information to establish the station design parameters, pump sizing and configuration, and layout for the design phase of this facility.

Task 1 – Preliminary Design Report

One Preliminary Design Report will be prepared for the combined PA18 Domestic Water Zone 3-4 and Recycled Water Zone B to C booster stations and the emergency standby Domestic Water Zone 3-4 Booster Pump Station. The previously completed PA18 Zone 3 to 4 and B to C Booster Pump Station PDR, dated January 2010, will be updated to include the emergency standby Domestic Water Zone 3-4 Booster Pump Station. The updated PDR shall be completed in accordance with requirements identified in Chapter V of the District's Design Process Manual. In addition to the general items discussed in the Design Process Manual, SAIC will address the following items:

A. Hydraulic Analysis & Pump Selection and Control

The Domestic Water Zone 3 to 4 Booster Pump Station will provide flow to a closed-loop system. A single, constant speed, pump will be sized to meet fire flow conditions at the flow of 2,000 gpm per the PA 18 SAMP update (dated June 2011). SAIC will verify system hydraulics by modeling the system as necessary and provide comprehensive study to determine the potential of surge on the proposed Zone 4 closed loop systems. SAIC will work with the District to prepare two pump alternatives for review.

B. Site Layout and Piping Plans

A conceptual site plan will be prepared which includes site location, access road alignment, proposed Zone 4 to 4R PRV, valves/meter/meter vaults, electrical transformers/panels, generator, pipelines/storm drains, and all ancillary facilities. An analysis of the pump station and electrical/instrumentation equipment layout will be performed to determine the correct building sizing to accommodate the necessary equipment. This task includes coordination with ICDC regarding the proposed site for the domestic emergency standby water pump station. We anticipate the site, adjacent grading, and storm drain point of connection are adequate. SAIC anticipates the pump station will be an above-ground facility enclosed within a building.

C. Electrical/Instrumentation

We will prepare a preliminary operational scheme including Process and Instrumentation diagram, single line diagram, control equipment list, and method of integration into the District's existing SCADA system. Prior to this process, the Engineer shall develop an action matrix identifying

control/alarm trigger points and what items or functions they will control in general terms for District review and approval. The Engineer will coordinate getting power and telemetry to both BPS. This proposal excludes obtaining SCE's approval for the proposed electrical services.

D. Site Landscaping and Irrigation

SAIC will perform a review of the site landscaping and irrigation system requirements for the BPS site. The PDR will describe any special situation affecting the proposed landscaping and/or irrigation system design and will discuss consistencies with the adjacent park.

E. Project Schedule

A comprehensive schedule will be prepared using Microsoft Project. The schedule will identify early completion requirements and critical path items identified by the project team.

F. Estimates of Probable Construction Costs

A preliminary construction cost estimate will be prepared for the proposed pump station in accordance with District standards.

G. Team Meetings

SAIC will schedule and lead meetings with the District's PDR Team to assure that all design, operational, and maintenance issues are being addressed. An agenda and meeting minutes including a summary of action items will be prepared for each meeting. A total of six ninety-minute PDR Team meetings are anticipated. Team meetings will include the coordination with IRWD planning and operations staff necessary to evaluate different design alternatives for emergency operation. It is assumed that PDR Team meetings will be combined for both BPS projects.

H. Technical Specifications

Preliminary drawing and specification lists will be prepared and included in the PDR Report.

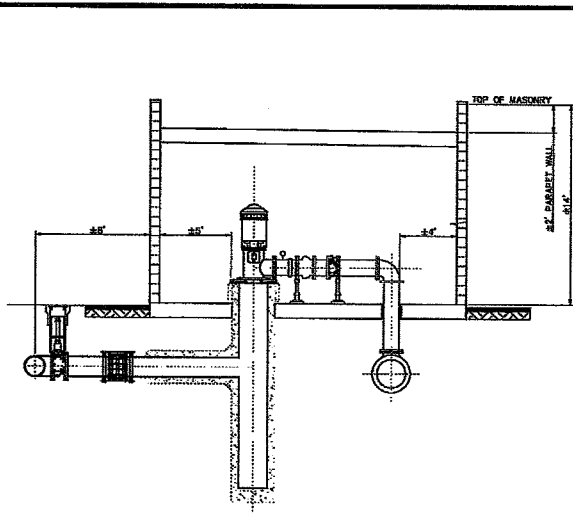
I. Deliverables

SAIC will provide 10 copies of handouts and minutes for each meeting, 10 copies of the "Draft PDR," 10 copies of the "Final PDR," and an electronic copy of all documents. SAIC will present the conclusions contained in the "Draft PDR" to the District's PDR Team prior to the comment period. SAIC assumes that a single combined PDR will be provided for both BPS projects.

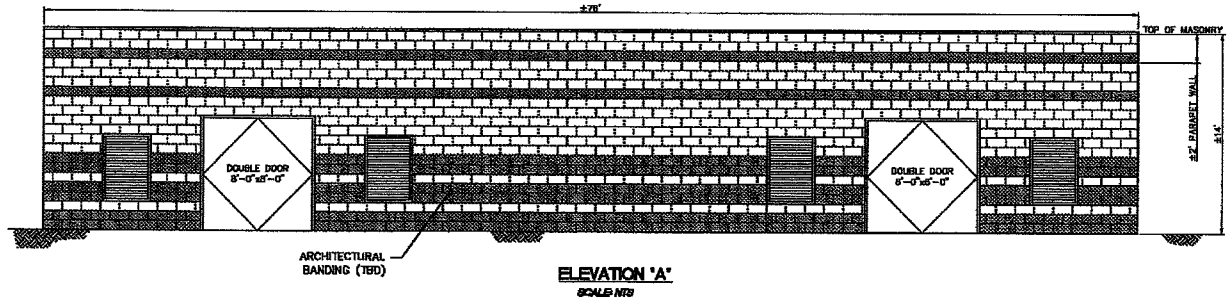
Exclusions

- Permits and CEQA documentation were both reviewed and addressed in the previous PDR, dated January 2010. No additional review for these items is anticipated.
- Geotechnical investigations
- View impact cross sections

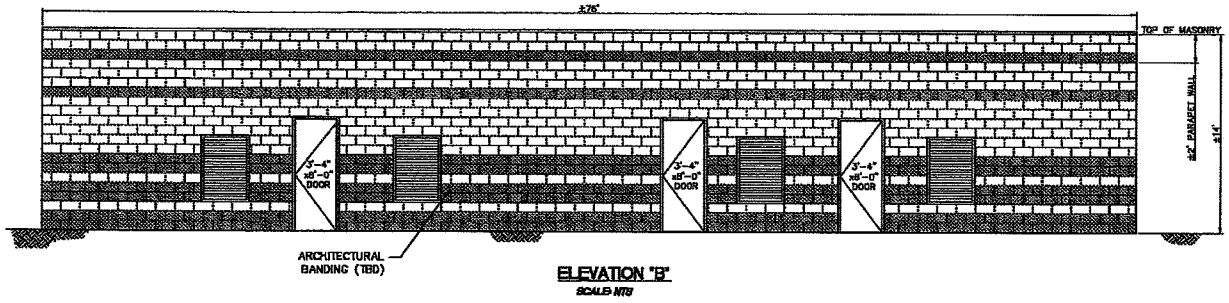
C-5



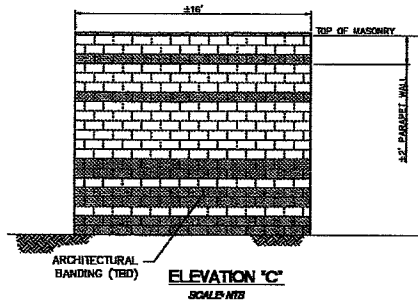
BOOSTER PUMP STATION SECTION
SCALE NTS



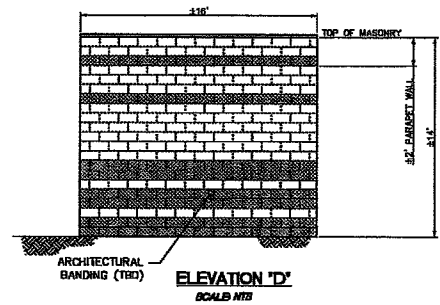
ELEVATION 'A'
SCALE NTS



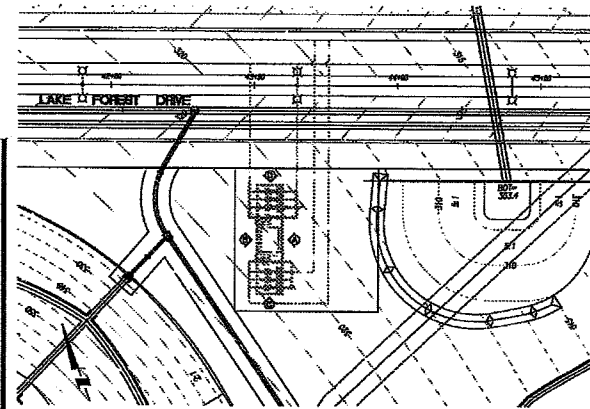
ELEVATION 'B'
SCALE NTS



ELEVATION 'C'
SCALE NTS



ELEVATION 'D'
SCALE NTS



SITE ALTERNATIVE 'A'
SCALE 1"=40'

| NO. | DATE | REVISIONS | APP. | DATE |
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| 7 | | | | |
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SAIC SAIC Energy, Environment & Infrastructure, LLC
6 Veterans, Suite 200
Irvine, CA 92618
(949) 596-6680

| NO. | DATE | REVISIONS |
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| 1 | | |



| NO. | DATE | REVISIONS |
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**PLANNING AREA 18 (PA18)
ZONE 3 TO ZONE 4 AND ZONE B TO C
BOOSTER PUMP STATIONS CONCEPT**

| PERMIT NO. |
|------------|
| |

| SHEET |
|-------|
| 1 |

| OF |
|----|
| 1 |

JOB NO. 0000000-0000

FEES AND EXPENSES ESTIMATE

| Tasks | S. Prin hrs | Prin hrs | PM hrs | SPS hrs | PS hrs | PE hrs | ST hrs | CADD/Drft hrs | WP hrs | Admin. hrs | Total hrs | Totals \$ | Expense \$ | Total \$ |
|--|----------------|-------------|-----------|------------|-----------|-----------|-----------|------------------|-----------|---------------|--------------|------------------|---------------|-----------------|
| Zone 3-4 and Zone B-C Pump Station | | | | | | | | | | | | | | |
| Task 1 - Preliminary Design Report | | | | | | | | | | | | | | |
| Task 1.A - Hydraulic Analysis and Pump Control | | 1 | 15 | | | | | | | | 16 | \$2,958 | \$59 | \$3,017 |
| Task 1.B - Grading Plans | | | 1 | 5 | | | | 25 | | | 31 | \$4,243 | \$85 | \$4,328 |
| Task 1.C - Geotechnical Investigations/ Report | | | | 2 | | | | | | | 2 | \$388 | \$7 | \$375 |
| Task 1.D - Pump Station Site & Pipeline Layout | | | 2 | 25 | | | | 70 | | | 97 | \$13,746 | \$275 | \$14,021 |
| Task 1.E - Electrical/ Instrumentation | | | | 12 | | | | 2 | | | 14 | \$2,158 | \$43 | \$2,201 |
| Task 1.F - Site Landscaping and Irrigation | | | | | | | | | | | 0 | \$0 | \$0 | \$0 |
| Task 1.G - Permits | | | | | | | | | | | 0 | \$0 | \$0 | \$0 |
| Task 1.H - CEQA Documentation | | | | | | | | | | | 0 | \$0 | \$0 | \$0 |
| Task 1.I - Project Schedule | | 1 | 2 | | | | | | | | 3 | \$566 | \$11 | \$577 |
| Task 1.J - Estimate of Probable Construction Cost | | | 1 | 10 | | | | | | | 11 | \$2,038 | \$41 | \$2,079 |
| Task 1.K - Team Meetings | | | 4 | 15 | | | | | | | 19 | \$3,582 | \$71 | \$3,623 |
| Task 1.L - Technical Specifications | | | 1 | 2 | | | | | 4 | | 7 | \$830 | \$17 | \$847 |
| Task 1.M - Deliverables | | | 1 | 30 | | | | | 25 | | 56 | \$7,368 | \$147 | \$7,515 |
| Sub-Total (Preliminary Design) | | 12 | 106 | 12 | 0 | 0 | 0 | 97 | 29 | 0 | 256 | \$37,827 | \$757 | \$38,584 |
| Subcontractor - NHC -Surge Analysis | | | | | | | | | | | | | | \$20,853 |
| Total Zone 3-4 and Zone B-C Pump Station Preliminary Design | | | | | | | | | | | | | | \$59,437 |
| Zone 3-4 Emergency Backup Pump Station | | | | | | | | | | | | | | |
| Task 1 - Preliminary Design Report | | | | | | | | | | | | | | |
| Task A - Hydraulic Analysis and Pump Control | | 1 | 10 | | | | | | | | 11 | \$2,038 | \$41 | \$2,079 |
| Task B - Pump Station Site & Pipeline Layout | | | 2.5 | 15 | | | | 30 | | | 47.5 | \$7,005 | \$140 | \$7,145 |
| Task C - Electrical/ Instrumentation | | | | 40 | | | | 25 | | | 65 | \$9,485 | \$190 | \$9,675 |
| Task D - Site Landscaping and Irrigation | | | | 5 | | | | 5 | | | 10 | \$1,545 | \$31 | \$1,576 |
| Task E - Project Schedule | | 1 | 2 | | | | | | | | 3 | \$566 | \$11 | \$577 |
| Task F - Estimate of Probable Construction Cost | | | 1 | 4 | | | | | | | 5 | \$934 | \$19 | \$953 |
| Task G - Team Meetings (combined with PA18 BPS) | | | | | | | | | | | 0 | \$0 | \$0 | \$0 |
| Task H - Technical Specifications | | | 1 | 2 | | | | | 2 | | 5 | \$698 | \$14 | \$712 |
| Task I - Deliverables | | | 1 | 15 | | | | | 10 | | 26 | \$3,618 | \$72 | \$3,690 |
| Sub-Total (Preliminary Design) | | 7.5 | 53 | 40 | 0 | 0 | 0 | 60 | 12 | 0 | 172.5 | \$25,889 | \$518 | \$26,407 |
| Subcontractor - NHC -Surge Analysis | | | | | | | | | | | | | | \$2,750 |
| Total Zone 3-4 Emergency Backup Pump Station Preliminary Design | | | | | | | | | | | | | | \$29,157 |
| SUBTOTAL HOURS | 0 | 19.5 | 159 | 52 | 0 | 0 | 0 | 157 | 41 | 0 | 428.5 | \$ 83,716 | \$ 1,274 | \$ 84,990 |
| Totals (hrs) | 0 | 19.5 | 159 | 52 | 0 | 0 | 0 | 157 | 41 | 0 | 428.5 | | | |
| Rate (\$/hr) | | 198 | 198 | 184 | 159 | 137 | 125 | 115 | 125 | 66 | 58 | | | |
| Engineering Fees | \$0 | \$3,861 | \$29,256 | \$8,268 | \$0 | \$0 | \$0 | \$19,625 | \$2,708 | \$0 | | | | |
| Subcontractor - NHC -Surge Analysis | | | | | | | | | | | | | | \$23,603 |
| TOTAL | | | | | | | | | | | | \$ 88,594 | | |

(1) Proposal is based on both pump station having same physical size and layout.

C-6

January 23, 2012

Prepared by: Tanja Fournier/Rob Jacobson

Submitted by: Debby Cherney

Approved by: Paul Cook

ACTION CALENDAR

APPROVAL OF INDEX-BASED TENDER NOTE REMARKETING STATEMENTS

SUMMARY:

The District's Index-based Tender Note debt issues (2011 A-1 and 2011 A-2), which were originally issued in April 2011, are within their remarketing period. Staff, underwriters Goldman Sachs and Morgan Stanley and legal counsel have prepared the required Remarketing Statements for the Refunding Series 2011 A-1 and 2011 A-2 issues for Board approval, attached as Exhibit "A" and "B", respectively.

BACKGROUND:

In April 2011, the District refunded its \$100.9 million 2008-B general obligation bond issue and reissued the debt as Index-Based Tender Notes (ITNs). The ITNs are remarketed periodically and are priced at a spread to the SIFMA tax-exempt variable rate index. The initial interest rate set for the 2011 A-1 and 2011 A-2 issues was the SIFMA weekly index plus a four basis point spread. Underwriters responsible for remarketing the bonds include Goldman Sachs (2011 A-1) and Morgan Stanley (2011 A-2). The 2011 A-1 issue represents 60% of the ITNs and the 2011 A-2 represents the remaining 40%.

Staff and legal counsel have prepared the Remarketing Statements reflecting the District's most recent financial information, updated disclosure information and other pertinent updates. Legal counsel has prepared a resolution for adoption by the Board approving the Remarketing Statements, attached as Exhibit "C". The Remarketing of the ITNs is planned for early February 2012.

FISCAL IMPACTS:

The current outstanding principal amount for the 2011 A-1 and A-2 ITN bond issues is \$98.5 million following scheduled October 2011 principal payments.

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 reviewed by the Finance and Personnel Committee on January 12, 2012.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. __

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE IRVINE RANCH WATER DISTRICT
APPROVING REMARKETING STATEMENTS RELATING TO UNSCHEDULED
MANDATORY TENDERS
(REFUNDING SERIES 2011A-1 AND REFUNDING SERIES 2011A-2)

LIST OF EXHIBITS:

- Exhibit "A" – Remarketing Statement for Series 2011A-1
- Exhibit "B" – Remarketing Statement for Series 2011A-2
- Exhibit "C" – Resolution Approving Remarketing Statements

EXHIBIT "A"

Stradling Yocca Carlson & Rauth
Draft of 1/___/12

REOFFERING – NOT A NEW ISSUE—BOOK-ENTRY ONLY

RATINGS:
Moody's: VMIG 1; Aa1
Standard & Poor's: A-1+
Fitch: F1+; AAA
(See the caption "RATINGS")

On April 15, 2011, Orrick, Herrington & Sutcliffe LLP and Bowie, Arneson, Wiles & Giannone, Co-Bond Counsel to the District, delivered their respective opinions in connection with the issuance of the Series 2011A-1 Bonds. Such opinions stated that, based on an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 2011A-1 Bonds was excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and was exempt from State of California personal income taxes. Further, the opinions of Co-Bond Counsel stated that interest on the Series 2011A-1 Bonds was not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Co-Bond Counsel observed that such interest was included in adjusted current earnings when calculating corporate alternative minimum taxable income. Co-Bond Counsel expressed no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual or receipt of interest on, the Series 2011A-1 Bonds. Co-Bond Counsel have not taken and do not intend to take any action to update such opinions or to determine if interest on the Series 2011A-1 Bonds is presently excluded from gross income for federal income tax purposes or exempt from State of California personal income taxes. See the caption "TAX MATTERS" herein.

[IRWD LOGO]

\$59,075,000
BONDS OF IRVINE RANCH WATER DISTRICT
REFUNDING SERIES 2011A-1
CUSIP[†]: 4636324Q9

Date of Initial Delivery: April 15, 2011
Price: 100%

Scheduled Mandatory Tender Date: [____], 2013
Call Protection Date: [____], 2012

Due: October 1, 2037

This Remarketing Statement replaces the Official Statement dated April 12, 2011 in its entirety.

Pursuant to the provisions of the Indenture of Trust, dated as of April 1, 2011, by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to the Series 2011A-1 Bonds, the District has exercised its option to effect an *Unscheduled Mandatory Tender* of the Series 2011A-1 Bonds on February 2, 2012.

Upon the purchase of the Series 2011A-1 Bonds pursuant to such *Unscheduled Mandatory Tender*, the Series 2011A-1 Bonds: (i) will be remarketed in the *Index Mode* for a *Tender Period* commencing on February 2, 2012 with the *Scheduled Mandatory Tender Date* on [____], 2013; and (ii) will bear interest at an *Index Tender Rate* (which is equal to the sum of: (a) the *SIFMA Average Index Rate* calculated for each *Index Rate Accrual Period*; and (b) the applicable *Index Spread* for such *Tender Period*). Promptly after the *Remarketing Agent* determines the *Index Spread* for the *Tender Period* commencing on February 2, 2012, the District will publish it by supplementing this *Remarketing Statement* and posting the supplement on the *EMMA* system.

The *Purchase Price* of the tendered Series 2011A-1 Bonds will be paid on February 2, 2012 from moneys held by the *Trustee*, consisting of immediately available funds on deposit in the *Remarketing Proceeds Account*, as more fully described herein.

The Series 2011A-1 Bonds were issued by the Irvine Ranch Water District and constitute the consolidated, several general obligations of Improvement District Nos. 105, 113, 213 and 250, which are geographical subdivisions of the District through which the District funds capital improvements. The Series 2011A-1 Bonds are payable from the following sources: (i) *Assessment Proceeds* of each Improvement District, consisting of *ad valorem* assessments on taxable land, *In Lieu Charges* and proceeds from the sale of property for the enforcement of delinquent assessments collected from within each Improvement District and applied by the District to pay such Improvement District's *Included Amount* of the principal, *Purchase Price* and *Redemption Price* of, and interest on, all Outstanding Series 2011A-1 Bonds; (ii) *Net Revenues* of the District, consisting of water, sewer and reclaimed water rates and charges imposed by the District remaining after payment of *Operation and Maintenance Expenses*; and (iii) certain monies and investment earnings in certain funds and accounts created under the Indenture. See the caption "SECURITY FOR THE SERIES 2011A-1 BONDS—Pledge of Assessment Proceeds and Revenues." The obligation of the District to pay the principal, *Purchase Price* upon the *Scheduled Mandatory Tender* and *Redemption Price* of, and interest on, the Series 2011A-1 Bonds from *Net Revenues* is payable on a parity with certain *Parity Obligations* described under the caption "SECURITY FOR THE SERIES 2011A-1 BONDS—Limitations on Parity and Superior Obligations—Obligations on a Parity with the Series 2011A-1 Bonds."

The Series 2011A-1 Bonds were issued pursuant to the Indenture for the purposes of: (i) providing a portion of the funds to refund the then-outstanding Bonds of Irvine Ranch Water District, Consolidated Refunding Series 2008B; and (ii) paying costs of issuance with respect to the Series 2011A-1 Bonds.

The Series 2011A-1 Bonds were issued in fully registered form and are registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York. Purchasers of the Series 2011A-1 Bonds will not receive physical certificates representing their beneficial ownership in the Series 2011A-1 Bonds purchased. The principal, *Purchase Price* and *Redemption Price* of, and interest on, the Series 2011A-1 Bonds are payable by the *Trustee* to Cede & Co. and such principal, *Purchase Price*, *Redemption Price* and interest payments are to be disbursed to the beneficial owners of the Series 2011A-1 Bonds through their nominees.

While the Series 2011A-1 Bonds are in the *Index Mode*, interest on the Series 2011A-1 Bonds will be payable on the first *Business Day* of each month. The Series 2011A-1 Bonds will be subject to a *Scheduled Mandatory Tender* on [____], 2013. The failure of the District to pay the *Purchase Price* of the Series 2011A-1 Bonds upon any *Scheduled Mandatory Tender* would constitute an *Event of Default* under the Indenture. See the caption "THE SERIES 2011A-1 BONDS—Mandatory Tender for Purchase—Scheduled Mandatory Tender for Purchase." The Series 2011A-1 Bonds are also

[†] CUSIP[®] is a registered trademark of the American Bankers Association. Copyright© 1999-2011 Standard & Poor's, a Division of The McGraw-Hill Companies, Inc. All rights reserved. CUSIP[®] data herein is provided by Standard & Poor's CUSIP Service Bureau. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Service Bureau. CUSIP[®] numbers are provided for convenience of reference only. Neither the District nor the Remarketing Agent take any responsibility for the accuracy of such numbers.

subject to mandatory tender on an Unscheduled Mandatory Tender Date at the option of the District as described herein. The failure of the District to pay the Purchase Price of the Series 2011A-1 Bonds upon such Unscheduled Mandatory Tender would not constitute an Event of Default under the Indenture. See the caption "THE SERIES 2011A-1 BONDS—Mandatory Tender for Purchase—Unscheduled Mandatory Tender for Purchase." While in the Index Mode, individual purchases of Series 2011A-1 Bonds will be made in principal amounts of \$100,000 and integral multiples of \$5,000 in excess thereof.

This Remarketing Statement describes the Series 2011A-1 Bonds while in the Index Mode and for the Tender Period commencing on February 2, 2012 and ending on the Scheduled Mandatory Tender Date set forth above. There are significant differences in the terms of the Series 2011A-1 Bonds while they bear interest in a Mode other than an Index Mode. This Remarketing Statement is not intended to provide information with respect to the Series 2011A-1 Bonds bearing interest in a Mode other than the Index Mode or in another Tender Period. Owners and prospective owners of the Series 2011A-1 Bonds should not rely on this Remarketing Statement for information in connection with any Change in Mode, but should look solely to the offering document to be used in connection with any such Change in Mode.

This Remarketing Statement describes the Series 2011A-1 Bonds for the Tender Period ending on the Scheduled Mandatory Tender Date set forth above only. This Remarketing Statement is not intended to provide information with respect to the Series 2011A-1 Bonds for any other Tender Period. Owners and prospective owners of the Series 2011A-1 Bonds should not rely on this Remarketing Statement for information relating to the Series 2011A-1 Bonds during any other Tender Period, but should look solely to the offering document to be used in connection with such Tender Period.

Concurrently with the reoffering of the Series 2011A-1 Bonds, the District anticipates reoffering its Series 2011A-2 Bonds. Owners or prospective owners of the Series 2011A-2 Bonds should not rely on this Remarketing Statement for information relating to the Series 2011A-2 Bonds but should look instead to the most current Remarketing Statement prepared by the District for the Series 2011A-2 Bonds.

The Series 2011A-1 Bonds are subject to optional and mandatory redemption prior to maturity as more fully described under the caption "THE SERIES 2011A-1 BONDS—Redemption of Series 2011A-1 Bonds."

THE SERIES 2011A-1 BONDS DO NOT CONSTITUTE AN OBLIGATION OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA OTHER THAN THE DISTRICT AND THE IMPROVEMENT DISTRICTS AS PROVIDED IN THE INDENTURE. NO FUNDS OF THE DISTRICT OR THE IMPROVEMENT DISTRICTS, OTHER THAN THE FUNDS INCLUDED IN THE TRUST ESTATE, ARE LIABLE FOR THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR PURCHASE PRICE OF, OR INTEREST ON, THE SERIES 2011A-1 BONDS. EXCEPT AS PROVIDED IN THE INDENTURE WITH RESPECT TO THE TRUST ESTATE, NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE DISTRICT IS LIABLE FOR OR PLEDGED TO THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR PURCHASE PRICE OF, OR INTEREST ON, THE SERIES 2011A-1 BONDS.

This cover page contains certain information for general reference only. It is not intended to be a summary of the security or terms of the Series 2011A-1 Bonds. Investors are advised to read the entire Remarketing Statement to obtain information essential to the making of an informed investment decision. Capitalized terms have the meanings given such terms in the Remarketing Statement.

Certain legal matters will be passed upon by Orrick, Herrington & Sutcliffe LLP and Bowie, Arneson, Wiles & Giannone, Co-Disclosure Counsel, for the District by Bowie, Arneson, Wiles & Giannone, as general counsel to the District, for the Remarketing Agent by Stradling Yocca Carlson & Rauth, a Professional Corporation, and for the Trustee by its counsel. The Series 2011A-1 Bonds are available through the facilities of The Depository Trust Company. Goldman, Sachs & Co. is serving as Remarketing Agent and will remarket the Series 2011A-1 Bonds on February 2, 2012 following their mandatory tender.

Goldman, Sachs & Co.

Series 2011A-1 Bonds Remarketing Agent

Dated: [February 7], 2012

No dealer, broker, salesperson or other person has been authorized by the District or the Remarketing Agent to give any information or to make any representation other than as set forth herein and, if given or made, such other information or representation must not be relied upon as having been authorized by the District or the Remarketing Agent. This Remarketing Statement does not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Series 2011A-1 Bonds by a person in any jurisdiction in which it is unlawful for such person to make such an offer, solicitation or sale.

This Remarketing Statement is not to be construed as a contract with the purchasers of the Series 2011A-1 Bonds. Statements contained in this Remarketing Statement which involve estimates, forecasts or matters of opinion, whether or not expressly so described herein, are intended solely as such and are not to be construed as representations of facts.

The Remarketing Agent has provided the following sentence for inclusion in this Remarketing Statement:

The Remarketing Agent has reviewed the information in this Remarketing Statement in accordance with, and as part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Remarketing Agent does not guarantee the accuracy or completeness of such information.

The information set forth in this Remarketing Statement has been obtained from official sources and other sources which are believed to be reliable, but it is not guaranteed as to accuracy or completeness and is not to be construed as a representation by the Remarketing Agent. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Remarketing Statement nor any sale made hereunder shall under any circumstances create any implication that there has been no change in the affairs of the District since the date hereof.

IN CONNECTION WITH THIS OFFERING, THE REMARKETING AGENT MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2011A-1 BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

CERTAIN STATEMENTS CONTAINED IN THIS REMARKETING STATEMENT REFLECT NOT HISTORICAL FACTS BUT FORECASTS AND "FORWARD-LOOKING STATEMENTS." NO ASSURANCE CAN BE GIVEN THAT THE FUTURE RESULTS DISCUSSED HEREIN WILL BE ACHIEVED, AND ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THE FORECASTS DESCRIBED HEREIN. IN THIS RESPECT, THE WORDS "ESTIMATE," "PROJECT," "ANTICIPATE," "EXPECT," "INTEND," "BELIEVE" AND SIMILAR EXPRESSIONS ARE INTENDED TO IDENTIFY FORWARD-LOOKING STATEMENTS. ALL PROJECTIONS, FORECASTS, ASSUMPTIONS, EXPRESSIONS OF OPINIONS, ESTIMATES AND OTHER FORWARD-LOOKING STATEMENTS ARE EXPRESSLY QUALIFIED IN THEIR ENTIRETY BY THE CAUTIONARY STATEMENTS SET FORTH IN THIS REMARKETING STATEMENT. THE PROJECTIONS CONTAINED IN THIS REMARKETING STATEMENT WILL NOT BE UPDATED AS PART OF THE DISTRICT'S CONTINUING DISCLOSURE OBLIGATIONS FOR THE SERIES 2011A-1 BONDS.

THE SERIES 2011A-1 BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, IN RELIANCE UPON AN EXEMPTION CONTAINED IN SUCH ACT. THE SERIES 2011A-1 BONDS HAVE NOT BEEN REGISTERED OR QUALIFIED UNDER THE SECURITIES LAWS OF ANY STATE.

The District maintains a website. However, the information presented there is not part of this Remarketing Statement and should not be relied upon in making an investment decision with respect to the Series 2011A-1 Bonds.

IRVINE RANCH WATER DISTRICT
Orange County, California

Board of Directors

Mary Aileen Matheis, *President*
John B. Withers, *Vice President*
Steven E. LaMar
Douglas J. Reinhart
Peer A. Swan

Management

Paul A. Cook, *General Manager*
Debby Slack Cherney, *Director of Finance*
Robert Jacobson, *Treasurer*
Leslie Bonkowski, *Secretary*

District General Counsel

Bowie, Arneson, Wiles & Giannone
Newport Beach, California

Co-Bond Counsel

Orrick, Herrington & Sutcliffe LLP
Los Angeles, California

Bowie, Arneson, Wiles & Giannone
Newport Beach, California

Trustee

The Bank of New York Mellon Trust Company, N.A.
Los Angeles, California

[REGIONAL MAP]

e

[MAP OF WATER IMPROVEMENT DISTRICTS]

[MAP OF SEWER IMPROVEMENT DISTRICTS]

TABLE OF CONTENTS

| | Page |
|--|------|
| INTRODUCTION | 1 |
| Purpose | 1 |
| The District | 2 |
| The Series 2011A-1 Bonds | 2 |
| Improvement Districts | 3 |
| Security for the Series 2011A-1 Bonds | 3 |
| Professionals Involved in the Remarketing | 5 |
| Summaries Not Definitive | 5 |
| Additional Information | 5 |
| THE SERIES 2011A-1 BONDS | 6 |
| General | 6 |
| Calculation of Interest | 7 |
| Determination of Index Tender Rates and Index Rate Accrual Periods for Series 2011A-1 Bonds in Index Mode | 7 |
| Mandatory Tender for Purchase | 8 |
| Purchase of Series 2011A-1 Bonds | 8 |
| Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender | 10 |
| Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender | 11 |
| Changes in Mode | 13 |
| Mandatory Purchase of Series 2011A-1 Bonds | 14 |
| Undelivered Bonds | 15 |
| Refinancing and Related Risks | 15 |
| Redemption of Series 2011A-1 Bonds | 15 |
| Selection of Series 2011A-1 Bonds for Redemption | 16 |
| Notice of Redemption | 17 |
| Allocation of Credits for Purchased or Redeemed Series 2011A-1 Bonds | 17 |
| Book-Entry Only System | 18 |
| SECURITY FOR THE SERIES 2011A-1 BONDS | 18 |
| General | 18 |
| Pledge of Assessment Proceeds and Revenues | 19 |
| Allocation of Monies Under the Indenture | 21 |
| Existing Parity Obligations | 22 |
| Limitations on Parity and Superior Obligations | 23 |
| Investment of Monies in Funds and Accounts Under the Indenture | 24 |
| THE IRVINE RANCH WATER DISTRICT | 25 |
| CONTINUING DISCLOSURE | 25 |
| LITIGATION | 25 |
| RATINGS | 26 |
| TAX MATTERS | 26 |
| Original Opinions | 26 |
| No Updated Co-Bond Counsel Opinions | 26 |
| General Considerations | 26 |
| REMARKETING AGENT | 28 |

| | |
|--|-----|
| APPROVAL OF LEGAL PROCEEDINGS | 28 |
| INDEPENDENT ACCOUNTANTS..... | 28 |
| MISCELLANEOUS..... | 28 |
| APPENDIX A IRVINE RANCH WATER DISTRICT..... | A-1 |
| APPENDIX B AUDITED FINANCIAL STATEMENTS | B-1 |
| APPENDIX C SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE | C-1 |
| APPENDIX D CO-BOND COUNSEL OPINIONS | D-1 |
| APPENDIX E BOOK-ENTRY SYSTEM..... | E-1 |
| APPENDIX F FORM OF CONTINUING DISCLOSURE CERTIFICATE..... | F-1 |

REMARKETING STATEMENT

\$59,075,000
BONDS OF IRVINE RANCH WATER DISTRICT
REFUNDING SERIES 2011A-1

INTRODUCTION

This Remarketing Statement replaces the Official Statement dated April 12, 2011 in its entirety.

Pursuant to the provisions of the Indenture of Trust, dated as of April 1, 2011 (the "Indenture"), by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), relating to the Bonds of Irvine Ranch Water District Refunding Series 2011A-1 (the "Series 2011A-1 Bonds"), the Irvine Ranch Water District (the "District") has exercised its option to effect an Unscheduled Mandatory Tender of the Series 2011A-1 Bonds on February 2, 2012.

Upon the purchase of the Series 2011A-1 Bonds pursuant to such Unscheduled Mandatory Tender, the Series 2011A-1 Bonds: (i) will be remarketed in the Index Mode for a Tender Period commencing on February 2, 2012 with the Scheduled Mandatory Tender Date on [____], 2013; and (ii) will bear interest at an Index Tender Rate (which is equal to the sum of: (a) the SIFMA Average Index Rate calculated for each Index Rate Accrual Period; and (b) the applicable Index Spread for such Tender Period), all as more fully described herein.

The Purchase Price of the tendered Series 2011A-1 Bonds will be paid on February 2, 2012 from moneys held by the Trustee, consisting of immediately available funds on deposit in the Remarketing Proceeds Account, as more fully described herein.

This Introduction is subject in all respects to the more complete information contained and referenced elsewhere in this Remarketing Statement. The remarketing of the Series 2011A-1 Bonds to potential investors is made only by means of the entire Remarketing Statement.

Purpose

The purpose of this Remarketing Statement, which includes the cover page and appendices hereto, is to set forth certain information concerning the District and Improvement District Nos. 105, 113, 213 and 250 (collectively, the "Improvement Districts" or individually, an "Improvement District") which are geographical subdivisions of the District through which the District funds capital improvements, in connection with the remarketing of \$59,075,000 aggregate principal amount of the Series 2011A-1 Bonds, which Series 2011A-1 Bonds constitute the consolidated several general obligations of Improvement District Nos. 105, 113, 213 and 250. In addition, the District has pledged Revenues to the repayment of the Series 2011A-1 Bonds. See the caption "SECURITY FOR THE SERIES 2011A-1 BONDS—Pledge of Assessment Proceeds and Revenues."

The Series 2011A-1 Bonds were issued pursuant to the Indenture for the purposes of: (i) providing a portion of the funds to refund the then-outstanding Bonds of Irvine Ranch Water District, Consolidated Refunding Series 2008B; and (ii) paying costs of issuance with respect to the Series 2011A-1 Bonds. Capitalized terms used herein and not otherwise defined have the meanings ascribed to them in Appendix C—"SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE."

This Remarketing Statement describes the Series 2011A-1 Bonds while in the Index Mode and for the Tender Period described herein only. There are significant differences in the terms of the Series 2011A-1 Bonds while they bear interest in a Mode other than an Index Mode. This Remarketing Statement is not intended to provide information with respect to the Series 2011A-1 Bonds bearing

interest in a Mode other than the Index Mode or in another Tender Period. Owners and prospective owners of the Series 2011A-1 Bonds should not rely on this Remarketing Statement for information in connection with any Change in Mode, but should look solely to the offering document to be used in connection with any such Change in Mode.

This Remarketing Statement describes the Series 2011A-1 Bonds for the Tender Period ending on the Scheduled Mandatory Tender Date of [____], 2013. This Remarketing Statement is not intended to provide information with respect to the Series 2011A-1 Bonds for any other Tender Period. Owners and prospective owners of the Series 2011A-1 Bonds should not rely on this Remarketing Statement for information relating to the Series 2011A-1 Bonds during any other Tender Period, but should look solely to the offering document to be used in connection with such Tender Period.

Concurrently with the reoffering of the Series 2011A-1 Bonds, the District anticipates reoffering its Bonds of Irvine Ranch Water District Refunding Series 2011A-2 (the "Series 2011A-2 Bonds"). Owners or prospective owners of the Series 2011A-2 Bonds should not rely on this Remarketing Statement for information relating to the Series 2011A-2 Bonds but should look instead to most current Remarketing Statement prepared by the District for the Series 2011A-2 Bonds.

Although the District has the right under the Indenture to enter into a Liquidity Facility in connection with the Series 2011A-1 Bonds, the District has not elected to enter into a Liquidity Facility in connection with the remarketing of the Series 2011A-1 Bonds for the Tender Period commencing February 2, 2012. This Remarketing Statement is not intended to provide information with respect to the Series 2011A-1 Bonds supported by a Liquidity Facility. Owners and prospective owners of the Series 2011A-1 Bonds should not rely on this Remarketing Statement for information in connection with the Series 2011A-1 Bonds supported by a Liquidity Facility, but should look solely to the offering document to be used in connection with any future entry of the District into a Liquidity Facility with respect to the Series 2011A-1 Bonds.

The District

The District is a California water district, formed in 1961 under the authority of the California Water District Law, constituting Division 13 of the California Water Code (the "Act"). Currently there are 16 water improvement districts and 17 sewer improvement districts formed pursuant to the Act, which are geographical subdivisions of the District through which the District funds capital improvements. See Appendix A—"IRVINE RANCH WATER DISTRICT."

The Series 2011A-1 Bonds

The Series 2011A-1 Bonds are being remarketed in an Index Mode for a Tender Period commencing on February 2, 2012 with the Scheduled Mandatory Tender Date of [____], 2013 and will bear interest at an Index Tender Rate (which is equal to the sum of: (a) the SIFMA Average Index Rate calculated for each Index Rate Accrual Period; and (b) the applicable Index Spread for such Tender Period, all as more fully described under the caption "THE SERIES 2011A-1 BONDS"). While in the Index Mode, interest on the 2011A-1 Bonds will be payable on the first Business Day of each month. The Series 2011A-1 Bonds will be subject to a Scheduled Mandatory Tender on [____], 2013. The failure of the District to pay the Purchase Price of a Series 2011A-1 Bond upon any Scheduled Mandatory Tender would constitute an Event of Default under the Indenture. See the caption "THE SERIES 2011A-1 BONDS—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender—Consequences of a Scheduled Mandatory Tender Failure." The Series 2011A-1 Bonds are also subject to mandatory tender on an Unscheduled Mandatory Tender Date established at the option of the District as described herein. See the caption "THE SERIES 2011A-1 BONDS—Mandatory Tender for Purchase—Unscheduled Mandatory Tender for Purchase." While in the Index Mode, individual purchases of Series 2011A-1 Bonds will be made in principal amounts of \$100,000 and integral multiples of \$5,000 in excess thereof.

Improvement Districts

Set forth below are brief descriptions of the Improvement Districts for which the Series 2011A-1 Bonds constitute the consolidated, several general obligations. For more complete information with respect to the Improvement Districts, see Appendix A—"IRVINE RANCH WATER DISTRICT" under the caption "THE IMPROVEMENT DISTRICTS."

Improvement District Nos. 105 and 250. Improvement District No. 105 (water) and Improvement District No. 250 (sewer) are generally coterminous and cover approximately 26,000 acres of the District including a majority of the area north of the I-5 freeway stretching to near the Riverside County line. Currently, the far western area of Improvement District Nos. 105 and 250 consists of residential development. The District expects future development to be predominantly residential with supporting commercial development. In addition, large portions of Improvement District Nos. 105 and 250, consisting of approximately 13,400 acres near the Lomas de Santiago ridgeline, are reserved as permanent open space. The District expects development in Improvement District Nos. 105 and 250 to continue through at least 2025. The Fiscal Year 2012 assessed value of the land in Improvement District No. 105 is \$6,316,070,513. The Fiscal Year 2012 assessed value of the land in Improvement District No. 250 is \$6,003,427,629.

Improvement District Nos. 113 and 213. Improvement District No. 113 (water) and Improvement District No. 213 (sewer) are coterminous and are located in portions of the Cities of Tustin and Irvine. Improvement District Nos. 113 and 213 are comprised of approximately 1,629 acres of the land formerly known as Marine Corps Air Station Tustin. The boundaries of Improvement District Nos. 113 and 213 are Harvard Avenue on the southeast, Barranca Parkway on the southwest, Red Hill Avenue on the northwest and Edinger Avenue on the northeast. The former helicopter base, now known as Tustin Legacy, is currently being redeveloped with residential, commercial, institutional and recreational uses. The District expects development in Improvement District Nos. 113 and 213 to continue through at least 2020. The District expects that the total existing and future development will consist of 4,800 dwelling units and 12,100,000 square feet of commercial, institutional and recreational uses. The Fiscal Year 2012 assessed value of the land in Improvement District No. 113 is \$553,458,157. The Fiscal Year 2012 assessed value of the land in Improvement District No. 213 is \$553,458,157.

Security for the Series 2011A-1 Bonds

General. The Series 2011A-1 Bonds constitute the consolidated, several general obligations of the Improvement Districts payable from the following sources, each as further described under the caption "SECURITY FOR THE SERIES 2011A-1 BONDS": (i) Assessment Proceeds collected from within each Improvement District and applied by the District to pay such Improvement District's Included Amount (as defined below) of the principal, Purchase Price and Redemption Price of, and interest on, all Outstanding Series 2011A-1 Bonds; (ii) Net Revenues of the District; and (iii) certain monies and investment earnings in certain funds and accounts created under the Indenture.

The principal amount of the Series 2011A-1 Bonds allocated to an Improvement District is referred to as such Improvement District's "Included Amount" and an Improvement District's Included Amount divided by the total principal amount of the Series 2011A-1 Bonds is referred to as such Improvement District's "Included Percentage."

Assessment Proceeds. The District has covenanted in the Indenture that, to the extent necessary to provide Assessment Proceeds sufficient to pay when due, together with the other funds available for such payment, the principal of and interest on the Included Amount for each respective Improvement District, the District will: (a) fix and collect, or cause the fixing and collection of, *ad valorem* assessments on taxable land within the applicable Improvement District; (b) pursue any remedy available to collect, or cause the collection of, delinquent *ad valorem* assessments and apply amounts realized from the sale of any property for the enforcement of delinquent *ad valorem* assessments to the payment of principal of and interest on the Included

Amount of the Series 2011A-1 Bonds of the applicable Improvement District; or (c) in its discretion, impose and collect, or cause the imposition and collection of, In Lieu Charges (which constitute charges for water or sewer service, as applicable, in the applicable Improvement District in lieu of *ad valorem* assessments). See the caption “SECURITY FOR THE SERIES 2011A-1 BONDS—General—Covenant to Collect Assessment Proceeds.”

As among the Improvement Districts, Assessment Proceeds collected in any Improvement District will not be available to pay any other Improvement District’s share of debt service of the Series 2011A-1 Bonds. Each Improvement District’s Included Amount and Included Percentage will be as set forth below:

SERIES 2011A-1 BONDS

| <i>Improvement District No.</i> | <i>Included Amount</i> | <i>Included Percentage</i> |
|---------------------------------|------------------------|----------------------------|
| 105 | \$ 27,588,025 | 46.70% |
| 113 | 2,953,750 | 5.00 |
| 213 | 3,721,725 | 6.30 |
| 250 | <u>24,811,500</u> | <u>42.00</u> |
| Total | <u>\$ 59,075,000</u> | <u>100.00%</u> |

The Included Amount for each Improvement District with respect to the Series 2011A-1 Bonds and any other outstanding or future District general obligation bonds issued for such Improvement District are equally secured by the *ad valorem* assessments and any charges for water or sewer service, as applicable, imposed and collected in lieu of *ad valorem* assessments, collected within such Improvement District. The *ad valorem* assessments are levied only on land and are based on the land value of parcels in the Improvement District without regard to the value of any improvements thereon. See Appendix A—“IRVINE RANCH WATER DISTRICT” under the captions “THE IMPROVEMENT DISTRICTS—Improvement District Nos. 105 and 250” and “THE IMPROVEMENT DISTRICTS—Improvement District Nos. 113 and 213.”

During the term of the Series 2011A-1 Bonds, the Included Amounts and Included Percentages for any Improvement District may be adjusted as a result of the purchase or redemption of Series 2011A-1 Bonds allocated to one or more Improvement Districts, pursuant to calculations made by the District and delivered to the Trustee pursuant to the Indenture, without need for any amendment of or supplement to the Indenture.

Net Revenues. The Series 2011A-1 Bonds are also payable from the Net Revenues of the District and are secured by a pledge of the Revenues of the District, subject to the application of the Revenues as provided in the Indenture. Net Revenues for any period consist of the Revenues of the District less the Operation and Maintenance Expenses of the District for such period, as such terms are defined under the caption “SECURITY FOR THE SERIES 2011A-1 BONDS—Pledge of Assessment Proceeds and Revenues—Net Revenues.”

Net Revenues collected within any improvement district of the District, including the Improvement Districts, are available to make debt service payments on the Series 2011A-1 Bonds.

The obligation of the District to pay the principal, Redemption Price and Purchase Price (other than the Purchase Price due on an Unscheduled Mandatory Tender) of, and interest on, the Series 2011A-1 Bonds from Net Revenues is payable on a parity with the District’s obligations under certain Parity Obligations. See the caption “SECURITY FOR THE SERIES 2011A-1 BONDS—Existing Parity Obligations.” The District may enter into additional Parity Obligations in accordance with the terms of the Indenture. See the caption “SECURITY FOR THE SERIES 2011A-1 BONDS—Limitations on Parity and Superior Obligations—Obligations on a Parity with the Series 2011A-1 Bonds.”

The District has covenanted in the Indenture, to the fullest extent permitted by law, to fix, prescribe and collect Revenues which, together with any *ad valorem* assessments available to pay Debt Service on Parity

Obligations which are not applied as a credit against Debt Service, will be at least sufficient to yield during each Fiscal Year Net Revenues which are at least equal to 125% of Aggregate Debt Service payable during such Fiscal Year. The District may make adjustments from time to time in such rates and charges and may make such classifications thereof as it deems necessary, but will not reduce the rates and charges then in effect unless the Net Revenues from such reduced rates and charges will at all times be sufficient to meet the requirements of the rate covenant with respect to all outstanding Parity Obligations. See the caption "SECURITY FOR THE SERIES 2011A-1 BONDS—General—Revenue Rate Covenant."

Limited Obligations. THE SERIES 2011A-1 BONDS DO NOT CONSTITUTE AN OBLIGATION OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA OTHER THAN THE DISTRICT AND THE IMPROVEMENT DISTRICTS AS PROVIDED IN THE INDENTURE. NO FUNDS OF THE DISTRICT OR THE IMPROVEMENT DISTRICTS, OTHER THAN THE FUNDS INCLUDED IN THE TRUST ESTATE, ARE LIABLE FOR THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR PURCHASE PRICE OF, OR INTEREST ON, THE SERIES 2011A-1 BONDS. EXCEPT AS PROVIDED IN THE INDENTURE WITH RESPECT TO THE TRUST ESTATE, NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE DISTRICT IS LIABLE FOR OR PLEDGED TO THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR PURCHASE PRICE OF, OR INTEREST ON, THE SERIES 2011A-1 BONDS.

Professionals Involved in the Remarketing

The Bank of New York Mellon Trust Company, N.A. serves as Trustee under the Indenture. Certain legal matters will be passed upon by Orrick, Herrington & Sutcliffe LLP and Bowie, Arneson, Wiles & Giannone, Co-Disclosure Counsel, for the District by Bowie, Arneson, Wiles & Giannone, as general counsel to the District ("General Counsel"), for Goldman, Sachs & Co. (the "Remarketing Agent") by Stradling Yocca Carlson & Rauth, a Professional Corporation, and for the Trustee by its counsel.

Summaries Not Definitive

The summaries and references to all documents, statutes, reports and other instruments referred to herein do not purport to be complete, comprehensive or definitive, and each such summary or reference is qualified in its entirety by reference to each such document, statute, report or instrument. The capitalization of any word not conventionally capitalized or otherwise defined herein indicates that such word is defined in the Indenture and, as used herein, has the meaning given to it in the Indenture. Unless otherwise indicated, all financial and statistical information herein has been provided by the District.

All references to and summaries of the Indenture, documents, statutes, reports and other instruments referred to herein are qualified in their entirety by reference to the full Indenture, and each such document, statute, report or instrument, respectively. Forward looking statements in this Remarketing Statement are subject to risks and uncertainties. Actual results may vary from forecasts or projections contained herein because events and circumstances do not occur as expected, and such variances may be material. The projections contained in this Remarketing Statement will not be updated as part of the District's continuing disclosure obligations for the Series 2011A-1 Bonds.

Additional Information

Copies of the Indenture and audited financial statements of the District are available for inspection at the offices of the District in Irvine, California, and will be available from the Trustee upon request and payment of costs. Additional information regarding this Remarketing Statement may be obtained by contacting the District, at the following address:

Treasurer
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618
(949) 453-5300

THE SERIES 2011A-1 BONDS

This Remarketing Statement describes the Series 2011A-1 Bonds while in the Index Mode and for the Tender Period described herein only. There are significant differences in the terms of the Series 2011A-1 Bonds while they bear interest in a Mode other than an Index Mode. This Remarketing Statement is not intended to provide information with respect to the Series 2011A-1 Bonds bearing interest in a Mode other than the Index Mode or in another Tender Period. Owners and prospective owners of the Series 2011A-1 Bonds should not rely on this Remarketing Statement for information in connection with any Change in Mode, but should look solely to the offering document to be used in connection with any such Change in Mode.

General

The Series 2011A-1 Bonds mature on October 1, 2037. The Series 2011A-1 Bonds are being remarketed in an Index Mode for a Tender Period commencing on February 2, 2012 with the Scheduled Mandatory Tender Date set forth on the front cover page hereof and will bear interest at an Index Tender Rate (which is equal to the sum of: (a) the SIFMA Average Index Rate calculated for each Index Rate Accrual Period; and (b) the applicable Index Spread for such Tender Period). All Outstanding Series 2011A-1 Bonds will be in the same Mode. Any Mode, other than a Fixed Rate Mode, may be changed to any other Mode at the times and in the manner provided in the Indenture.

While in the Index Mode, the Series 2011A-1 Bonds will be subject to all of the terms of the Indenture in the Index Mode, including provisions that require the Owners to tender their Series 2011A-1 Bonds for purchase on the Scheduled Mandatory Tender Date and on other dates as described in this Remarketing Statement, and provisions that permit the District to effect an Unscheduled Mandatory Tender (which Unscheduled Mandatory Tender is subject to rescission and successful remarketing as described under the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Rescission”). See the caption “—Mandatory Tender for Purchase” and “—Purchase of Series 2011A-1 Bonds.”

While in the Index Mode, the Series 2011A-1 Bonds are not subject to tender for purchase at the option of the Owners.

Interest on the Series 2011A-1 Bonds in an Index Mode will be calculated on the basis of a 365/366-day year for the actual number of days elapsed. Interest on the Series 2011A-1 Bonds in an Index Mode and for the Tender Period commencing February 2, 2012 is payable on the first Business Day of each calendar month, commencing March 1, 2012 (each, an “Interest Payment Date”), and as part of the Purchase Price of tendered Series 2011A-1 Bonds on each Mandatory Purchase Date, Scheduled Mandatory Tender Date and Unscheduled Mandatory Tender Date.

The Series 2011A-1 Bonds are in the form of fully registered bonds and are registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”). DTC will act as securities depository for the Series 2011A-1 Bonds. While the Series 2011A-1 Bonds are in the Index Mode, individual purchases of Series 2011A-1 Bonds will be made in principal amounts of \$100,000 and integral multiples of \$5,000 in excess thereof. See the caption “—Book-Entry Only System” and Appendix E hereto.

Calculation of Interest

During the Index Mode, payment will be made on each Interest Payment Date for unpaid interest accrued from and including the first day of each Tender Period (as determined in accordance with the provisions described under the caption “—Determination of Index Tender Rates and Index Rate Accrual Periods for Series 2011A-1 Bonds in Index Mode—Duration of Tender Period”) and, thereafter, the first Business Day of each month during such Tender Period (each, an “Interest Accrual Date”) to but excluding such Interest Payment Date; except that payment will be made on March 1, 2012 for unpaid interest accrued from and including February 2, 2012. Notwithstanding any provision of the Indenture, at no time may the rate of interest on any Series 2011A-1 Bond exceed the Maximum Rate.

Determination of Index Tender Rates and Index Rate Accrual Periods for Series 2011A-1 Bonds in Index Mode

Determination of SIFMA Average Index Rate and Index Tender Rate. During each Tender Period, no later than 11:00 a.m. on the Business Day immediately preceding each Interest Payment Date while the Series 2011A-1 Bonds bear interest in the Index Mode, the Trustee will deliver written notice to the District and the Remarketing Agent specifying the SIFMA Average Index Rate and the Index Tender Rate for, and the aggregate amount of interest that accrued during, the Index Rate Accrual Period ending on the day preceding such Interest Payment Date together with a detailed calculation of the foregoing. All percentages resulting from the calculation of the SIFMA Average Index Rate will be rounded, if necessary, to the nearest ten-thousandth of a percentage point with five hundred thousandths of a percentage point rounded upward, and all dollar amounts used in or resulting from such calculation of interest on the Series 2011A-1 Bonds of while bearing interest in an Index Mode will be rounded to the nearest cent (with one-half cent being rounded upward).

Index Spread; Adjustment of Index Spread. Promptly after the Remarketing Agent determines the Index Spread for the Tender Period commencing on February 2, 2012, the District will publish it by supplementing this Remarketing Statement and posting the supplement with the Municipal Securities Rulemaking Board through its Electronic Municipal Market Access System (“EMMA”). With respect to subsequent Tender Periods, the Index Spread will be determined by the Remarketing Agent and adjusted as described under the captions “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender” and “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender.” During each Tender Period, the Index Spread with respect to such Tender Period will apply to all Series 2011A-1 Bonds.

Duration of Tender Period. A Tender Period will commence on February 2, 2012 and end on [____], 2013. Thereafter, each Tender Period will commence on the first to occur of: (i) the Scheduled Mandatory Tender Date of the immediately preceding Tender Period; (ii) an Unscheduled Mandatory Tender Date in connection with any Unscheduled Mandatory Tender if all Series 2011A-1 Bonds are actually purchased as described under the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Purchase of Series 2011A-1 Bonds;” and (iii) the effective date of a Change in Mode to an Index Mode. Each Tender Period will terminate on the first to occur of: (a) the Scheduled Mandatory Tender Date; (b) an Unscheduled Mandatory Tender Date in connection with any Unscheduled Mandatory Tender if all Series 2011A-1 Bonds are actually purchased as described under the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Purchase of Series 2011A-1 Bonds;” (c) the first date on which the Series 2011A-1 Bonds bear interest in a Mode other than the Index Mode; or (d) the date on which all Series 2011A-1 Bonds are redeemed in accordance with the terms of the Indenture or all principal and accrued interest on all Series 2011A-1 Bonds are otherwise paid in full.

* Unless otherwise expressly stated, all times referred to in this Remarketing Statement are New York City time.

Mandatory Tender for Purchase

Scheduled Mandatory Tender for Purchase. Unless the Series 2011A-1 Bonds subject to a Tender Period have been purchased (including in connection with a Change in Mode or an Unscheduled Mandatory Tender) or redeemed prior to the Scheduled Mandatory Tender Date for such Tender Period, the Owners of all of the Series 2011A-1 Bonds will tender for purchase, and the District will purchase, all of the Series 2011A-1 Bonds on the Scheduled Mandatory Tender Date for such Tender Period. The Trustee will give notice of each Scheduled Mandatory Tender to the Owners of the Series 2011A-1 Bonds as provided in the Indenture not less than seven days prior to the Scheduled Mandatory Tender Date. With respect to the Tender Period commencing on February 2, 2012, the Scheduled Mandatory Tender Date is [___], 2013 and, with respect to each subsequent Tender Period, the Scheduled Mandatory Tender Date is determined as described under the caption “—Determination of Index Tender Rates and Index Rate Accrual Periods for Series 2011A-1 Bonds in Index Mode—Duration of Tender Period.” Failure of the District to pay the Purchase Price for the Series 2011A-1 Bonds on a Scheduled Mandatory Tender Date constitutes an Event of Default under the Indenture. See the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender—Consequences of a Scheduled Mandatory Tender Failure” below.

Unscheduled Mandatory Tender for Purchase. While the Series 2011A-1 Bonds bear interest in an Index Mode, at its option, the District may require, during each Tender Period, the Owners of all (but not less than all) of the Series 2011A-1 Bonds to tender their Series 2011A-1 Bonds to the District for purchase, from the source of funds described under the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Purchase of Series 2011A-1 Bonds” on any Business Day from and after the Call Protection Date of such Tender Period. The Call Protection Date for the Tender Period commencing February 2, 2012 is set forth on the front cover page hereof. To exercise such option, the District will deliver to the Trustee at its Corporate Trust Office and the Remarketing Agent, no later than 10 days before the Unscheduled Mandatory Tender Date, the written notice of Unscheduled Mandatory Tender described under the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Effect of a Successful Remarketing.” The Trustee will give notice of each Unscheduled Mandatory Tender to the Owners of the Series 2011A-1 Bonds as provided in the Indenture not less than seven days prior to the Unscheduled Mandatory Tender Date. Except as provided under the captions “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Rescission” and “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Failure to Meet Conditions,” the Trustee will pay to the Owners of the Series 2011A-1 Bonds 100% of the principal amount of the Series 2011A-1 Bonds purchased on such date, plus unpaid accrued interest, if any, to such date on the related Unscheduled Mandatory Tender Date from the proceeds of the remarketing of such Series 2011A-1 Bonds as described under the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Purchase of Series 2011A-1 Bonds.” The failure to pay the purchase price of Series 2011A-1 Bonds in connection with an Unscheduled Mandatory Tender does not constitute an Event of Default under the Indenture and the purchase of the Series 2011A-1 Bonds subject to mandatory tender will be cancelled and the Index Mode Tender Period will continue. See the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Failure to Meet Conditions.”

Purchase of Series 2011A-1 Bonds

The Remarketing Agent has agreed to use its best efforts to remarket the Series 2011A-1 Bonds pursuant to the Indenture at the minimum interest rate available in the marketplace to permit the Remarketing Agent to remarket the Series 2011A-1 Bonds on the Purchase Date, Mandatory Purchase Date, Scheduled Mandatory Tender Date or Unscheduled Mandatory Tender Date, as applicable, at the principal amount thereof; provided that the remarketing of the Series 2011A-1 Bonds in connection with a Scheduled Mandatory Tender or an Unscheduled Mandatory Tender will be as provided in under the captions “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender” and “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender,” respectively.

Series 2011A-1 Bonds subject to purchase on a Mandatory Purchase Date, Scheduled Mandatory Tender Date or Unscheduled Mandatory Tender Date will be purchased from the Owners thereof at the Purchase Price which will be payable solely from the following sources in the order listed, except that the Purchase Price in connection with an Unscheduled Mandatory Tender is payable solely from the source described in clause (i) below:

- (i) Immediately available funds on deposit in the Remarketing Proceeds Account; and
- (ii) Immediately available funds on deposit in the District Purchase Account.

See Appendix C under the caption "DEFINITIONS" for a description the Remarketing Proceeds Account and District Purchase Account.

At or before 3:00 p.m. on the Business Day immediately preceding each Mandatory Purchase Date, Scheduled Mandatory Tender Date or Unscheduled Mandatory Tender Date, the Remarketing Agent: (i) unless otherwise provided in a Representation Letter, is to deliver to the Trustee instructions for registration of Series 2011A-1 Bonds remarketed in accordance with the Indenture; and (ii) is to give Electronic Notice to the Trustee and the District, specifying the aggregate principal amount of Series 2011A-1 Bonds not remarketed, if any. If the Series 2011A-1 Bonds are registered in the name of a Bond Depository or its nominee, and if the amount of such remarketing proceeds is sufficient to pay the Purchase Price of all Series 2011A-1 Bonds to be purchased on the Mandatory Purchase Date, Scheduled Mandatory Tender Date or Unscheduled Mandatory Tender Date, as applicable, the Remarketing Agent may apply such remarketing proceeds to the appropriate accounts of such Bond Depository to effect payment of the Purchase Price of Series 2011A-1 Bonds in accordance with the procedures established by such Bond Depository.

If the amount of proceeds from the remarketing delivered to the Trustee indicates that Series 2011A-1 Bonds are required to be purchased from moneys provided by the District, the Trustee will give Electronic Notice to the District at or prior to 11:30 a.m. on such date specifying the information set forth in the Indenture. Upon receipt of such notice, on each Mandatory Purchase Date and Scheduled Mandatory Tender Date, the District is to deposit with the Trustee in the District Purchase Account, by 2:00 p.m. on such date, immediately available funds in an amount together with the remarketing proceeds, to enable the Trustee to pay the Purchase Price of the tendered Series 2011A-1 Bonds. Unless otherwise provided in a Representation Letter, on each Mandatory Purchase Date, Scheduled Mandatory Tender Date and, if all Series 2011A-1 Bonds are purchased, each Unscheduled Mandatory Tender Date, all Series 2011A-1 Bonds which have been remarketed will be registered as directed by the Remarketing Agent.

The Trustee will pay from the funds specified in the Indenture, the Purchase Price for each tendered Series 2011A-1 Bond at or prior to 3:00 p.m. on the Mandatory Purchase Date, Scheduled Mandatory Tender Date or, if all Series 2011A-1 Bonds are purchased, the Unscheduled Mandatory Tender Date, as the case may be; provided that the Purchase Price of Series 2011A-1 Bonds in connection with an Unscheduled Mandatory Tender will be payable only from amounts in the Remarketing Proceeds Account. The Purchase Price of any Series 2011A-1 Bond so tendered is payable only upon surrender of such Series 2011A-1 Bond to the Trustee at its Corporate Trust Office for delivery of such Series 2011A-1 Bond, except that payment of the Purchase Price of any Series 2011A-1 Bond tendered for purchase or otherwise purchased pursuant to a Representation Letter will be made in immediately available funds and in such manner as the Bond Depository and the Trustee agree.

Notwithstanding any provision to the contrary contained in the Indenture, all tenders for purchase in connection with an Unscheduled Mandatory Tender are payable only from immediately available funds on deposit in the Remarketing Proceeds Account.

Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender

Remarketing of Series 2011A-1 Bonds. During each Tender Period in the Index Mode, upon establishing the Index Spread for the next succeeding Tender Period (as described below under the caption “—Determination of Index Spread”), the Remarketing Agent will offer for sale and use its best efforts to sell in accordance with the Remarketing Agreement all Series 2011A-1 Bonds at a price equal to the principal amount thereof, such that the Index Spread for the next Tender Period will be adjusted as described below under the caption “—Determination of Index Spread” to be the minimum fixed per annum interest rate spread to SIFMA available in the marketplace. The Remarketing Agent will sell any Series 2011A-1 Bonds tendered pursuant to a Scheduled Mandatory Tender at the principal amount thereof; provided that if the District delivers a Favorable Opinion of Bond Counsel, the District has the right to direct the Remarketing Agent to sell any Series 2011A-1 Bonds tendered pursuant to a Scheduled Mandatory Tender at a discount or at a premium.

Determination of Scheduled Mandatory Tender Date. Unless the Series 2011A-1 Bonds subject to a Tender Period have been purchased (including in connection with a Change in Mode or an Unscheduled Mandatory Tender) or redeemed prior to the Scheduled Mandatory Tender Date for such Tender Period, the District, by direction to the other Notice Parties by Electronic Notice or teletype not later than 10 days before the Scheduled Mandatory Tender Date for each Tender Period, is to determine the Scheduled Mandatory Tender Date for all Series 2011A-1 Bonds for the Tender Period immediately following the purchase of Series 2011A-1 Bonds pursuant to a Scheduled Mandatory Tender as provided in the Indenture. Such Scheduled Mandatory Tender Date may be any Business Day during the next Tender Period except that the Scheduled Mandatory Tender Date will not be a date that is earlier than three months after the commencement of the Tender Period. If the District is required to deliver a written direction as provided above but fails to do so, then the Scheduled Mandatory Tender Date for the Tender Period immediately following the purchase of Series 2011A-1 Bonds will be the date that is one year after the commencement of the Tender Period (unless such date is not a Business Day, in which case the Scheduled Mandatory Tender Date will be the first Business Day following such date).

Establishment of Call Protection Date. With respect to any Tender Period commencing on a Scheduled Mandatory Tender Date that the Series 2011A-1 Bonds are purchased pursuant to a Scheduled Mandatory Tender, the Call Protection Date will be the Tender Period Standard Date; provided that if the District delivers to the Trustee a Favorable Opinion of Bond Counsel and specifies such Call Protection Date in the direction as to the Scheduled Mandatory Tender Date, the District may determine that the Call Protection Date for such Tender Period will be any Business Day during the Tender Period. The Call Protection Date with respect to the Tender Period commencing on February 2, 2012 is [____], 2012.

Determination of Index Spread. Unless the Series 2011A-1 Bonds subject to a Tender Period have been purchased (including in connection with a Change in Mode or an Unscheduled Mandatory Tender) or redeemed prior to the Scheduled Mandatory Tender Date for such Tender Period, no later than 5:00 p.m. on the day that is two Business Days before the Scheduled Mandatory Tender Date for such Tender Period, the Remarketing Agent is to determine the Index Spread with respect to the Tender Period immediately following such Scheduled Mandatory Tender Date. The Index Spread determined by the Remarketing Agent is to be equal to the minimum fixed spread to SIFMA which, if borne by the Series 2011A-1 Bonds, would enable the Remarketing Agent to sell all Series 2011A-1 Bonds tendered or deemed tendered pursuant to the Scheduled Mandatory Tender on the Scheduled Mandatory Tender Date at a price equal to the principal amount thereof. With respect to all Series 2011A-1 Bonds sold with an Index Tender Rate based on an Index Spread determined by the Remarketing Agent pursuant to the Indenture, the determination of the Index Spread so determined by the Remarketing Agent will be conclusive and binding on the Notice Parties and the Owners of the Series 2011A-1 Bonds.

Purchase of Series 2011A-1 Bonds. Series 2011A-1 Bonds required to be purchased as described under caption “—Remarketing of Series 2011A-1 Bonds” will be purchased from the Owners thereof, on the

Scheduled Mandatory Tender Date at the Purchase Price from the sources and in the order of priority described under the caption “—Mandatory Tender for Purchase—Scheduled Mandatory Tender for Purchase.”

The District is irrevocably obligated to pay the Purchase Price of all Series 2011A-1 Bonds on each Scheduled Mandatory Tender Date.

Consequences of a Scheduled Mandatory Tender Failure. Upon the occurrence of a Scheduled Mandatory Tender Failure on any Scheduled Mandatory Tender Date, the following will occur:

(i) The Trustee will promptly return all Series 2011A-1 Bonds to the Owners thereof together with notice of such failure and the Trustee and the Remarketing Agent will promptly return all remarketing proceeds to the persons providing such moneys without interest;

(ii) The Tender Period then in effect will terminate on such Scheduled Mandatory Tender Date and the Series 2011A-1 Bonds will bear interest at the last Index Tender Rate for the Tender Period so terminated from the applicable Scheduled Mandatory Tender Date to the earliest to occur of the purchase of the Series 2011A-1 Bonds by or on behalf of the District or the payment of the principal of the Series 2011A-1 Bonds; and

(iii) An Event of Default under the Indenture will occur.

Effect of a Successful Remarketing. If moneys on deposit with the Trustee are sufficient to pay the Purchase Price of Series 2011A-1 Bonds to be purchased as described under caption “—Remarketing of Series 2011A-1 Bonds” on a Scheduled Mandatory Tender Date, the following will occur:

(i) The Tender Period in effect immediately before such purchase will terminate on the Scheduled Mandatory Tender Date and a new Tender Period will commence on such date; and

(ii) The Index Spread with respect to the Series 2011A-1 Bonds for the new Tender Period will be the Index Spread determined as described above under the caption “—Determination of Index Spread.”

Notification of Scheduled Mandatory Tender Failure. On the date of a Scheduled Mandatory Tender Failure, the Trustee will deliver a notice by mail to: (i) the District; (ii) the respective Owners of any Series 2011A-1 Bonds at their addresses appearing on the Bond Register; (iii) the Remarketing Agent; and (iv) one or more Information Services, which will state: (A) that a Scheduled Mandatory Tender Failure occurred; (B) the Trustee will return all Series 2011A-1 Bonds tendered on the Scheduled Mandatory Tender Date to the Owners thereof; and (C) an Event of Default has occurred under the Indenture.

Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender

Remarketing of Series 2011A-1 Bonds. Upon receipt of notice of an Unscheduled Mandatory Tender from the District as described under the caption “—Mandatory Tender for Purchase—Unscheduled Mandatory Tender for Purchase,” the Remarketing Agent will offer for sale and use its best efforts to sell in accordance with the Remarketing Agreement all Series 2011A-1 Bonds at a price equal to the principal amount thereof, such that the Index Spread for the next Tender Period will be adjusted as described below under the caption “—Determination of Index Spread” to be the minimum fixed per annum interest rate spread to SIFMA available in the marketplace. The Remarketing Agent will sell any Series 2011A-1 Bonds tendered pursuant to an Unscheduled Mandatory Tender at the principal amount thereof; provided that if the District delivers a Favorable Opinion of Bond Counsel, the District has the right to direct the Remarketing Agent to sell any Series 2011A-1 Bonds tendered pursuant to an Unscheduled Mandatory Tender at a discount or at a premium.

Determination of Scheduled Mandatory Tender Date. The District, by direction to the other Notice Parties by Electronic Notice or telecopy not later than ten days before each Unscheduled Mandatory Tender Date, will determine the Scheduled Mandatory Tender Date for the Tender Period immediately following the purchase of Series 2011A-1 Bonds pursuant to an Unscheduled Mandatory Tender, as provided in the Indenture. Such Scheduled Mandatory Tender Date may be any Business Day, except that the Scheduled Mandatory Tender Date may not be a date that is earlier than three months after the commencement of the Tender Period.

Establishment of Call Protection Date. With respect to any Tender Period commencing on an Unscheduled Mandatory Tender Date that all Series 2011A-1 Bonds are purchased pursuant to an Unscheduled Mandatory Tender, the Call Protection Date will be the Tender Period Standard Date; provided that if the District delivers to the Trustee a Favorable Opinion of Bond Counsel and specifies such Call Protection Date in the direction as to the Scheduled Mandatory Tender Date, the District may determine that the Call Protection Date for such Tender Period will be any Business Day during such Tender Period. The Call Protection Date with respect to the Tender Period commencing on February 2, 2012 is [___], 2012.

Determination of Index Spread. No later than 5:00 p.m. on the day that is two Business Days before each Unscheduled Mandatory Tender Date, the Remarketing Agent will determine the Index Spread with respect to the Tender Period immediately following such Unscheduled Mandatory Tender Date. The Remarketing Agent will determine the Index Spread which will be equal to the minimum spread to SIFMA which, if borne by the Series 2011A-1 Bonds, would enable the Remarketing Agent to sell all Series 2011A-1 Bonds tendered pursuant to the Unscheduled Mandatory Tender on the Unscheduled Mandatory Tender Date at a price equal to the principal amount thereof. With respect to all Series 2011A-1 Bonds sold with an Index Tender Rate based on an Index Spread determined by the Remarketing Agent pursuant to the Indenture, the determination of the Index Spread so determined by the Remarketing Agent will be conclusive and binding on the Notice Parties and the Owners of the Series 2011A-1 Bonds.

Purchase of Series 2011A-1 Bonds. Subject to the provisions described under the caption “—Rescission” and “—Failure to Meet Conditions,” the District will cause Series 2011A-1 Bonds required to be purchased in an Unscheduled Mandatory Tender to be purchased on each Unscheduled Mandatory Tender Date from the Owners thereof at the Purchase Price from the source indicated under the caption “—Purchase of Series 2011A-1 Bonds.”

Consequences of an Unscheduled Mandatory Tender Failure or a Rescission. If the District rescinds any Unscheduled Mandatory Tender as described under the caption “—Rescission” or if any of the conditions of any Unscheduled Mandatory Tender are not satisfied as described under the captions “—Mandatory Tender for Purchase—Unscheduled Mandatory Tender for Purchase” and “—Failure to Meet Conditions,” then the District will not have any obligation to purchase any Series 2011A-1 Bonds and no purchase of Series 2011A-1 Bonds will occur. In such event, the following will occur:

(i) The Trustee will return all Series 2011A-1 Bonds to the Owners thereof together with notice of the basis for such return and the Trustee and the Remarketing Agent will return all remarketing proceeds to the persons providing such moneys without interest;

(ii) The Series 2011A-1 Bonds will continue to bear interest at the Index Tender Rate in effect during such Tender Period without change or modification and the Tender Period then in effect will continue until terminated in accordance with the provisions set forth under the caption “—Determination of Index Tender Rates and Index Rate Accrual Periods for Series 2011A-1 Bonds in Index Mode—Duration of Tender Period”; and

(iii) No Event of Default under the Indenture will have occurred.

Rescission. The District has the option to deliver to the Trustee at its Corporate Trust Office and the Remarketing Agent, on or prior to 5:00 p.m. on the Business Day immediately preceding the Unscheduled Mandatory Tender Date for an Unscheduled Mandatory Tender, a notice to the effect that the District elects to rescind such Unscheduled Mandatory Tender. If the District so rescinds an Unscheduled Mandatory Tender, then no purchase will occur, the Series 2011A-1 Bonds will continue to bear interest at the Index Tender Rate in effect during the Tender Period then in effect without change or modification and the Tender Period then in effect will continue until terminated as described under the caption “—Determination of Index Tender Rates and Index Rate Accrual Periods for Series 2011A-1 Bonds in Index Mode—Duration of Tender Period.”

Failure to Meet Conditions. Any Unscheduled Mandatory Tender, if not rescinded, will be conditioned upon: (a) amounts sufficient to pay the Purchase Price of such mandatory tender being on deposit from remarketing proceeds, as described under the caption “—Purchase of Series 2011A-1 Bonds” with the Trustee on the Unscheduled Mandatory Tender Date; and (b) in connection with any change in the Call Protection Date for the next succeeding Tender Period from the Tender Period Standard Date, the delivery by the District of the Favorable Opinion of Bond Counsel described under the caption “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Establishment of Call Protection Date.” If on an Unscheduled Mandatory Tender Date the conditions described in the immediately preceding sentence are not satisfied, then no purchase of Series 2011A-1 Bonds will occur, the Series 2011A-1 Bonds will continue to bear interest at the Index Tender Rate in effect during the Tender Period then in effect without change or modification and the Tender Period then in effect will continue until terminated as described under the caption “—Determination of Index Tender Rates and Index Rate Accrual Periods for Series 2011A-1 Bonds in Index Mode—Duration of Tender Period.”

Failure by the District to pay or cause to be paid the Purchase Price of Series 2011A-1 Bonds tendered under the Unscheduled Mandatory Tender provisions of the Indenture for any reason does not constitute an Event of Default by the District under the Indenture. No such failure affects the District’s right to require Owners of Series 2011A-1 Bonds to tender their Series 2011A-1 Bonds as described under the caption “Mandatory Tender for Purchase—Unscheduled Mandatory Tender for Purchase” during the remainder of the Tender Period then in effect or during any subsequent Tender Period.

Effect of a Successful Remarketing. If moneys on deposit with the Trustee are sufficient to pay the Purchase Price of Series 2011A-1 Bonds to be purchased as described under the caption “—Mandatory Tender for Purchase—Unscheduled Mandatory Tender for Purchase” and all other conditions are satisfied, the following will occur:

(i) The Tender Period in effect immediately before such tender will terminate on such Unscheduled Mandatory Tender Date and a new Tender Period will commence on such date; and

(ii) The Index Spread with respect to the Series 2011A-1 Bonds for the new Tender Period will be the Index Spread determined as described above under the caption “—Determination of Index Spread.”

Changes in Mode

Subject to the provisions of the Indenture, the District may effect a Change in Mode with respect to the Series 2011A-1 Bonds by delivering to the Trustee, with copies to the other Notice Parties, a Notice of Change in Mode stating: (A) the election to change the Mode to which the Series 2011A-1 Bonds are then subject (the “Current Mode”) to a different Mode (the “New Mode”), the type of which will be specified; (B) the date on which the Series 2011A-1 Bonds are required to be purchased pursuant to the provisions described below under the caption “—Mandatory Purchase of Series 2011A-1 Bonds,” which will be the date as of which the New Mode takes effect and a Business Day immediately following the end of an Adjustment Period or the last day of a Tender Period, or a Business Day on which the Series 2011A-1 Bonds would be subject to redemption at the option of the District; and (C) a form of notice of mandatory tender for purchase satisfying

the requirements described below under the caption “—Mandatory Purchase of Series 2011A-1 Bonds.” In no event will a Change in Mode occur prior to the Call Protection Date set forth on the front cover page hereof.

Not less than seven days prior to a proposed Change in Mode, and in reliance upon a Notice of Change in Mode, the Trustee will give written notice, in the form prepared by the District and delivered to the Trustee pursuant to the immediately preceding paragraph, to the Owners of the mandatory tender for purchase of all Outstanding Series 2011A-1 Bonds as described below under the caption “—Mandatory Purchase of Series 2011A-1 Bonds” in connection with the Change in Mode.

The New Mode will take effect only if the following conditions are satisfied: (i) by 9:00 a.m. on the date of the proposed Change in Mode: (A) if a Liquidity Facility is to be in effect during the New Mode, the interest portion of the Liquidity Facility is in an amount equal to or greater than the Liquidity Facility Interest Amount for the applicable Mode; and (B) if the New Mode is the Fixed Rate Mode, the Trustee and the Remarketing Agent have received a Fixed Rate Terms Certificate; and (ii) the Trustee has received sufficient remarketing proceeds of the Series 2011A-1 Bonds in the New Mode to pay the Purchase Price of the Bonds subject to mandatory tender for purchase in connection with the Change in Mode. If such conditions are satisfied, then the New Mode will take effect on the date of the proposed Change in Mode. If such conditions are not satisfied, then: (a) all Outstanding Series 2011A-1 Bonds will be purchased on the Mandatory Purchase Date described below under the caption “—Mandatory Purchase of Series 2011A-1 Bonds;” (b) all Outstanding Series 2011A-1 Bonds will continue to be subject to the Index Mode; (c) the Tender Period for all Outstanding Series 2011A-1 Bonds will extend from and including the date on which the New Mode was to take effect to and including the date which is three months after such date (and if such date is not a Business Day, the next day which is followed by a Business Day); (d) the interest on the Series 2011A-1 Bonds for the Index Rate Accrual Period will be the last Index Tender Rate in effect during the immediately preceding Tender Period; and (e) the Trustee will, within five Business Days after the date of the proposed Change in Mode, send notice to the Notice Parties stating that the conditions to the Change in Mode have not all been satisfied and informing them of the consequences thereof, as described in the Indenture.

Mandatory Purchase of Series 2011A-1 Bonds

Except as otherwise provided under the captions “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Rescission” and “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Failure to Meet Conditions” with respect to an Unscheduled Mandatory Tender, each Series 2011A-1 Bond as to which a Tender Notice for purchase on a Purchase Date has been delivered pursuant to a tender for purchase upon election of the Owner or which is subject to mandatory tender for purchase on a Mandatory Purchase Date, Scheduled Mandatory Tender Date or Unscheduled Mandatory Tender Date as a result of a Change in Mode or as otherwise provided in the Indenture will be purchased on such date at the applicable Purchase Price but solely from the sources of payment described under the captions “—Purchase of Series 2011A-1 Bonds,” “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender—Purchase of Series 2011A-1 Bonds” or “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Purchase of Series 2011A-1 Bonds,” as applicable. Subject to the provisions of the Indenture and unless otherwise provided in a Representation Letter, all Series 2011A-1 Bonds required to be purchased on a Mandatory Purchase Date, Scheduled Mandatory Tender Date or Unscheduled Mandatory Tender Date will be tendered for purchase by delivery to the Trustee at its Corporate Trust Office on or prior to the Mandatory Purchase Date, Scheduled Mandatory Tender Date or Unscheduled Mandatory Tender Date, as applicable, and, except as otherwise provided under the caption “—Mandatory Tender for Purchase—Unscheduled Mandatory Tender for Purchase” with respect to an Unscheduled Mandatory Tender, will be purchased, but solely from the sources of payment described under the captions “—Purchase of Series 2011A-1 Bonds,” “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender—Purchase of Series 2011A-1 Bonds” or “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Purchase of Series 2011A-1 Bonds,” as applicable.

Undelivered Bonds

Any Series 2011A-1 Bond which is subject to mandatory tender for purchase in accordance with the provisions described under the caption “—Mandatory Tender for Purchase” which is not tendered for purchase as required by the Indenture, will constitute an Undelivered Bond and will nonetheless be deemed to have been so tendered and, upon provision for payment of the Purchase Price thereof from the applicable funds specified under the caption “—Purchase of Series 2011A-1 Bonds,” will be deemed to have been purchased on the Mandatory Purchase Date, the Scheduled Mandatory Tender Date or the Unscheduled Mandatory Tender Date, as applicable, after which no interest will accrue on such Series 2011A-1 Bond for the benefit of the Owner required to tender such Series 2011A-1 Bond from and after such Mandatory Purchase Date, Scheduled Mandatory Tender Date or Unscheduled Mandatory Tender Date, as applicable, and such Owner will have no rights under the Indenture as the Owner of such Series 2011A-1 Bond except the right to receive the Purchase Price thereof from the funds available therefor, as described under the caption “—Purchase of Series 2011A-1 Bonds.”

Refinancing and Related Risks

No assurance can be given that the District will have sufficient remarketing proceeds or funds on hand on [____], 2013 or any other Scheduled Mandatory Tender Date to pay the Purchase Price of the Series 2011A-1 Bonds upon the mandatory tender thereof on such date. The District has not currently provided for any Liquidity Facility to support the payment of the Purchase Price upon mandatory tender of the Series 2011A-1 Bonds. In the event that the District does not have sufficient funds to pay the Purchase Price of the Series 2011A-1 Bonds on such date from remarketing proceeds or other funds on hand, the District’s ability to pay such Purchase Price is dependent on the District’s ability: (i) to issue and sell refunding obligations to refund Series 2011A-1 Bonds prior to such date; or (ii) to provide for the conversion of such Series 2011A-1 Bonds to another Mode on or prior to such date and to receive sufficient remarketing proceeds upon such conversion to provide for payment of the Purchase Price of the Series 2011A-1 Bonds upon the mandatory tender thereof.

A variety of events could prevent access to the municipal securities market, prohibit the District from issuing such refunding obligations or remarketing such Series 2011A-1 Bonds or make the issuance of refunding obligations or the remarketing of such Series 2011A-1 Bonds prohibitively expensive. No assurance can be given that the District will be able to effect such a refinancing or remarketing on sufficiently favorable terms. Failure of the District to provide sufficient funds to pay the Purchase Price on the Scheduled Mandatory Tender Date constitutes an Event of Default under the Indenture. See the caption “THE SERIES 2011A-1 BONDS—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender—Consequences of a Scheduled Mandatory Tender Failure.”

The Series 2011A-2 Bonds are also subject to risks described in the preceding two paragraphs.

Redemption of Series 2011A-1 Bonds

Optional Redemption. The Series 2011A-1 Bonds in the Index Mode are subject to redemption at the option of the District in whole or in part, in Authorized Denominations, during any Tender Period, on any Business Day on or after the Call Protection Date for such Tender Period, at a Redemption Price equal to 100% of the principal amount of the Series 2011A-1 Bonds being redeemed plus unpaid accrued interest, if any, to such Redemption Date, without premium. See the captions “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Scheduled Mandatory Tender—Establishment of Call Protection Date” and “—Remarketing and Purchase of Series 2011A-1 Bonds in Connection with Unscheduled Mandatory Tender—Establishment of Call Protection Date.”

Mandatory Redemption. The Series 2011A-1 Bonds are subject to mandatory redemption in part on October 1, 2012 and on each October 1 thereafter, upon notice as described under the caption “—Notice of

Redemption,” at a Redemption Price equal to 100% of the principal amount of the Series 2011A-1 Bonds to be redeemed, without premium, in the years and principal amounts as follows:

SERIES 2011A-1 BONDS DUE OCTOBER 1, 2037

| <i>Mandatory Redemption Dates (October 1)</i> | <i>Principal Amount of Series 2011A-1 Bonds to be Redeemed</i> |
|---|--|
| 2012 | \$1,655,000 |
| 2013 | 1,380,000 |
| 2014 | 1,440,000 |
| 2015 | 1,500,000 |
| 2016 | 1,560,000 |
| 2017 | 1,620,000 |
| 2018 | 1,680,000 |
| 2019 | 1,740,000 |
| 2020 | 1,800,000 |
| 2021 | 1,920,000 |
| 2022 | 1,980,000 |
| 2023 | 2,040,000 |
| 2024 | 2,100,000 |
| 2025 | 2,220,000 |
| 2026 | 2,280,000 |
| 2027 | 2,400,000 |
| 2028 | 2,460,000 |
| 2029 | 2,580,000 |
| 2030 | 2,700,000 |
| 2031 | 2,820,000 |
| 2032 | 2,880,000 |
| 2033 | 3,000,000 |
| 2034 | 3,120,000 |
| 2035 | 3,240,000 |
| 2036 | 3,420,000 |
| 2037 (maturity) | 3,540,000 |

Upon any purchase and cancellation of Series 2011A-1 Bonds by the District or any redemption of Series 2011A-1 Bonds pursuant to the optional redemption provisions of the Indenture described under the caption “—Optional Redemption,” an amount equal to the aggregate principal amount of Series 2011A-1 Bonds so purchased or redeemed will be credited toward a part or all of any one or more yearly mandatory redemptions required by the Indenture, as directed in writing by the District, provided that such direction is received by the Trustee at least 45 days before the date of such mandatory redemption. Any such direction will state the years in which and the amounts by which such mandatory redemptions are to be reduced. The portion of any such mandatory redemption remaining after the deduction of any such amounts credited toward the same (or the original amount of any such mandatory redemption if no such amounts have been credited toward the same) constitutes the unsatisfied balance of such mandatory redemption for the purpose of the calculation of principal payments due on October 1 in any future year.

Selection of Series 2011A-1 Bonds for Redemption

If not otherwise provided in the Indenture, whenever less than all Outstanding Series 2011A-1 Bonds of a maturity are to be redeemed on any one date, the Trustee will select the Series 2011A-1 Bonds of such maturity to be redeemed from the Outstanding Series 2011A-1 Bonds of such maturity by lot, or in such other manner as the Trustee deems fair.

Notice of Redemption

Notice of redemption will be given by Mail by the Trustee to the Remarketing Agent and the Owners of any Series 2011A-1 Bonds designated for redemption in whole or in part no less than 30 days nor more than 60 days prior to the Redemption Date. Each notice of redemption will state the Redemption Date, the redemption place and the Redemption Price, the maturity dates of the Series 2011A-1 Bonds to be redeemed and designate the numbers of the Series 2011A-1 Bonds to be redeemed if less than all of the Outstanding Series 2011A-1 Bonds of a maturity are to be redeemed, will (in the case of any Series 2011A-1 Bond called for redemption in part only) state the portion of the principal amount thereof which is to be redeemed, and state that, if the Trustee holds sufficient available funds to pay the Redemption Price of the Series 2011A-1 Bonds to be redeemed on the Redemption Date, the interest thereon or portions thereof designated for redemption will cease to accrue from and after such Redemption Date and that on such Redemption Date there will become due and payable on the Series 2011A-1 Bonds or portions thereof designated for redemption the Redemption Price thereon. The failure of any Owner to receive such notice will not affect the validity of the redemption of any Series 2011A-1 Bonds.

With respect to any notice of any optional redemption of Series 2011A-1 Bonds, unless at the time such notice is given the Trustee holds sufficient available funds to pay the Redemption Price of the Series 2011A-1 Bonds to be redeemed, such notice will state that such redemption is conditional upon receipt by the Trustee, on or prior to the date fixed for such redemption, of moneys that, together with other available amounts held by the Trustee, are sufficient to pay the Redemption Price of the Series 2011A-1 Bonds to be redeemed, and that if such moneys have not been so received said notice will be of no force and effect and the District will not be required to redeem such Series 2011A-1 Bonds. In the event that a notice of redemption of Series 2011A-1 Bonds contains such a condition and such moneys are not so received, the redemption of such Series 2011A-1 Bonds as described in the conditional notice of redemption will not be made and the Trustee will, within a reasonable time after the date on which such redemption was to occur, give notice to the persons who received such notice of redemption and in the manner in which the notice of redemption was given, that such moneys were not so received and that there will be no redemption of Series 2011A-1 Bonds pursuant to such notice of redemption.

Any notice of redemption mailed as provided in the Indenture will be conclusively presumed to have been given, whether or not actually received by any Owner.

Allocation of Credits for Purchased or Redeemed Series 2011A-1 Bonds

Except as otherwise provided in the Indenture, the principal amount of any Series 2011A-1 Bonds purchased and cancelled by the District, or redeemed by the District, will be credited proportionally to all Improvement Districts and the Included Amount for each Improvement District will be reduced by such Improvement District's Included Percentage (calculated immediately before such purchase or redemption) of the purchased or redeemed Series 2011A-1 Bonds.

In the event that Series 2011A-1 Bonds are purchased for cancellation or redeemed with funds provided by one or more Improvement Districts other than funds provided proportionately with all other Improvement Districts, the principal amount of any Series 2011A-1 Bonds purchased and cancelled by the District, or redeemed by the District, will be credited proportionally to all such contributing Improvement Districts and the Included Amount for each such Improvement District will be reduced by such Improvement District's proportional contribution to the purchase price of such purchased Series 2011A-1 Bonds and the Redemption Price of such redeemed Series 2011A-1 Bonds and the Included Percentage (calculated immediately before such purchase or redemption) of the purchased or redeemed Series 2011A-1 Bonds.

Immediately following each purchase of Series 2011A-1 Bonds by the District for cancellation and each redemption of Series 2011A-1 Bonds and the allocation of credits in connection with such purchase and

redemption in accordance with the provisions of the Indenture, as applicable, the Included Percentages for all Improvement Districts will be recomputed for all purposes after such redemption in the following manner:

$$\frac{\text{Improvement District's Included Amount after purchase or redemption}}{\text{Total Amount of Outstanding Series 2011A-1 Bonds after purchase or redemption}} = \text{Included Percentage, as adjusted}$$

Book-Entry Only System

One fully-registered Series 2011A-1 Bond has been issued in the initial principal amount of the Series 2011A-1 Bonds. The Series 2011A-1 Bond will be registered in the name of Cede & Co. and will be deposited with DTC. So long as DTC, or its nominee Cede & Co., is the registered owner of all the Series 2011A-1 Bonds, all payments of principal, Purchase Price and Redemption Price of and interest on the Series 2011A-1 Bonds will be made directly to DTC. Disbursement of such payments to the DTC Participants will be the responsibility of DTC. Disbursement of such payments to the Beneficial Owners of the Series 2011A-1 Bonds will be the responsibility of the DTC Participants as more fully described herein. See Appendix E—“BOOK-ENTRY SYSTEM.”

The District may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository) for the Series 2011A-1 Bonds. In that event, the Series 2011A-1 Bonds will be printed and delivered and will be governed by the provisions of the Indenture with respect to payment of principal, Purchase Price, Redemption Price and interest and rights of exchange and transfer.

The District cannot and does not give any assurances that DTC Participants or others will distribute payments with respect to the Series 2011A-1 Bonds received by DTC or its nominee as the registered Owner, or any redemption or other notices, to the Beneficial Owners, or that they will do so on a timely basis, or that DTC will service and act in the manner described in this Remarketing Statement. See Appendix E hereto for additional information concerning DTC.

SECURITY FOR THE SERIES 2011A-1 BONDS

General

Sources of Payment. The Series 2011A-1 Bonds constitute the consolidated, several general obligations of the Improvement Districts payable from: (i) Assessment Proceeds collected from within each Improvement District and applied by the District to pay such Improvement District’s Included Amount of the principal, Purchase Price and Redemption Price of, and interest on, Outstanding Series 2011A-1 Bonds; (ii) Net Revenues of the District; and (iii) certain monies and investment earnings in certain funds and accounts created under the Indenture. See the caption “—Pledge of Assessment Proceeds and Revenues.” The District currently expects to pay a portion of scheduled debt service on the Series 2011A-1 Bonds from a combination of Assessment Proceeds and Net Revenues and, to the extent that remarketing proceeds are insufficient, to pay the Purchase Price of the Series 2011A-1 Bonds from Net Revenues.

Authority for Issuance. Elections have been held in each of the Improvement Districts at which the qualified voters within each Improvement District authorized the District to incur an indebtedness and issue general obligation bonds for each respective Improvement District. See Appendix A—“IRVINE RANCH WATER DISTRICT” for a discussion of the bond authorization, amount of outstanding bonds and remaining bond authorization for each of the Improvement Districts. The Series 2011A-1 Bonds are authorized for issuance pursuant to the Act and all laws of the State amendatory thereof or supplemental thereto.

Covenant to Collect Assessment Proceeds. The District has covenanted in the Indenture that, to the extent necessary to provide Assessment Proceeds sufficient to pay when due, together with the other funds available for such payment, the principal of and interest on the Included Amount for each respective Improvement District, the District will: (a) fix and collect, or cause the fixing and collection of, *ad valorem* assessments on taxable land within the applicable Improvement District; (b) pursue any remedy available to collect, or cause the collection of, delinquent *ad valorem* assessments and apply amounts realized from the sale of any property for the enforcement of delinquent *ad valorem* assessments to the payment of principal of and interest on the Included Amount of Series 2011A-1 Bonds of the applicable Improvement District; or (c) in its discretion, impose and collect, or cause the imposition and collection of In Lieu Charges for water or sewer service, as applicable, in the applicable Improvement District in lieu of *ad valorem* assessments.

Revenue Rate Covenant. The District has also covenanted in the Indenture, to the fullest extent permitted by law, to fix, prescribe and collect Revenues which, together with any *ad valorem* assessments available to pay Debt Service on Parity Obligations which are not applied as a credit against Debt Service, will be at least sufficient to yield during each Fiscal Year Net Revenues which are at least equal to 125% of Aggregate Debt Service payable during such Fiscal Year. The District may make adjustments from time to time in such rates and charges and may make such classification thereof as it deems necessary, but will not reduce the rates and charges then in effect unless the Net Revenues from such reduced rates and charges will at all times be sufficient to meet the foregoing requirements.

Notwithstanding the foregoing, so long as the Installment Sale Agreement, dated as of February 1, 2010 (the “2010 Installment Sale Agreement”), by and between the District and the Irvine Ranch Water District Water Service Corporation remains in effect, the District will need to comply with the requirements set therein regarding the rate covenant, which are identical to those set forth in the prior paragraph except that the Assessment Proceeds (and any assessment proceeds related to other Parity Obligations) which are applied as a credit to Debt Service above are included as revenues for purposes of such calculation and the definition of Aggregate Debt Service in the 2010 Installment Sale Agreement does not provide an offset for debt service paid from Assessment Proceeds (and any assessment proceeds related to other Parity Obligations) associated with Revenue Enhancement Agreements. In addition, certain of the Prior Reimbursement Agreements described under the caption “—Existing Parity Obligations” related to outstanding *ad valorem* assessment bonds of the District, and certain swap agreements entered into by the District, have covenants related to the setting of rates and charges with which the District is contractually obligated to comply.

See Appendix C—“SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE” under the caption “CERTAIN COVENANTS” for a summary of additional covenants of the District under the Indenture.

Pledge of Trust Estate. Pursuant to the Indenture, the District has pledged the Trust Estate thereunder to secure the payment of the Series 2011A-1 Bonds issued thereunder. The “Trust Estate” under the Indenture consists of the following:

(A) The Bond Payment Fund (defined below) established under the Indenture, including all accounts in such fund, and all of the monies in such fund and accounts and the investments, if any, thereof, and all income and proceeds derived from such investments; and

(B) Subject to the application on the terms and conditions contained in the Indenture, Revenues of the District.

Pledge of Assessment Proceeds and Revenues

Subject to the application of the Revenues on the terms and conditions provided in the Indenture, Revenues have been irrevocably pledged to the payment when due of the principal, Purchase Price and Redemption Price of, and interest on, the Outstanding Series 2011A-1 Bonds, which pledge will be on a parity with any pledge of Revenues securing other Parity Obligations. Such pledge constitutes a pledge of and

charge and lien upon the Revenues for the payment of the principal, Purchase Price upon the Scheduled Mandatory Tender and Redemption Price of, and interest on, the Outstanding Series 2011A-1 Bonds and all other Parity Obligations in accordance with the terms of the Indenture and the Series 2011A-1 Bonds after payment from the Revenues of the Operation and Maintenance Expenses, and the funding of contingency reserves therefor, as provided in the Indenture.

THE SERIES 2011A-1 BONDS DO NOT CONSTITUTE AN OBLIGATION OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA OTHER THAN THE DISTRICT AND THE IMPROVEMENT DISTRICTS AS PROVIDED IN THE INDENTURE. NO FUNDS OF THE DISTRICT OR THE IMPROVEMENT DISTRICTS, OTHER THAN THE FUNDS INCLUDED IN THE TRUST ESTATE, ARE LIABLE FOR THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR PURCHASE PRICE OF, OR INTEREST ON, THE SERIES 2011A-1 BONDS. EXCEPT AS PROVIDED IN THE INDENTURE WITH RESPECT TO THE TRUST ESTATE, NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE DISTRICT IS LIABLE FOR OR PLEDGED TO THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR PURCHASE PRICE OF, OR INTEREST ON, THE SERIES 2011A-1 BONDS.

Assessment Proceeds. Assessment Proceeds means, with respect to any Improvement District: (i) *ad valorem* assessments on taxable land in such Improvement District levied pursuant to the Act; (ii) In Lieu Charges, consisting of water or sewer charges, as applicable, which in the discretion of the Board of Directors of the District are fixed and collected in an Improvement District in lieu of *ad valorem* assessments pursuant to the Act; and (iii) proceeds from the sale of property in such Improvement District for the enforcement of delinquent assessments pursuant to the Act.

Net Revenues. Net Revenues for any period consist of the Revenues of the District less the Operation and Maintenance Expenses of the District for such period. "Revenues" means:

(1) The water, sewer and reclaimed water rates and charges imposed by the District in connection with providing water, sewer and reclaimed water services to retail customers through the Operating Systems (as such term is defined in the Indenture), including commodity, service, standby, material treatment and connection charges, except: (i) such water, sewer and reclaimed water rates and charges levied in lieu of *ad valorem* assessments pursuant to Sections 36425 and 35975 of the Act; and (ii) customer deposits (together, the "Utility Rates and Charges"); and

(2) Other revenues of the District, including, without limiting the generality of the foregoing, the proceeds of any stand-by or natural treatment, connection and water availability charges; together with the District's share of the Orange County, California 1% *ad valorem* property tax (to the extent not applied by the District to pay principal of and interest on Secured Bonds) and Investment Income;

but excluding in all cases: (i) customer deposits or any other deposits or advances subject to refund until such deposits or advances have become the property of the District; (ii) any proceeds of taxes or *ad valorem* assessments restricted by law to be used by the District to pay bonds issued by the District, and the proceeds of any actions to enforce delinquent *ad valorem* assessments so restricted; and (iii) water, sewer and reclaimed water rates and charges levied in lieu of *ad valorem* assessments pursuant to Sections 36425 and 35975 of the Act.

"Operation and Maintenance Expenses" consist of the costs and expenses paid or incurred by the District for operating and maintaining the Operating Systems (as such term is defined in the Indenture) including, but not limited to: (a) all costs of water generated or purchased by the District for resale; (b) all costs and expenses of providing services and commodities through or with the Operating Systems; (c) all costs and expenses of management of the Operating Systems; (d) all costs and expenses of maintenance and repair of, and other expenses necessary or appropriate in the judgment of the District to maintain and preserve, any of the Operating Systems in good repair and working order; (e) all administrative and general expenses, such as

salaries and wages of employees, overhead, taxes (if any), insurance premiums, retirement benefits and health care benefits; (f) all deposits to be made to a contingency reserve for Operation and Maintenance Expenses; (g) all deposits to be made to a rebate fund established with respect to Parity Obligations to provide for any rebate to the United States required to maintain the tax-exempt status of interest on such Parity Obligations; (h) any cost or expense paid or incurred by the District to comply with requirements of law applicable to any of the Operating Systems or the ownership or operation thereof or any activity in connection therewith; and (i) any other cost or expense which, in accordance with Generally Accepted Accounting Principles, is to be treated as an expense of operating or maintaining any of the Operating Systems; but excluding in all cases depreciation, replacement and obsolescence charges or reserves therefor, and amortization of intangibles.

Net Revenues collected within any improvement district of the District, including the Improvement Districts, are available to make debt service payments on the Series 2011A-1 Bonds. See the caption "SECURITY FOR THE SERIES 2011A-1 BONDS."

Allocation of Monies Under the Indenture

Allocation of Revenues. In order to carry out and effectuate the pledge and lien on the Revenues contained in the Indenture, the District has agreed and covenanted in the Indenture that all Revenues received by it will be deposited when and as received in the Revenue Fund, which fund has been previously established by the District and which fund the District has agreed and covenanted to maintain as a special fund, separate and apart from other moneys of the District so long as any Series 2011A-1 Bond remains Outstanding. All Revenues will be applied in the following order of priority:

First: to the payment of Operation and Maintenance Expenses (other than the funding of contingency reserves for Operation and Maintenance Expenses) as they become due and payable.

Second: to the funding of contingency reserves for Operation and Maintenance Expenses.

Third: (i) two Business Days before each Interest Payment Date, to a deposit to the Bond Payment Fund in an amount equal to the transfer to the Interest Account and Principal Account to be made on such Interest Payment Date; and (ii) on each date, other than an Interest Payment Date, on which the principal of an Outstanding Series 2011A-1 Bond becomes due, whether by mandatory redemption, acceleration, or otherwise, to a deposit to the Bond Payment Fund in an amount equal to the principal and Redemption Price of, and interest on, the Outstanding Series 2011A-1 Bonds coming due on such date. Notwithstanding the provisions of the immediately preceding sentence, no such deposit to the Bond Payment Fund need be made by the District to the extent that the Trustee then holds, or is concurrently receiving from the District from Assessment Proceeds or other sources that do not constitute Revenues, moneys for such purpose in the Bond Payment Fund, or being deposited in the Bond Payment Fund, available to pay the principal and Redemption Price of, and interest on, the Outstanding Series 2011A-1 Bonds to be paid with such deposit. The District will also pay to the party entitled thereto or transfer or cause to be transferred to any applicable debt service or other payment fund or account for any Parity Obligations (other than the principal and Redemption Price of, and interest on, the Outstanding Series 2011A-1 Bonds), without preference or priority, and in the event of any insufficiency of such moneys ratably without any discrimination or preference, on the dates specified in the proceedings relating to such Parity Obligations, the sum or sums required to be paid or deposited in such debt service or other payment fund or account with respect to principal, premium, if any, and interest on Parity Obligations (other than the principal and Redemption Price of, and interest on, the Outstanding Series 2011A-1 Bonds) in accordance with the terms of such Parity Obligations.

Fourth: the District will transfer or cause to be transferred to any applicable reserve fund or account for any Parity Obligations for which a separate reserve has been funded, without preference or priority, and in the event of any insufficiency of such moneys ratably without any discrimination or preference, the sum or sums, if any, equal to the amount required to be deposited therein in accordance with the terms of such Parity Obligations.

Fifth: to any lawful purpose of the District, including the payment of any Subordinate Obligations in accordance with the instruments authorizing such Subordinate Obligations, which application will be free and clear of the pledge and lien on Revenues created by the Indenture.

Bond Payment Fund. There has been established and created a fund with the Trustee under the Indenture designated the “Bonds of Irvine Ranch Water District, Series 2011A-1 Bond Payment Fund” (the “Bond Payment Fund”). The Trustee will transfer money contained in the Bond Payment Fund to the accounts described below at the following times in the manner provided in the Indenture, which accounts the Trustee has agreed to establish and maintain so long as the Indenture is not discharged in accordance with the provisions thereof, and each such account constitutes a trust fund for the benefit of the Owners of the Series 2011A-1 Bonds, and the money in each such account will be disbursed only for the purposes and uses authorized in the Indenture.

Interest Account. The Trustee, on each Interest Payment Date, will deposit in the Interest Account from money in the Bond Payment Fund an amount which, together with amounts already on deposit in the Interest Account, will be sufficient to pay interest on the Outstanding Series 2011A-1 Bonds due on such Interest Payment Date. Money in the Interest Account will be used and withdrawn by the Trustee on each Interest Payment Date solely for the payment of interest on the Outstanding Series 2011A-1 Bonds then due.

Principal Account. The Trustee, on each Principal Payment Date, will deposit in the Principal Account from money in the Bond Payment Fund such amount as is sufficient to pay the principal of the Outstanding Series 2011A-1 Bonds due on such Principal Payment Date. Money in the Principal Account will be used and withdrawn by the Trustee on each Principal Payment Date solely for the payment of the principal of Outstanding Series 2011A-1 Bonds then due.

Redemption Account. The Trustee will deposit in the Redemption Account amounts received from the District to pay the Redemption Price of Series 2011A-1 Bonds to be redeemed. Money in such Redemption Account will be used and withdrawn by the Trustee on each Redemption Date solely for the payment of the Redemption Price of Outstanding Series 2011A-1 Bonds upon the redemption thereof.

Existing Parity Obligations

The District has entered into certain Parity Obligations described below. The reimbursement agreements described below relate to outstanding *ad valorem* assessment bonds:

(i) the three Reimbursement Agreements, each dated as of May 1, 1996, as amended as of May 1, 2005, by and between the District and Landesbank Hessen-Thüringen Girozentrale, acting through its New York Branch;

(ii) the Fifth Amended and Restated Reimbursement Agreement, dated as of April 1, 2011, by and between the District and Bank of America, N.A.;

(iii) the Amended and Restated Reimbursement Agreement, dated as of April 1, 2011, by and between the District and Bank of America, N.A.;

(iv) the two Reimbursement Agreements, each dated as of April 1, 2011, by and between the District and Sumitomo Mitsui Banking Corporation;

(v) the two Amended and Restated Reimbursement Agreements, each dated as of April 1, 2011, by and between the District and Bank of America, N.A.;

(vi) the Amended and Restated Reimbursement Agreement, dated as of April 1, 2011, by and between the District and U.S. Bank National Association

(vii) the State Revolving Loan Contract No. 6-817-550-0, dated June 26, 1997, by and between the District and the State Water Resources Control Board, as amended and supplemented, currently outstanding in the aggregate principal amount of \$1,553,163;

(viii) the 2010 Installment Sale Agreement, securing the District's Certificates of Participation, Irvine Ranch Water District Refunding Series 2010 currently outstanding in the aggregate principal amount of \$81,400,000;

(ix) the District's Series 2010B Bonds currently outstanding in the aggregate principal amount of \$175,000,000; and

(x) the Series 2011A-2 Bonds currently outstanding in the aggregate principal amount of \$39,385,000.

The agreements described in clauses (i) through (vi) above are collectively referred to as the "Prior Reimbursement Agreements."

There are currently no reimbursement obligations outstanding under the Prior Reimbursement Agreements, although the District may incur reimbursement obligations under the Prior Reimbursement Agreements as provided therein.

For a summary of the stated amount of each letter of credit associated with the Prior Reimbursement Agreements, see Appendix A—"IRVINE RANCH WATER DISTRICT—Outstanding Indebtedness—Parity Obligations."

Limitations on Parity and Superior Obligations

Obligations Superior to Series 2011A-1 Bonds. The District has covenanted in the Indenture that it will not create any pledge of, lien on or charge upon the Revenues with a priority prior to or senior to the pledge of the Revenues securing the Series 2011A-1 Bonds and the Parity Obligations.

Obligations on a Parity with the Series 2011A-1 Bonds. Under the Indenture, the District may at any time issue additional Parity Obligations; provided:

(a) The Net Revenues, plus any *ad valorem* assessments available to pay Debt Service on Parity Obligations which are not applied as a credit against Debt Service, for the Applicable Fiscal Year, as evidenced by both a calculation prepared by the District and a special report on such calculation prepared by an Independent Certified Public Accountant or an Independent Financial Consultant on file with the District, are at least equal to 125% of the Aggregate Debt Service for the Applicable Fiscal Year; and

(b) Either of (1) or (2) below:

(1) The Net Revenues for the Applicable Fiscal Year, plus any adjustments to Net Revenues to give effect as of the first day of the Applicable Fiscal Year to increases or decreases in rates and charges of the District approved and in effect as of the date of calculation, plus any *ad valorem* assessments available to pay Debt Service on Parity Obligations which are not applied as a credit against Debt Service, produce an amount at least equal to 125% of the sum of: (i) the Aggregate Debt Service for such Applicable Fiscal Year; plus (ii) the Debt Service which would have accrued on any Parity Obligations issued since the end of the Applicable Fiscal Year assuming such Parity Obligations had been issued at the beginning of the Applicable Fiscal Year; plus (iii) the Debt Service which would have accrued had the additional Parity Obligations to be issued been issued at the beginning of the Applicable Fiscal Year; or

(2) The estimated Net Revenues for each Fiscal Year in the Test Period, plus an allowance for the estimated Net Revenues for each Fiscal Year in the Test Period arising from the completion of any uncompleted projects during the Test Period, plus any *ad valorem* assessments available to pay Debt Service on Parity Obligations which are not applied as a credit against Debt Service, plus any increase in the income, rents, fees, rates and charges estimated to be received by the District and which are economically feasible and reasonably considered necessary based on projected operations for the Test Period, produce an amount in each Fiscal Year in the Test Period which is at least equal to 125% of the sum of: (i) Aggregate Debt Service in each such Fiscal Year on all then Outstanding Parity Obligations; plus (ii) the Debt Service in each such Fiscal Year on the additional Parity Obligations to be issued; plus (iii) the Debt Service in each such Fiscal Year on any additional Parity Obligations estimated by the District to be required to complete all uncompleted projects for which Parity Obligations have been or are being issued, assuming that all such additional Parity Obligations to complete uncompleted projects (other than the Parity Obligations to be issued) have maturities, interest rates and proportionate principal repayment provisions similar to the Parity Obligations then being issued.

(c) Notwithstanding the provisions of clauses (a) and (b), the District may at any time issue additional Parity Obligations to refund Outstanding Parity Obligations without satisfying any of the conditions set forth in such subsections if Aggregate Debt Service after the issuance of such additional Parity Obligations in each Fiscal Year in the Refunding Test Period is not greater than the Aggregate Debt Service in each such Fiscal Year before the issuance of such additional Parity Obligations.

(d) Notwithstanding the provisions of clauses (a) and (b), the District may at any time issue a Parity Obligation constituting a Credit Support Agreement securing a Parity Obligation without satisfying any of the conditions set forth in such subsections if such Credit Support Agreement: (i) replaces a Prior Reimbursement Agreement (or a successor to a Prior Reimbursement Agreement) and does not increase the principal of bonds secured by the letter of credit relating to such Prior Reimbursement Agreement; or (ii) the Parity Obligations secured by the Credit Support Instrument relating to such Credit Support Agreement have been issued in accordance with clauses (a) and (b).

Notwithstanding the foregoing, so long as the 2010 Installment Sale Agreement remains outstanding, the District will need to comply with the requirements set therein for the issuance of Parity Obligations, which are identical to those set forth in clauses (a), (b) and (c) above except that the Assessment Proceeds (and any assessment proceeds related to other Parity Obligations) which are applied as a credit to Debt Service in clauses (a) and (b) above are included as revenues for purposes of such calculation and the definition of Aggregate Debt Service in the 2010 Installment Sale Agreement does not provide an offset for debt service paid from Assessment Proceeds (and any assessment proceeds related to other Parity Obligations) associated with Revenue Enhancement Agreements. In addition, certain of the Prior Reimbursement Agreements related to outstanding *ad valorem* assessment bonds of the District, and certain swap agreements entered into by the District, have conditions precedent to the issuance of Parity Obligations that are more stringent than those listed above.

Obligations Subordinate to the Series 2011A-1 Bonds. Nothing in the Indenture prevents the District from issuing Subordinate Obligations or granting a pledge of, lien on or charge upon the Revenues in all respects junior and subordinate to the payment of amounts due with respect to Parity Obligations to secure any such Subordinate Obligations. Nothing in the Indenture limits the District's payment of the Operation and Maintenance Expenses prior to the payment of the Parity Obligations as provided in the Indenture.

Investment of Monies in Funds and Accounts Under the Indenture

So long as the Series 2011A-1 Bonds are Outstanding and no Event of Default has occurred and is continuing, monies on deposit to the credit of the funds held by the Trustee under the Indenture (except for the Remarketing Proceeds Account in the Purchase Fund) will, at the written request of the District, be invested by the Trustee in Permitted Investments. In the absence of written instruction from the District, the Trustee is

directed to hold available funds uninvested. The Trustee is entitled to rely conclusively on said instructions for purposes of the Indenture and will have no duty to monitor the compliance thereof with the restrictions set forth in the Indenture. Subject to the limitations contained in Government Code Section 53601, monies in the funds held by the District will be invested by the District in Permitted Investments. All such investments will have maturity dates, or will be subject to redemption, at the option of the holder, on or prior to the dates the monies invested therein will be needed for the purposes of such funds. See Appendix C—"SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE" under the caption "DEFINITIONS" for the definition of Permitted Investments under the Indenture.

The Trustee may commingle any of the moneys held by it under the Indenture. The Trustee may present for redemption or sell any such deposit or investment whenever necessary in order to provide money to meet any payment of the money so deposited or invested. Any interest or profits on deposits and investments in the Bond Payment Fund received by the Trustee will be deposited in the Interest Account as a credit against interest to come due on the Outstanding Series 2011A-1 Bonds.

See Appendix C—"SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE" under the caption "FUNDS AND ACCOUNTS—Investments."

THE IRVINE RANCH WATER DISTRICT

For a description of the District and each of the Improvement Districts see Appendix A—"IRVINE RANCH WATER DISTRICT."

CONTINUING DISCLOSURE

The District has covenanted in a Continuing Disclosure Certificate dated April 15, 2011 (the "Continuing Disclosure Certificate") for the benefit of the Owners and beneficial owners of the Series 2011A-1 Bonds to provide certain financial information and operating data relating to the District (each an "Annual Report") by not later than 270 days following the end of the District's fiscal year (which fiscal year ends on June 30), commencing with the Annual Report for Fiscal Year 2012, and to provide notices of the occurrence of certain enumerated events. The Annual Reports will be filed by the District with EMMA for the purpose of S.E.C. Rule 15c2-12(b)(5) (the "Rule"). The notices of material events will be filed by the District with EMMA. The specific nature of the information to be made available and to be contained in the notices of material events is contained in Appendix F—"FORM OF CONTINUING DISCLOSURE CERTIFICATE" hereto. These covenants have been made in order to assist the Remarketing Agent, as Participating Underwriter (as such term is defined in the Continuing Disclosure Certificate) in complying with the Rule. For the last five years the District has complied in all material aspects with its filing obligations pursuant to undertakings entered into pursuant to the Rule.

LITIGATION

There is no action, suit or proceeding known to be pending or threatened, in any way contesting or affecting the validity of, the Series 2011A-1 Bonds or the Indenture. There is no litigation known to be pending, or to the knowledge of the District, threatened, questioning the existence of the District or the title of the officers of the District to their respective offices.

There exist lawsuits and claims against the District, which are incidental to the ordinary course of operations of the District's water and sewer systems and related activities. In the view of the District's management and General Counsel, there is no litigation, present or pending, which will individually or in the aggregate materially impair the District's ability to service its indebtedness or which will have a material adverse effect on the business operations of the District.

RATINGS

On April 12, 2011, Standard & Poor's Ratings Group ("S&P"), Moody's Investors Service ("Moody's") and Fitch Ratings ("Fitch") assigned the Series 2011A-1 Bonds the short-term ratings of "A-1+", "VMIG 1" and "F1+", respectively, and Moody's and Fitch assigned the Series 2011A-1 Bonds the underlying long-term ratings of "Aa1" and "AAA", respectively. Although S&P has not assigned a long-term rating to Series 2011A-1 Bonds, S&P affirmed the long-term rating of "AAA" on the District's Series 2010B Bonds and the District's Series 2010A Certificates of Participation, which are Parity Obligations, on April 12, 2011. [The District has made no attempt to seek an update to or affirmation of such ratings from the rating agencies in connection with the remarketing of the Series 2011A-1 Bonds on February 2, 2012.] [TO BE CONFIRMED] Generally, rating agencies base their ratings on information and material furnished directly to them and on investigations, studies and assumptions made by them. The ratings reflect only the views of such organizations and an explanation of the significance of such ratings may be obtained from the applicable rating agency. There is no assurance that the ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely by such rating agencies, if, in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the Series 2011A-1 Bonds.

TAX MATTERS

Original Opinions

On April 15, 2011, Orrick, Herrington & Sutcliffe LLP and Bowie, Arneson, Wiles & Giannone, Co-Bond Counsel to the District ("Co-Bond Counsel"), in connection with the issuance of the Series 2011A-1 Bonds, delivered their respective opinions to the effect that, based on an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 2011A-1 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "Code") and is exempt from State of California personal income taxes. It was the further opinion of Co-Bond Counsel, as of April 15, 2011, that such interest is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Co-Bond Counsel observed that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. A complete copy of the opinions of Co-Bond Counsel delivered at the original issuance of the Series 2011 A-1 Bonds is set forth in Appendix D hereto.

No Updated Co-Bond Counsel Opinions

Co-Bond Counsel have not taken, and do not intend to take, any action to update their respective original opinions or to determine if interest on the Series 2011A-1 Bonds is presently excluded from gross income for federal income tax purposes or exempt from State of California personal income taxes.

General Considerations

Notwithstanding the foregoing, investors should be aware of the following information.

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the Series 2011A-1 Bonds. The District has made certain representations and covenanted to comply with certain restrictions, conditions and requirements designed to ensure that interest on the Series 2011A-1 Bonds will not be included in federal gross income. Inaccuracy of these representations or failure to comply with these covenants may result in interest on the Series 2011A-1 Bonds being included in gross income for federal income tax purposes, possibly from the date of original issuance of the Series 2011A-1 Bonds. The opinions of Co-Bond Counsel delivered in connection with the initial issuance of the Series 2011A-1 Bonds assumed the accuracy of these

representations and compliance with these covenants. Co-Bond Counsel have not undertaken to determine (or to inform any person) whether any actions taken (or not taken), or events occurring (or not occurring), or any other matters coming to Co-Bond Counsel's attention after the date of issuance of the Series 2011A-1 Bonds may adversely affect the value of, or the tax status of interest on, the Series 2011A-1 Bonds. Accordingly, the opinions of Co-Bond Counsel delivered in connection with the initial issuance of the Series 2011A-1 Bonds are not intended to, and may not, be relied upon in connection with any such actions, events or matters.

Although Co-Bond Counsel have rendered opinions that interest on the Series 2011A-1 Bonds is excluded from gross income for federal income tax purposes and is exempt from State of California personal income taxes, the ownership or disposition of, or the accrual or receipt of interest on, the Series 2011A-1 Bonds may otherwise affect a Beneficial Owner's federal, state or local tax liability. The nature and extent of these other tax consequences depends upon the particular tax status of the Beneficial Owner or the Beneficial Owner's other items of income or deduction. Co-Bond Counsel express no opinion regarding any such other tax consequences.

Current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the Series 2011A-1 Bonds to be subject, directly or indirectly, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent Beneficial Owners from realizing the full current benefit of the tax status of such interest. As one example, the Obama Administration recently announced a legislative proposal which, for tax years beginning on or after January 1, 2013, generally would limit the exclusion from gross income of interest on obligations like the Series 2011A-1 Bonds to some extent for taxpayers who are individuals and whose income is subject to higher marginal income tax rates. Other proposals have been made that could significantly reduce the benefit of, or otherwise affect, the exclusion from gross income of interest on obligations like the Series 2011A-1 Bonds. The introduction or enactment of any such legislative proposals, clarification of the Code or court decisions may also affect, perhaps significantly, the market price for, or marketability of, the Series 2011A-1 Bonds. Prospective purchasers of the remarketed Series 2011A-1 Bonds should consult their own tax advisors regarding any pending or proposed federal or state tax legislation, regulations or litigation, and regarding the impact of future legislation, regulations or litigation, as to which Co-Bond Counsel express no opinion.

The opinions of Co-Bond Counsel delivered in connection with the initial issuance of the Series 2011A-1 Bonds were based on current legal authority existing as of April 15, 2011, covered certain matters not directly addressed by such authorities, and represented Co-Bond Counsel's judgment as to the proper treatment of the Series 2011A-1 Bonds for federal income tax purposes. They are not binding on the Internal Revenue Service (the "IRS") or the courts. Furthermore, Co-Bond Counsel cannot give and have not given any opinion or assurance about the future activities of the District, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the IRS. The District has covenanted, however, to comply with the requirements of the Code.

Co-Bond Counsel's engagement with respect to the Series 2011A-1 Bonds ended on April 15, 2011 with the original issuance of the Series 2011A-1 Bonds. Unless separately engaged, Co-Bond Counsel are not obligated to defend the District or the Beneficial Owners regarding the tax-exempt status of the Series 2011A-1 Bonds in the event of an audit examination by the IRS. Under current procedures, parties other than the District and their appointed counsel, including the Beneficial Owners, would have little, if any, right to participate in the audit examination process. Moreover, because achieving judicial review in connection with an audit examination of tax-exempt bonds is difficult, obtaining an independent review of IRS positions with which the District legitimately disagrees may not be practicable. Any action of the IRS, including but not limited to selection of the Series 2011A-1 Bonds for audit, or the course or result of such audit, or an audit of bonds presenting similar tax issues, may affect the market price for, or the marketability of, the Series 2011A-1 Bonds, and may cause the District or the Beneficial Owners to incur significant expense.

REMARKETING AGENT

Goldman, Sachs & Co. has been appointed to serve as Remarketing Agent for the Series 2011A-1 Bonds. The Remarketing Agent will carry out the duties and obligations provided for the Remarketing Agent under and in accordance with the provisions of the Indenture and the Remarketing Agreement, dated as of April 1, 2011, by and between the District and Goldman, Sachs & Co.

The Remarketing Agent and its affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The Remarketing Agent and certain of its affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the District, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Remarketing Agent and its respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the District.

APPROVAL OF LEGAL PROCEEDINGS

Certain legal matters will be passed upon by Orrick, Herrington & Sutcliffe LLP and Bowie, Arneson, Wiles & Giannone, Co-Disclosure Counsel, for the District by Bowie, Arneson, Wiles & Giannone, as general counsel to the District, for the Remarketing Agent by Stradling Yocca Carlson & Rauth, a Professional Corporation, and for the Trustee by its counsel.

INDEPENDENT ACCOUNTANTS

The financial statements of the District at June 30, 2011, included in Appendix B to this Remarketing Statement, have been audited by Mayer Hoffman McCann P.C., independent accountants (the "Auditor"), as set forth in their report dated December 8, 2011, which also appears in Appendix B. The Auditor has not reviewed the contents of this Remarketing Statement, and the District has not sought the Auditor's consent to the inclusion of the Auditor's audit letter attached to the District's financial statements in the Remarketing Statement.

MISCELLANEOUS

References made herein to certain documents and reports are brief summaries thereof and do not purport to be complete or definitive and reference is hereby made to such documents and reports for a full and complete statement of the contents thereof.

Any statements in this Remarketing Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Remarketing Statement is not to be construed as a contract or agreement between the District and the purchasers or registered owners of any of the Series 2011A-1 Bonds. The delivery and distribution of this Remarketing Statement have been duly authorized by the District.

IRVINE RANCH WATER DISTRICT

By: _____ /s/ Robert Jacobson
Treasurer

APPENDIX A
IRVINE RANCH WATER DISTRICT

APPENDIX B
AUDITED FINANCIAL STATEMENTS

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APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

The following is a summary of certain provisions of the Indenture which are not described elsewhere. This summary does not purport to be comprehensive and reference should be made to the Indenture for a full and complete statement of the provisions thereof.

[TO COME FROM BOND COUNSEL]

APPENDIX D

CO-BOND COUNSEL OPINIONS

Orrick, Herrington & Sutcliffe LLP and Bowie, Arneson, Wiles & Giannone, Co-Bond Counsel to the District, rendered the following final approving opinions dated April 15, 2011 (the "2011 Opinions") in connection with the initial issuance of the Series 2011A-1 Bonds. Co-Bond Counsel have made no attempt to update or reaffirm the 2011 Opinions in connection with this Remarketing Statement or the remarketing of the Series 2011A-1 Bonds.

[SEE ATTACHED]

APPENDIX E
BOOK-ENTRY SYSTEM

The information in this section concerning DTC and DTC's book-entry only system has been obtained from sources that the District believes to be reliable, but the District takes no responsibility for the completeness or accuracy thereof. The following description of the procedures and record keeping with respect to beneficial ownership interests in the Series 2011A-1 Bonds, payment of principal, premium, if any, accreted value, if any, and interest with respect to on the Series 2011A-1 Bonds to DTC Participants or Beneficial Owners, confirmation and transfers of beneficial ownership interests in the Series 2011A-1 Bonds and other related transactions by and between DTC, the DTC Participants and the Beneficial Owners is based solely on information provided by DTC.

The Depository Trust Company ("DTC"), New York, NY, acts as securities depository for the Series 2011A-1 Bonds. The Series 2011A-1 Bonds are fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered bond was issued for each maturity of the Series 2011A-1 Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments from over 100 countries that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Series 2011A-1 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2011A-1 Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2011A-1 Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2011A-1 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive bonds representing their ownership interests in Series 2011A-1 Bonds, except in the event that use of the book-entry system for the Series 2011A-1 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2011A-1 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Series 2011A-1 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2011A-1 Bonds; DTC's records reflect only the identity of

the Direct Participants to whose accounts such Series 2011A-1 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holding on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Series 2011A-1 Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2011A-1 Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Series 2011A-1 Bond documents. For example, Beneficial Owners of Series 2011A-1 Bonds may wish to ascertain that the nominee holding the Series 2011A-1 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Series 2011A-1 Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Series 2011A-1 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the District as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts Series 2011A-1 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Redemption proceeds, distributions, and dividend payments with respect to the Series 2011A-1 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the District or the Trustee, on a payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Trustee, or the District, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the District or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

A Beneficial Owner shall give notice to elect to have its Series 2011A-1 Bonds purchased or tendered, through its participant, to the Tender Agent, and shall effect delivery of such securities by causing the Direct Participant to transfer the Participant's interest in the Series 2011A-1 Bonds, on DTC's records, to the Tender Agent. The requirement for physical delivery of Series 2011A-1 Bonds in connection with an optional tender or a mandatory purchase will be deemed satisfied when the ownership rights in the Series 2011A-1 Bonds are transferred by Direct Participants or DTC's records and followed by book-entry credit of tendered Series 2011A-1 Bonds to the Tender Agent's DTC account.

DTC may discontinue providing its services as depository with respect to the Series 2011A-1 Bonds at any time by giving reasonable notice to the District or the Trustee. Under such circumstances, in the event that a successor depository is not obtained, Series 2011A-1 Bonds are required to be printed and delivered.

The District may decide to discontinue use of the system of book-entry only transfers through DTC (or a successor securities depository). In that event, Series 2011A-1 Bonds will be printed and delivered.

APPENDIX F

FORM OF CONTINUING DISCLOSURE CERTIFICATE

The District entered into a Continuing Disclosure Certificate in the following form in connection with the initial issuance of the Series 2011A-1 Bonds on April 15, 2011:

This Continuing Disclosure Certificate (the "Disclosure Certificate") is executed and delivered by the Irvine Ranch Water District (the "District") in connection with the execution and delivery of \$60,545,000 Bonds of Irvine Ranch Water District, Refunding Series 2011A-1 (the "Series 2011A-1 Bonds") and the \$40,370,000 Bonds of Irvine Ranch Water District, Refunding Series 2011A-2 (the "Series 2011A-2 Bonds," and together with the Series 2011A-1 Bonds, the "Series 2011A Bonds") constituting the consolidated, several general obligations of Improvement District Nos. 105, 113, 213 and 250 (collectively, the "Improvement Districts"). The Series 2011A-1 Bonds are being issued pursuant to an Indenture of Trust, dated as of April 1, 2011 (the "Series 2011A-1 Indenture of Trust"), by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee, and the Series 2011A-2 Bonds are being issued pursuant to an Indenture of Trust, dated as of April 1, 2011 (the "Series 2011A-2 Indenture of Trust," and together with the Series 2011A-1 Indenture of Trust, the "Indentures of Trust"), by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee. The District covenants and agrees as follows:

1. **Purpose of this Disclosure Certificate.** This Disclosure Certificate is being executed and delivered by the District for the benefit of the Holders and Beneficial Owners of the Bonds and in order to assist the Participating Underwriter in complying with the Rule.

2. **Definitions.** In addition to the definitions set forth in the Indentures of Trust, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

Annual Report. The term "Annual Report" means any Annual Report provided by the District pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

Beneficial Owner. The term "Beneficial Owner" means any person which: (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries); or (b) is treated as the owner of any Bonds for federal income tax purposes.

EMMA. The term "EMMA" means the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures, maintained on the Internet at <http://emma.msrb.org/>.

Fiscal Year. The term "Fiscal Year" means the one-year period ending on the last day of June of each year.

Holder. The term "Holder" means a registered owner of the Bonds.

Listed Events. The term "Listed Events" means any of the events listed in Sections 5(a) and (b) of this Disclosure Certificate.

Official Statement. The term "Official Statement" means the Official Statement of the District dated April 12, 2011 delivered in connection with the issuance of the Bonds.

Participating Underwriter. The term "Participating Underwriter" means the original underwriters of the Bonds required to comply with the Rule in connection with offering of the Bonds.

Rule. The term "Rule" means Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

3. Provision of Annual Reports.

(a) The District shall provide not later than 270 days following the end of its Fiscal Year (commencing with the Fiscal Year 2011) to EMMA an Annual Report relating to the immediately preceding Fiscal Year which is consistent with the requirements of Section 4 of this Disclosure Certificate, which Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Certificate.

(b) If the District is unable to provide to EMMA an Annual Report by the date required in subsection (a), the District shall send to EMMA a notice in substantially the manner prescribed by the Municipal Securities Rulemaking Board.

4. Content of Annual Reports. The Annual Report shall contain or incorporate by reference the following:

(a) The audited financial statements of the District for the prior Fiscal Year, prepared in accordance with generally accepted accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If the District's audited financial statements are not available by the time the Annual Report is required to be filed pursuant to Section 3(a), the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available.

(b) Principal amount of the Bonds outstanding.

(c) An update of the information in the following tables and/or captions in Appendix A—"IRVINE RANCH WATER DISTRICT" in the Official Statement:

1. "Outstanding Indebtedness" on page A-7;
2. IRVINE RANCH WATER DISTRICT Historic Water Supply In Acre Feet Per Year" under the caption "WATER SUPPLY—Historic and Projected Water Supply" on page A-19;
3. "THE WATER SYSTEM—Historic Water Connections" on page A-21;
4. "THE WATER SYSTEM—Historic Water Deliveries" on page A-22;
5. "THE WATER SYSTEM—Water System Rates and Charges" on page A-24;
6. "THE SEWER SYSTEM—Historic Sewer and Recycled Water Connections" on page A-26;
7. "THE SEWER SYSTEM—Historic Sewer Daily Average Flow" on page A-27;
8. "THE SEWER SYSTEM—Sewer System Rates and Charges" on page A-30;
9. "WATER AND SEWER SYSTEM FINANCIAL INFORMATION—Historic Operating Results and Debt Service Coverage" on page A-33; and
10. An update of the following tables for each Improvement District:
 - (i) Assessed Valuations (Land Only); provided that only the total assessed values shall be updated;

- (ii) Assessed Valuation and Parcels by Land Use; and
- (iii) Largest Local Secured Taxpayers.

Any or all of the items listed above may be included by specific reference to other documents, including official statements of debt issues of the District or related public entities, which have been submitted to EMMA or the Securities and Exchange Commission; provided that if any document included by reference is a final official statement, it must be available from the Municipal Securities Rulemaking Board; and provided further that the District shall clearly identify each such document so included by reference.

5. Reporting of Significant Events.

(a) Pursuant to the provisions of this Section 5, the District shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds in a timely manner not more than ten (10) Business Days after the event:

- 1. principal and interest payment delinquencies;
- 2. unscheduled draws on debt service reserves reflecting financial difficulties;
- 3. unscheduled draws on credit enhancements reflecting financial difficulties;
- 4. substitution of credit or liquidity providers, or their failure to perform;
- 5. adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds;
- 6. defeasances;
- 7. tender offers;
- 8. ratings changes; and
- 9. bankruptcy, insolvency, receivership or similar proceedings.

Note: For the purposes of the event identified in subparagraph (9), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governmental body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.

(b) Pursuant to the provisions of this Section 5, the District shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds, if material:

- 1. mergers, consolidations, acquisitions, the sale of all or substantially all of the assets of the obligated persons or their termination;
- 2. appointment of a successor or additional trustee or the change of the name of a trustee;

3. non-payment related defaults;
4. modifications to the rights of Bondholders;
5. notices of redemption; and
6. release, substitution or sale of property securing repayment of the Bonds.

(c) Whenever the District obtains knowledge of the occurrence of a Listed Event described in subsection (b), the District shall as soon as possible determine if such event would be material under applicable federal securities laws.

(d) If the District determines that knowledge of the occurrence of a Listed Event under Section 5(b) would be material under applicable federal securities laws, the District shall file a notice of such occurrence with EMMA in a timely manner not more than ten (10) Business Days after the event.

6. Cash and Investments. Upon request, the District shall provide on a quarterly basis to any person the most recently available Cash and Investment Summary as prepared for the Finance and Personnel Committee of the Board of Directors of the District.

7. Customarily Prepared and Public Information. Upon request, the District shall provide to any person financial information and operating data regarding the District which is customarily prepared by the District and is publicly available.

8. Termination of Obligation. The District's obligations under this Disclosure Certificate shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Bonds. If such termination occurs prior to the final maturity of the Bonds, the District shall give notice of such termination in the same manner as for a Listed Event under Section 5(b).

9. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the District may amend this Disclosure Certificate, and any provision of this Disclosure Certificate may be waived, provided that, in the opinion of nationally recognized bond counsel, such amendment or waiver is permitted by the Rule.

10. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the District from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Certificate. If the District chooses to include any information in any notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Certificate, the District shall not thereby have any obligation under this Disclosure Certificate to update such information or include it in any future notice of occurrence of a Listed Event.

11. Default. In the event of a failure of the District to comply with any provision of this Disclosure Certificate, any Holders or Beneficial Owners of at least 50% aggregate principal amount of the Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the District to comply with its obligations under this Disclosure Certificate. A default under this Disclosure Certificate shall not be deemed an Event of Default under the Indentures of Trust, and the sole remedy under this Disclosure Certificate in the event of any failure of the District to comply with this Disclosure Certificate shall be an action to compel performance.

No Holder or Beneficial Owner of the Bonds may institute such action, suit or proceeding to compel performance unless they shall have first delivered to the District satisfactory written evidence of their status as such, and a written notice of and request to cure such failure, and the District shall have refused to comply therewith within a reasonable time.

12. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the District, the Participating Underwriter and Holders and Beneficial Owners from time to time of the Bonds, and shall create no rights in any other person or entity.

Dated: April 15, 2011

IRVINE RANCH WATER DISTRICT

By: _____

Its: Treasurer

APPENDIX A
IRVINE RANCH WATER DISTRICT

TABLE OF CONTENTS

| | |
|---|----|
| INTRODUCTION..... | 1 |
| THE IRVINE RANCH WATER DISTRICT..... | 1 |
| General..... | 1 |
| Board of Directors and General Manager..... | 2 |
| Employees..... | 4 |
| Pension Benefits..... | 4 |
| Other Post-Employment Benefits..... | 9 |
| Budget Process..... | 10 |
| Water and Sewer System Insurance..... | 10 |
| Collection Procedures..... | 10 |
| Outstanding Indebtedness..... | 10 |
| Variable Rate Debt Management..... | 15 |
| Investment Policy..... | 15 |
| Historic Net Real Estate Income..... | 16 |
| Projected Net Real Estate Income..... | 16 |
| 1% Property Tax Revenues..... | 16 |
| Alternative Method of Tax Apportionment – “Teeter Plan”..... | 18 |
| Governmental Regulations..... | 18 |
| WATER SUPPLY..... | 19 |
| Imported Water..... | 19 |
| Groundwater..... | 20 |
| Water Banking..... | 23 |
| Recycled Water..... | 25 |
| Historic and Projected Water Supply..... | 25 |
| THE WATER SYSTEM..... | 26 |
| General..... | 26 |
| Historic Water Connections..... | 27 |
| Projected Water Connections..... | 28 |
| Connection Fees..... | 28 |
| Historic Water Deliveries..... | 28 |
| Projected Water Deliveries..... | 29 |
| Historic Water Sales and Service Charge Revenues..... | 29 |
| Projected Water Sales and Service Charge Revenues..... | 30 |
| Largest Water Customers..... | 30 |
| Water System Rates and Charges..... | 31 |
| THE SEWER SYSTEM..... | 31 |
| General..... | 31 |
| Historic Sewer System and Recycled Water Connections..... | 33 |
| Projected Sewer and Recycled Water Connections..... | 33 |
| Connection Fees..... | 33 |
| Historic Sewer Daily Average Flow..... | 34 |
| Projected Sewer Daily Average Flow..... | 34 |
| Historic Recycled Water Sales and Sewer Service Charge Revenues..... | 35 |
| Projected Recycled Water Sales and Sewer Service Charge Revenues..... | 35 |
| Largest Sewer Service Customers..... | 36 |
| Sewer System Rates and Charges..... | 36 |
| FUTURE CAPITAL IMPROVEMENTS..... | 37 |
| WATER AND SEWER SYSTEM FINANCIAL INFORMATION..... | 38 |
| Financial Statements..... | 38 |
| Historic Operating Results and Debt Service Coverage..... | 38 |

| | |
|--|----|
| Projected Operating Results and Debt Service Coverage..... | 40 |
| THE IMPROVEMENT DISTRICTS..... | 42 |
| General | 42 |
| Improvement District Nos. 105 and 250 | 43 |
| Improvement District Nos. 113 and 213 | 49 |
| CONSTITUTIONAL LIMITATIONS ON APPROPRIATIONS AND CHARGES | 53 |
| Proposition 218 | 53 |
| Proposition 26 | 54 |
| Article XIII A | 55 |
| Article XIII B | 55 |
| Proposition 1A..... | 56 |
| Future Initiatives..... | 56 |

INTRODUCTION

The following sets forth certain information relating to the Irvine Ranch Water District (the "District") and certain of its improvement districts.

The District's projections in Tables 8, 13, 16, 18, 20, 24, 26, 28, 31 and 33 of this Appendix A (the "Projections") are derived from historic trends and experience and an internal financial model known as the "District Enterprise Model." The District Enterprise Model is a capital planning and budgeting tool used by the District to identify future infrastructure funding requirements, and to aid in setting water and sewer rates, charges and connection fees. Key inputs utilized in the District Enterprise Model include assumptions based on historical experience and other factors regarding the District's cost of borrowing, the rate of return on District investments, inflation, project costs, property tax receipts and the timing and amount of future bond sales, but the primary input is the pace and scope of real estate development activity within the District's service area. The District is in regular contact with major Orange County (the "County") real estate development companies to assess and update this information for use in the District Enterprise Model.

The Projections constitute forward-looking statements. No assurance can be given that the future results reflected in the Projections and otherwise discussed herein will be achieved, and actual results may differ materially from the Projections. As noted above, the Projections rely heavily on certain assumptions regarding the pace and scope of real estate development activity within the District's service area. Such activity may be affected by a variety of factors, such as recent problems with subprime mortgage loans, including increases in delinquencies and foreclosures and significant write-downs in value reported by holders of pooled securities backed by subprime mortgages, as well as tighter lending standards for real estate loans generally. Real estate development activity also may be affected by general economic conditions, which currently reflect high unemployment rates, higher energy and commodity costs and volatile financial markets. The District has attempted to reflect such conditions in the Projections, but is unable to predict with certainty the level of future real estate development activity or the other factors affecting the Projections.

In addition to the specific limitations on remedies contained in the applicable documents themselves, the rights and obligations with respect to the Indenture are subject to bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance and other similar laws affecting creditors' rights, to the application of equitable principles if equitable remedies are sought, and to the exercise of judicial discretion in appropriate cases and to limitations on legal remedies against public agencies in the State of California (the "State"). The various opinions of counsel that were delivered with respect to such documents, including the opinions of Co-Bond Counsel (the forms of which are attached as Appendix E), were similarly qualified.

All defined terms used herein shall have the same meanings set forth in the Remarketing Statement, unless the context otherwise requires. Notwithstanding the foregoing, however, the term "Improvement Districts" as used in this Appendix refers to all 16 water improvement districts and 17 sewer improvement districts of the District.

THE IRVINE RANCH WATER DISTRICT

General

The District was established in 1961 as a California Water District under the provisions of Section 34000 *et seq.* of the California Water Code (the "Act"). As a special district, the District focuses on four primary services – providing potable water, collecting and treating wastewater, producing and distributing recycled and other non-potable water, and implementing urban runoff treatment programs.

The District serves a 178-square-mile area, which includes all of the City of Irvine and portions of the cities of Tustin, Newport Beach, Costa Mesa, Orange and Lake Forest, as well as certain unincorporated areas of the County. Extending from the Pacific Coast to the foothills, the District's region is semi-arid with a mild

climate and an average annual rainfall of approximately 12 inches. The District serves a total estimated population of approximately 330,000 through approximately 98,500 water and approximately 92,800 sewer service connections. The number of service connections has increased by approximately 21% over the last decade.

The District has 16 water improvement districts and 17 sewer improvement districts covering specific areas within the District's boundaries, some of them overlapping and each of which is governed by the Act. The District (or its predecessor district or the Orange County Local Agency Formation Commission, in the case of an area included in the District by annexation or consolidation with another district) formed the improvement districts in order to allocate funding responsibility for capital facilities to the area which will benefit from such capital facilities and to separate areas on the basis of projected timing of development so that capital facilities construction can be matched to the development approval decisions of the respective local agencies that make them. Some of the improvement districts share in the funding of the District's regional facilities which such improvement districts use or will use in common, such as major water importation facilities.

The principal office of the District is located at 15600 Sand Canyon Avenue, Irvine, California 92618.

Board of Directors and General Manager

Pursuant to legislation chaptered in 1980, the District's Board of Directors consists of five Directors elected by resident voters for staggered four-year terms. The policies of the Board of Directors are administered by the General Manager of the District.

Board of Directors

The present Directors are:

Steven E. LaMar. Mr. LaMar was appointed to the District's Board of Directors in 2009 and has been elected to a subsequent term. Mr. LaMar served as President of the Board of Directors in 2011. He is a water policy and planning expert with more than 20 years of experience on statewide business and industry committees and has directly participated in many major water policy forums. Mr. LaMar currently serves on the District's Finance and Personnel Committee and Water Resources Policy and Communications Committee. Mr. LaMar has served on statewide task forces and advisory committees on drought planning, desalination, the California Bay-Delta, the California Water Plan and on water reliability and conservation issues. Mr. LaMar is president and owner of LegiSight, LLC, located in Tustin, CA, and also has been a principal for Spinner LaMar Associates since 1993. He has served as a water policy leader in the California Building Industry Association since 1993. Mr. LaMar holds a bachelor's degree in political science from Kansas State College and a certificate from the Environmental Management Institute, the U.S. Environmental Protection Agency environmental training program administered by the University of Southern California. Mr. LaMar's current term ends in 2014.

Mary Aileen Matheis. Ms. Matheis was initially appointed to the District's Board of Directors in 1988 to fill a vacancy and has since been elected to subsequent terms. Ms. Matheis currently serves as President of the Board of Directors. Ms. Matheis served as President in 2001 and as Vice President in 2005 and 2011. Ms. Matheis is a practicing lawyer and member of the California Bar and is also admitted to practice in the Supreme Court of the United States and the United States Tax Court. Ms. Matheis holds a Bachelor's Degree and Masters Degree in Communications and she received her Juris Doctorate from Western State University School of Law and was admitted to the California Bar in 1982. Ms. Matheis' activities in other water areas include service on the Legal Affairs Committee of the Association of California Water Agencies and a member of Independent Special Districts of Orange County Executive Committee. Ms. Matheis is a member of the Colorado River Water Users Association and the Colorado River Foundation. Ms. Matheis is also the District representative to the Southern California Water Committee and the Water

Education Foundation. Ms. Matheis is active in the Orange County Bar Association, a member of the Real Estate Section Executive Committee and the Probate and Estate Planning Section. Ms. Matheis is also on the arbitration panel and the pro tem panel for the Orange County Superior Court. Ms. Matheis' current term ends in 2012.

Douglas J. Reinhart. Mr. Reinhart was appointed to the District's Board of Directors in 2004 to fill a vacancy and has since been elected to subsequent terms. Mr. Reinhart served as President of the Board of Directors in 2007, 2009 and 2010. He currently serves on the District's Engineering and Operations Committee and Water Resources Policy and Communications Committee. Mr. Reinhart is a registered civil engineer in both California and Arizona and a registered control systems engineer in California with over 30 years of experience in the private sector directing projects in water, wastewater and other infrastructure. Mr. Reinhart was the president and an owner of ASL Consulting Engineers before its acquisition by Tetra Tech in 1999. Mr. Reinhart then served as the Divisional Executive Vice President for Tetra Tech for the western United States before starting a consulting business in 2004. Mr. Reinhart holds a bachelor's degree in civil engineering from the Missouri School of Mines and Metallurgy. Mr. Reinhart has served on the Board of Trustees of the Southern California Water Committee, the American Water Works Association Desalination Committee and the Association of California Water Agencies Water Reuse Committee. In addition, Mr. Reinhart is a member of the American Society of Civil Engineers and the American Public Works Association. Mr. Reinhart's current term ends in 2014.

Peer Swan. Mr. Swan was elected to the District's Board of Directors in 1979. After a term as Vice President of the Board, the Directors elected him President, a position he held from December 1981 until December 1995 and again in 2006. Mr. Swan currently serves as chairman of the Finance and Personnel Committee and as a member of the Asset Management Committee. Mr. Swan's community and professional involvement includes membership as the past Chairman of the Board of the Water Advisory Committee of Orange County, President of the Board of San Joaquin Wildlife Sanctuary and member of the Steering Committee of the Southern California Water Dialog Committee. Mr. Swan is active in the Association of California Water Agencies, where he serves as a board member of Region 10 and participates in several committees. Mr. Swan was also a Founding Director of the Board of the National Water Research Institute where he was chairman for four years and a Director to the Orange County Sanitation District where he was Vice Chairman for six years. Mr. Swan was the Treasurer of the Pacific Scientific Company prior to its acquisition in early 1998 and a member of the Board of Directors of the Southern California Bank and its parent SC Bancorp until its acquisition in 1997. Mr. Swan is a long time member of both the National Audubon Society and its local chapter (Sea & Sage) and the Sierra Club. Mr. Swan's current term ends in 2014.

John B. Withers. Mr. Withers was initially appointed to the District's Board of Directors in 1989 to fill a vacancy and has since been elected to subsequent terms. Mr. Withers currently serves as Vice President of the Board and previously served as President of the Board in 2004. He also serves on the Asset Management Committee and the Engineering and Operations Committee. Mr. Withers is an affiliate with California Strategies in Irvine, a strategic government relations firm. In past positions, Mr. Withers has served as a Senior Project Manager for Lewis Operating Corp. and as Director of Water Resources for Psomas & Associates, a civil engineering and planning firm based in Costa Mesa. Mr. Withers has served as Director of Governmental Affairs for the Orange County Region of the Building Industry Association of Southern California and as a legislative advocate for California Building Industry Association in Sacramento. Mr. Withers has served as Commissioner to the Orange County Local Agency Formation Commission since 1993. Mr. Withers also served as a member, including a term as chairman, of the Santa Ana Regional Water Quality Control Board, having been appointed by the Governor in 1992. Mr. Withers was a board member of the National Water Research Institute for six years and is the District's current representative. A native Southern Californian, Mr. Withers received his B.A. from UCLA in economics with a specialization in urban studies in 1979 and received a master's degree in urban studies from Occidental College in 1988. Mr. Withers' current term ends in 2012.

General Manager. Paul A. Cook. Mr. Cook, the General Manager of the District, heads a staff of approximately 305 employees. Mr. Cook was appointed to this position in October 2011. Mr. Cook previously served as Interim General Manager from July to October 2011 and held the position of Assistant General Manager from 2004 to July 2011. Mr. Cook is a registered civil engineer with over 21 years of experience with water and wastewater systems in the public and private sectors. Prior to joining the District, he served as the Manager of Engineering for Central and West Basin Municipal Water Districts in Carson, California. He also served as the District Engineer for Los Alisos Water District in Lake Forest. In the private sector, Mr. Cook held engineering and project management positions with BFI Constructors and Turner Construction Company. He was elected to the Orange County Water District Board of Directors in 2002 and served for three years, representing communities in Irvine, Tustin and Newport Beach.

Employees

The District currently employs approximately 305 persons, including full-time and temporary employees. Employees of the District are not represented by a union. The District has not experienced any strike or other labor actions.

Pension Benefits

The District contributes to the California Public Employees Retirement System ("CalPERS"), an agent multiple-employer public employee defined benefit pension plan for all of the District's full-time and certain of its temporary employees. CalPERS provides retirement, disability and death benefits to plan members and beneficiaries. CalPERS acts as a common investment and administrative agent for participating public entities within the State, including the District. Copies of CalPERS' annual financial report may be obtained from its executive office at 400 Q Street, Sacramento, California 95811.

Required employer and employee contributions are determined from rates established by CalPERS based upon various actuarial assumptions which are revised annually. The District currently funds the normal pension costs, which are determined by CalPERS using the Entry Age Normal Actuarial Cost Method, as well as an amortization of the District's unfunded actuarial liability. For the fiscal year of the District ended June 30 ("Fiscal Year"), 2011, the District's annual pension cost, as determined by an actuarial valuation of the plan as of June 30, 2009, was approximately \$3,012,000, which equaled the actual contributions made by the District. For Fiscal Year 2010, the District's annual pension cost, as determined by an actuarial valuation of the plan as of June 30, 2008, was approximately \$2,982,000, which equaled the actual contributions made by the District. Since 2009, the District has made contributions totaling approximately \$11,300,000 in excess of its annual required contributions to CalPERS to reduce its overall unfunded liability, including an additional payment of \$1,800,000 in Fiscal Year 2010 and an additional payment of \$6,482,000 in Fiscal Year 2011. The District has budgeted \$310,400 as an additional payment for Fiscal Year 2012. As of the most recent actuarial valuation from CalPERS dated October 2011, which provided a valuation as of June 30, 2010, the District's unfunded actuarial liability was approximately \$34,351,000 based on an entry age normal accrued liability of approximately \$158,904,000 and an actuarial value of assets of approximately \$124,553,000.

Participants are required to contribute 8% of their annual covered salary under the CalPERS plan. In Fiscal Year 2011 and prior Fiscal Years, the District paid 7% of contributions required of District employees on their behalf and for their account; as of July 1, 2011, the District will pay between 2% and 5% of the contributions required of District employees on their behalf, depending on job classification. The District's Board of Directors has stated that it intends to undertake additional reductions in District payments of the contributions required of District employees in March 2012. Benefit provisions and all other requirements are established by State statute and the District's Board of Directors.

In addition to paying a percentage of the contributions required of District employees on their behalf, the District is required to contribute at an actuarially determined rate applied to annual covered payroll. The

District's contribution rate for Fiscal Year 2011 was 12.676% and the District's contribution rate for Fiscal Year 2012 is 17.757%. The District's contribution rate for Fiscal Year 2013 has been established at 16.106%.

Under Government Accounting Standards Board Statement No. 27, an employer reports an annual pension cost equal to the annual required contribution ("ARC") plus an adjustment for the cumulative difference between the annual pension cost and the employer's actual plan contributions for the year. The cumulative difference is called the net pension obligation and may be positive or negative. The ARC for Fiscal Year 2011 was determined by an actuarial valuation of the plan as of June 30, 2009.

The staff actuaries at CalPERS prepare annually an actuarial valuation which covers a Fiscal Year ending approximately 15 months before the actuarial valuation is delivered (thus, the actuarial valuation delivered to the District in October 2010 covered CalPERS' fiscal year ended June 30, 2009). The actuarial valuations express the District's required contribution rates in percentages of covered payroll, which percentages the District must contribute in the Fiscal Year immediately following the Fiscal Year in which the actuarial valuation is prepared (thus, the District's contribution rate derived from the actuarial valuation as of June 30, 2009, which was delivered in October 2010, will affect the District's Fiscal Year 2012 required contribution rate). CalPERS rules require the District to implement the actuary's recommended rates.

In calculating the annual actuarially recommended contribution rates, the CalPERS actuary calculates on the basis of certain assumptions the actuarial present value of benefits that CalPERS will fund under the CalPERS plans, which includes two components, the normal cost and the unfunded actuarial accrued liability (the "UAAL"). The normal cost represents the actuarial present value of benefits that CalPERS will fund under the CalPERS plans that are attributed to the current year, and the actuarial accrued liability (the "AAL") represents the actuarial present value of benefits that CalPERS will fund that are attributed to past years. The UAAL represents an estimate of the actuarial shortfall between actuarial value of assets on deposit at CalPERS and the present value of the benefits that CalPERS will pay under the CalPERS plans to retirees and active employees upon their retirement. The UAAL is based on several assumptions such as, among others, the rate of investment return, average life expectancy, average age of retirement, inflation, salary increases and occurrences of disabilities. In addition, the UAAL includes certain actuarial adjustments such as, among others, the actuarial practice of smoothing losses and gains over multiple years (which is described in more detail below). As a result, the UAAL may be considered an estimate of the unfunded actuarial present value of the benefits that CalPERS will pay under the CalPERS plans to retirees and active employees upon their retirement and not as a fixed expression of the liability the District owes to CalPERS under its CalPERS plans.

In each actuarial valuation, the CalPERS actuary estimates the actuarial value of the assets (the "Actuarial Value") of the CalPERS plans at the end of the Fiscal Year (which assumes, among other things, that the rate of return during that Fiscal Year equaled the assumed rate of return of 7.75%). The CalPERS actuary uses a smoothing technique to determine Actuarial Value that is calculated based on certain policies. As described below, these policies changed significantly in 2004 and 2005, affecting the Actuarial Value calculation beginning in Fiscal Year 2007.

On April 21, 2004, the CalPERS Board approved a change in the inflation assumption used in the actuarial valuations used to determine employer contribution rates. The inflation assumption was changed from 3.5% to 3%. The change impacted the inflation component of the annual investment return assumption and the long term payroll growth assumption as follows:

- The annual assumed investment return decreased from 8.25% to 7.75%.
- The long term payroll growth assumption decreased from 3.75% to 3.25%.
- The inflation component of individual salary scales decreased from 3.75% to 3.25%.

In April 2005, the CalPERS Board adopted new policies aimed at stabilizing rising employer costs. These policies were used to set employer contribution rates for the District beginning in Fiscal Year 2007. These policies include:

- Spreading CalPERS market value asset gains and losses over 15 years rather than three years.
- Widening the “corridor” limits for establishing the actuarial value of assets from 90% to 110% of market value to 80% to 120% of market value (except for the 3-year phase-in of investment losses from Fiscal Year 2009, as described below).
- Establishing a rolling 30-year amortization on all remaining net unamortized gains or losses, instead of amortizing 10% of the net unamortized gain or loss each year pursuant to prior policy. Such an amortization schedule results in approximately 6% of unamortized gains and losses each year. Due to the excess of accrued liability over actuarial value of plan assets, the amortization payment of the total unfunded liability may be higher than the payment calculated over a 30-year amortization period.
- Requiring a minimum employer contribution rate equal to the employer normal costs minus a 30-year amortization of surplus (but not less than 0%).

Pursuant to the April 2005 policy change, multiple amortization bases (including those for benefit improvement or changes in actuarial methods or assumptions, which are typically less than 30 years) were combined into a single base (the gain and loss bases) and amortized over a rolling 30-year period to effect a “fresh start” as of June 30, 2004. The April 2005 policy did not affect other existing amortization bases for benefit improvements, assumptions changes and method changes.

Due to significant market investment losses of approximately 24% in the CalPERS trust fund for fiscal year 2008-09, CalPERS implemented a 3-year phase-in of the fiscal year 2008-09 investment loss. This phased in approach will be achieved by temporarily relaxing the constraints on the smoothed value of assets around the actual market value. The corridor will be widened and then contracted as follows:

- Increase the corridor limits from 80% to 120% of market value to 60% to 140% of market value to determine the actuarial value of assets for the June 30, 2009 valuation, which impacts the fiscal year 2011-12 contribution rate.
- Reduce the corridor limits from 60% to 140% of market value to 70% to 130% of market value to determine the actuarial value of assets for the June 30, 2010 valuation, which impacts the fiscal year 2012-13 contribution rate.
- Return to the 80% to 120% of market value corridor limits for the actuarial value of assets on June 30, 2011 and thereafter, which impacts contribution rates for fiscal years 2013-14 and beyond.
- Asset losses outside of the 80% to 120% corridor described above will be amortized pursuant to a fixed 30-year amortization schedule.

In addition, in February 2010, the CalPERS Board adopted a resolution requiring additional contributions for any plan or pool if the cash flows hamper adequate funding progress by preventing the expected funded status on a market value of assets basis of the plan to either:

- Increase by at least 15% by June 30, 2043; or
- Reach a level of 75% funded by June 30, 2043.

Such contributions have been factored into the District's contribution rates set by CalPERS.

The following table summarizes the District's annual required contributions (in thousands) for Fiscal Years 2007 through 2011:

**TABLE 1
IRVINE RANCH WATER DISTRICT
Annual Required Contributions for CalPERS Plan**

| <i>Fiscal Year</i> | <i>Employer Contribution</i> | <i>District-Funded Employee Contribution</i> | <i>Employee Contribution</i> | <i>Annual Pension Cost</i> | <i>Percentage of Annual Pension Cost Contributed</i> | <i>Net Pension Asset</i> |
|--------------------|------------------------------|--|------------------------------|----------------------------|--|--------------------------|
| 2007 | \$2,227 | \$1,502 | \$ 0 | \$ 2,227 | 100.0% | \$ 0 |
| 2008 | 2,477 | 1,584 | 0 | 2,477 | 100.0 | 0 |
| 2009 | 6,353 | 1,661 | 239 | 3,353 | 189.5 | 3,000 |
| 2010 | 4,797 | 1,709 | 243 | 2,982 | 160.9 | 4,815 |
| 2011 | 9,480 | 1,728 | 249 | 3,012 | 314.7 | 11,283 |

Source: Irvine Ranch Water District Fiscal Year 2011 Comprehensive Annual Financial Report.

The following table sets forth the schedule of funding for the District's plan as of June 30, 2010 (in thousands). The employer contribution rate for Fiscal Year 2012 is 17.757%:

**TABLE 2
IRVINE RANCH WATER DISTRICT
Schedule of Funding for CalPERS Plan**

| <i>Valuation Date</i> | <i>Entry Age Normal Accrued Liability</i> | <i>Actuarial Value of Assets</i> | <i>Unfunded Actuarial Accrued Liability</i> | <i>Market Value of Assets</i> | <i>Funded Ratio⁽¹⁾</i> | <i>Annual Covered Payroll</i> |
|-----------------------|---|----------------------------------|---|-------------------------------|-----------------------------------|-------------------------------|
| 06/30/06 | \$ 96,470 | \$ 81,300 | \$ 15,170 | \$ 85,569 | 88.7% | \$ 20,862 |
| 06/30/07 | 110,713 | 90,675 | 20,038 | 103,960 | 93.9 | 22,262 |
| 06/30/08 | 120,778 | 100,241 | 20,537 | 101,091 | 83.7 | 23,450 |
| 06/30/09 | 149,825 | 110,923 | 38,902 | 81,355 | 54.3 | 24,307 |
| 06/30/10 | 158,904 | 124,553 | 34,351 | 100,110 | 63.0 | 24,929 |

⁽¹⁾ On a market value of assets basis.

Source: CalPERS Actuarial Report Dated October 2010.

For additional information relating to the District's plan, see Note 14 to the District's audited financial statements for Fiscal Year 2011 attached hereto as Appendix B.

CalPERS reported significant investment losses in 2009, which accounts for a portion of the increase in the District's unfunded actuarial liability from June 30, 2008 to June 30, 2009. In addition, the increase in the District's unfunded actuarial liability is attributable to CalPERS studies performed in fiscal year 2008-09 and the adjustment of assumptions made by CalPERS valuations for age at retirement, years of service, mortality rates, and certain other assumptions. CalPERS earnings reports for fiscal years 2010 and 2011 report an investment gain in excess of 13.0 and 21.7%, respectively. Future earnings performance may increase or decrease future contribution rates for plan participants, including the District.

On September 12, 2011, the Board of Directors authorized the retention of Aon Consulting and Hewitt & Associates (“Aon Hewitt”) and the law firm of Hanson Bridgett to perform a study to evaluate potential changes to the District’s retirement and health benefits. As part of that study, Aon Hewitt provided the following updated valuations based on District demographic data:

**TABLE 3
IRVINE RANCH WATER DISTRICT
Funded Status of CalPERS Plan**

| | <i>Discount Rate</i> | <i>Accrued Liability (Millions)</i> | <i>Market Value of Assets (Millions)</i> | <i>Deficit (Millions)</i> | <i>Funded Status</i> |
|---|--------------------------|---|--|-------------------------------|--------------------------|
| CalPERS Valuation (6/30/2010) | 7.75% | \$158.9 | \$100.1 | \$ 58.8 | 63% |
| CalPERS Valuation (8/31/2011 estimate) ⁽¹⁾ | 7.75 | 173.0 | 119.7 | 53.3 | 69 |
| Corporate Bond Rates (8/31/2011 estimate) ⁽¹⁾ | 6.00 | 220.5 | 119.7 | 100.8 | 54 |

⁽¹⁾ Based on June 30, 2010 CalPERS valuation with adjustments to reflect expected benefit accruals and benefit payments and a decrease in the discount period of future payments. Assets projected based on target allocation included in the June 30, 2010 CalPERS valuation and by incorporating returns based on broad market indices (with annual rebalancing). Anticipated contributions and benefit payments also incorporated.

Source: Aon Hewitt.

The District is currently evaluating the study conducted by Aon Hewitt, the potential impacts on future contribution rates and potential changes to the District’s retirement and health benefits. The Aon Hewitt study was conducted for informational purposes only and the District is not legally required to alter its contributions based on the results of such study.

The District provides pension benefits for certain of its temporary employees through a defined contribution plan, in lieu of providing social security benefits. In a defined contribution plan, benefits depend solely on amounts contributed to the plan plus investment earnings. Certain temporary employees are eligible to participate from the date of employment with the District, provided the statutory minimum contribution of at least 7.5% is made to the plan. For Fiscal Year 2011, the District’s payroll covered by the plan was approximately \$926,391. The eligible employees contributed approximately \$69,479 (the required 7.5% of current covered payroll) and the District made no contributions during such Fiscal Year.

All regular, full-time District employees are eligible to participate in the District’s deferred compensation program pursuant to Section 457 of the Internal Revenue Code whereby they can voluntarily contribute a portion of their earnings into a tax-deferred fund administered by the District and invested through a third party provider. Pursuant to the Economic Growth and Tax Relief Reconciliation Act of 2001, effective January 1, 2002, employees may contribute the lesser of 100% of includible compensation or the maximum dollar amount allowable under Internal Revenue Code Section 457 in effect for the year. The dollar amount currently in effect for calendar year 2011 is \$16,500. After 2008, the limit has been indexed to inflation in \$500 increments.

Effective January 1, 2008, for employees with one year or more of service, the District provides 100% matching of employee Section 457 plan contributions up to an annual maximum of 3% of the employee’s base salary. Such employer contribution amounts are deposited into a money purchase plan pursuant to Section 401(a) of the Internal Revenue Code. During Fiscal Year 2011, the District contributed \$582,563 to employee accounts under the 401(a) plan.

Effective July 1, 2008, employees with two years or more of service are entitled to an additional annual contribution by the District based on 3% of base salary. Such employer contribution amounts are deposited into a money purchase plan pursuant to Section 401(a) of the Internal Revenue Code. During Fiscal Year 2011, the District contributed \$681,382 to employee accounts under the 401(a) plan. The District's 401(a) plan contribution was discontinued effective July 1, 2011.

The assets in both plans are held in trust for the exclusive benefit of the participants and their beneficiaries, and are therefore not reported in the financial statements of the District.

Other Post-Employment Benefits

The Government Accounting Standards Board ("GASB") issued two related pronouncements, known as GASB 43 and GASB 45, related to funding and accounting for Other Post-Employment Benefits ("OPEB") liabilities. OPEB liabilities consist of health care, insurance, and all other retiree benefits that are not part of a pension plan. Under GASB 45, costs of OPEB must be matched to the current period in which employees are performing services for the District. In effect, there is an exchange between the employee and the District in which the employee renders services to the District and in exchange receives certain salaries and benefits, part of which are OPEB which they will not actually use until some point in the future. The accounting standards require the District to recognize the cost of the benefits in the periods when the employees' services are received by the District. GASB 45 also requires that the District provide information about the accrued actuarial liabilities for the promised benefits for past services, to what extent those have been funded, and to what extent there will be demands from OPEB on the District's future cash flows.

The District currently has three OPEB programs: the California Public Employees Medical and Hospital Care Act ("PEMHCA") premiums, a retiree health costs reimbursement plan, and a retiree death benefit life insurance program. Under the first program, the District pays the required healthcare coverage under PEMHCA, commonly referred to as "PERS Health." To qualify, employees must retire from the District and begin drawing CalPERS retirement benefits. Participation in PEMHCA is financed in part by the District through a contribution of \$108.00 per employee per month (at current rates). The contribution rate is scheduled to be indexed with medical inflation in future years, although contributions could increase in greater amounts at the direction of CalPERS Board. In addition, the District pays 0.37% of the PEMHCA premium to cover administrative fees. In Fiscal Year 2011, the District contributed \$57,626 on behalf of retirees participating in the PEMHCA program.

As part of the Retiree Health Costs Reimbursement Plan, the District provides retirees who have attained age 55 and have completed at least 10 years of service with the District with reimbursement of eligible healthcare costs of up to \$600 per month for up to five years, with the reimbursement amount and duration determined by length of service with the District. In Fiscal Year 2011, the District contributed \$183,160 on behalf of retirees participating in the Retiree Health Costs Reimbursement Plan.

Finally, the retiree death benefit life insurance program provides retirees who were hired on or before December 31, 2008 with term life insurance benefits with a face amount equal to 100% of their annual salary in effect at the time of retirement. Insured group-term life benefits end for all participants at age 70. Thereafter, the District provides a self-insured \$10,000 death benefit for all participants already retired as of December 31, 2008 and for currently active Board members. To qualify, a retiree must have retired from the District, be at least 55 years old, have completed at least ten continuous years of service with the District, and must be drawing retirement benefits from CalPERS. In Fiscal Year 2011, the District contributed \$7,537 on behalf of retirees participating in this program.

OPEB costs have traditionally been accounted for and financed from the District's Annual Operating Budget as part of its benefits expense on a pay-as-you-go basis. During Fiscal Year 2011, the District contributed \$248,323 on behalf of retirees participating in the OPEB programs. The budgeted amount for the District's OPEB in Fiscal Year 2012 is expected to total approximately \$311,550.

The District has been required to comply with the accounting and reporting requirements of GASB 45 since Fiscal Year 2008. According to an actuarial valuation prepared for the District by Demsey, Filliger & Associates, the accrued, unfunded liability for the District's OPEB as of January 1, 2009 was approximately \$4.9 million. The Annual Required Contribution ("ARC") was approximately \$556,341 in Fiscal Year 2011. The ARC is calculated assuming that the accrued, unfunded liability will be amortized over the next 30 years, benefits will remain constant, and funding in excess of actual benefit costs will be invested at a 5.00% annual return, and with other assumptions regarding medical cost inflation.

For additional information relating to the District's OPEB obligations, see Note 15 to the District's audited financial statements for Fiscal Year 2011 attached hereto as Appendix B.

Budget Process

Prior to July 1 of each year, the General Manager prepares a budget for the Fiscal Year commencing July 1 and ending on the succeeding June 30. Following the adoption of the budget, the Board of Directors approves a schedule of water, sewer and recycled water rates for such Fiscal Year based on the budget approved by the Board of Directors. See the caption "CONSTITUTIONAL LIMITS AND APPROPRIATIONS AND CHARGES—Proposition 218." The budget for Fiscal Year 2012 was approved on April 26, 2011.

Water and Sewer System Insurance

The District is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; and natural disasters for which the District carries commercial insurance.

Property, Boiler and Machinery insurance is provided through a policy with Affiliated FM. Property insurance includes flood insurance but does not include earthquake insurance. General and excess liability coverage of \$35,000,000 and workers compensation insurance is provided through participation in the California State Association of Counties Excess Insurance Authority (CSAC-EIA). Pollution and legal liability coverage for the Irvine Desalter Project is provided by a policy with Indian Harbor Insurance Company. Settlements have not exceeded coverage for each of the past three Fiscal Years.

Collection Procedures

All charges for water and recycled water service and almost all charges for sewer service are billed monthly. If payment is not received 25 days after presentation, a one-time late charge of 10% of the unpaid balance plus 1.5% interest will be assessed for each month until the unpaid balance has been paid in full. A shut-off notice is mailed out and an automated courtesy call is generated when the unpaid balance exceeds \$100 and no payment has been made for 90 days. If payment is not received within 10 days of the mailed shut-off notice, service is shut off as of the date specified on the notice. Service is not restored until all charges, including a restoration charge, have been paid in full. The District sends closed accounts to outside collection agencies and does not currently transfer such accounts to the County tax roll. A small number of accounts located in Newport Beach for which the District provides sewer service only are billed on the County tax rolls.

Outstanding Indebtedness

Parity Obligations. In addition to the Series 2011A-1 Bonds, the District has the following Outstanding Parity Obligations:

- 1997 State Loan #3. In 1997, the District entered into a loan contract with the State of California (the "1997 State Loan") to fund recycled water projects. The 1997 State Loan is outstanding as of December 31, 2011 in an approximate aggregate principal amount of \$1,553,163 and matures in

2019. Pursuant to the terms of the 1997 State Loan, the District's obligation to pay debt service on the 1997 State Loan is payable from Net Revenues on a parity with the Series 2011A-1 Bonds and other Parity Obligations.

- **Prior Reimbursement Agreements.** In connection with the District's prior issuances of *ad valorem* assessment bonds, the District has entered into several reimbursement agreements (the "Prior Reimbursement Agreements") with various letter of credit banks (the "Prior Banks"). Pursuant to the terms of the Prior Reimbursement Agreements, the District's obligations to reimburse the Prior Banks will be payable from Net Revenues on a parity with the Series 2011A-1 Bonds and other Parity Obligations. There are currently no reimbursement obligations outstanding, although the District may incur reimbursement obligations under such Prior Reimbursement Agreements as provided therein. The following table summarizes the stated amount of each letter of credit associated with the Prior Reimbursement Agreements.

TABLE 4
IRVINE RANCH WATER DISTRICT
Summary of Prior Reimbursement Agreements
As of December 31, 2011

| <i>General Obligation Bonds</i> | <i>Outstanding Principal</i> | <i>Letter of Credit Bank</i> | <i>Expiration Date</i> | <i>LOC Stated Amount</i> | <i>Reimbursement Obligations Outstanding</i> |
|-------------------------------------|----------------------------------|---------------------------------------|----------------------------|------------------------------|--|
| | | Helaba Landesbank Hessen-Thüringen | | | |
| Election 1988 – A #182 | \$ 1,200,000 | ("HELABA") | 05/01/12 | \$ 1,225,644 | \$ 0 |
| Election 1988 – A #282 | 900,000 | HELABA | 05/01/12 | 919,233 | 0 |
| Election 1988 – A #284 | 1,000,000 | HELABA | 05/01/12 | 1,021,370 | 0 |
| | | Bank of America | | | |
| Series 1989 | 7,300,000 | ("B of A") | 06/01/15 | 7,456,000 | 0 |
| Series 1991 | 6,400,000 | B of A | 08/15/16 | 6,505,205 | 0 |
| Series 1993 | 37,500,000 | B of A | 11/01/13 | 37,987,500 | 0 |
| | | Sumitomo Mitsui | | | |
| Series 1995 | 21,700,000 | Banking Corp. | 04/15/14 | 22,021,041 | 0 |
| | | Sumitomo Mitsui | | | |
| Series 2008-A Refunding | 57,600,000 | Banking Corp. | 04/15/14 | 58,452,164 | 0 |
| | | U.S. Bank National | | | |
| Series 2009 – A | 75,000,000 | Association | 11/10/13 | 75,838,356 | 0 |
| Series 2009 – B | <u>75,000,000</u> | B of A | 12/03/13 | <u>75,838,356</u> | <u>0</u> |
| TOTAL | <u>\$ 283,600,000</u> | | | <u>\$ 287,264,869</u> | <u>\$ 0</u> |

Source: The District.

- **2010 Installment Sale Agreement.** In 2010, the District entered into an Installment Sale Agreement (the "2010 Installment Sale Agreement") in connection with the execution and delivery of the District's \$85,145,000 aggregate principal amount of Certificates of Participation Irvine Ranch Water District Refunding Series 2010. The 2010 Installment Sale Agreement is outstanding as of December 31, 2011 in the aggregate principal amount of \$81,400,000 and matures in 2032. The District's obligation to make installment payments pursuant to the 2010 Installment Sale Agreement is on a parity with the Series 2011A-1 Bonds and other Parity Obligations.
- **Series 2010B Bonds.** In 2010, the District issued \$175,000,000 aggregate principal amount of Bonds of the Irvine Ranch Water District, Series 2010B (the "Series 2010B Bonds"). In addition to Assessment Proceeds, the Series 2010B Bonds are payable from Net Revenues on a parity with the Series 2011A-1 Bonds and other Parity Obligations.

- Series 2011A-2 Bonds. In 2011, the District issued \$40,370,000 aggregate principal amount of Bonds of Irvine Ranch Water District, Refunding Series 2011A-2 (the “Series 2011A-2 Bonds”). In addition to Assessment Proceeds, the Series 2011A-2 Bonds are payable from Net Revenues on a parity with the Series 2011A-1 Bonds and other Parity Obligations.

Subordinate Debt

- Interest Rate Swap Transactions. As of December 31, 2011, the District is also obligated under five interest rate swap transactions with a total notional amount of \$130 million and termination dates ranging from June 2019 to March 2029, pursuant to which the District is entitled to receive variable rate payments based on a floating rate index in return for the District’s obligation to make payments at a fixed interest rate (the “Swaps”).

The Swaps generally are evenly distributed, as to notional amount on a particular transaction date, between two swap counterparties – Merrill Lynch Capital Services, Inc. (“Merrill”) and Citibank, N.A. (“Citibank”) – except with respect to one Swap with a notional amount of \$30 million and a termination date of June 17, 2019, which was entered into only with Citibank. For additional information with respect to the payment terms and other information relating to the Swaps, see Note 3 (Swap Agreements) to the District’s financial statements in Appendix B hereto. Regularly-scheduled and early termination payments with respect to the Swaps constitute unsecured general obligations of the District payable from legally-available funds. The Swaps are payable from certain Revenues, but are subordinate to the District’s obligation to pay debt service on the Series 2011A-1 Bonds and other Parity Obligations. Any amounts received by the District pursuant to the Swaps also constitute Revenues and, as such, are pledged for the payment of the Series 2011A-1 Bonds and other Parity Obligations. As of December 31, 2011, the mark-to-market value of the total interest rate swaps with Citibank and Merrill exceeded the threshold amount (\$15,000,000) for each counterparty, requiring the posting of collateral in the amount of \$22,758,047. The funds are held in a separate trust account and earn interest at the Federal Funds Effective Rate.

In addition, the Board of Directors has approved a policy authorizing the entry into of LIBOR/SIFMA basis swaps in a notional amount of up to \$100,000,000 at a minimum tax-exempt/taxable ratio of 96% and for a term not to exceed 20 years. If the District determines to execute any such swap transactions, it must do so pursuant to subsequent action of the Board of Directors on or before December 31, 2012, subject to approval by the District’s Finance and Personnel Committee within the parameters established by the Board of Directors.

All of the above-described interest rate swap transactions entail risk to the District. For example, the swap counterparties may fail or be unable to perform, interest rates may vary from assumptions, the District may be required to post collateral in certain circumstances, or the District may be required to make significant payments in the event of an early termination of a particular interest rate swap. The District cannot predict if any such event will occur with respect to one or more of the District’s existing or future interest rate swap agreements. However, the District does not anticipate that any such event would have a material adverse effect on the District’s ability to pay the debt service on the Series 2011A-1 Bonds.

- Santiago County Water District Consolidation. The District and Santiago County Water District (“SCWD”) consolidated effective July 1, 2006. As successor to SCWD, the District is obligated to satisfy the following additional obligations: (i) a fiscal services agreement with the State of California Department of Water Resources, with a loan balance of approximately \$970,813 (as of November 30, 2011) and final payment due in 2025; and (ii) a promissory note payable to Foothill/Eastern Transportation Corridor Agency for \$565,000, with no stated maturity or final payment date.

Improvement District Indebtedness

Ad Valorem Assessment Bonds. As of December 31, 2011, the District had \$557,060,000 of outstanding *ad valorem* assessment bonds (the “*Ad Valorem Assessment Bonds*”) on behalf of the Improvement Districts. Although the *Ad Valorem Assessment Bonds* are secured by *ad valorem* assessments on property within the respective Improvement District, and are not by their terms payable from Revenues, District practice has been to apply Net Revenues remaining after the payment of debt service on Parity Obligations and Subordinated Obligations to the principal and interest on the *Ad Valorem Assessment Bonds*. Pursuant to Section 35975 of the Act, the District also may levy certain rates and charges in lieu of *ad valorem* assessments to pay the *Ad Valorem Assessment Bonds*. The District does not currently levy in-lieu rates and charges. Any such in-lieu rates and charges levied by the District in the future would not constitute Revenues. The following table illustrates a breakdown of outstanding *Ad Valorem Assessment Bonds* by Improvement District as of December 31, 2011.

TABLE 5
IRVINE RANCH WATER DISTRICT
Outstanding *Ad Valorem* Assessment Bonds By Improvement District

| <i>Improvement District</i> | <i>Amount Authorized</i> | <i>Amount Issued</i> | <i>Remaining Unissued Bonds Authorized</i> | <i>Amount Outstanding as of December 31, 2011</i> |
|-------------------------------|--------------------------------|------------------------------|--|---|
| Waterworks Bonds | | | | |
| 105⁽¹⁾⁽²⁾ | \$ 188,734,000 | \$ 188,678,600 | \$ 55,400 | \$ 129,480,000 |
| 112 | 28,512,300 | 5,740,000 | 22,772,300 | 5,745,000 |
| 113⁽²⁾ | 25,769,500 | 14,800,000 | 10,969,500 | 14,663,000 |
| 120 | 26,805,000 | 26,805,000 | 0 | 0 |
| 121 | 35,437,000 | 32,182,000 | 3,255,000 | 20,205,000 |
| 130 | 110,465,000 | 55,161,000 | 55,304,000 | 16,995,000 |
| 135 | 20,010,000 | 20,010,000 | 0 | 4,769,000 |
| 140 | 117,130,000 | 32,326,100 | 84,803,900 | 12,263,000 |
| 153 | 237,300,000 | 0 | 237,300,000 | 0 |
| 154 | 4,839,000 | 0 | 4,839,000 | 0 |
| 106 ⁽³⁾ | 22,895,000 | 22,569,000 | 326,000 | 0 |
| 161 | 40,786,000 | 12,435,000 | 28,351,000 | 11,654,000 |
| 182 | 74,653,000 | 12,407,000 | 62,246,000 | 6,241,000 |
| 184 | 79,065,000 | 3,950,000 | 75,115,000 | 3,950,000 |
| 186 | 19,266,000 | 6,632,700 | 12,633,300 | 2,238,000 |
| 188 | 8,174,000 | 4,437,000 | 3,737,000 | 2,156,000 |
| Total waterworks bonds | <u>\$ 1,039,840,800</u> | <u>\$ 438,133,400</u> | <u>\$ 601,707,400</u> | <u>\$ 230,359,000</u> |
| Sewer Bonds | | | | |
| 1 ⁽⁴⁾ | \$ 2,000,000 | \$ 2,000,000 | \$ 0 | \$ 0 |
| 212 | 108,712,000 | 15,700,000 | 93,012,000 | 15,705,000 |
| 213⁽²⁾ | 87,648,000 | 23,800,000 | 63,848,000 | 23,264,000 |
| 2(202) ⁽⁵⁾ | 30,316,000 | 28,410,000 | 1,906,000 | 0 |
| 221 | 50,452,000 | 50,452,000 | 0 | 21,500,000 |
| 230 | 165,173,000 | 70,422,000 | 94,751,000 | 38,965,000 |
| 235 | 15,724,000 | 15,724,000 | 0 | 2,869,000 |
| 240 | 117,273,000 | 48,476,500 | 68,796,500 | 29,528,000 |
| 250⁽²⁾ | 286,727,000 | 216,618,000 | 70,109,000 | 156,446,000 |
| 253 | 122,283,000 | 0 | 122,283,000 | 0 |
| 206 ⁽⁶⁾ | 69,665,000 | 17,917,000 | 51,748,000 | 0 |
| 261 | 46,364,000 | 27,375,000 | 18,989,000 | 26,059,000 |
| 282 | 59,101,000 | 9,480,000 | 49,621,000 | 5,375,000 |
| 284 | 92,590,000 | 12,850,000 | 79,740,000 | 6,195,000 |
| 286 | 40,531,000 | 500,000 | 40,031,000 | 495,000 |
| 288 | 8,977,000 | 300,000 | 8,677,000 | 300,000 |
| Total sewer bonds | <u>\$ 1,303,536,000</u> | <u>\$ 540,024,500</u> | <u>\$ 763,511,500</u> | <u>\$ 326,701,000</u> |
| Total District | <u>\$ 2,343,376,800</u> | <u>\$ 978,157,900</u> | <u>\$ 1,365,218,900</u> | <u>\$ 557,060,000</u> |

(1) Also referred to as Improvement District No. 150.

(2) The Series 2011A-1 Bonds represent the consolidated, several general obligations of these Improvement Districts. See the Remarketing Statement under the caption "SECURITY FOR THE SERIES 2011A-1 BONDS—General—Assessment Proceeds and Pledge of Revenues."

(3) Also referred to as Improvement District No. 160.

(4) Also referred to as Improvement District No. 210.

(5) Also referred to as Improvement District No. 220.

(6) Also referred to as Improvement District No. 260.

Source: The District.

Joint Powers Authority Transactions

Irvine Ranch Water District Joint Powers Agency Refunding Bonds. As of December 31, 2011, the Irvine Ranch Water District Joint Powers Agency had outstanding approximately \$678,150,000 of taxable

refunding bonds (the “JPA Bonds”) maturing in 2014, which are secured by a trust estate consisting of investment securities and investment earnings thereon (the “JPA Investments”). See Note 9 in the District’s audited financial statements in Appendix B. The JPA Bonds are not payable from Revenues and are not recourse obligations of the District. The proceeds from the JPA Bonds are invested in certain long-term investments. By agreement between the Irvine Ranch Water District Joint Powers Agency and the District, the earnings from such long-term investments are transferred to the District after application of such earnings first toward payment of principal and interest on the JPA Bonds.

Variable Rate Debt Management

The Board of Directors of the District has adopted a policy to maintain a target amount of investment assets equal to 75% or more of the District’s outstanding unhedged variable rate indebtedness. No assurance can be made that the Board of Directors of the District will not modify such policy in the future.

Investment Policy

As of November 30, 2011, the District had investments of approximately \$366.9 million (excluding the JPA Investments described above under the caption “—Outstanding Indebtedness—Joint Powers Authority Transactions”) and real property investments as follows:

**TABLE 6
IRVINE RANCH WATER DISTRICT
Summary of Investments**

| <i>Investment Type</i> | <i>Approximate Investment Amount in Millions⁽¹⁾</i> | <i>Percentage of Total Investments⁽¹⁾</i> |
|---|--|--|
| Local Agency Municipal Bonds | \$ 71.8 | 19.57% |
| State of California Local Agency Investment Fund | 194.9 | 53.12 |
| Federal Government Agency Securities | 75.0 | 20.44 |
| State of California Revenue Notes | 2.0 | 0.55 |
| Cash and Other ⁽²⁾ | <u>23.2</u> | <u>6.32</u> |
| Total | 366.9 | 100.00% |

⁽¹⁾ As of November 30, 2011.

⁽²⁾ Includes collateral held with Citibank and Merrill pursuant to the Swaps. See the caption “—Outstanding Indebtedness—Subordinate Debt—Interest Rate Swap Transactions.”

Source: The District.

In addition to the monies invested in local agency municipal bonds and LAIF, the District has invested approximately \$44 million of its capital facilities replacement fund in real property. The District’s real property investments include a limited partnership interest in a 230-unit apartment complex (the “Wood Canyon Villas Apartments”), ownership of a 450-unit apartment complex (the “Sycamore Canyon Apartments”) and ownership of two commercial office buildings (the “Irvine Technology Center” and the “Waterworks Business Park”), with market values well in excess of the original investment.

Historic Net Real Estate Income

The following table shows the net real estate income after expenses of the District for the five most recent Fiscal Years.

TABLE 7
IRVINE RANCH WATER DISTRICT
Historic Net Real Estate Income
(in Thousands)

| <i>Fiscal Year</i> | <i>Net Income</i> |
|--------------------|----------------------|
| 2007 | \$6,081 |
| 2008 | 7,171 |
| 2009 | 7,010 |
| 2010 | 5,624 ⁽¹⁾ |
| 2011 | 5,649 |

⁽¹⁾ Net income decrease due to vacancies in commercial real estate holdings.
Source: The District.

Projected Net Real Estate Income

The following table projects the net real estate income after expenses of the District for the current and next four Fiscal Years. Such projections include income from the first phase of a professional office complex ("Phase I") that is currently being developed upon land owned by the District near its administrative headquarters. Phase I consists of an approximately 16,700 square foot medical office building that is expected to be completed in April 2012. The District has entered into a lease commitment with respect to approximately 12,000 square feet of such space beginning in July 2012 and expects to lease the remaining available Phase I space in Fiscal Year 2013. The master plan for the site includes a total of approximately 70,000 square feet of professional office space in subsequent phases. However, there can be no assurance that such additional phases of development will be undertaken and the projected net real estate income set forth in the below table does not reflect income from such additional development.

TABLE 8
IRVINE RANCH WATER DISTRICT
Projected Net Real Estate Income
(in Thousands)

| <i>Fiscal Year</i> | <i>Net Income</i> ⁽¹⁾ |
|--------------------|----------------------------------|
| 2012 | \$6,998 |
| 2013 | 7,649 |
| 2014 | 7,856 |
| 2015 | 8,012 |
| 2016 | 8,171 |

⁽¹⁾ Based on existing and expected leases, including leases with respect to Phase I, but not including future phases of the professional office complex described above.
Source: The District.

1% Property Tax Revenues

Pursuant to the Act, the Board of Supervisors of the County is required to levy a "general assessment" on assessable property within the boundaries of the District sufficient to raise the amounts determined each

year by the District's Board of Directors to be necessary for the authorized purposes of the District. These provisions, however, have largely been superseded by the passage by the California electorate in June of 1978 of Article XIII A of the California Constitution (commonly known as "Proposition 13"), and by the legislation subsequently enacted by the California Legislature to implement Article XIII A. As a result of Article XIII A and its implementing legislation, the District receives as proceeds of the "general assessment" a share of the one percent *ad valorem* property tax collected by the County from assessable property within the boundaries of the District (the "1% Property Tax Revenues").

From time to time legislation has been considered as part of the State Budget to shift 1% Property Tax Revenues collected by each county from local agencies, including special districts such as the District, to school districts or other governmental entities. However, Proposition 1A ("Proposition 1A"), proposed by the California Legislature in connection with the 2004-05 State Budget Act and approved by the voters in November, 2004, restricted State authority to reduce major local tax revenues such as the tax shifts permitted to take place in legislation enacted in connection with the 2004-05 and 2005-06 State Budgets, which shifted approximately 35% of many special districts' shares of the countywide one percent *ad valorem* tax.

Proposition 1A generally prohibits the State from shifting to schools or community colleges any share of 1% Property Tax Revenues allocated to local governments for any fiscal year, as set forth under the laws in effect as of November 3, 2004. Any change in the allocation of property tax revenues among local governments within a county must be approved by two-thirds of both houses of the Legislature. Proposition 1A provides, however, that, beginning in fiscal year 2008-09, the State may shift to schools and community colleges up to 8% of local government property tax revenues, which amount must be repaid, with interest, within three years, if the Governor proclaims that the shift is needed due to a severe State financial hardship, the shift is approved by two-thirds of both houses and certain other conditions are met. The State may also approve voluntary exchanges of local sales tax and property tax revenues among local governments within a county.

The Amended 2009-10 Budget Act, signed into law on July 28, 2009 by the Governor of the State, provided for the borrowing of 8% of property taxes from local jurisdictions, including the District, under Proposition 1A. Pursuant to this act, the State borrowed approximately \$2.1 million of the District's 1% Property Tax Revenues for Fiscal Year 2010. As noted above, under Proposition 1A, the State is required to repay the property taxes with a 2% rate of interest within three years. The District did not participate in the State's financing program to make the shifted amounts available to local governments in 2009 through California Statewide Communities Development Authority, and the District is expected, as a result, to receive its repayment within three years. The District does not anticipate a material adverse effect upon the District's ability to pay debt service on the Series 2011A-1 Bonds from such shift.

There can be no assurance that the 1% Property Tax Revenues that the District currently expects to receive will not be temporarily shifted from the District pursuant to Proposition 1A in future fiscal years or reduced pursuant to State legislation enacted in the future. If the property tax formula is permanently changed in the future, it could have a material adverse effect on the receipt of 1% Property Tax Revenues by the District. See the Remarketing Statement under the caption "SECURITY FOR THE SERIES 2011A-1 BONDS—Pledge of Assessment Proceeds and Revenues" for a discussion of the extent to which 1% Property Tax Revenues are available to pay Debt Service on the Series 2011A-1 Bonds.

The table below sets forth the amount of 1% Property Tax Revenues received by the District for the five most recent Fiscal Years.

TABLE 9
IRVINE RANCH WATER DISTRICT
1% Property Tax Revenues
(in Thousands)

| <i>Fiscal Year</i> | <i>1% Property Tax Revenues</i> |
|---------------------|---------------------------------|
| 2007 | \$22,256 |
| 2008 | 24,730 |
| 2009 | 26,283 |
| 2010 ⁽¹⁾ | 27,150 |
| 2011 | 26,989 |

⁽¹⁾ Reflects shift of property tax revenues of approximately \$2.1 million to Educational Revenue Augmentation Fund as described above.

Source: The District.

Alternative Method of Tax Apportionment – “Teeter Plan”

The Board of Supervisors of the County has approved the implementation of the Alternative Method of Distribution of Tax Levies and Collections and of Tax Sale Proceeds (the “Teeter Plan”), as provided for in Section 4701 *et seq.* of the California Revenue and Taxation Code. Under the Teeter Plan, the County apportions secured property assessments on an accrual basis when due (irrespective of actual collections) to its local political subdivisions, including the District, for which the County acts as the assessment-levying or assessment-collecting agency.

The Teeter Plan for the County is applicable to all assessment levies for which the County acts as the assessment-levying or assessment-collecting agency, or for which the treasury of the County is the legal depository of assessment collections.

The *ad valorem* property assessments to be levied to pay the interest on and principal of the Series 2011A-1 Bonds will be subject to the Teeter Plan. The District will receive 100% of the *ad valorem* property assessment levied on secured property to pay the Series 2011A-1 Bonds irrespective of actual delinquencies in the collection of the assessment by the County so long as the Teeter Plan remains in effect. The District’s share of 1% Property Tax Revenues is also subject to the Teeter Plan.

The Teeter Plan is to remain in effect for the County unless the Board of Supervisors of the County orders its discontinuance or unless, prior to the commencement of any fiscal year of the County (which commences on July 1 for the County), the Board of Supervisors of the County receives a petition for its discontinuance joined in by a resolution adopted by at least two-thirds of the participating revenue districts in the County. In the event that the Board of Supervisors of the County discontinues the Teeter Plan for the County, only those secured property assessments that are actually collected would be allocated to political subdivisions (including the District) for which the County acts as the assessment-levying or assessment-collecting agency.

Governmental Regulations

The District’s operations are subject to numerous environmental regulations enforced by multiple governmental entities. Programs are in place to ensure compliance with drinking water regulations, water discharge regulations, underground and aboveground fuel storage tank regulations, hazardous materials management plans, hazardous waste regulations, air quality permitting requirements, wastewater discharge limitations, and employee safety issues relating to hazardous materials and other conditions. Also, the District aggressively pursues the investigation and, when appropriate, the implementation of alternative methods and technologies for meeting increasingly strict environmental regulations.

The District expects environmental regulation to increase, resulting in higher capital and operating costs in the future, which may have a material adverse effect on the finances of the District.

Although the District's Board of Directors establishes the schedules of water, sewer and reclaimed water rates for each Fiscal Year, such rates are subject to the requirements of Proposition 218, which are described further herein under the caption "CONSTITUTIONAL LIMITATIONS ON APPROPRIATIONS AND CHARGES—Proposition 218."

WATER SUPPLY

The District was formed in 1961, with the purpose of obtaining a water supply for municipal and irrigation purposes. For the twelve month period ended June 30, 2011, of the water supplied by the District, approximately 31% was imported water, approximately 46% was groundwater and approximately 23% was native and recycled water.

The District operates a number of wells and reservoirs that produce or store local water for both potable and non-potable uses. Surface storage includes Irvine Lake, a 25,000 acre feet reservoir that is jointly owned by the District and Serrano Water District which receives stream flow (native water) coming from the Santiago Creek watershed. This water is used by the District primarily for agricultural and other irrigation purposes, and supplements the recycled water system during peak demand periods. In addition, the District has 4,150 acre feet of recycled water storage capacity in its Sand Canyon, Rattlesnake, and San Joaquin Reservoirs and is currently evaluating additional recycled water storage projects.

Imported Water

In Fiscal Year 2011, the District purchased 27,842 acre feet of water imported from the Colorado River and Northern California by The Metropolitan Water District of Southern California ("MWD"). MWD supplies water through its member agencies, including the member agency in which the District is situated, Municipal Water District of Orange County ("MWDOC"). The current cost of treated imported water from MWDOC is \$748.25 per acre foot. In addition, the District currently pays a fixed charge to MWDOC in the form of readiness to serve, capacity reservation and service connection charges. The readiness to serve and capacity reservation charges are paid every six months and currently total \$113,370.24, while the service connection charge is paid annually and is currently \$578,800.

MWD faces various challenges in the continued supply of imported water to MWDOC. A description of these challenges as well as a variety of other operating information with respect to MWD is included in certain disclosure documents prepared by MWD. MWD has certain publicly available documents and has entered into certain continuing disclosure agreements pursuant to which MWD is contractually obligated for the benefit of owners of certain of their outstanding obligations, to file certain annual reports, notices of certain material events as defined under Rule 15c2-12 of the Securities Exchange Act of 1934, as amended ("Rule 15c2-12"), and annual audited financial statements (the "MWD Information") with the Municipal Securities Rulemaking Board's Electronic Municipal Market Access system ("EMMA") at <http://emma.msrb.org>. The MWD Information is not incorporated herein by reference thereto, and the District makes no representation as to the accuracy or completeness of such information. MWD HAS NOT ENTERED INTO ANY CONTRACTUAL COMMITMENT WITH THE DISTRICT, THE TRUSTEE OR THE OWNERS OF THE SERIES 2011A-1 BONDS TO PROVIDE MWD INFORMATION TO THE DISTRICT OR THE OWNERS OF THE SERIES 2011A-1 BONDS.

MWD HAS NOT REVIEWED THIS REMARKETING STATEMENT AND HAS NOT MADE REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED OR INCORPORATED HEREIN, INCLUDING INFORMATION WITH REGARD TO MWD. MWD IS NOT CONTRACTUALLY OBLIGATED, AND HAS NOT UNDERTAKEN, TO UPDATE SUCH INFORMATION FOR THE

BENEFIT OF THE DISTRICT OR THE OWNERS OF THE SERIES 2011A-1 BONDS UNDER RULE 15c2-12.

Groundwater

General. The District’s Water Resources Master Plan calls for a reliable water supply mix and includes developing sufficient groundwater production capacity to pump up to the District’s basin production percentage set by the Orange County Water District (“OCWD”), the agency responsible for managing the Orange County groundwater basin. District groundwater pumping is affected by policies of OCWD, including the setting of replenishment assessments, basin production percentages of total water demand by agencies pumping basin groundwater and basin equity assessments.

OCWD establishes and collects replenishment assessments as a means of purchasing water and funding projects for the purpose of replenishing the Orange County groundwater basin. The replenishment assessment is established annually by OCWD and applies to every acre foot of groundwater produced from the basin.

In addition, each year, OCWD sets a basin production percentage (the “BPP”) for water to be extracted from the Orange County groundwater basin. The BPP is the amount of groundwater, as a percentage of the total water demands, that can be pumped from the Orange County groundwater basin during the year by a groundwater pumping agency without incurring the additional assessment described in the following paragraph. The amount of groundwater that an agency can pump without incurring the additional assessment is calculated by multiplying the total water use of such agency by the BPP (the “BPP formula”).

The additional assessment incurred by an agency that pumps groundwater above the limit established by the BPP formula is called the basin equity assessment (the “BEA”). The BEA is established annually by OCWD and is intended to discourage pumping of amounts above the BPP formula by raising the cost of producing groundwater so that it equals the cost of importing water, thereby encouraging groundwater pumping agencies to supplement their groundwater production with imported water for the portion of their water use that exceeds the BPP. The BEA is a surcharge to discourage, yet still allow for, the production of groundwater in excess of the BPP formula. One of the District’s operating objectives is to produce the maximum amount of groundwater within the BPP formula and to avoid producing groundwater in excess of such maximum in order to avoid paying the BEA. In Fiscal Year 2011, the District did not pay a BEA to OCWD.

Because of historic low precipitation in the Santa Ana River Watershed and a drawdown of the Orange County groundwater basin in recent years, OCWD has lowered the BPP. For Fiscal Years 2009, 2010 and 2011 the BPP was 69%, 62% and 62%, respectively. As a result of higher local precipitation in Fiscal Year 2011, which resulted in a substantial recharge of the Orange County groundwater basin, the BPP for Fiscal Year 2012 was raised to 65%, which would allow the District to pump approximately 32,000 acre feet from the Orange County groundwater basin without incurring any BEA. The District pays OCWD a replenishment assessment of \$254 per acre foot for all groundwater pumped and a BEA equal to an additional \$457 per acre foot for groundwater pumped in excess of the BPP formula.

For certain portions of the District’s groundwater production, the application of OCWD’s BPP and BEA varies from the above general description. The District’s Dyer Road Well Field has a production amount established by contract with OCWD as described in the below paragraph. The District also has several projects through which groundwater is produced that are, by contract with OCWD, completely or partially exempt from the BEA. While this “BEA-exempt” groundwater typically requires treatment, the District’s cost to produce and treat this groundwater is effectively capped at the cost for imported water. Additionally, as portions of the District currently lie outside of OCWD’s jurisdictional boundary, water demands in those areas are not included by OCWD in the accounting of the basin production percentage for the District. Approximately 32% of the District’s water demand is from outside the OCWD jurisdictional boundary.

The BPP formula for the District's Dyer Road Well Field is not adjusted annually by OCWD but is fixed by contract with OCWD at 28,000 acre feet per year of clear groundwater, subject to the requirement that the amount over 20,000 acre feet is matched by an equal amount of groundwater pumped from the District's Deep Aquifer Treatment System, which treats water from a deep aquifer requiring treatment for removal of organic color. Like OCWD's general BPP, the Dyer Road Well Field's contractually-fixed BPP formula discourages, but does not prohibit, production over such amount through the application of the BEA to any excess amount.

The District also produces groundwater from its Irvine Desalter Project, which is described in greater detail under the caption "—Irvine Desalter Project." The Irvine Desalter Project removes salts and nitrates, for a combined total potable and non-potable production of an additional 7,300 acre feet per year that is exempt from the BPP. A combined additional 2,100 acre foot per year of production is available from three other wells, the Orange Park Acres well, Well 2 in Lake Forest and Well 115 in Irvine. Water from Well 115 is pumped and treated at the Irvine Desalter Project. However, such water is not accounted for as Irvine Desalter Project water because it was not part of the original Irvine Desalter Project. The Orange Park Acres well was taken out of service in Fiscal Year 2011 and is expected to return to service in or about July 2013. Well 115 was taken out of service in Fiscal Year 2011 and is expected to return to service in or about January 2014. Production from the Orange Park Acres well and Well 115 is subject to the BPP and the BEA, while production from Well 2 is exempt from the BPP and the BEA.

In addition, the District is currently constructing the Wells 21 and 22 project, which is expected to add an additional 6,300 acre feet per year of groundwater starting in September 2012. These wells will be exempt from the BPP and the BEA. The District is looking to expand its groundwater production facilities further, and is currently evaluating potential well sites. The District also has rights to native water impounded in Irvine Lake and at the Harding Canyon Dam in the Santiago Canyon area. Such native water does not produce firm annual yields.

Irvine Desalter Project. The Irvine Desalter Project is a groundwater development project that was constructed by the District in cooperation with OCWD, United States Departments of the Navy and Justice, MWD and MWDOC. The Irvine Desalter Project commenced operations in early 2007.

The Irvine Desalter Project consists of two components that provide water supplies. The first component, a potable water wellfield, pipelines and purification plant, treats local groundwater to remove salts and nitrates caused by the natural geology and past agricultural use. The water is treated to drinking water standards through reverse osmosis and disinfection. This component of the project has a design flow rate of approximately 5,100 acre feet of drinking water per year. In Fiscal Year 2011, this component of the Irvine Desalter Project produced 2,856 acre feet, which was approximately 1,000 acre feet less than Fiscal Year 2010 production as a result of Well 107 being taken out of service. This well is in the process of being replaced and is expected to return to service in or about September 2012. The District has expanded the utilization of the Irvine Desalter Project treatment plant by adding an additional well, Well 115, and the District is proposing to expand this program to provide approximately 5,500 acre feet per year.

The second component of the Irvine Desalter Project is treating a plume of contaminated groundwater from the main aquifer of the Irvine sub-basin of the Orange County groundwater basin. The plume has arisen from the now-closed El Toro Marine Corps Air Station ("MCAS"). This second component consists of a separate treatment system that removes volatile organic compounds in the groundwater from solvent degreasers previously used on the military base. The contaminants are removed from the groundwater using an air stripper and granular activated carbon absorption units. The treated water is used in the District's recycled water system and is designed to supply 3,400 acre feet of recycled water per year. In Fiscal Year 2011, this component of the Irvine Desalter Project produced 2,980 acre feet from non-potable wells. The United States Department of the Navy is compensating the District for this component of the project as part of the Settlement Agreement for Groundwater Remediation of the MCAS. The District expects that this compensation will cover the project costs until the plume of contaminated groundwater is cleaned up.

In addition to the two components described above, the Department of the Navy operates a number of wells on the former MCAS property. These wells pump contaminated groundwater from shallow groundwater located below the former base. Such water is treated by a treatment plant owned and operated by the District, using an air stripper and granular activated carbon absorption units. These wells and the treatment plant, which are referred to as the Shallow Groundwater Unit (the "SGU"), are designed to treat approximately 640 acre feet per year of contaminated groundwater. The treated SGU water is disposed of via an existing ocean outfall. In Fiscal Year 2011, the SGU treated approximately 607 acre feet of water.

Historic Groundwater Supply. Set forth below is a summary of the District's sources of groundwater supply in acre feet per year for the last five Fiscal Years.

TABLE 10
IRVINE RANCH WATER DISTRICT
Historic Groundwater Supply In Acre Feet Per Year

| <i>Fiscal Year</i> | <i>Dyer Road Well Field</i> | <i>Deep Aquifer Treatment System</i> | <i>Irvine Desalter Project⁽²⁾</i> | <i>Irvine Sub-basin</i> | <i>Other⁽⁵⁾</i> | <i>Total</i> |
|--------------------|-----------------------------|--------------------------------------|--|-------------------------|----------------------------|--------------|
| 2007 | 28,972 | 8,892 | 4,600 | 807 | 6 | 43,277 |
| 2008 | 27,976 | 8,765 | 6,542 | 1,383 | 16 | 44,682 |
| 2009 | 28,614 | 8,782 | 5,365 | 1,667 | 154 | 44,582 |
| 2010 | 27,744 | 8,696 | 7,009 | 1,064 | 715 | 45,228 |
| 2011 | 22,488 ⁽¹⁾ | 8,756 | 5,837 ⁽³⁾ | 611 ⁽⁴⁾ | 352 | 38,044 |

⁽¹⁾ Excludes 5,512 acre feet of in-lieu water pumped at OCWD's request. In-lieu water was not pumped in prior years.

⁽²⁾ Excludes water pumped from the SGU.

⁽³⁾ Decrease from Fiscal Year 2010 amount reflects the fact that Well 107 was taken out of service in Fiscal Year 2011. Well 107 is expected to return to service in or about September 2012. See the caption "—Irvine Desalter Project."

⁽⁴⁾ Decrease from Fiscal Year 2010 amount reflects the fact that Well 115 was taken out of service in Fiscal Year 2011. Well 115 is expected to return to service in or about January 2014. See the caption "—General."

⁽⁵⁾ Includes the Orange Park Acres well, which was taken out of service in 2011. The Orange Park Acres well is expected to return to service in or about July 2013. See the caption "—General."

Source: The District.

OCWD. OCWD faces various challenges in managing its groundwater basin. A description of these challenges as well as a variety of other operating information with respect to OCWD is included in certain disclosure documents prepared by OCWD. OCWD has certain publicly available documents and has entered into certain continuing disclosure agreements pursuant to which OCWD is contractually obligated, for the benefit of owners of certain of their outstanding obligations, to file certain annual reports, notices of certain material events as defined under Rule 15c2-12 and annual audited financial statements (the "OCWD Information") with certain information repositories (a current listing of such repositories is maintained on the Internet with EMMA at <http://emma.msrb.org>. The OCWD Information is not incorporated herein by reference thereto, and the District makes no representation as to the accuracy or completeness of such information. OCWD HAS NOT ENTERED INTO ANY CONTRACTUAL COMMITMENT WITH THE DISTRICT, THE TRUSTEE OR THE OWNERS OF THE SERIES 2011A-1 BONDS TO PROVIDE OCWD INFORMATION TO THE DISTRICT OR THE OWNERS OF THE SERIES 2011A-1 BONDS.

OCWD HAS NOT REVIEWED THIS REMARKETING STATEMENT AND HAS NOT MADE REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED OR INCORPORATED HEREIN, INCLUDING INFORMATION WITH REGARD TO OCWD. OCWD IS NOT CONTRACTUALLY OBLIGATED, AND HAS NOT UNDERTAKEN, TO UPDATE SUCH INFORMATION FOR THE

BENEFIT OF THE DISTRICT OR THE OWNERS OF THE SERIES 2011A-1 BONDS UNDER RULE 15c2-12.

Water Banking

In addition to developing its local groundwater and recycled water systems, the District is diversifying its water supply portfolio by developing a water banking program in Kern County, California known as the Strand Ranch Integrated Banking Project (the "Water Bank"). The District's Strand Ranch property on which the Water Bank is situated consists of groundwater recharge lands that overlie the regional Kern County groundwater basin. The purpose of developing the Water Bank is to improve the District's water supply reliability by capturing lower cost water available during wet hydrologic periods for use during dry periods. The Water Bank will enhance the District's ability to respond to drought conditions and potential water supply interruptions and will provide the District the ability to reduce the cost of water delivered under such conditions.

In 2009, the District entered into a 30-year water banking partnership with the Rosedale-Rio Bravo Water Storage District ("Rosedale") in Kern County. This agreement provides for Rosedale to operate the Water Bank on behalf of the District and permits the District to store up to 50,000 acre feet in the aquifer and to recharge and recover up to approximately 17,500 acre feet per year. The District has priority rights to use the recharge ponds when Rosedale is not recharging Kern River floodwaters. All other uses of the recharge ponds by Rosedale are on a second priority basis to the District's use. The water that Rosedale stores on its own behalf does not count against the District's 50,000 acre feet storage rights.

The Water Bank has a major canal running through it that allows the movement of water onto and off of the property. The District has completed construction of 502 acres of groundwater recharge ponds and the facilities necessary to divert water from the canal and onto the property containing the ponds. The recharge ponds allow available surface water to be percolated into the groundwater basin for later use. Seven groundwater wells that will provide the ability to recover water have already been constructed. Wellheads and pipelines are currently being constructed and are expected to be completed by the fall of 2012. Although the wellheads and pipelines are not completed, the District can access stored water through exchanges with other agencies.

Concurrently with the construction of the wellhead and pipeline facilities, the District is expanding the Water Bank onto additional lands (the "Stockdale West Ranch") that were purchased by the District in late 2010. These additional lands, which are located adjacent to the Strand Ranch property, will allow the District to increase the District's water banking recharge, storage and recovery capabilities by approximately 50%, which will further increase the District's dry year water supply reliability. In 2011 the District implemented a pilot project on the Stockdale West Ranch and constructed 238 acres of recharge basins on the property. In addition, the District constructed water conveyance facilities to deliver water to the property. These pilot project recharge basins are in operation and the recharge of water from the exchange program described below is ongoing. The District has an agreement with Rosedale to operate the pilot project facilities until the end of July 2012. The District is currently negotiating an agreement with Rosedale that is expected to provide for the operation of the Stockdale West Ranch water banking facilities for the next 27 years.

The District has secured water from a number of sources for recharge at the Water Bank. Pursuant to the District's agreement with Rosedale, Rosedale will divert a portion of its entitlement to floodwater flows on the Kern River to District-owned storage ponds for recovery in dry years. The District is entitled, at no cost, to 20% of all Kern River floodwaters recharged by the Water Bank recharge ponds.

The District has also secured access to State Water Project water that can be stored in the Water Bank. The District has acquired approximately 883 acres (the "Jackson Ranch") located within the Dudley Ridge Water District ("Dudley Ridge") and the associated participation rights to use approximately 1,738 acre feet of Table A State Water Project water allocated to Dudley Ridge. Additionally, the Jackson Ranch land

acquisition included certain participation rights in the Kern Water Bank to store approximately 7,600 acre feet of water.

In 2011, the District entered into a 28-year exchange program (the "Exchange Program") with Buena Vista Water Storage District ("BVWSD") that allows BVWSD to store a portion of its high-flow Kern River water at the Water Bank in exchange for allocating to the District 50% of such stored water. BVWSD holds both State Water Project Table A water rights and pre-1914 rights to Kern River water. The pre-1914 water rights give BVWSD an average annual entitlement of 158,000 acre feet of Kern River water. Pursuant to the Exchange Program, BVWSD is entitled to deliver up to 17,500 acre feet of water to the Water Bank in any given year with a maximum cumulative capacity of 40,000 acre feet. The District is entitled to keep one half of any water banked by BVWSD in the Water Bank. According to the schedule set forth in the Exchange Program, the District is entitled to keep an additional 10% of the water stored by BVWSD each calendar year after the fourth calendar year following the year of the recharge event, which amount increases by 10% each calendar year until nine calendar years after the year of the recharge event, at which time the District is entitled to keep all water transferred by BVWSD to the Water Bank. Pursuant to the terms of the Exchange Program, the District and BVWSD share equally in any water losses resulting from the exchange. BVWSD is responsible for all costs of delivering water to the Water Bank and the District is responsible for all costs of returning the water to BVWSD. The District is required to return water that BVWSD determines it will recover from the Water Bank at a maximum rate of 6,667 acre feet per year of water stored with it by BVWSD. The District is obligated to pay BVWSD for any water kept by the District in excess of 50% of the water transferred by BVWSD to the Water Bank at BVWSD's then current State Water Project Table A Variable Operations, Maintenance, Power and Replacement unit cost rate for water. The 28-year term of the Exchange Program coincides with the District's agreement with Rosedale relating to the Water Bank.

The District has entered into a Coordinated Operating, Water Storage, Exchange and Delivery Agreement with MWD which allows the District to have State Water Project water that is recovered from the Water Bank delivered to the District's service area. The District is in the process of developing an additional agreement with MWD to have other waters recovered and delivered into the District's service area. The District expects to execute such agreement in 2012.

In 2010, the District stored 7,800 acre feet of water in the Water Bank under the Exchange Program. In 2011, the District stored another 20,000 acre feet of water in the Water Bank under the Exchange Program. The District also stored 1,100 acre feet of Jackson Ranch water in the Kern Water Bank in 2011.

The cost of the water banking facilities (including the land acquisition costs) are currently estimated to be approximately \$20,800,000, of which the District has spent \$17,250,000 as of January 2012. The cost of expansion of the water banking facilities onto the recently purchased lands (including the costs of acquisition of these lands) is expected to be approximately \$13,000,000, of which the District has spent \$6,960,000 as of January 2012.

The District is currently pursuing additional opportunities for water banking and contractual rights to other surface waters for diversion into the Water Bank for later use by the District. These other sources include State Water Project water from the Central Coast Water Authority and the Antelope Valley-East Kern Water Agency. Pilot program agreements have been executed with these agencies and the District expects to deliver up to 11,500 acre feet of additional water into storage at the Water Bank in 2012 as a result of these new programs.

A summary of water held in storage pursuant to the District's water banking program as of December 1, 2011 is set forth below.

TABLE 11
IRVINE RANCH WATER DISTRICT
Summary of Water Banking Programs
As of December 1, 2011 (Acre Feet)

| <i>Facility</i> | <i>Total Capacity</i> | <i>Total Water in Storage</i> | <i>District Share of Total Water in Storage</i> |
|---------------------------------|-----------------------|-------------------------------|---|
| Strand Ranch Integrated Banking | 50,000 | 27,569 | 14,628 |
| Stockdale West Ranch | 25,000 ⁽¹⁾ | 5,544 | 2,772 |
| Kern Water Bank | <u>7,594</u> | <u>3,074</u> | <u>3,074</u> |
| Total | 82,594 | 36,187 | 20,474 |

⁽¹⁾ Estimate. Final storage capacity to be determined subject to further California Environmental Quality Act proceedings and execution of long-term agreement expected to be entered into with Rosedale.

Source: The District.

Recycled Water

During Fiscal Year 2011, the District produced 20,284 acre feet of recycled water and supplied an additional 104 acre feet of non-potable water to District customers via the recycled water system. The District processes and treats secondary effluent from its customers to produce recycled water for sale to customers for non-potable utilization. Recycled water is currently sold to 4,777 customers within the District. At September 30, 2011, the District had approximately 469 miles of recycled water mains and recycled water storage capacity of 4,150 acre feet. Revenues from the sale of recycled water are accounted for as part of the District's sewer system.

Historic and Projected Water Supply

Set forth below is a summary of the District's sources of total water supply in acre feet per year for the last five Fiscal Years.

TABLE 12
IRVINE RANCH WATER DISTRICT
Historic Water Supply In Acre Feet Per Year

| <i>Fiscal Year</i> | <i>Local Water⁽¹⁾</i> | <i>Imported Water</i> | <i>Recycled Water</i> | <i>Total</i> |
|--------------------|----------------------------------|-----------------------|-----------------------|--------------|
| 2007 | 49,525 | 40,241 | 15,175 | 104,942 |
| 2008 | 45,379 | 39,438 | 16,567 | 101,384 |
| 2009 | 45,537 | 35,265 | 22,961 | 103,763 |
| 2010 | 45,358 | 24,744 ⁽²⁾ | 20,848 | 90,950 |
| 2011 | 42,270 | 27,842 | 20,284 | 90,396 |

⁽¹⁾ Includes groundwater and native water in Irvine Lake; excludes water pumped from the Shallow Groundwater Unit of the Irvine Desalter Project.

⁽²⁾ Imported water supply for Fiscal Year 2010 was substantially lower than prior years due primarily to increased conservation, impacts of the economic downturn and mild weather.

Source: The District.

Set forth below is a summary of the District's projection of total water sources for the current and next four Fiscal Years.

**TABLE 13
IRVINE RANCH WATER DISTRICT
Projected Water Supply In Acre Feet Per Year**

| <i>Fiscal Year</i> | <i>Local Water⁽¹⁾</i> | <i>Imported Water</i> | <i>Recycled Water</i> | <i>Total</i> | <i>Percentage Change</i> |
|--------------------|----------------------------------|-----------------------|-----------------------|--------------|--------------------------|
| 2012 | 42,692 | 28,121 | 20,486 | 91,299 | 1.00% |
| 2013 | 43,119 | 28,402 | 20,691 | 92,212 | 1.00 |
| 2014 | 43,982 | 28,970 | 21,105 | 94,057 | 2.00 |
| 2015 | 44,861 | 29,549 | 21,527 | 95,937 | 2.00 |
| 2016 | 45,310 | 29,845 | 21,743 | 96,898 | 1.00 |

⁽¹⁾ Includes groundwater and native water in Irvine Lake; excludes water pumped from the Shallow Groundwater Unit of the Irvine Desalter Project.
Source: The District.

Set forth below is a comparison of the District's sources of supply as compared to other neighboring agencies supplying water for Fiscal Year 2011.

**TABLE 14
IRVINE RANCH WATER DISTRICT
Water Supply Comparison by Source
Fiscal Year 2011**

| | <i>Imported Water</i> | <i>Groundwater</i> | <i>Surface Water</i> | <i>Recycled Water</i> |
|---|-----------------------|--------------------|----------------------|-----------------------|
| Irvine Ranch Water District | 31% | 46% | 1% | 22% |
| City of Anaheim | 37 | 63 | 0 | 0 |
| South Coast Water District ⁽¹⁾ | 79 | 9 | 0 | 12 |
| City of Orange | 34 | 62 | 5 | 0 |
| Santa Margarita Water District ⁽¹⁾ | 90 | 0 | 0 | 10 |
| City of Tustin ⁽²⁾ | 9 | 91 | 0 | 0 |

⁽¹⁾ These agencies are not located within the watershed of the Orange County groundwater basin.

⁽²⁾ The City of Tustin owns several groundwater projects that are exempt from the BEA.

Source: Municipal Water District of Orange County Water System Operations and Financial Information (April 2011).

THE WATER SYSTEM

General

Through the issuance of general obligation waterworks bonds and other indebtedness, the District has constructed, purchased or acquired capacity in, or connections to, various transmission, pumping, storage and distribution facilities to convey water into the District, including several major facilities built in cooperation with neighboring water districts and cities.

The development of water supplies and the construction and acquisition of facilities are being carried out under a master plan formulated by the District in 1972 and most recently updated in 2009. Existing uses and planned development within the District will necessitate a projected combined total annual water supply of approximately 124,800 acre feet.

The District anticipates meeting all of its water supply needs using the above-mentioned water importation facilities, groundwater production facilities and recycled water facilities. The combination of the District's facilities and sources of supply is expected to provide the District with a reliable water supply sufficient to permit the ultimate development as presently planned. Reliability of water supply is further enhanced by the District's storage facilities, which currently provide more than a seven-day supply.

At June 30, 2011, the District had approximately 1,935 miles of water mains in its potable and recycled water systems and storage capacity of approximately 29,150 acre feet, including the District's share of Irvine Lake, a 25,000 acre feet untreated water reservoir, and the District's Sand Canyon, Rattlesnake Canyon, and San Joaquin Reservoirs, which are recycled water reservoirs with capacities of 750 acre feet, 1,100 acre feet, and 2,500 acre feet respectively. See the caption "WATER SUPPLY."

See the caption "WATER SUPPLY—Water Banking" for information with respect to the District's water banking programs.

In Fiscal Year 2009, the District commenced the engineering design for the Baker Water Treatment Plant project (the "Baker WTP"). The design is anticipated to be complete in March 2012, with construction anticipated to be complete in December 2013.

When constructed, the Baker WTP is expected to treat to drinking water standards approximately 28 million gallons per day of raw imported water purchased from MWD. During emergencies and planned raw imported water outages, water from Irvine Lake is expected to be supplied to the Baker WTP for treatment to drinking water standards. The Baker WTP will utilize microfiltration and ultraviolet disinfection as the primary treatment processes. Although the plant will be owned and operated by the District, approximately 78% of capacity in the Baker WTP is expected to be held by other participating water agencies located in southern Orange County. The participation percentages of the District and other water agencies have not been finalized. The facility will provide an operational source of supply to the District and participating agencies and, in the event of a short-term water shortage emergency, provide regional water reliability to other neighboring water agencies. The project construction cost is estimated at approximately \$52 million, which is to be borne by the District and the other participating water agencies in proportion to their participation in the project. The District has financed its expected 24% share of the costs from general obligation bonds.

Historic Water Connections

The following table shows the number of water connections in the District for the five most recent Fiscal Years.

TABLE 15
IRVINE RANCH WATER DISTRICT
Historic Water Connections⁽¹⁾

| <i>Fiscal Year</i> | <i>Connections</i> | <i>Percentage Change</i> |
|--------------------|--------------------|--------------------------|
| 2007 | 93,824 | 3.06% |
| 2008 | 95,584 | 1.88 |
| 2009 | 96,311 | 0.76 |
| 2010 | 97,023 | 0.74 |
| 2011 | 98,637 | 1.66 |

⁽¹⁾ Excludes recycled water connections.
Source: The District.

Projected Water Connections

The following table shows the number of water connections projected by the District for the current and next four Fiscal Years.

TABLE 16
IRVINE RANCH WATER DISTRICT
Projected Water Connections⁽¹⁾

| <i>Fiscal Year</i> | <i>Connections</i> | <i>Percentage Change</i> |
|--------------------|--------------------|--------------------------|
| 2012 | 101,343 | 2.74% |
| 2012 | 103,864 | 2.49 |
| 2013 | 106,382 | 2.42 |
| 2014 | 110,139 | 3.53 |
| 2015 | 113,841 | 3.36 |

⁽¹⁾ Excludes recycled water connections. Increases in connections beginning in Fiscal Year 2012 reflect District estimates of increased development activity, primarily due to scheduled apartment construction.

Source: The District.

Connection Fees

The District collects a water connection fee for each new connection to finance District facilities. Connection fees vary by Improvement District and range from \$1,099 to \$9,100 for each residential unit and \$3,360 to \$28,943 for each acre of commercial property. The connection fee is designed to allocate the costs of master planned facilities such as water sources and production facilities, transmission mains, pumping stations, reservoirs and appurtenances and capacity necessary for each Improvement District.

Historic Water Deliveries

The following table presents a summary of historic water deliveries for the District in acre feet per year for the five most recent Fiscal Years. Historic water deliveries vary from historic water supply as a result of losses in the water system and the timing of billing. Revenues from the sale of recycled water are accounted for as part of the District's sewer system.

TABLE 17
IRVINE RANCH WATER DISTRICT
Historic Water Deliveries in Acre Feet Per Year

| <i>Fiscal Year</i> | <i>Potable and Untreated</i> | <i>Recycled</i> | <i>Total</i> | <i>Percentage Change</i> |
|---------------------|------------------------------|-----------------|--------------|--------------------------|
| 2007 | 66,185 | 24,761 | 90,946 | 10.35% |
| 2008 ⁽¹⁾ | 64,005 | 24,825 | 88,830 | (2.33) |
| 2009 ⁽¹⁾ | 63,088 | 24,565 | 87,653 | (1.33) |
| 2010 ⁽¹⁾ | 56,383 | 20,951 | 77,334 | (11.77) |
| 2011 ⁽¹⁾ | 53,431 | 20,147 | 73,578 | (4.86) |

⁽¹⁾ Reduced deliveries resulted from the District's conservation efforts in response to drought conditions and economic factors affecting the District's service area.

Source: The District.

Projected Water Deliveries

The District estimates that water system deliveries for the current and next four Fiscal Years will be as set forth in the following table. The District currently projects that water deliveries will increase as a result of an increase in connections, as set forth in the table under the caption “—Projected Water Connections,” and improved economic conditions in the District’s service area. Revenues from the sale of recycled water are accounted for as part of the District’s sewer system.

**TABLE 18
IRVINE RANCH WATER DISTRICT
Projected Water Deliveries in Acre Feet Per Year**

| <i>Fiscal Year</i> | <i>Potable and Untreated</i> | <i>Recycled</i> | <i>Total</i> | <i>Percentage Change</i> |
|---------------------|------------------------------|-----------------|--------------|--------------------------|
| 2012 ⁽¹⁾ | 61,176 | 27,071 | 88,247 | 19.94% |
| 2013 | 62,424 | 27,612 | 90,036 | 2.03 |
| 2014 | 63,698 | 28,164 | 91,862 | 2.03 |
| 2015 | 64,998 | 28,727 | 93,725 | 2.03 |
| 2016 | 66,325 | 29,302 | 95,627 | 2.03 |

⁽¹⁾ Increase from Fiscal Year 2011 deliveries reflects projected increased development within District service area and average hydrological year.
Source: The District.

Historic Water Sales and Service Charge Revenues

The following table shows annual water sales and service charge revenues for the five most recent Fiscal Years. The following table does not include revenues from the sale of recycled water which is accounted for as part of the District’s sewer system.

**TABLE 19
IRVINE RANCH WATER DISTRICT
Historic Water Sales and Service Charge Revenues
(Dollars in Thousands)**

| <i>Fiscal Year</i> | <i>Sales and Service Charge Revenues⁽¹⁾</i> | <i>Percentage Change</i> |
|--------------------|--|--------------------------|
| 2007 | \$45,138 | 14.98% ⁽²⁾ |
| 2008 | 48,516 | 7.48 |
| 2009 | 50,940 | 5.00 |
| 2010 | 51,268 | 0.64 |
| 2011 | 54,796 | 6.88 |

⁽¹⁾ Includes late payment charges and other penalty revenues.
⁽²⁾ Increase reflective of rate increase and increased development in the District’s service area.
Source: The District.

Projected Water Sales and Service Charge Revenues

The following table projects annual water sales and service charge revenues for the current and next four Fiscal Years, which projections are based on the increases in projected water deliveries described under caption “Projected Water Deliveries.”

TABLE 20
IRVINE RANCH WATER DISTRICT
Projected Water Sales and Service Charge Revenues
(Dollars in Thousands)

| <i>Fiscal Year</i> | <i>Sales and Service Charge Revenues⁽¹⁾</i> | <i>Percentage Change</i> |
|--------------------|--|--------------------------|
| 2012 | \$55,892 | 2.00% |
| 2013 | 58,687 | 5.00 |
| 2014 | 61,621 | 5.00 |
| 2015 | 64,702 | 5.00 |
| 2016 | 67,937 | 5.00 |

⁽¹⁾ Reflects projected increases in water connections and deliveries described under the captions “—Projected Water Connections” and “—Projected Water Deliveries,” respectively, as well as projected increases in rates described under the caption “—Water System Rates and Charges.” Such rate increases are subject to the notice, hearing and protest provisions of Proposition 218 and there can be no assurance that the Board of Directors will adopt such rate increases as currently projected. See the caption “CONSTITUTIONAL LIMITATIONS ON APPROPRIATIONS AND CHARGES—Proposition 218.”

Source: The District.

Largest Water Customers

The following table sets forth the ten largest water customers of the District as of June 30, 2011, as determined by annual payments.

TABLE 21
IRVINE RANCH WATER DISTRICT
Ten Largest Water Customers
As of June 30, 2011

| <i>Customer</i> | <i>Fiscal Year 2011 Payment</i> |
|-------------------------------------|---------------------------------|
| 1. The Irvine Company | \$ 3,023,324 |
| 2. University of California, Irvine | 1,222,850 |
| 3. City of Irvine | 833,014 |
| 4. Jazz Semiconductor | 652,709 |
| 5. B Braun Medical Inc. | 488,557 |
| 6. Woodbridge Village Association | 346,758 |
| 7. Caltrans District 12 | 312,094 |
| 8. County of Orange | 268,173 |
| 9. Irvine Unified School District | 260,920 |
| 10. Allergan Sales, LLC | 260,651 |
| TOTAL | <u>\$ 7,669,050</u> |

Source: The District.

These ten largest customers accounted for approximately 14% of water sales revenues in Fiscal Year 2011.

Water System Rates and Charges

Water system rates and charges (other than connection fees) are generally uniform throughout the District. Pumping surcharges apply in higher elevations, and different rates and charges apply in certain areas added to the District by consolidation and annexation since 1998. The average monthly service charge for residential water meters is \$8.75. The monthly service charges for commercial and industrial water meters range from \$8.75 to \$2,933.11 based on meter size. Quantity charges are set according to a water conservation oriented ascending block rate structure with rates ranging from \$0.91 to \$11.52 per 100 cubic feet (“ccf”). Recycled water rates for irrigation are set at 90% of the potable rate. Set forth below is comparison of the District’s water bill for a typical residential customer as compared to neighboring communities. Since Fiscal Year 2006, the District has increased its water system rates and charges by an average of approximately 6.9% each year for an average residential customer using approximately 18 ccf of water per month.

The projected water system revenues set forth under the captions “—Projected Water Sales and Service Charge Revenues” and “WATER AND SEWER SYSTEM FINANCIAL INFORMATION—Projected Operating Results and Debt Service Coverage” reflect projected water rate increases of between 2% and 5% in Fiscal Years 2012 through 2016. Such water rate increases are subject to the notice, hearing and protest provisions of Proposition 218 described under the caption “CONSTITUTIONAL LIMITATIONS ON APPROPRIATIONS AND CHARGES—Proposition 218.” There can be no assurance that the Board of Directors will adopt such rate increases as currently projected.

TABLE 22
IRVINE RANCH WATER DISTRICT
Typical Residential Customer Water Bills⁽¹⁾

| <i>Water Service Provider</i> | <i>Charge⁽²⁾</i> |
|-------------------------------|-----------------------------|
| Newport Beach | \$64.25 |
| Costa Mesa | 61.35 |
| Santa Ana | 53.61 |
| Huntington Beach | 42.37 |
| Anaheim | 35.96 |
| Tustin | 36.85 |
| Orange | 33.65 |
| <i>District</i> | 28.23 |

⁽¹⁾ Based on 18 ccf (for the District first 8 ccf at low volume rate of 0.91 and next 10 ccf at 1.21).

⁽²⁾ Rates as of July 1, 2011. Excludes *ad valorem* assessments levied by the District.

Source: The District.

THE SEWER SYSTEM

General

The District, following voter approval in 1965, is authorized by law to acquire, construct, operate and furnish facilities and services for the collection, treatment, reclamation and disposal of wastewater and may contract with others for such purposes.

The District has an extensive network of gravity sewers, force mains, wastewater lift stations and siphons that convey wastewater to two District-owned treatment plants. At June 30, 2011, the District had approximately 940 miles of sewer mains and treatment plant capacity of approximately 25.5 million gallons a

day (“mgd”) at the Michelson Water Reclamation Plant (the “MWRP”) and the Los Alisos Water Reclamation Plant (“LAWRP”). More than 8.3 billion gallons of sewage were treated by the District during Fiscal Year ended 2011.

During Fiscal Year 1986, the District cooperated with Orange County Sanitation District (“OCSD”) to form Sanitation District 14 (functionally replaced by “Revenue Area 14” of OCSD, upon the consolidation of the several sanitation districts comprising OCSD’s predecessor, the County Sanitation Districts of Orange County, in 1998), which overlays a substantial portion of the District’s territory. Under an agreement entered into between the District and OCSD in connection with such formation, the District paid approximately \$34 million for an approximately 6% interest in OCSD’s sewage processing facilities (such percentage of interest will vary over time pursuant to a formula set forth in the agreement between OCSD and the District). This agreement, together with the District’s own treatment plant capacity and other sewer agreements, currently provides total treatment capacity of 30 million gallons per day. The agreement also provides for the purchase by the District of additional capacity in OCSD sewage processing facilities on an as-needed-basis determined from annual flows. Currently, approximately 85% of the District’s wastewater is treated by the MWRP and LAWRP operated by the District, and 14% is treated by OCSD. A small portion of the wastewater (less than 1%) from the District’s service area that is adjacent to the Santa Margarita Water District is treated by the Santa Margarita Water District pursuant to contract.

Ultimately, the District plans to expand capacity for its treatment facilities to approximately 40.5 mgd in order to: (i) increase recycled water production and utilization; (ii) decrease exposure to external treatment costs and operational constraints; and (iii) decrease dependencies on imported water supplies. See the caption “FUTURE CAPITAL IMPROVEMENTS.”

The District has evaluated alternative approaches to handling its wastewater solids. The District is proceeding with design of facilities for handling MWRP solids, currently conveyed to Fountain Valley for treatment by OCSD, as well as solids from the District’s LAWRP and other potential participating agencies. New capital facilities constructed at the MWRP to dewater and dispose of solids from this facility are estimated to cost \$141 million. Construction of solids handling facilities at the MWRP is scheduled to begin in 2012 with an anticipated completion in 2015.

OCSD. OCSD faces various challenges in the continued treatment of sewage. A description of these challenges as well as a variety of other operating information with respect to OCSD is included in certain disclosure documents prepared by OCSD. OCSD has certain publicly available documents and has entered into certain continuing disclosure agreements pursuant to which OCSD is contractually obligated for the benefit of owners of certain of their outstanding obligations, to file certain annual reports, notices of certain material events as defined under Rule 15c2-12 and annual audited financial statements (the “OCSD Information”) with EMMA at <http://emma.msrb.org>. The OCSD Information is not incorporated herein by reference thereto, and the District makes no representation as to the accuracy or completeness of such information. **OCSD HAS NOT ENTERED INTO ANY CONTRACTUAL COMMITMENT WITH THE DISTRICT, THE TRUSTEE OR THE OWNERS OF THE SERIES 2011A-1 BONDS TO PROVIDE OCSD INFORMATION TO THE DISTRICT OR THE OWNERS OF THE SERIES 2011A-1 BONDS.**

OCSD HAS NOT REVIEWED THIS REMARKETING STATEMENT AND HAS NOT MADE REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED OR INCORPORATED HEREIN, INCLUDING INFORMATION WITH REGARD TO OCSD. OCSD IS NOT CONTRACTUALLY OBLIGATED, AND HAS NOT UNDERTAKEN, TO UPDATE SUCH INFORMATION FOR THE BENEFIT OF THE DISTRICT OR THE OWNERS OF THE SERIES 2011A-1 BONDS UNDER RULE 15c2-12.

Historic Sewer System and Recycled Water Connections

The following table shows the number of sewer and recycled water connections in the District for the five most recent Fiscal Years.

**TABLE 23
IRVINE RANCH WATER DISTRICT
Historic Sewer and Recycled Water Connections**

| <i>Fiscal Year</i> | <i>Connections</i> | <i>Percentage Change</i> |
|--------------------|--------------------|--------------------------|
| 2007 | 88,316 | 2.35% |
| 2008 | 89,775 | 1.65 |
| 2009 | 90,545 | 0.86 |
| 2010 | 91,252 | 0.78 |
| 2011 | 92,837 | 1.74 |

Source: The District.

Projected Sewer and Recycled Water Connections

The following table shows the projected number of sewer and recycled water connections for the current and next four Fiscal Years.

**TABLE 24
IRVINE RANCH WATER DISTRICT
Projected Sewer and Recycled Water Connections**

| <i>Fiscal Year</i> | <i>Connections</i> | <i>Percentage Change</i> |
|--------------------|--------------------|--------------------------|
| 2012 | 95,543 | 2.91% |
| 2013 | 98,064 | 2.64 |
| 2014 | 100,582 | 2.57 |
| 2015 | 104,339 | 3.74 |
| 2016 | 108,041 | 3.55 |

⁽¹⁾ Increases in connections beginning in Fiscal Year 2012 reflect District estimates of increased development activity.
Source: The District.

Connection Fees

The District collects a sewer connection fee for each new connection to finance District sewer facilities. Connection fees vary by Improvement District and range from \$777 to \$5,644 for each residential unit and \$710 to \$55,188 for each acre of commercial or industrial property. The connection fee is designed to allocate the costs of master planned facilities such as transmission mains, pumping stations, treatment facilities and appurtenances and capacity necessary to serve each Improvement District.

Historic Sewer Daily Average Flow

The following table shows the daily average sewer flow in millions of gallons per day for the five most recent Fiscal Years.

**TABLE 25
IRVINE RANCH WATER DISTRICT
Historic Sewer Daily Average Flow**

| <i>Fiscal Year</i> | <i>Daily Average Flow (mgd)⁽¹⁾</i> | <i>Percentage Change</i> |
|--------------------|---|--------------------------|
| 2007 | 32.5 | 5.97% |
| 2008 | 29.6 | (8.84) |
| 2009 | 29.6 | 0.00 |
| 2010 | 27.5 | (7.09) |
| 2011 | 27.4 | (0.36) |

⁽¹⁾ Includes flow treated by OCSD.
Source: The District.

Projected Sewer Daily Average Flow

The following table shows the projected daily average sewer flow in millions of gallons per day for the current and next four Fiscal Years.

**TABLE 26
IRVINE RANCH WATER DISTRICT
Projected Sewer Daily Average Flow**

| <i>Fiscal Year</i> | <i>Daily Average Flow (mgd)⁽¹⁾</i> | <i>Percentage Change</i> |
|--------------------|---|--------------------------|
| 2012 | 26.9 | (1.82)% |
| 2013 | 27.2 | 1.12 |
| 2014 | 27.4 | 0.74 |
| 2015 | 28.0 | 2.19 |
| 2016 | 28.5 | 1.79 |

⁽¹⁾ Includes flow treated by OCSD.
Source: The District.

Historic Recycled Water Sales and Sewer Service Charge Revenues

The following table shows the recycled water sales and sewer service charge revenues for the five most recent Fiscal Years. [EXPLAIN 2007 AND 2010 INCREASES]

TABLE 27
IRVINE RANCH WATER DISTRICT
Historic Recycled Water Sales and Sewer Service Charge Revenues
(Dollars in Thousands)

| <i>Fiscal Year</i> | <i>Recycled Water Sales and Sewer Service Charge Revenues</i> | <i>Percentage Change</i> |
|--------------------|---|--------------------------|
| 2007 | \$37,649 | 28.72% |
| 2008 | 39,811 | 5.74 |
| 2009 | 41,157 | 3.38 |
| 2010 | 45,343 | 10.17 |
| 2011 | 45,375 | 0.07 |

Source: The District.

Projected Recycled Water Sales and Sewer Service Charge Revenues

The following table shows the projected recycled water sales and sewer service charge revenues for the current and next four Fiscal Years.

TABLE 28
IRVINE RANCH WATER DISTRICT
Projected Recycled Water Sales and Sewer Service Charge Revenues
(Dollars in Thousands)

| <i>Fiscal Year</i> | <i>Recycled Water Sales and Sewer Service Charge Revenues⁽¹⁾</i> | <i>Percentage Change</i> |
|--------------------|---|------------------------------|
| 2012 | \$ 46,283 | 2.00% |
| 2013 | 48,597 | 5.00 |
| 2014 | 51,026 | 5.00 |
| 2015 | 53,578 | 5.00 |
| 2016 | 56,257 | 5.00 |

⁽¹⁾ Reflects increases in projected sewer connections and daily average sewer flow described under the captions “—Projected Sewer and Recycled Water Connections” and “—Projected Sewer Daily Average Flow,” respectively as well as projected increases in recycled water and sewer rates described under the captions “THE WATER SYSTEM—Water System Rates and Charges” and “THE SEWER SYSTEM—Sewer System Rates and Charges.” Such rate increases are subject to the notice, hearing and protest provisions of Proposition 218 and there can be no assurance that the Board of Directors will adopt such rate increases as currently projected. See the caption “CONSTITUTIONAL LIMITATIONS ON APPROPRIATIONS AND CHARGES—Proposition 218.”

Source: The District.

Largest Sewer Service Customers

The following table sets forth the ten largest sewer service customers in the District for Fiscal Year 2011, as determined by annual payments.

**TABLE 29
IRVINE RANCH WATER DISTRICT
Ten Largest Sewer Service Customers
As of June 30, 2011**

| <i>Customer</i> | <i>Fiscal Year 2011 Payment</i> |
|--------------------------------|-------------------------------------|
| 1. The Irvine Company | \$614,013 |
| 2. Royal Carpet Mills | 272,714 |
| 3. Allergan Sales, LLC | 248,544 |
| 4. Maruchan Inc. | 241,264 |
| 5. Villa Sienna Apartments | 221,803 |
| 6. ERP Operating LP | 185,354 |
| 7. Newport Bluffs Apartments | 159,491 |
| 8. Oakley Technical Center | 147,291 |
| 9. Park West Apartments | 134,696 |
| 10. Airport Industrial Complex | 125,982 |
| TOTAL | <u><u>\$2,351,152</u></u> |

Source: The District.

The ten customers listed above accounted for approximately 5% of total sewer revenues for Fiscal Year 2011.

Sewer System Rates and Charges

Residential users pay a fixed monthly service charge which ranges from \$12.70 to \$16.90. Commercial and industrial users pay \$16.90 for the first ten ccf and from \$1.94 to \$2.093 per ccf thereafter. Set forth below is a comparison of the District's sewer bills for a typical residential customer as compared to other neighboring communities. Since Fiscal Year 2006, the District has increased its fixed monthly service charge by an average of approximately 12.8% each year.

**TABLE 30
IRVINE RANCH WATER DISTRICT
Typical Residential Customer Sewer Bill**

| <i>City</i> | <i>Charge⁽¹⁾</i> |
|------------------|-----------------------------|
| Tustin | \$35.40 |
| Santa Ana | 31.94 |
| Newport Beach | 29.20 |
| Huntington Beach | 28.90 |
| Orange | 21.48 |
| Costa Mesa | 18.40 |
| Anaheim | 18.40 |
| District | 16.65 |

⁽¹⁾ Rates as of [July 1, 2010]. Excludes *ad valorem* assessments levied by District.
Source: The District.

The projected sewer system and recycled water sales revenues set forth under the captions “—Projected Recycled Water Sales and Sewer Service Charge Revenues” and “WATER AND SEWER SYSTEM FINANCIAL INFORMATION—Projected Operating Results and Debt Service Coverage” reflect projected sewer rate increases of 5% in Fiscal Years 2012 through 2016 and projected recycled water rate increases of between 2% and 5% in Fiscal Years 2012 through 2016. Such rate increases are subject to the notice, hearing and protest provisions of Proposition 218 described under the caption “CONSTITUTIONAL LIMITATIONS ON APPROPRIATIONS AND CHARGES—Proposition 218.” There can be no assurance that the Board of Directors will adopt such rate increases as currently projected.

FUTURE CAPITAL IMPROVEMENTS

The District anticipates spending approximately \$481.6 million on future water, recycled water and sewer system improvements during the current and the next four Fiscal Years. The District anticipates financing such improvements through a combination of general obligation bonds, District revenues and fund balances in Fiscal Years 2012 through 2016. The District anticipates that approximately \$361.2 million of such improvements will be financed from proceeds of general obligation bonds and that approximately \$120.4 million of such improvements will be financed from funds on hand and District revenues. The following table sets forth the District’s projected capital improvement projects for the current and next four Fiscal Years:

TABLE 31
IRVINE RANCH WATER DISTRICT
Projected Water and Sewer Systems Capital Improvements
For Fiscal Years 2012 through 2016

| <i>Project</i> | <i>2012</i> | <i>2013</i> | <i>2014</i> | <i>2015</i> | <i>2016</i> | <i>Total</i> |
|-------------------------------|----------------------|----------------------|----------------------|---------------------|---------------------|----------------------|
| MWRP and Solids Handling | \$38,701,600 | \$57,415,600 | \$53,054,800 | \$51,870,100 | \$4,405,600 | \$205,447,700 |
| NTS | 687,900 | 1,064,600 | 287,900 | - | - | 2,040,400 |
| OCSD / CORF | 12,924,300 | 11,051,000 | 6,582,300 | 5,144,600 | 3,449,200 | 39,151,400 |
| Development | 5,045,400 | 20,066,200 | 29,921,500 | 16,969,000 | 25,295,400 | 97,297,500 |
| Operational Improvements | 8,396,000 | 14,723,000 | 7,587,200 | 2,988,300 | 1,836,000 | 35,530,500 |
| Replacement and Refurbishment | 11,692,300 | 7,318,600 | 4,856,000 | - | 225,000 | 24,091,900 |
| Water Supply and Reliability | <u>32,137,675</u> | <u>19,161,775</u> | <u>14,818,675</u> | <u>6,281,775</u> | <u>5,666,100</u> | <u>78,066,000</u> |
| Total | \$109,585,175 | \$130,800,775 | \$117,108,375 | \$83,253,775 | \$40,877,300 | \$481,625,400 |

MWRP Improvements. The Phase 2 expansion of the MWRP will increase treatment capacity from 18 to 28 mgd. Primary components of the expansion include new influent sewers; influent flow metering facilities; centralized headworks facilities; primary clarification facilities; primary effluent pumping station; flow equalization basin modifications; nitrification/denitrification membrane bioreactor facilities; high rate clarification facilities; ultra-violet disinfection facilities; rehabilitation of existing chlorine contact chambers; effluent pumping station modifications; chemical storage and feed facilities; associated electrical, instrumentation and controls, and telemetry improvements; demolition work; site work and driven pile foundations; yard piping and grading modifications; and site paving and restoration work. The solids handling capital project includes the design and construction of facilities for thickening, acid-phase anaerobic digestion, dewatering, drying and pelletization, energy generation, and use of pellets as a fertilizer or e-fuel. It also includes a solids receiving station to allow processing of dewatered sludge from the Los Alisos Water Recycled Water Plant for drying and pelletization. In addition, facilities for the receipt and transfer of fats, oil and grease to the digesters is being designed and will be constructed to increase methane and energy production capabilities. The District anticipates that proceeds from the District’s previously issued Series 2010B Bonds will be used to finance a portion of the cost of this project.

OCSD CORF. OCSD’s Capital Outlay Revolving Fund (“CORF”) funds OCSD projects such as plant upgrades for secondary treatment and the Groundwater Replenishment System. The District funds its share of the CORF based on the District’s percentage share of OCSD’s total wastewater flow. Wastewater flows from the District presently comprise approximately 5% of OCSD flows and are expected to comprise approximately 3-4% in future years. The District anticipates that proceeds from the Series 2010B Bonds will

be used to finance a portion of this project. See the caption “THE SEWER SYSTEM—General—OCSD” above.

Water Supply Reliability. Water supply reliability projects include the acquisition and construction of water banking facilities in Kern County, the Irvine Desalter Project, improvement to the Baker WTP and other projects to increase water supply reliability, including, but not limited to, booster pump stations and interagency pipeline construction. The District anticipates that proceeds from the Series 2010B Bonds will be used to finance a portion of the cost of these projects. See the caption “WATER SUPPLY” above.

Development-Related Expansion. Development-related expansion improvements include construction of new water, recycled water and sewer improvements to serve new developments.

Natural Treatment System Improvements. The Natural Treatment System (“NTS”) includes improvements to the District’s regional urban runoff treatment sites designed to reduce the pollutant load from San Diego Creek before it reaches the environmentally sensitive Upper Newport Bay. The system will consist of 31 wetlands treatment sites located throughout the District’s service area. Each wetland site will use natural processes to remove sediment, nutrients, pathogens and other contaminants from water flows before reaching Upper Newport Bay.

Replacement and Refurbishment. Replacement and refurbishment improvements consist of repairs and restoration to existing water, recycled water and sewer system facilities.

Operational Improvements. Operational improvements consist of optimizing District facilities and include improvements to the District’s water and wastewater Operations Center, adding water quality mixing systems to existing reservoirs, expanding the reliability of the Supervisory Control and Data Acquisition system, and relocating District facilities as required by interagency projects.

WATER AND SEWER SYSTEM FINANCIAL INFORMATION

Financial Statements

A copy of the most recent financial statements of the District audited by Mayer Hoffman McCann P.C., Certified Public Accountants (the “Auditor”), are included as Appendix B (the “Financial Statements”) and should be read in their entirety. The Auditor’s letter concludes that the financial statements referred to above present fairly, in all material respects, the financial position of the District as of June 30, 2011, and the changes in financial position and cash flows of the District for the year then ended in conformity with accounting principles generally accepted in the United States of America. The Auditor has not reviewed the contents of this Remarketing Statement, and the District has not sought the Auditor’s consent to the inclusion of the Auditor’s report in the Financial Statements in this Remarketing Statement.

The summary operating results for Fiscal Years 2007 through 2011 contained under the caption “—Historic Operating Results and Debt Service Coverage” are derived from the Financial Statements and audited financial statements for prior Fiscal Years (excluding certain non-cash items and after certain other adjustments) and are qualified in their entirety by reference to such statements, including the notes thereto.

Historic Operating Results and Debt Service Coverage

The following table is a summary of operating results of the District for the last five Fiscal Years derived from the Financial Statements and audited financial statements of the District for Fiscal Years 2007 through 2010, and include certain adjustments.

TABLE 32
IRVINE RANCH WATER DISTRICT
Historic Operating Results and Debt Service Coverage
Fiscal Years 2007 through 2011
(in Thousands)

| | 2007 | 2008 | 2009 | 2010 | 2011 |
|--|-------------------|-------------------|-------------------|-------------------|----------------------------|
| REVENUES | | | | | |
| Water sales and service charges | \$ 45,138 | \$ 48,516 | \$ 50,940 | \$ 51,268 | \$ 54,796 |
| Recycled water sales and sewer service charges | 37,649 | 39,811 | 41,157 | 45,343 | 45,375 |
| Connection fees | 22,122 | 6,411 | 4,535 | 5,818 | 10,572 |
| Net real estate income | 6,081 | 7,171 | 7,010 | 5,624 | 5,649 |
| Interest income ⁽¹⁾ | 8,969 | 9,859 | 4,365 | 2,191 | 2,599 |
| Net earnings on JPA | 3,388 | 3,238 | 2,990 | 4,196 | 12,444 ⁽¹²⁾ |
| Available 1% Property Tax Revenues ⁽²⁾ | 216 | 4,869 | 17,007 | 17,213 | 15,113 |
| Other ⁽³⁾ | 10,457 | 11,130 | 9,918 | 10,706 | 7,987 |
| Total Revenues | \$ 134,020 | \$ 131,005 | \$ 137,922 | \$ 142,360 | \$ 154,535 |
| OPERATION AND MAINTENANCE EXPENSES | | | | | |
| Water services | \$ 33,281 | \$ 37,030 | \$ 40,333 | \$ 40,103 | \$ 42,383 |
| Sewer services | 23,439 | 26,032 | 27,402 | 27,804 | 30,787 |
| Administrative and general | 16,595 | 18,516 | 20,248 | 22,904 | 21,332 |
| Customer accounts | 2,829 | 3,178 | 3,234 | 3,772 | 3,737 |
| Other | 884 | 2,288 | 1,535 | 1,286 | 989 |
| Total Operation & Maintenance Expenses | \$ 77,028 | \$ 87,044 | \$ 92,752 | \$ 95,869 | \$ 99,228 |
| NET REVENUES | \$ 56,992 | \$ 43,961 | \$ 45,170 | \$ 46,491 | \$ 55,307 |
| ASSESSMENT PROCEEDS⁽⁴⁾ | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| TOTAL NET REVENUES AND ASSESSMENT PROCEEDS | \$ 56,992 | \$ 43,961 | \$ 45,170 | \$ 46,491 | \$ 55,307 |
| PARITY OBLIGATIONS | | | | | |
| Series 2011A-1/A-2 Bonds | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 35 |
| Series 2010B Bonds ⁽⁵⁾ | 0 | 0 | 0 | 0 | 4,080 |
| 2010 Installment Sale Agreement ⁽⁶⁾ | 0 | 0 | 0 | 0 | 7,680 |
| Certificates of Participation ⁽⁷⁾ | 2,319 | 3,564 | 2,798 | 2,827 | 0 |
| 1997 State Loan #3 | 453 | 0 | 227 | 227 | 226 |
| Prior Reimbursement Agreements | 0 | 0 | 0 | 0 | 0 |
| Total Parity Debt Service | \$ 2,772 | \$ 3,564 | \$ 3,025 | \$ 3,119 | \$ 12,021 |
| PARITY OBLIGATION COVERAGE⁽⁸⁾ | 20.6x | 12.3x | 14.9x | 14.9x | 4.4x⁽¹³⁾ |
| Revenue Available For Subordinate Debt Service | \$ 54,220 | \$ 40,397 | \$ 42,145 | \$ 43,372 | \$ 43,286 |
| SUBORDINATE OBLIGATIONS | | | | | |
| Swap Payments ⁽⁹⁾ | \$ 612 | \$ 2,115 | \$ 5,694 | \$ 7,391 | \$ 7,734 |
| State Loans and SCWD Debt ⁽¹⁰⁾ | 300 | 559 | 481 | 381 | 1,687 |
| 1986 Certificates of Participation ⁽⁷⁾ | 4,099 | 3,851 | 3,391 | 2,605 | - |
| TOTAL SUBORDINATE DEBT SERVICE | \$ 5,011 | \$ 6,525 | \$ 9,566 | \$ 10,377 | \$ 9,421 |
| Sources of Payment for Ad Valorem Assessment Bonds: | | | | | |
| Remaining Revenues | \$ 49,209 | \$ 33,872 | \$ 32,579 | \$ 32,995 | \$ 33,865 |
| 1% Pledged Property Tax Revenues ⁽¹¹⁾ | \$ 22,040 | \$ 19,861 | \$ 9,276 | \$ 9,935 | \$ 11,875 |
| Ad valorem Assessments | 8,411 | 9,515 | 9,959 | 11,244 | 11,690 |
| Total Funds Available for Ad Valorem Assessment Bonds | \$ 79,660 | \$ 63,248 | \$ 51,814 | \$ 54,174 | \$ 57,430 |
| Ad Valorem Assessment Bond Debt Service | (30,451) | (29,376) | (19,235) | (21,179) | (16,899) |
| NET REVENUES AVAILABLE FOR OTHER PURPOSES | \$ 49,209 | \$ 33,872 | \$ 32,579 | \$ 32,995 | \$ 40,531 |

⁽¹⁾ Excludes income derived from swap payments. Net swap payment shown below under "Swap Payments."

- (2) Represents 1% Property Tax Revenues available to pay debt service on Parity Obligations after payment of debt service on bonds of the District secured by a pledge of the District's share of the Orange County 1% general *ad valorem* property tax pursuant to Resolution No. 1992-48, adopted by the Board of Directors of the District on November 23, 1992, or Resolution 2002-10, adopted by the Board of Directors of the District on April 8, 2002 (the "Secured Bonds") from 1% Property Tax Revenues and *ad valorem* assessments.
 - (3) Other Revenues includes golf course, cell site leases and conservation revenue and Allen-McColloch pipeline income.
 - (4) Assessment Proceeds available to pay debt service on Series 2010B Bonds, Series 2011A-1 Bonds and Series 2011A-2 Bonds.
 - (5) Debt Service net of Build America Bonds subsidy on Series 2010B Bonds.
 - (6) Entered into in February 2010 in connection with the prepayment of the 2008 Certificates of Participation and the 1986 Certificates of Participation.
 - (7) Prepaid in February 2010.
 - (8) Net Revenues and Assessment Proceeds divided by Debt Service.
 - (9) Net swap payments made.
 - (10) Santiago County Water District was consolidated into the District as of July 1, 2006.
 - (11) Represents District's share of 1% Property Tax Revenues which, together with the *ad valorem* assessments, is sufficient to pay debt service on the *ad valorem* assessment bonds.
 - (12) Refunding of JPA Bonds in Fiscal Year 2010 resulted in a savings of approximately \$32.0 million in Fiscal Year 2011.
 - (13) Reduced Parity Obligation coverage in Fiscal Year 2011 reflects scheduled increases in Parity Obligation debt service.
- Source: The District.

Projected Operating Results and Debt Service Coverage

The District's estimated projected operating results for the Fiscal Years 2012 through 2016 are set forth below, reflecting certain significant assumptions concerning future events and circumstances. The financial forecast represents the District's estimate of projected financial results based on the District's assumptions, including the assumptions in the footnotes to the chart set forth below. Such assumptions are material in the development of the District's financial projections, and variations in the assumptions may produce substantially different financial results. Actual operating results achieved during the projection period may vary from those presented in the forecast and such variations may be material.

TABLE 33
IRVINE RANCH WATER DISTRICT
Five-Year Debt Service Coverage Forecast
Fiscal Years 2012 through 2016
(in Thousands)

| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| REVENUES | | | | | |
| Water sales and service charges ⁽¹⁾ | \$ 55,892 | \$ 58,687 | \$ 61,621 | \$ 64,702 | \$ 67,937 |
| Recycled water sales and sewer service charges ⁽²⁾ | 46,283 | 48,597 | 51,026 | 53,578 | 56,257 |
| Connection fees ⁽³⁾ | 10,572 | 10,572 | 11,101 | 11,656 | 12,238 |
| Net real estate income ⁽⁴⁾ | 6,998 | 7,649 | 7,856 | 8,012 | 8,171 |
| Interest income ⁽⁵⁾ | 1,427 | 1,890 | 3,112 | 3,844 | 4,496 |
| Net earnings on JPA ⁽⁶⁾ | 4,023 | 2,384 | 19,246 | 0 | 0 |
| Available 1% Property Tax Revenues ⁽⁷⁾ | 21,844 | 24,256 | 21,213 | 25,072 | 25,783 |
| Other ⁽⁸⁾ | 7,987 | 8,067 | 8,148 | 8,229 | 8,311 |
| Total Revenues | <u>\$ 155,026</u> | <u>\$ 162,102</u> | <u>\$ 183,323</u> | <u>\$ 175,093</u> | <u>\$ 183,193</u> |
| OPERATION AND MAINTENANCE EXPENSES | | | | | |
| Water services ⁽⁹⁾ | \$ 43,231 | \$ 45,392 | \$ 47,662 | \$ 50,045 | \$ 52,547 |
| Sewer services ⁽⁹⁾ | 31,403 | 32,973 | 34,622 | 36,353 | 38,170 |
| Administrative and general ⁽¹⁰⁾ | 21,759 | 22,194 | 22,638 | 23,090 | 23,552 |
| Customer accounts ⁽⁶⁾ | 3,812 | 4,002 | 4,202 | 4,413 | 4,633 |
| Other ⁽¹⁰⁾ | 1,009 | 1,029 | 1,050 | 1,071 | 1,092 |
| Total Operation & Maintenance Expenses | <u>\$ 101,214</u> | <u>\$ 105,590</u> | <u>\$ 110,174</u> | <u>\$ 114,972</u> | <u>\$ 119,994</u> |
| NET REVENUES | <u>\$ 53,812</u> | <u>\$ 56,512</u> | <u>\$ 73,149</u> | <u>\$ 60,121</u> | <u>\$ 63,199</u> |
| ASSESSMENT PROCEEDS⁽¹¹⁾ | \$ 6,011 | \$ 6,677 | \$ 7,487 | \$ 8,431 | \$ 9,436 |
| TOTAL NET REVENUES AND ASSESSMENT PROCEEDS | <u>\$ 59,823</u> | <u>\$ 63,189</u> | <u>\$ 80,636</u> | <u>\$ 68,552</u> | <u>\$ 72,635</u> |
| PARITY OBLIGATIONS | | | | | |
| Series 2011A-1/A-2 Bonds ⁽¹²⁾ | \$ 2,604 | \$ 3,057 | \$ 2,975 | \$ 3,576 | \$ 4,103 |
| Series 2010B Bonds ⁽¹³⁾ | 7,533 | 7,533 | 7,533 | 7,533 | 7,533 |
| 2010 Installment Sale Agreement ⁽¹⁴⁾ | 8,016 | 8,388 | 8,753 | 9,098 | 9,487 |
| 1997 State Loan #3 ⁽¹⁴⁾ | 227 | 227 | 227 | 227 | 227 |
| Prior Reimbursement Agreements | 0 | 0 | 0 | 0 | 0 |
| Total Parity Debt Service | <u>\$ 18,380</u> | <u>\$ 19,205</u> | <u>\$ 19,488</u> | <u>\$ 20,434</u> | <u>\$ 21,350</u> |
| PARITY OBLIGATION COVERAGE⁽¹⁵⁾ | 3.3x | 3.3x | 4.1x | 3.4x | 3.4x |
| Revenue Available For Subordinate Debt Service | \$ 41,443 | \$ 43,984 | \$ 61,148 | \$ 48,118 | \$ 51,285 |
| SUBORDINATE OBLIGATIONS | | | | | |
| Swap Payments ⁽¹⁶⁾ | \$ 7,430 | \$ 7,150 | \$ 6,630 | \$ 5,915 | \$ 5,193 |
| State Loans and SCWD Debt ⁽¹⁴⁾ | 1,687 | 1,687 | 1,687 | 1,687 | 1,687 |
| TOTAL SUBORDINATE DEBT SERVICE | <u>\$ 9,117</u> | <u>\$ 8,837</u> | <u>\$ 8,317</u> | <u>\$ 7,602</u> | <u>\$ 6,880</u> |
| Sources of Payment for Ad Valorem Assessment Bonds: | | | | | |
| Remaining Revenues | \$ 32,326 | \$ 35,147 | \$ 52,831 | \$ 40,516 | \$ 44,405 |
| 1% Pledged Property Tax Revenues ⁽¹⁷⁾ | 5,694 | 5,832 | 7,438 | 4,151 | 4,025 |
| Ad valorem Assessments ⁽¹⁸⁾ | 6,263 | 6,825 | 7,365 | 7,906 | 8,535 |
| Total Funds Available for Ad Valorem Assessment Bonds | \$ 44,283 | \$ 47,804 | \$ 67,634 | \$ 52,573 | \$ 56,965 |
| Ad Valorem Assessment Bond Debt Service ⁽¹⁹⁾ | (15,819) | (14,448) | (17,679) | (18,015) | (18,170) |
| NET REVENUES AVAILABLE FOR OTHER PURPOSES | <u>\$ 28,464</u> | <u>\$ 33,356</u> | <u>\$ 49,955</u> | <u>\$ 34,558</u> | <u>\$ 38,795</u> |

- (1) Projected to increase 2% from Fiscal Year 2011 amount in Fiscal Year 2012 and 5% per annum thereafter. See the caption “THE WATER SYSTEM—Projected Water Sales and Service Charge Revenues.”
- (2) Projected to increase 2% from Fiscal Year 2011 amount in Fiscal Year 2012 and 5% per annum thereafter. See the caption “THE SEWER SYSTEM—Projected Recycled Water Sales and Sewer Service Charge Revenues.”
- (3) Projected to remain at Fiscal Year 2011 levels in Fiscal Years 2012 and 2013 and to increase 5% per annum thereafter.
- (4) Increase from Fiscal Year 2011 amount in Fiscal Years 2012 and 2013 reflects development of Phase I. See the caption “THE IRVINE RANCH WATER DISTRICT—Projected Net Real Estate Income.” Projected to increase 2% per annum beginning in Fiscal Year 2014.
- (5) Projected at interest rates ranging from 0.40% in Fiscal Year 2012 to 2.20% in Fiscal Year 2016, for an average 5-year return of 1.15% on District reserves. Does not include swap payments.
- (6) Reflects maturity of JPA Bonds in Fiscal Year 2014. The District will realize trust estate assets upon maturity of the JPA Bonds.
- (7) Represents 1% Property Tax Revenues available to pay Debt Service on Parity Obligations after payment of debt service on Secured Bonds from 1% Property Tax Revenues and applicable *ad valorem* assessments. Projected fluctuation in 1% Property Tax Revenues is a result of uneven debt service on Secured Bonds. Includes repayment in Fiscal Year 2013 of \$2 million, plus interest, of 1% property tax shifted to the State of California in 2009.
- (8) Includes, golf course, cell site leases, and conservation revenue, grants and Allen-McColloch pipeline income. Projected to remain at Fiscal Year 2011 amount in Fiscal Year 2012 and to increase 1% per annum thereafter.
- (9) Projected to increase 2% from Fiscal Year 2011 amount in Fiscal Year 2012 and 5% per annum thereafter.
- (10) Projected to increase 2% per annum from Fiscal Year 2011 amount.
- (11) Pro rata share of *ad valorem* assessments based on outstanding par amount of all *Ad Valorem* Assessment Bonds. Assessment Proceeds are only available to pay debt service on Series 2010B Bonds, Series 2011A-1 Bonds and Series 2011A-2 Bonds and not other Parity Obligations which are not general obligation bonds secured by *ad valorem* assessments.
- (12) Projected at SIFMA rates increasing from 0.15% in Fiscal Year 2012 to 1.75% in Fiscal Year 2016, for an average 5-year interest rate of 0.83%. Assumes that the purchase price of Series 2011A-1 Bonds and Series 2011A-2 Bonds is paid from remarketing proceeds.
- (13) Debt Service net of Build America Bonds subsidy on Series 2010B Bonds.
- (14) Reflects scheduled Debt Service.
- (15) Total Net Revenues and Assessment Proceeds divided by Debt Service.
- (16) Net swap payments. Assumes 5 year average of LIBOR Rate with respect to swaps is []%. Does not include swap agreements authorized by the Board of Directors but not entered into. See the caption “THE IRVINE RANCH WATER DISTRICT—Outstanding Indebtedness—Subordinate Debt—Interest Rate Swap Transactions.”
- (17) Represents District’s share of 1% Property Tax Revenues which, together with the applicable *ad valorem* assessments, is sufficient to pay debt service on the Secured Bonds.
- (18) Pro rata share of *ad valorem* assessments based on outstanding par amount of all *ad valorem* assessment bonds and Series 2010B Bonds, Series 2011A-1 Bonds and Series 2011A-2 Bonds.
- (19) *Ad Valorem* Assessment Bonds debt projection assumes annual sinking fund payments, SIFMA rates ranging from 0.15% in Fiscal Year 2012 to 1.75% in Fiscal Year 2016 and letter of credit fees equal to 0.65% of principal, for a five-year average interest rate of 1.48%. Does not include Series 2010B Bonds, Series 2011A-1 Bonds or Series 2011A-2 Bonds which are Parity Obligations. Assumes \$75 million of new variable rate *ad valorem* assessment bonds issued in 2012 and \$75 million issued in 2014.

Source: The District.

THE IMPROVEMENT DISTRICTS

General

The District contains 16 water Improvement Districts and 17 sewer Improvement Districts covering specific areas within the District’s boundaries, some of them overlapping and each of which is governed by the Act. The District formed the Improvement Districts in order to allocate funding responsibility for capital facilities to the area which will benefit from such capital facilities and to separate areas on the basis of projected timing of development so that capital facilities construction can be matched to the development approval decisions of the respective local agency that makes them. Some of the Improvement Districts share in the funding of the District’s regional facilities which the Improvement Districts will use in common, such as major water importation facilities or sewer treatment plants.

Each Improvement District has a respective plan of works and a certain amount of authorized general obligation bonded indebtedness. See Table 5 under the caption “THE IRVINE RANCH WATER DISTRICT—Outstanding Indebtedness—Improvement District Indebtedness.” The *Ad Valorem* Assessment Bonds issued pursuant to such authorization are sold in each instance by the District on the respective Improvement District’s behalf. The obligation for repayment of bonds issued on behalf of an Improvement District is secured in each instance by the power of the District to levy and collect within such Improvement

District *ad valorem* assessments without limitation as to rate or amount on land only (enforceable by customary rights to foreclose and sell property for delinquent assessments) or, in lieu of assessments, in the District's discretion, charges for water or sewer service, as applicable, all within the subject Improvement District. These powers and functions are exercised for each Improvement District by the Board of Directors of the District. Although the respective funding obligations of each Improvement District are separate and independent, the Improvement Districts are not operated as separate or independent governmental entities nor do they have governing boards or any staff. The Improvement Districts are geographical subdivisions of the District through which the District funds capital improvements.

As a result of the District's discretionary election to use other sources of payment for debt service on *ad valorem* assessment bonds, the annual tax rates set by the District vary from year to year and generally do not result in revenues that correspond with debt service requirements on the *Ad Valorem* Assessment Bonds. The annual tax rates set by the District may vary from year to year for other reasons as well. The District has covenanted under the Indenture that to the extent necessary to pay debt service on the Series 2011A-1 Bonds it will impose and collect Bond Assessments and Charges. See the caption "SECURITY FOR THE SERIES 2011A-1 BONDS—General—Covenant to Collect Bond Assessments and Charges" in the forepart of this Remarketing Statement.

The following is a general description of each of the Improvement Districts as to which the Series 2011A-1 Bonds constitute consolidated, several general obligations:

Improvement District Nos. 105 and 250

General. Improvement District No. 105 (water) and Improvement District No. 250 (sewer) are generally coterminous and cover approximately 26,000 acres, including a majority of the area north of the I-5 freeway stretching to near the Riverside County line. Currently, the far western area of Improvement District Nos. 105 and 250 consists of residential development. In addition, large portions of Improvement District Nos. 105 and 250, consisting of approximately 13,400 acres near the Lomas de Santiago ridgeline, are reserved as permanent open space. The District expects development in Improvement District Nos. 105 and 250 to continue through at least approximately 2025. The District expects that future development will consist of approximately 17,400 dwelling units and approximately 4 million square feet of light industrial, commercial and institutional uses.

Set forth below is information with respect to Improvement District Nos. 105 and 250. Certain information with respect to these Improvement Districts has been consolidated, where appropriate in light of their generally coterminous boundaries.

The *ad valorem* assessments levied by the District in Improvement District Nos. 105 and 250 to pay such Improvement Districts' respective Included Amounts of debt service on the Series 2011A-1 Bonds will be levied on land only. See Table 5 under the caption "THE IRVINE RANCH WATER DISTRICT—Outstanding Indebtedness—Improvement District Indebtedness" for a description of the authorized, issued, authorized and unissued and amount outstanding of Improvement District Nos. 105 and 250 *Ad Valorem* Assessment Bonds.

The following table presents the five-year history of assessed valuations of land in Improvement District No. 105 for the Fiscal Years ended June 30, 2008 through June 30, 2012:

TABLE 34
IRVINE RANCH WATER DISTRICT
Improvement District No. 105
Assessed Valuations (Land Only)

| <i>Fiscal Year</i> | <i>Local Secured</i> | <i>Unsecured⁽¹⁾</i> | <i>Total</i> |
|--------------------|----------------------|--------------------------------|-----------------|
| 2008 | \$5,984,544,964 | \$ 6,501,475 | \$5,991,046,439 |
| 2009 | 5,888,075,502 | 8,609,960 | 5,896,685,462 |
| 2010 | 5,533,347,096 | 7,969,190 | 5,541,316,286 |
| 2011 | 5,753,773,845 | 26,979,470 | 5,780,753,315 |
| 2012 | 6,309,579,342 | 6,491,171 | 6,316,070,513 |

⁽¹⁾ Assessed value of unsecured land only, reflecting possessory interests in tax exempt property and gas and oil leases.
Source: California Municipal Statistics, Inc.

The following table presents the five-year history of assessed valuations of land in Improvement District No. 250 for Fiscal Years ended June 30, 2008 through June 30, 2012:

TABLE 35
IRVINE RANCH WATER DISTRICT
Improvement District No. 250
Assessed Valuations (Land Only)

| <i>Fiscal Year</i> | <i>Local Secured</i> | <i>Unsecured⁽¹⁾</i> | <i>Total</i> |
|--------------------|----------------------|--------------------------------|-----------------|
| 2008 | \$5,642,845,768 | \$ 6,324,262 | \$5,649,170,030 |
| 2009 | 5,551,870,137 | 8,146,652 | 5,560,016,789 |
| 2010 | 5,221,867,776 | 7,863,830 | 5,229,731,606 |
| 2011 | 5,432,737,954 | 26,636,942 | 5,459,374,896 |
| 2012 | 5,997,217,214 | 6,210,415 | 6,003,427,629 |

⁽¹⁾ Assessed value of unsecured land only, reflecting possessory interests in tax exempt property and gas and oil leases.
Source: California Municipal Statistics, Inc.

The following table sets forth information with respect to land-only local secured assessed valuation in Improvement District No. 105 (excluding utility and unsecured property) by land use for the Fiscal Year ending June 30, 2012:

TABLE 36
IRVINE RANCH WATER DISTRICT
Improvement District No. 105
Assessed Valuation and Parcels by Land Use

| | <i>Fiscal Year 2012 Assessed Valuation⁽¹⁾</i> | <i>% of Total</i> | <i>No. of Parcels</i> | <i>% of Total</i> |
|---------------------------------|--|-------------------|---------------------------|-------------------|
| Non-Residential: | | | | |
| Commercial | \$ 363,292,718 | 5.76% | 248 | 1.06% |
| Industrial | 6,264,015 | 0.10 | 4 | 0.02 |
| Miscellaneous | <u>754,975</u> | <u>0.01</u> | <u>12</u> | <u>0.05</u> |
| Subtotal Non-Residential | \$ 370,311,708 | 5.87% | 264 | 1.13% |
| Residential: | | | | |
| Single Family Residence | \$ 3,722,771,974 | 59.00% | 13,753 | 58.63% |
| Condominium/Townhouse | 2,004,622,976 | 31.77 | 8,955 | 38.18 |
| 2+ Residential Units/Apartments | 93,013,944 | 1.47 | 104 | 0.44 |
| Vacant Residential | <u>118,858,740</u> | <u>1.88</u> | <u>380</u> | <u>1.62</u> |
| Subtotal Residential | \$ 5,939,267,634 | 94.13% | 23,192 | 98.87% |
| Total | <u>\$ 6,309,579,342</u> | <u>100.00%</u> | <u>23,456</u> | <u>100.00%</u> |

⁽¹⁾ Land Only Local Secured Assessed Valuation; excluding tax-exempt property.
Source: California Municipal Statistics, Inc.

The following table sets forth information with respect to land-only local secured assessed valuation in Improvement District No. 250 (excluding utility and unsecured property) by land use for the Fiscal Year ending June 30, 2012:

TABLE 37
IRVINE RANCH WATER DISTRICT
Improvement District No. 250
Assessed Valuation and Parcels by Land Use

| | <i>Fiscal Year 2012 Assessed Valuation⁽¹⁾</i> | <i>% of Total</i> | <i>No. of Parcels</i> | <i>% of Total</i> |
|---------------------------------|--|-----------------------|---------------------------|-----------------------|
| Non-Residential: | | | | |
| Commercial | \$ 355,958,406 | 5.94% | 226 | 1.03% |
| Industrial | 6,264,015 | 0.10 | 4 | 0.02 |
| Miscellaneous | <u>122,466</u> | <u>0.00</u> | <u>8</u> | <u>0.04</u> |
| Subtotal Non-Residential | \$ 362,344,887 | 6.04% | 238 | 1.09% |
| Residential: | | | | |
| Single Family Residence | \$ 3,484,875,133 | 58.11% | 12,735 | 58.18% |
| Condominium/Townhouse | 1,943,207,572 | 32.40 | 8,443 | 38.57 |
| 2+ Residential Units/Apartments | 93,013,944 | 1.55 | 104 | 0.48 |
| Vacant Residential | <u>133,775,678</u> | <u>1.90</u> | <u>369</u> | <u>1.69</u> |
| Subtotal Residential | \$ 5,634,872,327 | 93.96% | 21,651 | 98.91% |
| Total | <u>\$ 5,997,217,214</u> | <u>100.00%</u> | <u>21,889</u> | <u>100.00%</u> |

⁽¹⁾ Land Only Local Secured Assessed Valuation; excluding tax-exempt property.
Source: California Municipal Statistics, Inc.

Principal Taxpayers. The following table lists the major taxpayers in Improvement District No. 105 based on land-only local secured assessed valuations for the Fiscal Year ending June 30, 2012:

TABLE 38
IRVINE RANCH WATER DISTRICT
Improvement District No. 105
Largest Local Secured Taxpayers

| | <i>Property Owner</i> | <i>Primary Land Use</i> | <i>Fiscal Year 2012 Assessed Valuation</i> | <i>% of Total⁽¹⁾</i> |
|-----|---------------------------------|----------------------------|--|-------------------------------------|
| 1. | The Irvine Company | Residential and Commercial | \$ 264,381,017 | 4.19% |
| 2. | Exeter Fiduciary Services | Residential | 65,896,364 | 1.04 |
| 3. | LR8 Owner LLC | Commercial | 48,000,000 | 0.76 |
| 4. | KB Home Coastal Inc. | Residential | 43,507,737 | 0.69 |
| 5. | Irvine Apartment Communities LP | Apartments | 35,899,863 | 0.57 |
| 6. | Roxanne Ray-Bordelon | Commercial | 17,431,624 | 0.28 |
| 7. | Sevilla 53 Development LLC | Residential | 14,664,208 | 0.23 |
| 8. | Sanyo Foods Corp. of America | Industrial | 12,425,654 | 0.20 |
| 9. | William Lyon Homes Inc. | Residential | 11,584,355 | 0.18 |
| 10. | Chemical Bank | Commercial | <u>10,879,981</u> | <u>0.17</u> |
| | TOTAL | | <u>\$ 524,670,803</u> | <u>8.32%</u> |

⁽¹⁾ Fiscal Year 2012 Local Secured Assessed Valuation (Land Only): \$6,309,579,342.
Source: California Municipal Statistics, Inc.

The following table lists the major taxpayers in Improvement District No. 250 based on land-only local secured assessed valuations for the Fiscal Year ending June 30, 2012:

TABLE 39
IRVINE RANCH WATER DISTRICT
Improvement District No. 250
Largest Local Secured Taxpayers

| | <i>Property Owner</i> | <i>Primary Land Use</i> | <i>Fiscal Year 2012 Assessed Valuation</i> | <i>% of Total⁽¹⁾</i> |
|-----|---------------------------------|----------------------------|--|-------------------------------------|
| 1. | The Irvine Company | Residential and Commercial | \$ 263,353,242 | 4.39% |
| 2. | Exeter Fiduciary Services | Residential | 65,896,364 | 1.10 |
| 3. | LR8 Owner LLC | Commercial | 48,000,000 | 0.80 |
| 4. | KB Home Coastal Inc. | Residential | 43,507,737 | 0.73 |
| 5. | Irvine Apartment Communities LP | Apartments | 35,899,863 | 0.60 |
| 6. | Roxanne Ray-Bordelon | Commercial | 17,431,624 | 0.29 |
| 7. | Sevilla 53 Development LLC | Residential | 14,664,208 | 0.24 |
| 8. | Sanyo Foods Corp. of America | Industrial | 12,425,654 | 0.21 |
| 9. | William Lyon Homes Inc. | Residential | 11,584,355 | 0.19 |
| 10. | Chemical Bank | Commercial | <u>10,879,981</u> | <u>0.18</u> |
| | TOTAL | | <u>\$ 523,643,028</u> | <u>8.73%</u> |

⁽¹⁾ Fiscal Year 2012 Local Secured Assessed Valuation (Land Only): \$5,997,217,214.
Source: California Municipal Statistics, Inc.

Statement of Direct and Overlapping Debt. Set forth in the tables below are direct and overlapping debt reports (the “Debt Reports–I.D. 105/250”) for Improvement District Nos. 105 and 250, respectively, prepared by California Municipal Statistics, Inc. and effective December 1, 2011. The Debt Reports–I.D. 105/250 were prepared by California Municipal Statistics, Inc., and the District expresses no opinion on the completeness or accuracy of such reports and makes no representation in connection therewith.

California Municipal Statistics, Inc. reports that the Debt Reports–I.D. 105/250 generally include long-term obligations sold in the public credit markets by public agencies whose boundaries overlap the boundaries of Improvement District No. 105 and No. 250 in whole or in part. Such long-term obligations generally are not payable from revenues of the District or Improvement District No. 105 and No. 250 (except as indicated) nor are they necessarily obligations secured by land within Improvement District No. 105 and No. 250. In many cases long-term obligations issued by a public agency are payable only from the general fund or other revenues of such public agency.

TABLE 40
IRVINE RANCH WATER DISTRICT
Improvement District No. 105
Direct and Overlapping Debt Statement

Fiscal Year 2012 Land Only Assessed Valuation: \$6,316,070,513

| <u>DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT:</u> | <u>% Applicable⁽¹⁾</u> | <u>Debt 12/1/11</u> |
|--|-----------------------------------|--------------------------------------|
| Metropolitan Water District | 0.706% | \$ 1,590,865 |
| Rancho Santiago Community College District | 1.265 | 3,859,776 |
| Saddleback Valley Unified School District | 0.027 | 35,620 |
| Tustin Unified School District School Facilities Improvement District No. 2002-1 | 3.989 | 2,385,373 |
| Tustin Unified School District School Facilities Improvement District No. 2008-1 | 3.956 | 1,938,440 |
| Irvine Ranch Water District, I.D. No. 105 | 100. | 129,480,300 |
| Irvine Ranch Water District, I.D. No. 112/212 | 38.742 | 8,314,033 |
| Irvine Ranch Water District, I.D. No. 250 | 99.995 | 156,437,950 |
| Community Facilities Districts | 27.865-100. | 423,095,018 |
| City 1915 Act Bonds (Estimated) | Various | <u>389,787,349</u> |
| TOTAL DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT | | \$1,116,924,724 |
| <u>OVERLAPPING GENERAL FUND DEBT:</u> | | |
| Orange County General Fund Obligations | 3.382% | \$ 8,873,556 |
| Orange County Pension Obligations | 3.382 | 1,607,307 |
| Orange County Board of Education Certificates of Participation | 3.382 | 642,580 |
| Tustin Unified School District Certificates of Participation | 39.164 | 1,960,158 |
| Orange Unified School District Certificates of Participation and Benefit Obligations | 2.535 | 3,567,126 |
| City of Orange General Fund Obligations | 4.498 | 128,868 |
| Municipal Water District of Orange County Water Facilities Corporation | 3.998 | 485,557 |
| Irvine Ranch Water District Certificates of Participation | 18.996 | <u>15,462,744</u> |
| TOTAL GROSS OVERLAPPING GENERAL FUND DEBT | | \$32,727,896 |
| Less: MWDOC Water Facilities Corporation (100% supported) | | <u>485,557</u> |
| TOTAL NET OVERLAPPING GENERAL FUND DEBT | | \$32,242,339 |
| GROSS COMBINED TOTAL DEBT | | \$1,149,652,620⁽²⁾ |
| NET COMBINED TOTAL DEBT | | \$1,149,167,063 |

Ratios to Fiscal Year 2012 Land Only Assessed Valuation:

Direct Debt (\$129,480,300) 2.05%
Total Direct and Overlapping Tax and Assessment Debt..... 17.68%

Ratios to Adjusted All Property Assessed Valuation:

Gross Combined Total Debt..... 9.02%
Net Combined Total Debt 9.02%

STATE SCHOOL BUILDING AID REPAYABLE AS OF 6/30/11: \$0

⁽¹⁾ Based on all property assessed valuation of \$12,741,427,136.

⁽²⁾ Excludes tax and revenue anticipation notes, enterprise revenue, mortgage revenue and tax allocation bonds and non-bonded capital lease obligations.

Source: California Municipal Statistics, Inc.

TABLE 41
IRVINE RANCH WATER DISTRICT
Improvement District No. 250
Direct and Overlapping Debt Statement

Fiscal Year 2012 Land Only Assessed Valuation: \$6,003,427,629

| <u>DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT:</u> | <u>% Applicable⁽¹⁾</u> | <u>Debt 12/1/11</u> |
|--|-----------------------------------|--------------------------------------|
| Metropolitan Water District | 0.673% | \$ 1,516,505 |
| Rancho Santiago Community College District | 0.028 | 85,434 |
| Saddleback Valley Unified School District | 0.027 | 35,620 |
| Tustin Unified School District School Facilities Improvement District No. 2002-1 | 3.989 | 2,385,373 |
| Tustin Unified School District School Facilities Improvement District No. 2008-1 | 3.956 | 1,938,440 |
| Irvine Ranch Water District, I.D. No. 105 | 95.053 | 123,074,910 |
| Irvine Ranch Water District, I.D. No. 112/212 | 38.742 | 8,314,033 |
| Irvine Ranch Water District, I.D. No. 250 | 100. | 156,445,772 |
| Community Facilities Districts | 27.865-100. | 421,785,018 |
| City 1915 Act Bonds (Estimated) | Various | <u>389,787,349</u> |
| TOTAL DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT | | \$1,105,368,454 |
| <u>OVERLAPPING GENERAL FUND DEBT:</u> | | |
| Orange County General Fund Obligations | 3.223% | \$ 8,456,378 |
| Orange County Pension Obligations | 3.223 | 1,531,742 |
| Orange County Board of Education Certificates of Participation | 3.223 | 612,370 |
| Tustin Unified School District Certificates of Participation | 39.164 | 1,960,158 |
| Orange Unified School District Certificates of Participation and Benefit Obligations | 0.056 | 78,800 |
| City of Orange Certificates of Participation | 0.055 | 1,576 |
| Municipal Water District of Orange County Water Facilities Corporation | 3.811 | 462,846 |
| Irvine Ranch Water District Certificates of Participation | 18.057 | <u>14,698,398</u> |
| TOTAL GROSS OVERLAPPING GENERAL FUND DEBT | | \$27,802,268 |
| Less: MWDOC Water Facilities Corporation (100% supported) | | <u>462,846</u> |
| TOTAL NET OVERLAPPING GENERAL FUND DEBT | | \$27,339,422 |
| GROSS COMBINED TOTAL DEBT | | \$1,133,170,722⁽²⁾ |
| NET COMBINED TOTAL DEBT | | \$1,132,707,876 |

Ratios to Fiscal Year 2012 Land Only Assessed Valuation:

Direct Debt (\$156,445,772)2.61%
Total Direct and Overlapping Tax and Assessment Debt.....18.41%

Ratios to Adjusted All Property Assessed Valuation:

Gross Combined Total Debt.....9.33%
Net Combined Total Debt9.33%

STATE SCHOOL BUILDING AID REPAYABLE AS OF 6/30/11: \$0

⁽¹⁾ Based on all property assessed valuation of \$12,142,748,122.

⁽²⁾ Excludes tax and revenue anticipation notes, enterprise revenue, mortgage revenue and tax allocation bonds and non-bonded capital lease obligations.

Source: California Municipal Statistics, Inc.

Improvement District Nos. 113 and 213

General. Improvement District No. 113 (water) and Improvement District No. 213 (sewer) are coterminous and are located in portions of the Cities of Tustin and Irvine, California. Improvement District No. 113 and Improvement District No. 213 are comprised of approximately 1,629 acres of the land formerly known as Marine Corps Air Station Tustin. The boundaries of Improvement District No. 113 and Improvement District No. 213 are Harvard Avenue on the southeast, Barranca Parkway on the southwest, Red

Hill Avenue on the northwest and Edinger Avenue on the northeast. The former helicopter base, now known as Tustin Legacy, is currently being redeveloped with residential, commercial, institutional and recreational uses. The District expects development in Improvement District No. 113 and Improvement District No. 213 to continue through at least approximately 2020. The District expects that future development will consist of approximately 4,800 dwelling units and approximately 12,100,000 square feet of commercial, institutional and recreational uses.

Set forth below is information with respect to Improvement District No. 113 and Improvement District No. 213.

The *ad valorem* assessments levied by the District in Improvement District Nos. 113 and 213 to pay such Improvement Districts' respective Included Amounts of debt service on the Series 2011A-1 Bonds will be levied on land only. See Table 5 under the caption "THE IRVINE RANCH WATER DISTRICT—Outstanding Indebtedness—Improvement District Indebtedness" for a description of the authorized, issued, authorized and unissued and amount outstanding of Improvement District No. 113 *ad valorem* assessment bonds.

The following table presents the five-year history of assessed valuations of land in Improvement District No. 113 and Improvement District No. 213 for the Fiscal Years ended June 30, 2008 through June 30, 2012.

TABLE 42
IRVINE RANCH WATER DISTRICT
Improvement District No. 113/213
Assessed Valuations (Land Only)

| <i>Fiscal Year</i> | <i>Local Secured</i> | <i>Unsecured</i> ⁽¹⁾ | <i>Total</i> |
|--------------------|----------------------|---------------------------------|---------------|
| 2008 | \$691,298,772 | \$ 378,070 | \$691,676,842 |
| 2009 | 975,443,935 | 442,282 | 975,886,217 |
| 2010 | 606,287,728 | 2,868,776 | 609,156,504 |
| 2011 | 651,328,825 | 588,355 | 651,917,180 |
| 2012 | 552,924,477 | 533,680 | 553,458,157 |

⁽¹⁾ Assessed value of unsecured land only, reflecting possessory interests in tax exempt property and gas and oil leases.
Source: California Municipal Statistics, Inc.

The following table sets forth information with respect to land-only local secured assessed valuation in Improvement District No. 113 and Improvement District No. 213 (excluding utility and unsecured property) by land use for the Fiscal Year ending June 30, 2012:

TABLE 43
IRVINE RANCH WATER DISTRICT
Improvement District No. 113/213
Assessed Valuation and Parcels by Land Use

| | <i>Fiscal Year 2012 Assessed Valuation</i> ⁽¹⁾ | <i>% of Total</i> | <i>No. of Parcels</i> | <i>% of Total</i> |
|--------------------------|---|-----------------------|---------------------------|-----------------------|
| Non-Residential: | | | | |
| Commercial | \$ 94,552,131 | 17.10% | 20 | 0.83% |
| Subtotal Non-Residential | \$ 94,552,131 | 17.10% | 20 | 0.83% |
| Residential: | | | | |
| Single Family Residence | \$ 243,222,618 | 43.99% | 1,172 | 48.61% |
| Condominium/Townhouse | 215,124,328 | 38.91 | 1,213 | 50.31 |
| Vacant Residential | <u>25,400</u> | <u>0.00</u> | <u>6</u> | <u>0.25</u> |
| Subtotal Residential | \$ 458,372,346 | 82.90% | 2,391 | 99.17% |
| Total | <u>\$ 552,924,477</u> | <u>100.00%</u> | <u>2,411</u> | <u>100.00%</u> |

⁽¹⁾ Land Only Local Secured Assessed Valuation; excluding tax-exempt property.
Source: California Municipal Statistics, Inc.

The following table lists the major taxpayers in Improvement District No. 113 and Improvement District No. 213 based on land-only local secured assessed valuations for the Fiscal Year ending June 30, 2012:

TABLE 44
IRVINE RANCH WATER DISTRICT
Improvement District No. 113/213
Largest Local Secured Taxpayers

| | <i>Property Owner</i> | <i>Primary Land Use</i> | <i>Fiscal Year 2012 Assessed Valuation</i> | <i>% of Total</i> ⁽¹⁾ |
|-----|--------------------------------|-------------------------|--|--------------------------------------|
| 1. | Vestar/Kimco Tustin LP | Commercial | \$ 77,247,197 | 13.97% |
| 2. | Ora Astoria 60 LLC | Residential | 41,690,646 | 7.54 |
| 3. | Costco Wholesale Corporation | Commercial | 12,478,464 | 2.26 |
| 4. | Lowes HIW Inc. | Commercial | 10,303,907 | 1.86 |
| 5. | Tustin Coventry Seniors LP | Residential | 8,135,576 | 1.47 |
| 6. | Ora Mirabella 60 LLC | Residential | 7,079,280 | 1.28 |
| 7. | Ora Ainsley Park 84 LLC | Residential | 5,528,281 | 1.00 |
| 8. | Susan E. and Bruce L. Davidson | Residential | 4,020,568 | 0.73 |
| 9. | Rakesh Bhatia | Residential | 1,085,005 | 0.20 |
| 10. | Yao Chang Chung | Residential | <u>671,613</u> | <u>0.12</u> |
| | TOTAL | | <u>\$ 168,240,537</u> | <u>30.43%</u> |

168,240,537
⁽¹⁾ Fiscal Year 2012 Local Secured Assessed Valuation (Land Only): \$552,924,477.
Source: California Municipal Statistics, Inc.

Statement of Direct and Overlapping Debt. Set forth the table below is a direct and overlapping debt report (the "Debt Report-I.D. 113/213") for Improvement District No. 113 and Improvement District No. 213 prepared by California Municipal Statistics, Inc. and effective December 1, 2011. The Debt Report-I.D. 113/213 was prepared by California Municipal Statistics, Inc., and the District expresses no opinion on the completeness or accuracy of such reports and makes no representation in connection therewith.

California Municipal Statistics, Inc. reports that the Debt Report-I.D. 113/213 generally includes long-term obligations sold in the public credit markets by public agencies whose boundaries overlap the boundaries of Improvement District No. 113 and Improvement District No. 213 in whole or in part. Such long-term obligations generally are not payable from revenues of the District or Improvement District No. 113 and Improvement District No. 213 (except as indicated) nor are they necessarily obligations secured by land within Improvement District No. 113 and Improvement District No. 213. In many cases long-term obligations issued by a public agency are payable only from the general fund or other revenues of such public agency.

**TABLE 45
IRVINE RANCH WATER DISTRICT
Improvement District No. 113/213
Direct and Overlapping Debt Statement**

Fiscal Year 2012 Land Only Assessed Valuation: \$553,458,157

| <u>DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT:</u> | <u>% Applicable⁽¹⁾</u> | <u>Debt 12/1/11</u> |
|--|-----------------------------------|----------------------------------|
| Metropolitan Water District | 0.016% | \$ 36,054 |
| Tustin Unified School District School Facilities Improvement District No. 2002-1 | 0.010 | 5,980 |
| Tustin Unified School District School Facilities Improvement District No. 2008-1 | 0.010 | 4,900 |
| Tustin Unified School District Community Facilities District No. 06-1 | 100. | 13,560,000 |
| City of Irvine Community Facilities District No. 2005-2 | 99.175 | 22,135,860 |
| Irvine Ranch Water District, I.D. No. 113 | 100. | 14,663,000 |
| Irvine Ranch Water District, I.D. No. 213 | 100. | 23,263,980 |
| City of Tustin Community Facilities District Nos. 04-1, 06-1 and 07-1 | 60.350-100. | 74,617,333 |
| TOTAL DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT | | \$148,287,107 |
| <u>OVERLAPPING GENERAL FUND DEBT:</u> | | |
| Orange County General Fund Obligations | 0.078% | \$204,653 |
| Orange County Pension Obligations | 0.078 | 37,070 |
| Orange County Board of Education Certificates of Participation | 0.078 | 14,820 |
| Tustin Unified School District Certificates of Participation | 0.006 | 300 |
| Municipal Water District of Orange County Water Facilities Corporation | 0.092 | 11,173 |
| Irvine Ranch Water District Certificates of Participation | 0.632 | 514,448 |
| TOTAL GROSS OVERLAPPING GENERAL FUND DEBT | | \$782,464 |
| Less: MWDOC Water Facilities Corporation (100% supported) | | 11,173 |
| TOTAL NET OVERLAPPING GENERAL FUND DEBT | | \$771,291 |
| GROSS COMBINED TOTAL DEBT | | \$149,069,571 ⁽³⁾ |
| NET COMBINED TOTAL DEBT | | \$149,058,398 |

Ratios to Fiscal Year 2012 Land Only Assessed Valuation:

Direct Debt (\$37,926,980).....6.85%
Total Direct and Overlapping Tax and Assessment Debt.....26.79%

Ratios to Adjusted All Property Assessed Valuation:

Gross Combined Total Debt.....50.59%
Net Combined Total Debt50.59%

STATE SCHOOL BUILDING AID REPAYABLE AS OF 6/30/11: \$0

⁽¹⁾ Based on redevelopment adjusted all property assessed valuation of \$294,662,889.

⁽²⁾ Excludes tax and revenue anticipation notes, enterprise revenue, mortgage revenue and tax allocation bonds and non-bonded capital lease obligations.

Source: California Municipal Statistics, Inc.

CONSTITUTIONAL LIMITATIONS ON APPROPRIATIONS AND CHARGES

Proposition 218

General. An initiative measure entitled the "Right to Vote on Taxes Act" (the "Initiative") was approved by the voters of the State of California at the November 5, 1996 general election. The Initiative added Article XIII C and Article XIII D to the California Constitution. According to the "Title and Summary"

of the Initiative prepared by the California Attorney General, the Initiative limits “the authority of local governments to impose taxes and property-related assessments, fees and charges.”

Article XIID. Article XIID defines the terms “fee” and “charge” to mean “any levy other than an *ad valorem* tax, a special tax or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including user fees or charges for a property-related service.” A “property-related service” is defined as “a public service having a direct relationship to property ownership.” Article XIID further provides that reliance by an agency on any parcel map (including an assessor’s parcel map) may be considered a significant factor in determining whether a fee or charge is imposed as an incident of property ownership.

Article XIID requires that any agency imposing or increasing any property-related fee or charge must provide written notice thereof to the record owner of each identified parcel upon which such fee or charge is to be imposed and must conduct a public hearing with respect thereto. The proposed fee or charge may not be imposed or increased if a majority of owners of the identified parcels file written protests against it.

In July 2006, California Supreme Court held, in *Bighorn-Desert View Water Agency v. Verjil*, 39 Cal. 4th 205 (2006), that the initiative power described in Article XIIC applies to any local taxes, assessments, fees and charges as defined in Articles XIIC and XIID. Article XIID defines “fee” or “charge” to mean a levy (other than *ad valorem* or special taxes or assessments) imposed by a local government “upon a parcel or upon a person as an incident of property ownership,” including a user fee for a “property related service.” The Court also found that charges for water delivery are charges for a property-related service and, therefore, constitute “fees” or “charges” within the meaning of both Article XIID and section 3 of Article XIIC. In light of the decision in *Bighorn*, the District determined that it would conduct notice and hearing proceedings to comply with requirements of Article XIID with respect to proposed increases of rates and charges and commenced doing so for the proposed increases for the Fiscal Year ending June 30, 2008, which were adopted in June 2007.

Article XIIC. Article XIIC provides that the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing any local tax, assessment, fee or charge and that the power of initiative to affect local taxes, assessments, fees and charges shall be applicable to all local governments. Article XIIC does not define the terms “local tax,” “assessment,” “fee” or “charge.” In light of *Bighorn* and as discussed above under “Article XIID,” the terms “fee” and “charge” as used in Article XIIC include, at a minimum, all of the fees and charges within the “property related” qualification set forth in Article XIID. Moreover, the provisions of Article XIIC are not expressly limited to local taxes, assessments, fees and charges imposed after November 6, 1996. Therefore, in the absence of other limitations, provisions of Article XIIC could be applicable to the water and sewer rates charged by the District. The District and its general counsel do not believe that Article XIIC grants to the voters within the District the power to repeal or reduce rates and charges in a manner which would be inconsistent with the contractual obligations of the District. However, there can be no assurance of the availability of particular remedies adequate to protect the beneficial owners of the Series 2011A-1 Bonds. Remedies available to beneficial owners of the Series 2011A-1 Bonds in the event of a default by the District are dependent upon judicial actions which are often subject to discretion and delay and could prove both expensive and time-consuming to obtain.

Legislation has been enacted and amended to implement Articles XIIC and XIID.

Proposition 26

On November 2, 2010, voters in the State approved Proposition 26. Proposition 26 amends Article XIIC of the State Constitution to expand the definition of “tax” to include “any levy, charge, or exaction of any kind imposed by a local government” except the following: (1) a charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege; (2)

a charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product; (3) a charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof; (4) a charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property; (5) a fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law; (6) a charge imposed as a condition of property development; and (7) assessments and property-related fees imposed in accordance with the provisions of Article XIII D. Proposition 26 provides that the local government bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity. The District does not believe that the enactment of Proposition 26 will affect its ability to levy rates and charges for water or sewer service.

Article XIII A

General. On June 6, 1978, California voters approved Proposition 13, which added Article XIII A to the California Constitution ("Article XIII A"). Article XIII A limits the amount of any *ad valorem* tax on real property to one percent of the full cash value thereof, except that additional *ad valorem* taxes may be levied to pay debt service on indebtedness approved by the voters prior to July 1, 1978 and (as a result of an amendment to Article XIII A approved by California voters on June 3, 1986) on bonded indebtedness for the acquisition or improvement of real property that has been approved on or after July 1, 1978 by the voters voting on such indebtedness. Article XIII A defines full cash value to mean "the county assessor's valuation of real property as shown on the 1975/76 tax bill under 'full cash value' or, thereafter, the appraised value of real property when purchased, newly constructed, or a change in ownership has occurred after the 1975 assessment." This full cash value may be increased at a rate not to exceed two percent per year to account for inflation.

Article XIII A has subsequently been amended to permit reduction of the "full cash value" base in the event of declining property values caused by damage, destruction or other factors to provide that there would be no increase in the "full cash value" base in the event of reconstruction of property damaged or destroyed in a disaster and in other minor or technical ways.

Legislation Implementing Article XIII A. Legislation has been enacted and amended a number of times since 1978 to implement Article XIII A. Under current law, local agencies are no longer permitted to levy directly any property tax (except to pay voter-approved indebtedness). The 1% property tax is automatically levied by each California county and distributed according to a formula among taxing agencies. The formula apportions the tax roughly in proportion to the relative shares of taxes levied prior to 1979.

Increases of assessed valuation resulting from reappraisals of property due to new construction, change in ownership or from the 2% annual adjustment are allocated among the various jurisdictions in the "taxing area" based upon the location of reappraised property and the value of property within each taxing agency. Any such allocation made to a local agency continues as part of its allocation in future years.

Article XIII B

An initiative to amend the California Constitution entitled "Limitation of Government Appropriations" was approved on November 6, 1979 thereby adding Article XIII B to the California Constitution ("Article XIII B"). Under Article XIII B state and local governmental entities have an annual "appropriations limit" and are not permitted to spend certain moneys that are called "appropriations subject to limitation" (consisting of tax revenues, state subventions and certain other funds) in an amount higher than the "appropriations limit." Article XIII B does not affect the appropriations of moneys that are excluded from the

definition of “appropriations subject to limitation,” including debt service on indebtedness existing or authorized as of January 1, 1979, or bonded indebtedness subsequently approved by the voters. In general terms, the “appropriations limit” is to be based on certain 1978-79 expenditures and is to be adjusted annually to reflect changes in consumer prices, populations, and services provided by these entities. Among other provisions of Article XIII B, if these entities’ revenues in any year exceed the amounts permitted to be spent, the excess would have to be returned by revising tax rates or fee schedules over the subsequent two years.

The District is of the opinion that its rates and charges for water, sewer and recycled water services do not exceed the costs it reasonably bears in providing such services and therefore are not subject to the limits of Article XIII B, and that tax revenues and other revenues received by the District which may constitute the “proceeds of taxes” are appropriated for debt service or qualified capital outlay projects and are not subject to the limits of Article XIII B.

Proposition 1A

Proposition 1A, proposed by the California Legislature in connection with the 2004-05 State Budget Act and approved by the voters in November 2004, restricts State authority to reduce major local tax revenues such as the tax shifts permitted to take place in Fiscal Years 2004-05 and 2005-06. Proposition 1A provides, however, that beginning in Fiscal Year 2008-09, the State may shift to schools and community colleges up to 8% of local government property tax revenues, which amount must be repaid, with interest, within three years, if the Governor proclaims that the shift is needed due to a severe State financial hardship, the shift is approved by two thirds of both houses and certain other conditions are met. See the caption “THE IRVINE RANCH WATER DISTRICT—1% Property Tax Revenues” above.

Future Initiatives

Article XIII A, Article XIII B, Proposition 218, Proposition 1A and Proposition 26 were each adopted as measures that qualified for the ballot pursuant to California’s initiative process. From time to time other initiative measures could be adopted, further affecting ability of the District to collect or expend Revenues.

REOFFERING – NOT A NEW ISSUE—BOOK-ENTRY ONLY

RATINGS:
Moody's: VMIG 1; Aa1
Standard & Poor's: A-1+
Fitch: F1+; AAA
(See the caption "RATINGS")

On April 15, 2011, Orrick, Herrington & Sutcliffe LLP and Bowie, Arneson, Wiles & Giannone, Co-Bond Counsel to the District, delivered their respective opinions in connection with the issuance of the Series 2011A-2 Bonds. Such opinions stated that, based on an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 2011A-2 Bonds was excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and was exempt from State of California personal income taxes. Further, the opinions of Co-Bond Counsel stated that interest on the Series 2011A-2 Bonds was not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Co-Bond Counsel observed that such interest was included in adjusted current earnings when calculating corporate alternative minimum taxable income. Co-Bond Counsel expressed no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual or receipt of interest on, the Series 2011A-2 Bonds. Co-Bond Counsel have not taken and do not intend to take any action to update such opinions or to determine if interest on the Series 2011A-2 Bonds is presently excluded from gross income for federal income tax purposes or exempt from State of California personal income taxes. See the caption "TAX MATTERS" herein.

[IRWD LOGO]

\$59,075,000

BONDS OF IRVINE RANCH WATER DISTRICT
REFUNDING SERIES 2011A-2
CUSIP[†]: 463632R7

Date of Initial Delivery: April 15, 2011 **Scheduled Mandatory Tender Date: [____], 2013** **Due: October 1, 2037**
Price: 100% **Call Protection Date: [____], 2012**

This Remarketing Statement replaces the Official Statement dated April 12, 2011 in its entirety.

Pursuant to the provisions of the Indenture of Trust, dated as of April 1, 2011, by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to the Series 2011A-2 Bonds, the District has exercised its option to effect an *Unscheduled Mandatory Tender* of the Series 2011A-2 Bonds on February 2, 2012.

Upon the purchase of the Series 2011A-2 Bonds pursuant to such *Unscheduled Mandatory Tender*, the Series 2011A-2 Bonds: (i) will be remarketed in the *Index Mode* for a *Tender Period* commencing on February 2, 2012 with the *Scheduled Mandatory Tender Date* on [____], 2013; and (ii) will bear interest at an *Index Tender Rate* (which is equal to the sum of: (a) the *SIFMA Average Index Rate* calculated for each *Index Rate Accrual Period*; and (b) the *applicable Index Spread* for such *Tender Period*). Promptly after the *Remarketing Agent* determines the *Index Spread* for the *Tender Period* commencing on February 2, 2012, the District will publish it by supplementing this *Remarketing Statement* and posting the supplement on the *EMMA* system.

The *Purchase Price* of the tendered Series 2011A-2 Bonds will be paid on February 2, 2012 from moneys held by the *Trustee*, consisting of immediately available funds on deposit in the *Remarketing Proceeds Account*, as more fully described herein.

The Series 2011A-2 Bonds were issued by the Irvine Ranch Water District and constitute the consolidated, several general obligations of Improvement District Nos. 105, 113, 213 and 250, which are geographical subdivisions of the District through which the District funds capital improvements. The Series 2011A-2 Bonds are payable from the following sources: (i) *Assessment Proceeds* of each Improvement District, consisting of *ad valorem* assessments on taxable land, *In Lieu Charges* and proceeds from the sale of property for the enforcement of delinquent assessments collected from within each Improvement District and applied by the District to pay such Improvement District's Included Amount of the principal, *Purchase Price* and *Redemption Price* of, and interest on, all Outstanding Series 2011A-2 Bonds; (ii) *Net Revenues* of the District, consisting of water, sewer and reclaimed water rates and charges imposed by the District remaining after payment of *Operation and Maintenance Expenses*; and (iii) certain monies and investment earnings in certain funds and accounts created under the Indenture. See the caption "SECURITY FOR THE SERIES 2011A-2 BONDS—Pledge of Assessment Proceeds and Revenues." The obligation of the District to pay the principal, *Purchase Price* upon the *Scheduled Mandatory Tender* and *Redemption Price* of, and interest on, the Series 2011A-2 Bonds from *Net Revenues* is payable on a parity with certain *Parity Obligations* described under the caption "SECURITY FOR THE SERIES 2011A-2 BONDS—Limitations on Parity and Superior Obligations—Obligations on a Parity with the Series 2011A-2 Bonds."

The Series 2011A-2 Bonds were issued pursuant to the Indenture for the purposes of: (i) providing a portion of the funds to refund the then-outstanding Bonds of Irvine Ranch Water District, Consolidated Refunding Series 2008B; and (ii) paying costs of issuance with respect to the Series 2011A-2 Bonds.

The Series 2011A-2 Bonds were issued in fully registered form and are registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York. Purchasers of the Series 2011A-2 Bonds will not receive physical certificates representing their beneficial ownership in the Series 2011A-2 Bonds purchased. The principal, *Purchase Price* and *Redemption Price* of, and interest on, the Series 2011A-2 Bonds are payable by the *Trustee* to Cede & Co. and such principal, *Purchase Price*, *Redemption Price* and interest payments are to be disbursed to the beneficial owners of the Series 2011A-2 Bonds through their nominees.

While the Series 2011A-2 Bonds are in the *Index Mode*, interest on the Series 2011A-2 Bonds will be payable on the first *Business Day* of each month. The Series 2011A-2 Bonds will be subject to a *Scheduled Mandatory Tender* on [____], 2013. The failure of the District to pay the *Purchase Price* of the Series 2011A-2 Bonds upon any *Scheduled Mandatory Tender* would constitute an *Event of Default* under the Indenture. See the caption "THE SERIES 2011A-2 BONDS—Mandatory Tender for Purchase—Scheduled Mandatory Tender for Purchase." The Series 2011A-2 Bonds are also

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subject to mandatory tender on an Unscheduled Mandatory Tender Date at the option of the District as described herein. The failure of the District to pay the Purchase Price of the Series 2011A-2 Bonds upon such Unscheduled Mandatory Tender would not constitute an Event of Default under the Indenture. See the caption "THE SERIES 2011A-2 BONDS—Mandatory Tender for Purchase—Unscheduled Mandatory Tender for Purchase." While in the Index Mode, individual purchases of Series 2011A-2 Bonds will be made in principal amounts of \$100,000 and integral multiples of \$5,000 in excess thereof.

This Remarketing Statement describes the Series 2011A-2 Bonds while in the Index Mode and for the Tender Period commencing on February 2, 2012 and ending on the Scheduled Mandatory Tender Date set forth above. There are significant differences in the terms of the Series 2011A-2 Bonds while they bear interest in a Mode other than an Index Mode. This Remarketing Statement is not intended to provide information with respect to the Series 2011A-2 Bonds bearing interest in a Mode other than the Index Mode or in another Tender Period. Owners and prospective owners of the Series 2011A-2 Bonds should not rely on this Remarketing Statement for information in connection with any Change in Mode, but should look solely to the offering document to be used in connection with any such Change in Mode.

This Remarketing Statement describes the Series 2011A-2 Bonds for the Tender Period ending on the Scheduled Mandatory Tender Date set forth above only. This Remarketing Statement is not intended to provide information with respect to the Series 2011A-2 Bonds for any other Tender Period. Owners and prospective owners of the Series 2011A-2 Bonds should not rely on this Remarketing Statement for information relating to the Series 2011A-2 Bonds during any other Tender Period, but should look solely to the offering document to be used in connection with such Tender Period.

Concurrently with the reoffering of the Series 2011A-2 Bonds, the District anticipates reoffering its Series 2011A-2 Bonds. Owners or prospective owners of the Series 2011A-2 Bonds should not rely on this Remarketing Statement for information relating to the Series 2011A-2 Bonds but should look instead to the most current Remarketing Statement prepared by the District for the Series 2011A-2 Bonds.

The Series 2011A-2 Bonds are subject to optional and mandatory redemption prior to maturity as more fully described under the caption "THE SERIES 2011A-2 BONDS—Redemption of Series 2011A-2 Bonds."

THE SERIES 2011A-2 BONDS DO NOT CONSTITUTE AN OBLIGATION OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA OTHER THAN THE DISTRICT AND THE IMPROVEMENT DISTRICTS AS PROVIDED IN THE INDENTURE. NO FUNDS OF THE DISTRICT OR THE IMPROVEMENT DISTRICTS, OTHER THAN THE FUNDS INCLUDED IN THE TRUST ESTATE, ARE LIABLE FOR THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR PURCHASE PRICE OF, OR INTEREST ON, THE SERIES 2011A-2 BONDS. EXCEPT AS PROVIDED IN THE INDENTURE WITH RESPECT TO THE TRUST ESTATE, NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE DISTRICT IS LIABLE FOR OR PLEDGED TO THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR PURCHASE PRICE OF, OR INTEREST ON, THE SERIES 2011A-2 BONDS.

This cover page contains certain information for general reference only. It is not intended to be a summary of the security or terms of the Series 2011A-2 Bonds. Investors are advised to read the entire Remarketing Statement to obtain information essential to the making of an informed investment decision. Capitalized terms have the meanings given such terms in the Remarketing Statement.

Certain legal matters will be passed upon by Orrick, Herrington & Sutcliffe LLP and Bowie, Arneson, Wiles & Giannone, Co-Disclosure Counsel, for the District by Bowie, Arneson, Wiles & Giannone, as general counsel to the District, for the Remarketing Agent by Stradling Yocca Carlson & Rauth, a Professional Corporation, and for the Trustee by its counsel. The Series 2011A-2 Bonds are available through the facilities of The Depository Trust Company. Morgan Stanley is serving as Remarketing Agent and will remarket the Series 2011A-2 Bonds on February 2, 2012 following their mandatory tender.

Morgan Stanley

Series 2011A-2 Bonds Remarketing Agent

Dated: [February 7], 2012

Exhibit “B”

Note: Exhibit “B” starting with B-3 through B-77 are identical to those in Exhibit “A” A-3 through A-77.

Exhibit “B”

Note: Exhibit “B” starting with “B-3 through B-77 are identical to those in Exhibit “A” A-3 through A-77.

Exhibit "C"

RESOLUTION NO. __

RESOLUTION OF THE BOARD OF DIRECTORS OF
THE IRVINE RANCH WATER DISTRICT APPROVING
REMARKETING STATEMENTS RELATING TO
UNSCHEDULED MANDATORY TENDERS
(REFUNDING SERIES 2011A-1 AND REFUNDING SERIES 2011A-2)

WHEREAS, the Irvine Ranch Water District ("IRWD") has issued the "Bonds of Irvine Ranch Water District, Refunding Series 2011A-1" (the "Series A-1 Bonds") and "Bonds of Irvine Ranch Water District, Refunding Series 2011A-2" (the "Series A-2 Bonds" and, together with the Series A-1 Bonds, the "Bonds"); and

WHEREAS, in the resolution adopted by this Board of Directors authorizing and providing for the issuance of the Bonds, the Treasurer of the District was authorized, when the Bonds of either or both series shall be in an index tender mode, for all tender periods, to do or cause to be done any and all of the following, if and to the extent required or permitted by the applicable Indenture: to require an unscheduled mandatory tender and establish the date thereof, to rescind an unscheduled mandatory tender, to determine the scheduled mandatory tender date and call protection date for each ensuing tender period, and on behalf of the District in connection with all of the foregoing to give, exercise, make and deliver any notices, directions, elections and requests required or permitted in the applicable Indenture or remarketing agreement to be given, exercised, made or delivered by the District; and

WHEREAS, pursuant to such authority, the Treasurer has determined that an unscheduled mandatory tender shall be effected for each series of the Bonds on or about February 2, 2012 (the "Unscheduled Mandatory Tenders"); and

WHEREAS, this Board desires to approve the forms of the remarketing statements to be used in connection with the remarketing of each series of the Bonds upon the purchase thereof pursuant to the Unscheduled Mandatory Tenders.

NOW, THEREFORE, the Board of Directors of IRWD DOES HEREBY RESOLVE, DETERMINE AND ORDER as follows:

Section 1. The remarketing statement relating to the Unscheduled Mandatory Tenders of each series of the Bonds (the "Series A-1 Remarketing Statement" and the "Series A-2 Remarketing Statement" and together, the "Remarketing Statements"), to be dated the date(s) determined by the Treasurer and in substantially the forms presented to the Board at this meeting, are hereby approved with such changes thereto as the Treasurer with the concurrence of the President shall approve (such approval and concurrence to be conclusively evidenced by execution and delivery thereof), are hereby approved. The Board hereby approves the use of the Remarketing Statements by the remarketing agents for the respective series in connection with the remarketing of the Bonds pursuant to the Unscheduled Mandatory Tenders, and the Board hereby further approves the use by the remarketing agents of any supplements or amendments to the Remarketing Statements

which the Treasurer shall determine are necessary so that each Remarketing Statement does not include any untrue statement of a material fact and does not omit to state a material fact necessary to make the statements therein not misleading. The Treasurer of IRWD is hereby authorized and directed to execute the Remarketing Statements and any amendments or supplements thereto, in the name and on behalf of IRWD and thereupon to cause the Remarketing Statements and any such amendments or supplements to be delivered to the respective remarketing agents.

Section 2. The distribution of the Remarketing Statements, inclusive of the above-authorized changes, is hereby authorized in connection with the Unscheduled Mandatory Tenders.

Section 3. The President, the Treasurer, the Secretary and each other officer of IRWD, acting singly, be and each of them hereby is authorized and directed to execute and deliver any and all documents and instruments, and to do and cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated by this resolution.

Section 4. This resolution shall take effect immediately upon its adoption.

ADOPTED, SIGNED AND APPROVED this ____ day of _____, 2012.

President/Vice President
IRVINE RANCH WATER DISTRICT
and of the Board of Directors
thereof

Secretary/Assistant Secretary
IRVINE RANCH WATER DISTRICT
and of the Board of Directors
thereof

APPROVED AS TO FORM:

BOWIE, ARNESON,
WILES & GIANNONE
Legal Counsel - IRWD

By _____

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