

AGENDA

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

September 14, 2015

PLEDGE OF ALLEGIANCE

CALL TO ORDER 5:00 P.M., Board Room, District Office
15600 Sand Canyon Avenue, Irvine, California

ROLL CALL Directors Matheis, Reinhart, Swan, Withers and President LaMar

NOTICE

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

COMMUNICATIONS TO THE BOARD

1. A. Written:
- B. Oral:

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

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

CONSENT CALENDAR

Next Resolution No. 2015-25

Items 3-10

3. MINUTES OF BOARD MEETING

Recommendation: That the minutes of the August 24, 2015 Regular Board Meeting be approved as presented.

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

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

5. 2015 LEGISLATIVE UPDATE

Recommendation: Receive and file.

CONSENT CALENDAR	Next Resolution No. 2015-25	Items 3-10
6. <u>ACWA REGION 10 ELECTION FOR THE 2016-2017 TERM</u>		
Recommendation: That the Board support the candidates as selected by the ACWA Region 10 Nominating Committee and authorize the General Manager to sign the Region 10 board ballot for the 2016-2017 term.		
7. <u>DROUGHT OUTREACH PROGRAM UPDATE AND ADDITIONAL BUDGET FUNDING</u>		
Recommendation: That the Board approve an additional \$350,000 in funding for drought outreach and related consulting services and authorize the General Manager to execute a Variance in the amount of \$95,000 with Crocker & Crocker for continued assistance with the District's drought outreach efforts.		
8. <u>MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS FINAL ACCEPTANCE</u>		
Recommendation: That the Board accept construction of the Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection improvements; authorize the general manager to file a Notice of Completion; and authorize the payment of the retention 35 days after the date of recording the Notice of Completion.		
9. <u>VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR CITY OF IRVINE PLANNING AREA 1 ORCHARD HILLS (VESTING TENTATIVE TRACT MAP 16530)</u>		
Recommendation: That the Board approve the verification of sufficient water supplies for Planning Area 1 Orchard Hills neighborhood 3 (vesting Tentative Tract Map 16530).		
10. <u>VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR CITY OF IRVINE PLANNING AREA 39 PHASE 2 (TENTATIVE TRACT MAP 17759)</u>		
Recommendation: That the Board approve the verification of sufficient water supplies for Planning Area 39 Phase 2 (vesting Tentative Tract Map 17759).		

ACTION CALENDAR

11. UTILITY BILLING SYSTEM MANAGED SUPPORT SERVICES

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement for an amount not to exceed \$432,000 with Infosys Limited.

ACTION CALENDAR

12. RECYCLED WATER USE SITE INSPECTION AND TESTING
CONSULTANT SELECTIONS

Recommendation: That the Board authorize the General Manager to execute Professional Services Agreements with both John Robinson Consulting, Inc. and Real Water Consulting Inc., each in an amount not to exceed \$400,000, to provide field inspectors to assist staff with performing inspection and testing of recycled water use sites over the next two years.

13. WATER RECYCLING FUNDING PROGRAM APPLICATION

Recommendation: That the Board authorize the General Manager to execute a related agreement to receive grant funding and provide matching funds; and adopt a resolution authorizing the General Manager to file a funding application for design and construction of the Irvine Lake Pipeline Conversion project with the State Water Resources Control Board

Reso No. 2015-

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.

14. A. General Manager's Report

B. Directors' Comments

C. CLOSED SESSION:

- 1) Conference with Labor Negotiators - Government Code Section 54957.6:
Agency Designated Representatives: Paul Cook and Jenny Roney
Employee Group: Managers, Supervisors and Confidential Employees
- 2) Conference with Real Property Negotiator relative to Government Code Section 54956.8
Property: OCSD Service Area 7 Sewer Infrastructure
Agency Negotiator: Paul Cook, General Manager
Purpose of Negotiations: Proposed Acquisition of Property – Price and Terms
- 3) Closed Session conference with legal counsel relative to anticipated litigation pursuant to Government Code Section 54956.9(d)(4) (one potential case);

OTHER BUSINESS - Continued

14. D. Open Session

E. Adjourn

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.

September 14, 2015

Prepared and

Submitted by: L. Bonkowski

Approved by: P. Cook



CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the August 24, 2015 Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE AUGUST 24, 2015 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – Minutes of August 24, 2015

EXHIBIT "A"

MINUTES OF REGULAR MEETING – AUGUST 24, 2015

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 LaMar on August 24, 2015 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Withers, Reinhart, LaMar and Swan.

Directors Absent: Matheis

Also Present: General Manager Cook, Executive Director of Finance and Administration Clary, Executive Director of Engineering and Planning Burton, Executive Director of Water Policy Weghorst, Director of Human Resources Roney, Executive Director of Operations Shields, Assistant Director of Recycling Operations Lee, Assistant Director of Water Operations Roberts, Director of Treasury and Risk Management Jacobson, Director of Public Affairs Beeman, Legal Counsel Arneson, Secretary Bonkowski, Ms. Christine Compton, Ms. Debbie Kanoff, Ms. Cheryl Kelly, Mr. Ian Swift, Mr. John Dayer, Mr. Craig Irely, Ms. Gretchen Ronin, Mr. Eric Akiyoshi, Mr. Christopher Smithson, Mr. Bruce Newell, Mr. Jim Reed, Mr. Les Fields, Mr. Victor Zamora, and other members of the public and staff.

WRITTEN AND ORAL COMMUNICATIONS: None.

ITEMS TOO LATE TO BE AGENDIZED: None.

PRESENTATION

CALIFORNIA LANDSCAPE CONTRACTORS ASSOCIATION 2015 TROPHY AWARD FOR DROUGHT TOLERANT LANDSCAPING AT IRWD

Mr. Victor Zamora and Mr. Les Fields of Tropical Plaza, one of the District's landscaping contractors, presented two 2015 Trophy Awards from the California Landscape Contractors Association recognizing IRWD's use of drought tolerant landscaping at both the Operation Center's Entrance Island and the Sand Canyon Headquarters Demonstration Garden. General Manager Cook noted that the majority of the plants were donated from Shadetree Partnership.

PUBLIC HEARING

CHANGES TO EXISTING RULES AND REGULATIONS - SECOND READING AND ADOPTION

General Manager Cook reported that staff has compiled proposed changes to the District's Rules and Regulations for Water, Sewer, Recycled Water, and Natural Treatment System Service. Mr. Cook said that the most significant change affects the billing of non-residential sewer service customers, including the addition of criteria for an alternative service charge based on measured flows for industrial customers. The proposed changes also include greater clarity for bill adjustments along with other wording revisions.

President LaMar then declared this to be the time and place for the hearing on the Resolution. He then requested the Secretary to report the manner by which the Notice of Hearing was given.

Secretary Bonkowski said that the Notice of this hearing was published in the Orange County Register on August 1, 2015 and on August 8, 2015 and that the notice was also posted in the District office on July 29, 2015. She then presented an Affidavit of Posting and Proof of Publication for the Board to receive and file.

On MOTION by Swan, seconded and unanimously carried, THE AFFIDAVIT OF POSTING THE PROOF OF PUBLICATION PRESENTED BY THE SECRETARY WAS RECEIVED AND FILED.

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

President LaMar requested a report from the Executive Director of Finance.

Executive Director of Finance Clary reported and described the proposed revisions saying that the Rules and Regulations changes are primarily minor adjustments to existing definitions and small textual edits to Section 7- Use of District Sewerage Facilities and Section 12 Service Charges. She said that there have been no changes from the first reading of the Resolution at the last Board meeting on August 10, 2015. She said that the most significant change is in Section 7 was an added alternative service charge for non-residential customers consistent with what the Board approved in the Rates and Charges. She further said that changes to Section 12 (Service Charges) were primarily small textual edits.

President LaMar inquired whether anyone is present who wishes to address the Board concerning the amended Resolution. No one wished to address the Board.

President LaMar 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, THE RESOLUTION WAS RECOMMENDED TO BE READ BY TITLE ONLY AND THAT FURTHER READING OF THE RESOLUTION WAS WAIVED, AND THE FOLLOWING RESOLUTION WAS ADOPTED BY TITLE:

Secretary Bonkowski read the title of the proposed Resolution.

RESOLUTION NO. 2015-

RESOLUTION RESCINDING RESOLUTION NO. 2014-50
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

Director Swan asked that item No. 9 be moved to the Action Calendar for discussion. There being no objection, this item was moved accordingly. On MOTION by Withers, seconded and unanimously carried, CONSENT CALENDAR ITEMS 5 THROUGH 8 AND 10 AND 11 WERE APPROVED AS FOLLOWS:

5. MINUTES OF BOARD MEETING

Recommendation: That the minutes of the August 10, 2015 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, Douglas Reinhart, and John Withers.

7. JULY 2015 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for July 2015, and Disclosure Report of reimbursements to Board members and staff; approve the July 2015 summary of payroll ACH payments in the total amount of \$1,523,262 and approve the July 2015 Accounts Payable Disbursement Summary of warrants 359851 through 360502, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$30,785,659.

8. PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

Recommendation: That the Board authorize the General Manager to execute a Supplemental Reimbursement Agreement with Heritage Fields El Toro LLC. for Planning Area 51 Districts 3, 4 and 5, Irvine Boulevard and Marine Way capital facilities and authorize the General Manager to approve Expenditure Authorizations for projects 11668 (4153), 30388 (4147), 11842 (6086), 31842 (6087), 11806 (5816) and 31806 (5818).

10. TUSTIN LEGACY PARK AVENUE AND MOFFETT DRIVE CAPITAL IMPROVEMENTS

Recommendation: That the Board authorize budget increases for Project 11866 (6109) in the amount of \$416,900, from \$162,800 to \$579,700; Project 21866 (6110) in the amount of \$224,400, from \$162,800 to \$387,200; and Project 31866 (6111) in the amount of \$405,900, from \$162,800 to \$568,700, for the Tustin Legacy Park Avenue and Moffett Drive Capital Improvements, Projects 11866 (6109), 21866 (6110), and 31866 (6111).

CONSENT CALENDAR (CONTINUED)

11. STOCKDALE INTEGRATED BANKING PROJECT ENVIRONMENTAL COMPLIANCE VARIANCE NO. 5

Recommendation: That the Board approve an increase to the FY 2015-16 Capital Budget in the amount of \$33,220 for Project 11645 (3766) for additional environmental compliance work and authorize the General Manager to executive Variance No. 5 with ESA in the amount of \$33,220.

ACTION CALENDAR

SAN JOAQUIN MARSH IMPROVEMENTS CONSULTANT SELECTION

Director Swan said that he had asked for this item to be moved to the Action Calendar for discussion on the exhibit, discuss the proposed improvements, and noted that he wanted the marsh to look as natural as possible and did not wish to see any antennas. Mr. Kevin Burton and Mr. Ian Swift responded to questions from Director Swan about the improvements proposed and whether they would still be needed when the creek returns to normal flow. Director Reinhart requested that in future cost estimates those costs attributable to the Peters Canyon Diversion Pipeline be separately identified.

The San Joaquin Marsh Improvements project will mitigate the effects of reduced San Diego Creek flows due to the Peters Canyon Channel Water Capture and Reuse Pipeline project as well as improve overall San Joaquin Marsh operations. Staff issued a Request for Proposal for the design of the Marsh recirculation improvements and the operational improvements to four consultants including AKM, Michael Baker International, CH2M and Stantec. CH2M, Stantec, and AKM submitted proposals for the project, with Michael Baker International declining to submit a proposal. Staff evaluated and ranked the proposals and selected Stantec as the most qualified team based on the strength of their proposal and their extensive engineering experience with similar projects. On MOTION by Reinhart, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH STANTEC IN THE AMOUNT OF \$178,000 FOR THE SAN JOAQUIN MARSH IMPROVEMENTS, PROJECT 11878 (6168) WITH THE UNDERSTANDING THAT THE ENGINEER WILL BREAK OUT THE TWO PROJECTS IN THE ESTIMATE INTO SUBCATEGORIES.

MEMORANDUM OF UNDERSTANDING WITH THE IRVINE RANCH WATER DISTRICT EMPLOYEES ASSOCIATION AND ASSOCIATED SALARY GRADE SCHEDULE CHANGES

General Manager Cook reported that negotiations have been completed between IRWD and the General Employees' Unit of the Irvine Ranch Water District Employees Association (IRWDEA), with voting members of the IRWDEA ratifying the Memorandum of Understanding (MOU) through an election process.

Mr. Cook said that On August 19, 2015, the IRWDEA held a meeting at which the agreement was ratified by the voting members of the General Employees Unit. Changes to the proposed MOU include: 1) the term will be from April 1, 2015 to June 30, 2018; 2) change to the language in

Article VIII reflecting that employees enrolled in the District's first tier CalPERS retirement formula of 2.5% at 55 now pay the full 8% employee contribution; 3) change to Article IX to reflect Cost of Living Adjustments as follows: Effective at the beginning of the pay period during which the MOU is ratified (August 15, 2015), the District shall implement a 2.0% salary increase and corresponding adjustment to the salary ranges; Effective July 2, 2016, the District shall implement a 2.0% salary increase and corresponding adjustment to the salary ranges; and effective July 1, 2017, the District shall implement a 2.0% salary increase and corresponding adjustment to the salary ranges; 4) change to Article XI to include language allowing for healthcare benefits to be provided by CalPERS or other comparable medical insurance; 5) addition of language relative to Commercial Drivers' License incentive pay, increasing the annual incentive from \$100 per year to \$200 per year for most commercial license drivers based on operational need as determined by the District; and 6) effective January 1, 2016, establishment of a Shared Health and Fitness Incentive reimbursing employees for 50% of approved expenses up to \$400 per calendar year and elimination of existing exercise incentive program. He said that all other provisions of the prior MOU remain unchanged.

General Manager Cook then introduced IRWDEA's Board members Irely, Kanoff, and Kelly to the Board and thanked them for their efforts. President LaMar and other Board members also thanked both management staff and the Board members of the IRWDEA.

On MOTION by Withers, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE THE MEMORANDUM OF UNDERSTANDING BETWEEN IRWD AND THE IRVINE RANCH WATER DISTRICT EMPLOYEES ASSOCIATION SUBJECT TO NON-SUBSTANTIVE CHANGES, APPROVED A 2.0% INCREASE TO THE SALARY GRADE RANGES FOR ALL ELIGIBLE REPRESENTED POSITIONS EFFECTIVE AUGUST 15, 2015; AND ADOPTED THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2015 - 24

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT, RESCINDING
RESOLUTION NO. 2015-15 AND ESTABLISHING
A REVISED SCHEDULE OF POSITIONS AND SALARY
RATE RANGES

SYPHON RESERVOIR DRY LAKEBED GEOTECHNICAL EXPLORATION

Executive Director of Engineering and Planning Burton reported that the Syphon Reservoir is currently drained to complete interim maintenance repairs on the outlet gate structure. Mr. Burton said that design plans have been submitted to the Division of Safety of Dams (DSOD) and staff anticipates completing the work by late fall of 2015. He said that this repair work revealed approximately three to five feet of sediment around the outlet gate structure and surrounding areas and that staff anticipates removing the sediment during the proposed Syphon expansion project or future maintenance activities.

Mr. Burton said that in August 2012, GEI Consultants completed an Engineering feasibility study to expand Syphon Reservoir from approximately 350 acre-feet to approximately 5,000 acre-feet. The feasibility study included: site characterization and optimization; geotechnical exploration of the

dam and areas above the water; non-potable water facility onsite and offsite improvements; and cost estimate and phasing. He said that an optional task that has not yet been performed was the sampling and characterizing the lakebed sediments. He said that staff solicited a proposal from GEI Consultants to characterize both the lakebed sediment and underlying alluvium. This information will be useful for future maintenance activities, environmental documentation and design phases of the proposed expansion project. The scope of the proposed exploration work, to be completed for an amount of up to \$75,000, consists of the following: 1) quantifying the thickness of the sediment in Syphon Reservoir; 2) conducting borings in the lakebed alluvium; and 3) characterizing the sediment in Syphon Reservoir:

Mr. Burton said that in 2011, topographic and bathymetric surveys of the Syphon Reservoir site were performed by Stantec. With the reservoir drained, staff solicited a proposal from Stantec to provide aerial topography and field surveying services for the previously underwater portion of the reservoir. Stantec submitted a proposal in the amount of \$5,500 to provide the surveying services, and staff recommends proceeding with the work.

Director Reinhart said that this item was reviewed and approved by the Engineering and Operations Committee on August 20, 2015. Both Director Swan and Reinhart asked for additional tasks to be performed. On MOTION by Reinhart, seconded and unanimously carried, THE BOARD APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$150,000 FOR GEOTECHNICAL EXPLORATIONS AND SURVEYING SERVICES FOR THE SYPHON RESERVOIR EXPANSION, PROJECT 30382 (3808).

IRVINE LAKE PIPELINE NORTH CONVERSION RESERVOIR VARIANCE

Executive Director of Engineering and Planning Burton reported that the ILP North Conversion project will convert the Rattlesnake Reach of the ILP, which is located between Rattlesnake Reservoir and the proposed Zone C+ Reservoir, from untreated to recycled water service. Mr. Burton said that the project includes constructing a new 2.4 million gallon (MG) buried concrete reservoir at the site of IRWD's existing 6.0 MG Santiago Hills Zone 5 Reservoir and various modifications at the Rattlesnake Reservoir Complex including the Zone A-C booster pump station. Preliminary design, final design, and construction phase services of the ILP North Conversion Reservoir project were awarded to Kleinfelder in November 2014 in the amount of \$723,654.

Mr. Burton said that Kleinfelder submitted Variance No. 2 which included in its scope additional work related to adding surge tanks at the Zone A-C booster pump station, developing the strainer backwash pump and recovery system, developing multiple air gap facility alternatives, refining site grading alternatives, and optimizing the reservoir site layout. The nearly-completed preliminary design report includes a surge study that recommends adding surge tanks at the Zone A-C booster pump station, a task that was not originally included in Kleinfelder's scope of work. During the preliminary design phase Kleinfelder provide additional efforts, and in the design phase will develop a strainer backwash pump and recovery system that will reduce construction costs by avoiding the need to construct a sewer line from the reservoir site to Jamboree Road. Kleinfelder also expended additional efforts optimizing the site layout by exposing the front face of the reservoir and shortening the height of the reservoir which will reduce the depth and ultimately the construction cost of onsite buried structures and the reservoir inlet and outlet pipelines.

Mr. Burton said that Kleinfelder and staff reviewed the variance request and agree on those tasks outside the original scope of work.

Director Reinhart reported that this item was reviewed and approved by the Engineering and Operations Committee on August 20, 2015. Following discussion, on MOTION by Reinhart, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 2 IN THE AMOUNT OF \$198,126 WITH KLEINFELDER TO PROVIDE ADDITIONAL EFFORTS REQUIRED TO COMPLETE THE PRELIMINARY DESIGN REPORT AND THE FINAL DESIGN FOR THE ILP NORTH CONVERSION RESERVOIR, PROJECT 30496 (5407).

PIEZOMETER AUTOMATION CONSTRUCTION AWARD

Staff manually reads open standpipe piezometers at the dams of Rattlesnake, Sand Canyon and Syphon Reservoirs with the piezometers located on steep slopes and walking access is difficult. The project will install vibrating wire piezometers at these reservoirs. The project will also replace the existing corroded enclosure and data logger at the San Joaquin Reservoir to upgrade and standardize this equipment with the new data logger.

The project was advertised on July 15, 2015 to a select list of seven electrical contractors. The bid opening was held August 6, 2015 with bids received from Johnson-Peltier, Halcyon Electric, and Leed Electric. Halcyon Electric is the apparent low bidder with a bid amount of \$110,000. On MOTION by Swan, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH HALCYON ELECTRIC IN THE AMOUNT OF \$110,000 FOR THE PIEZOMETER AUTOMATION, PROJECT 30572 (6298).

DIRECTORS' COMMENTS

Director Swan reported that he attended a Newport Bay Watershed Executive Committee meeting, an OCWD Board meeting, an OCWA monthly meeting, a WACO Planning meeting, and an OCBC Infrastructure meeting.

Director Reinhart reported he attended a San Bernardino County Water Conference.

Director LaMar reported that he attended a WEROC Emergency training session, an ACWA Region 10 meeting, a South Orange County Agency meeting, and was a panel member at the San Bernardino County Water conference.

General Manager Cook responded to Director Swan's inquiry on how the District was doing relative to mandated water cuts imposed by the Governor. Director Swan then asked that staff add an item to a Board Committee agenda to discuss penalty rates.

ADJOURNMENT

President LaMar adjourned the meeting at 6:05 p.m.

APPROVED and SIGNED this 14th day of September, 2015.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

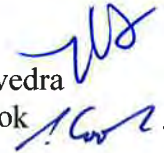
Legal Counsel - Bowie, Arneson,
Wiles & Giannone

September 14, 2015

Prepared and

Submitted by: N. Savedra

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

9/12/15 IRWD Drought Survival Exposition
9/15/15 Monthly meeting w/General Manager Paul Cook regarding District Activities
9/16/15 OCWD Water Issues Committee Meeting
9/17/15 ACWA Federal Affairs Committee Meeting, Sacramento, CA
9/21/15 Meeting with House Majority Leader Kevin McCarthy
9/23/15 CCEEB's Edmund G. Brown Recipient Awards Event, Sacramento, CA
9/25/15 Introductory Meeting with Supervisor Andrew Do

Mary Aileen Matheis

9/01/15 South OC Watershed Management Area Strategic Vision Workshop
9/03/15 South OC Watershed Management Area Executive Committee Meeting
9/12/15 IRWD Drought Survival Exposition
9/15-18/15 Colorado River Symposium, Santa Fe, New Mexico
9/21-24/15 CSDA Annual Conference, Monterey, CA
9/25/15 OC Taxpayers Association-Roses & Radishes Royalty Award Event
9/25/15 Introductory Meeting with Supervisor Andrew Do
9/26/15 Irvine Global Village Festival Event
9/30/15 Urban Water Institute Membership Appreciation Event

Douglas Reinhart

9/12/15 IRWD Drought Survival Exposition

Peer Swan

9/17/15 OC Coastkeepers - Annual Clean Water Event
9/25/15 OC Taxpayers Association-Roses & Radishes Royalty Award Event
9/26/15 IRWD Resident Tour

John Withers

9/10/15 Association of California Cities-OC Program Event
9/17/15 Orange County Coastkeepers – Annual Clean Water Event
9/18/15 IRWD Resident Tour
9/25/15 OC Taxpayers Association-Roses & Radishes Royalty Award Event
9/30/15 Urban Water Institute Membership Appreciation Event

RECOMMENDATION:

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

LIST OF EXHIBITS:

None

September 14, 2015

Prepared and

Submitted by C. Compton 

Approved by: Paul Cook 

CONSENT CALENDAR

2015 LEGISLATIVE UPDATE

SUMMARY:

This report provides an update on the 2015-2016 legislative session and IRWD priorities. As legislation develops, staff will provide updates and recommendations to the Water Resources Policy and Communications Committee and the Board, as appropriate. Staff recommends that the Board receive and file the update.

BACKGROUND:

September 11, 2015, was the last day of the 2015 legislative session and the last day for the Legislature to act on regular session bills before the Interim Recess. The Governor has until October 11, 2015, to sign or veto legislation passed by the Legislature during the first year of the 2015-16 legislative session. The State Legislature will reconvene from the Interim Recess on January 4, 2015, unless a special session is called.

Staff will provide a verbal update on developments in the last days of session at the meeting. A copy of the 2015 State Legislative Matrix is attached as Exhibit "A".

State Budget Update:

July Revenue Numbers:

On August 10, 2015, State Controller Betty Yee released her monthly report on the State's finances. She announced that the State took in \$12.3 million or 0.2 percent less than projections in the Fiscal Year 2015-16 adopted budget during the month of July. The report summarizes the month's revenues as:

"Personal income tax, which surged throughout the previous fiscal year, continued to beat expectations. The state collected \$4.5 billion in July, 2.8 percent more than expected in the budget for the fiscal year that started July 1. However, this windfall was offset by shortfalls in the state's other two main sources of revenue — sales and use tax and corporation tax. Sales and use tax totaling \$858.7 million fell short of projections by \$113.8 million, or 11.7 percent. Corporation tax revenues came in \$1 million, or 0.3 percent, lower than expected."

IRWD 2015 Legislative Priorities:

Common Interest Developments and Drought Response:

The Davis-Stirling Common Interest Development Act provides for the creation and regulation of common interest developments (HOAs). That Act provides that any provision of an HOA's

governing documents is void and unenforceable if it prohibits, or has the effect of prohibiting, the use of low water-using plants as a group or compliance with a local water-efficient landscape ordinance or water conservation measure. The Act also deals with an HOA's ability to fine homeowners who reduce or eliminate watering of vegetation or lawns during a declared drought emergency. Specifically, it prohibits an HOA from fining a homeowner for eliminating outdoor watering during a declared drought emergency except where the HOA uses recycled water for landscape irrigation. Staff has continued to work to mitigate the impact of this provision on homeowners who take steps to substantially reduce outdoor water use during the drought.

On August 19, 2015, Assembly Water, Parks and Wildlife Chairman Marc Levine (D-San Rafael) gutted and amended AB 786 to address this issue. As amended, AB 786 would clarify that an HOA shall not impose a fine or assessment against an owner of a separate interest for reducing or eliminating the watering of vegetation or lawns during any period for which a drought emergency has been declared. The one exception to this prohibition is where the separate interest prior to the imposition of a fine or assessment receives recycled water from a retail water supplier and fails to use that recycled water for landscaping irrigation. A copy of AB 786, as amended, is attached as Exhibit "B".

IRWD has sent a letter in support of AB 786. The bill, which contains an urgency measure, was passed by the Senate on a vote of 38 to 0. As of the writing of this report, it is in the Assembly for a vote of concurrence. Staff continues to work on this issue and will provide an oral update on any new developments.

Updates on 2015 State Legislation of Interest to IRWD:

Public Goods Charge for Water:

Senator Fran Pavley (D-Calabasas) gutted and amended SB 20 on August 26, 2015, to begin a policy conversation on a public goods charge for water. As amended, the bill does not contain a funding mechanism but would create the California Water Resiliency Investment Fund. The bill seeks to create the following five accounts within the fund:

- Emergency Drought Response and Recovery Account: This account would support emergency actions to protect vulnerable populations from the severe impacts of droughts, including providing emergency drinking water and other residential water supplies, food assistance, employment training and placement and other economic relief;
- Integrated Regional Water Resiliency and Management Account: This account would provide matching grants to local and regional agencies to increase regional self-reliance and result in integrated, multi-benefit solutions for ensuring sustainable water resources. Eligible projects many include groundwater storage, wastewater recycling, stormwater capture, water conservation, flood management and other water supply and quality projects;

- Safe Drinking Water for Disadvantaged Communities Account: This account would support planning, construction, operations and maintenance of drinking water systems for disadvantaged communities;
- Environmental Resilience and Recovery Account: This account would provide funding to restore and protect fish and wildlife habitats and populations to avoid or reduce conflicts with water management systems; and
- Smart Water Data Program Account: This account would support improved data and information systems that enable better management of water resources and to further facilitate expansion of water markets.

According to sources close to the author, Senator Pavley does not intend to move the bill this year. The amendments to SB 20 are intended to begin a conversation on a sustainable funding source (i.e., a public goods charge for water) for state and local water infrastructure needs. A copy of SB 20 is attached as Exhibit “C”.

Staff has begun to engage with IRWD’s industry and association partners to oppose a public goods charge for water consistent with the Board-adopted policy principle. Staff will provide an oral update on any developments related to a public goods charge for water.

Proposals on Groundwater Adjudications:

After the adoption of sustainable groundwater management legislation last year, the Administration and the Legislature indicated their interest in pursuing legislation related to groundwater adjudications this year. As reported previously, there are two legislative proposals related to groundwater adjudications before the Legislature— AB 1390 (Alejo, D-Salinas) and SB 226 (Pavley, D-Calabasas). On July 22, 2015, the Administration released its proposal.

The Administration’s proposal attempts to provide a modern, comprehensive adjudication process for all groundwater basins that are regulated under the Sustainable Groundwater Management Act (SGMA). The proposal seeks to make the adjudication process more cost-effective, ensure that the process is fair, and harmonize the process with SGMA to ensure that parties have a forum to determine their water rights but do not use it to obstruct or delay SGMA.

AB 1390 and SB 226 were amended in mid-August to reflect the Administration’s proposal. The authors, the Administration, and a small group of stakeholders, who were members of the small group that worked on SGMA last year, continue to negotiate amendments to the bills, which each carry portions of the Administration’s proposal.

As previously described to the Board, staff has reviewed the Administration’s proposal. As currently drafted, the proposal may affect IRWD’s groundwater interests and ability to engage in an adjudication related to those interests. Staff has engaged with stakeholders and decision makers regarding these proposals to protect IRWD’s interests related to groundwater adjudications and to advocate for changes consistent with the District’s Groundwater Management Policy Principles. IRWD proposed several clarifying amendments, which were

discussed by the small group, that would protect the District's interests. IRWD's amendments were accepted, and inserted into AB 1390 and SB 226.

Staff will provide an oral update on any new developments.

SB 555 (Wolk, D-Vacaville)— Urban Retail Water Suppliers: Water Loss Management:

SB 555, authored by Senator Lois Wolk (D-Vacaville), would require each urban water supplier to conduct a validated water loss audit annually using the American Water Works Association Manual M36's method of evaluation. The validation process would require an urban water supplier to use a technical expert to confirm the basis of all data entered into the audit report and to appropriately characterize the quality of the reported data. The audits are to be submitted to the Department of Water Resources (DWR), and DWR is required to post them on its website in a manner that allows for a comparison of water supplier losses. In addition, the bill directs the State Water Resources Control Board (SWRCB) to adopt rules requiring urban water suppliers to meet performance standards for the volume of water losses.

As currently drafted, the bill requires that urban water suppliers submit their audits to DWR on July 1 of each year for the previous calendar year. Because water loss audits require financial data, it makes more sense for the audit to be based on a fiscal year and to have the reports due in the fall. This type of amendment would allow IRWD to use its current water loss audits for multiple purposes. Staff approached the author's office seeking this amendment. Senator Wolk's office has indicated their willingness to amend SB 555 to reflect this timing. The amendments make the bill's requirements more workable for the District.

IRWD has sent a letter in support of SB 555, which either will become law or be implemented via regulation by the SWRCB.

A copy of SB 555 is attached as Exhibit "D".

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on September 8, 2015.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

- Exhibit "A" – 2015 IRWD Legislative Matrix
- Exhibit "B" – AB 786 (Levine), as amended on September 2, 2015
- Exhibit "C" – SB 20 (Pavley), as amended on August 26, 2015
- Exhibit "D" – SB 555 (Wolk), as amended on September 1, 2015

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
AB 1 Brown (D)	Drought: Local Governments: Fines		Prohibits a city, county, or city and county from imposing a fine under any ordinance for a failure to water a lawn or having a brown lawn during a period for which the Governor has issued a proclamation of a state of emergency based on drought conditions.	07/13/2015 - Chaptered by Secretary of State. Chapter No. 62
AB 2 Alejo (D)	Community Revitalization Authority		Authorizes certain local agencies to form a community revitalization authority with a community revitalization and investment area to carry out provisions of the Community Redevelopment Law in that area for infrastructure, affordable housing, and economic revitalization and to provide for the issuance of bonds serviced by tax increment revenues. Requires the authority to adopt a community revitalization and investment plan. Provides for audits. Requires funds in a specified fund to be for housing needs.	08/31/2015 - In SENATE. Read second time. To third reading.
AB 10 Gatto (D)	Political Reform Act of 1974: Economic Disclosures		Increases the thresholds at which a public official has a disqualifying financial interest in sources of income in investments in business entities and in interests in real property. Revises the dollar amounts associated with the value ranges for reporting the value of economic interests. Requires certain public officials to disclose information relating to governmental decisions for which the public official had a disqualifying financial interest.	08/27/2015 - From SENATE Committee on APPROPRIATIONS: Do pass as amended.;08/27/2015 - In SENATE. Read second time and amended. To third reading.
AB 12 Cooley (D)	State Government: Administrative Regulations: Review		Requires each state agency after a noticed public hearing, to review the agency's regulations, identify any regulations that are duplicative, overlapping, inconsistent, or out of date, to revise those identified regulations, and report to the Legislature and Governor.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
AB 14 Waldron (R)	Unmanned Aircraft Systems: Task Force		Creates the Unmanned Aircraft Systems Task Force to research, develop, and formulate a comprehensive policy for unmanned aircraft systems. Requires the task force to submit a policy draft and suggested legislation pertaining to unmanned aircraft systems.	04/13/2015 - In ASSEMBLY Committee on TRANSPORTATION: Failed passage.;04/13/2015 - In ASSEMBLY Committee on TRANSPORTATION: Reconsideration granted.
AB 21 Perea (D)	Global Warming Solutions Act of 2006: Scoping Plan		Requires the State Air Resources Board in preparing its scoping plan for achieving the maximum technologically feasible and cost-effective reductions	06/30/2015 - In SENATE. Read second time. To third

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			in greenhouse gas reduction, to consult with specified State agencies regarding matters involving energy efficiency and the facilitation of the electrification of the transportation sector.	reading.
AB 23 Patterson (R)	Global Warming Solutions Act of 2006: Compliance		Exempts categories of persons or entities that did not have a compliance obligation under a market-based compliance mechanism from being subject to that market-based compliance mechanism.	03/23/2015 - In ASSEMBLY Committee on NATURAL RESOURCES: Failed passage.;03/23/2015 - In ASSEMBLY Committee on NATURAL RESOURCES: Reconsideration granted.
AB 33 Quirk (D)	Global Warming Solutions Act: Energy Emission Reduction		Establishes the Energy Sector Emissions Reduction Advisory Council to recommend strategies for the electricity sector for incorporation into the scoping plan prepared by the State Air Resources Board, based on specified analysis including various strategies that could be implemented to reduce emissions of greenhouse gases from the electricity sector and integrate increasing amounts of renewable energy into the grid. Relates to real-time pricing for all customer classes.	08/31/2015 - In SENATE. Read second time. To third reading.
AB 45 Mullin (D)	Household Hazardous Waste		Requires each jurisdiction providing for the residential collection and disposal of solid waste to increase the collection and diversion of household hazardous waste in its service area over the baseline. Provides the increase is to be determined in accordance with Department of Resources Recycling and Recovery regulations. Authorizes the adoption of a model ordinance for a comprehensive program for the collection of waste. Requires an annual report to the Department on progress in achieving compliance.	05/20/2015 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspense File.
AB 56 Quirk (D)	Unmanned Aircraft Systems		Prohibits law enforcement agencies from using unmanned aircraft system or obtaining same from another public agency. Provides exceptions. Provides the requirements that must be met in order to utilize such systems. Relates to data and images subject to disclosure and provides for the destruction of such materials. Prohibits the equipping of such systems with any weapon or related device. Requires information safeguards. Provides surveillance restrictions. Pertains to all such agencies and their contractors.	09/01/2015 - In SENATE. Read second time and amended. To third reading.

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
AB 78 Mathis (R)	Groundwater Basins		Makes technical nonsubstantive changes to existing law that requires the Department of Water Resources to categorize each basin or subbasin as high-, medium-, low-, or very low priority and to establish ground water the initial priority for each basin.	01/05/2015 - INTRODUCED.
AB 88 Gomez (D)	Sales and Use Taxes: Exemption: Home Appliances		Exempts from the sales and use tax laws the gross receipts from the sale of, and the storage, use, or other consumption in the State of, an energy or water efficient home appliance purchased by a public utility that is provided at no cost to a low-income participant in a federal, state, or ratepayer-funded energy or water efficiency program for use by that low-income participant in the energy efficiency program.	09/01/2015 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY for concurrence.
AB 149 Chavez (R)	Urban Water Management Plans	Support	Requires each urban water supplier to update and submit a urban water management plan for a specified year to the State Department of Water Resources by a specified date. Requires the Department to submit its urban water management plan report for that same specified year to the Legislature by a specified date.	07/06/2015 - Signed by GOVERNOR.;07/06/2015 - Chaptered by Secretary of State. Chapter No. 49
AB 156 Perea (D)	Global Warming Solutions Act: Disadvantaged Communities		Requires the State Air Resources Board, pursuant to the Global Warming Solutions Act of 2006, to post on its Internet Web site a specified report on the projects funded to benefit disadvantaged communities. Requires the Board to establish and accomplish a comprehensive technical assistance program, upon appropriation from the Greenhouse Gas Reduction Fund, for eligible applicants assisting defined eligible communities. Requires an allocation to the Board for the program.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
AB 219 Daly (D)	Public Works: Concrete Delivery		Expands the definition of public works for purposes of requirements regarding the payment of prevailing wages for public works projects to include the hauling and delivery of ready-mixed contract to carry out a public works contract, with respect to contracts involving any State agency or any political subdivision of the State. Requires the applicable prevailing wage rate to be the rate for the geographic area in which the concrete factory or batching plant is located. Relates to subcontracting.	09/01/2015 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY for concurrence.
AB 243 Wood (D)	Medical Marijuana Cultivation		Establishes the Division of Medical Cannabis Cultivation. Requires an applicant to obtain a city or county conditional permit and a state medical marijuana cultivation license prior to cultivation. Implements an identification program	09/01/2015 - In SENATE. Read second time and amended. To third reading.

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			and a fee to include costs of monitoring, tracking and plant inspections. Requires tax remittance. Establishes a related fund for tax moneys. Require the division to ensure that cultivation will not negatively impact springs, riparian wetlands, and aquatic habitats.	
AB 259 Dababneh (D)	Personal Information Privacy		Requires an agency, if the agency was the source of the breach and the breach compromised a person's social security number, driver's license number, or California identification card number, to offer to provide the person with identity theft prevention and mitigation services at no cost for not less than 12 months.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
AB 291 Medina (D)	Environmental Quality Act: Local Agencies: Water		Authorizes a local agency, for certain water projects, to file a specified notice with the county clerk of the county in which the local agency's principal office is located, along with any required payment to the Department of Fish and Wildlife, and with the Office of Planning and Research and to transmit a copy of the notice to the county clerk of the counties in which the project is located. Requires the notice and the copies of the notice to be available to for public inspection. Relates to challenges.	06/10/2015 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;06/10/2015 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.
AB 307 Mathis (R)	Graywater: Groundwater Recharge		States the intent of the Legislature to enact legislation to explicitly permit the usage of residential, commercial, and industrial graywater for the recharge of a groundwater basin or aquifer.	02/12/2015 - INTRODUCED.
AB 308 Mathis (R)	Graywater: Agricultural Use		States the intent of the Legislature to enact legislation to explicitly permit incorporated and unincorporated communities to sell graywater for agricultural purposes and agriculture to use graywater for agricultural purposes.	02/12/2015 - INTRODUCED.
AB 311 Gallagher (R)	Environmental Quality: Water Quality and Supply		Requires the public agency, in certifying the environmental impact report and in granting approvals for specified water storage projects funded, in whole or in part, by Proposition 1, to comply with specified procedures. Requires the Judicial Council to adopt a rule of court to establish procedures applicable to actions or proceedings seeking judicial review of an agency's action in certifying the environmental impact report and in granting project approval. Relates to court staying of the projects.	04/29/2015 - From ASSEMBLY Committee on NATURAL RESOURCES without further action pursuant to JR 62(a).

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Bill No. Author	Title	IRWD Position	Summary/Effects	Status
AB 327 Gordon (D)	Public Works: Volunteers		Extends the provisions of existing law that provides governing public works does not apply to specified work performed by a volunteer, a volunteer coordinator, or a member of the California Conservation corps or a community conservation corps.	07/06/2015 - Signed by GOVERNOR.;07/06/2015 - Chaptered by Secretary of State. Chapter No. 53
AB 335 Patterson (R)	Air Quality: Minor Violations		Requires the State Air Resources Board and air pollution control and air quality management districts to adopt regulations classifying minor violations. Requires a representative of those agencies to issue a notice to comply. Requires the State Air Resources Board to report to the Legislature regarding implementation of these provisions. Exempts such districts from these provisions if the districts have a similar program in effect as of a specified date.	05/19/2015 - From ASSEMBLY Committee on NATURAL RESOURCES without further action pursuant to JR 62(a).
AB 341 Achadjian (R)	Financial Affairs: Reports		Amends existing law requiring the officer of each local agency, who has charge of the financial records of the local agency, to furnish to the Controller a report of all such transactions of the local agency during the preceding fiscal year. Requires the report to contain underlying data from audited financial statements, if this data is available, and extends time to furnish the report. Provides a due date for reporting of the annual compensation for a local agency's elected officials and employees.	07/02/2015 - Signed by GOVERNOR.;07/02/2015 - Chaptered by Secretary of State. Chapter No. 37
AB 349 Gonzalez (D)	Common Interest Developments: Property Use		Amends the Davis-Stirling Common Interest Development Act. Makes void and unenforceable any provision of governing documents, architectural or landscaping guidelines or policies that prohibit the use of artificial turf or any other synthetic surface that resembles grass. Prohibits a requirement that an owner of a separate interest remove or reverse water-efficient landscaping measures, installed in response to a declaration of a state of emergency, upon the conclusion of the state of emergency.	08/27/2015 - In ASSEMBLY. ASSEMBLY concurred in SENATE amendments. To enrollment.;08/27/2015 - Enrolled.;08/27/2015 - *****To GOVERNOR.
AB 356 Williams (D)	Oil and Gas: Groundwater Monitoring		Authorizes the State Oil and Gas Supervisor to require a well operator to implement a monitoring program for below ground oil production tanks and facilities, and disposal and injection wells. Requires the annual review of underground injection or disposal projects that use Class II wells. Requires the submission of a related groundwater monitoring plan. Requires submission of certain data for the State's geotracker database. Provides procedures for an aquifer exemption. Relates to plan modification.	06/11/2015 - In ASSEMBLY. Reconsideration granted.;06/11/2015 - In ASSEMBLY. From third reading. To Inactive File.
AB 401	Low-Income Water Rate		Requires the Department of Community Services and Development to develop a	09/01/2015 - In SENATE.

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Dodd (D)	Assistance Program		plan for the funding and implementation of the Low-Income Water Rate Assistance Program, which would include specified elements. Requires the Department to report to the Legislature on its findings regarding the feasibility, financial stability, and desired structure of the program, including any recommendation for legislative action that may need to be taken.	Read second time and amended. To third reading.
AB 402 Dodd (D)	Local Agency Services: Contracts		Revises the circumstances under which a local agency formation commission may authorize a city or district to provide new or extended services. Establishes a pilot program for the Napa, and San Bernardino commissions that would the commissions to authority a city or district to provide new or extended services outside both its jurisdictional boundaries and its sphere of influence under specified circumstances.	09/01/2015 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY for concurrence.
AB 434 Garcia E (D)	Drinking Water: Point-of-Entry: Point-of-Use Treatment		Requires the State Water Resources Control Board to adopt regulations governing the use of point-of-entry and point-of-use treatment by a public water system in lieu of centralized treatment where it can be demonstrated that centralized treatment is not immediately economically feasible. Provides limitations. Prohibits the use of point-of-entry treatment absent a Board determination of no community opposition. Requires adoption of related emergency regulations.	09/01/2015 - In ASSEMBLY. Assembly Rule 77 suspended.;09/01/2015 - In ASSEMBLY. ASSEMBLY concurred in SENATE amendments. To enrollment.
AB 452 Bigelow (R)	Water Rights Fund: Groundwater Regulation		Amends existing law that establishes groundwater reporting requirements for a person extracting groundwater in an area within a basin that is not within the management area of a groundwater sustainability agency or that is a probationary basin. Prohibits water rights fees from being available for expenditure by the Water Resources Control Board for the purposes of Board enforcement of the provisions of the Sustainable Groundwater Management Act and the groundwater reporting requirements.	04/28/2015 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.
AB 453 Bigelow (R)	Groundwater Management		Provides moneys in the Water Rights Fund from certain fees incurred in administering the Sustainable Groundwater Management Act are available for expenditure for the purposes of the Act and certain groundwater reporting requirements. Provides if the expenditures for the Act and groundwater reporting exceed the moneys from the fees, that other money in the Fund can be expended for these purposes if the Fund will be replenished.	09/01/2015 - In SENATE. Read second time. To third reading.

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AB 454 Bigelow (R)	Sustainable Groundwater Management		Relates to groundwater basins. Requires a high- or medium-priority basin that is not subject to critical conditions of overdraft to be managed under a groundwater sustainability plan or coordinated groundwater sustainability plan. Provides for the designation of basins as probationary basins.	04/14/2015 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Do pass to Committee on APPROPRIATIONS.
AB 455 Bigelow (R)	Groundwater Sustainability Plans		Amends the California Environmental Quality Act. Requires the Judicial Council to adopt a rule of court to establish procedures applicable to actions or proceedings brought to attack, review, set aside, void, or annul the certification of an environmental impact report for certain projects covered by a groundwater sustainability plan. Prohibits the court from staying or enjoining the construction or operation of the project unless the court makes a certain finding.	04/14/2015 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.
AB 472 Harper (R)	Public Works: Prevailing Wage: Volunteers		Makes a nonsubstantive, technical change by deleting an obsolete provision in existing law that generally requires the payment of not less than the prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed by workers employed on public works projects, except work performed by a volunteer, a volunteer coordinator, or member of the State Conservation Corps, or a community conservation corps.	02/23/2015 - INTRODUCED.
AB 478 Harper (R)	Desalination		Makes a nonsubstantive change to the Cobey-Porter Saline Water Conversion Law that states the policy of this state that desalination projects developed by or for public water entities be given the same opportunities for state assistance and funding as other water supply and reliability projects, and that desalination be consistent with all applicable environmental protection policies in the state.	02/23/2015 - INTRODUCED.
AB 501 Levine (D)	Resources: Delta Research		Relates to the Sacramento-San Joaquin Delta Reform Act of 2009. Requires a person conducting State-funded Delta Research to take specified actions with regard to the sharing of the primary data, samples, physical collections, and other supporting materials created or gathered in the course of that research. Relates to ineligibility. Authorizes the Delta Independent Science Board to adopt guidelines. Suspends State funding for improper reporting. Provides research property rights remain with the researcher.	04/29/2015 - In ASSEMBLY Committee on APPROPRIATIONS: To Suspense File.
AB 537 Allen T (R)	Public Employees' Benefits		Prohibits a public agency, state employer, employee organization, or public employee from entering into a memorandum of understanding that provides	03/05/2015 - To ASSEMBLY Committee on

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			postemployment health care benefits without a strategy for permanently prefunding members' postemployment healthcare benefits.	PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY.
AB 577 Bonilla (D)	Biomethane: Grant Program		Requires the development and implementation of a grant program to award grants for projects that produce biomethane, that build or develop collection and purification technology or infrastructure, or that upgrade or expand existing biomethane facilities. Authorizes moneys in the Greenhouse Gas Reduction Fund to be used to fund grants awarded under the program.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
AB 585 Melendez (R)	Outdoor Water Efficiency: Personal Income Tax Credits	Support	Relates to the Outdoor Water Efficiency Act. Allows a credit, under the Personal Income Tax Law, for a specified percentage of the amount paid or incurred by a qualified taxpayer for water-efficiency improvements on qualified real property. Limits the cumulative amount of the credit. Requires a taxpayer to obtain and retain a improvements certification from a regional or local water agency, and to provide a copy to the Franchise Tax Board upon request.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
AB 590 Dahle (R)	Greenhouse Gas Reduction Fund		Provides that moneys in the Greenhouse Gas Reduction Fund account may be made available for expenditure by the State Energy Resources Conservation and Development Commission for maintaining the current level of biomass power generation or geothermal energy generation in the State and revitalizing currently idle facilities in strategically located regions. Establishes requirements for an applicant to receive available funding for a facility's eligible electrical generation.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
AB 603 Salas (D)	Income Taxes: Every Drop Counts Tax Credit	Support	Allows a credit under the Personal Income Tax and the Corporation Tax laws to a taxpayer participating in a lawn replacement rebate program.	05/28/2015 - In ASSEMBLY. Joint Rule 62(a) suspended.;05/28/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
AB 606 Levine (D)	Water Conservation	Support if Amended	Provides that when a state agency builds upon state-owned real property, purchases real property, or replaces landscaping or irrigation, the agency would be required to reduce water consumption and increase water efficiencies for that property where feasible through specified water efficiency measures. Exempts	09/01/2015 - In ASSEMBLY. Assembly Rule 77 suspended.;09/01/2015 - In

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			from such requirements any state-owned property that is leased for agricultural purposes.	ASSEMBLY. ASSEMBLY concurred in SENATE amendments. To enrollment.
<u>AB 617</u> Perea (D)	Groundwater		Defines in-lieu use. Provides that measures addressing such use shall be included in a groundwater sustainability plan. Relates to certain powers of a groundwater sustainability agency, if the agency adopts and submits such plan or alternative documentation. Authorizes an agency to enter into agreements and funding with private parties to assist in plan or plan elements implementation. Provides procedures governing state agency cooperation in regards to the plan. Relates to regional water management plans.	08/31/2015 - In SENATE. Read second time and amended. To third reading.
<u>AB 639</u> Dahle (R)	Water Quality: Membership of Regional Boards		Makes nonsubstantive changes to provisions of existing law which requires the State Water Resources Control Board and the regional water quality control boards to prescribe waste discharge requirements in accordance with the federal national pollutant discharge elimination system permit program established by the federal Clean Water Act and the Porter-Cologne Water Quality Control Act.	02/24/2015 - INTRODUCED.
<u>AB 647</u> Eggman (D)	Beneficial Use: Storing of Water Underground		Declares that the diversion of water to underground storage constitutes a beneficial use of water if the water so stored is thereafter applied to the beneficial purposes for which the appropriation for storage was made, or if the water is so stored consistent with a sustainable groundwater management plan, statutory authority to conduct groundwater recharge, or a judicial decree and is for specified purposes. Requires applying for a permit or petition for a change. Requires including specified conditions.	06/30/2015 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;06/30/2015 - In SENATE. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES AND WATER.
<u>AB 723</u> Rendon (D)	Rental Property: Plumbing Fixtures: Replacement		Requires the lease or rental agreement of a single-family residential real property or any portion of a multifamily residential real property or commercial real property that is entered into, renewed, or amended, be accompanied by a disclosure stating the property owner's responsibility to replace all noncompliant plumbing fixtures with water-conserving plumbing fixtures.	07/16/2015 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<u>AB 725</u>	Water Quality: Recycled	Sponsor	Requires the State Water Resources Control Board to adopt a policy to address	03/26/2015 - To

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Wagner (R)	Water: Storm-Induced Overflow		the potential for a storm-induced overflow from an impoundment in which recycled water is stored for subsequent beneficial use or aesthetic purposes.	ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;03/26/2015 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/26/2015 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<u>AB 786</u> Levine (D)	Common Interest Developments: Property Use	Support	Amends existing law that prohibits an association from imposing a fine or assessment on separate interest owners for reducing or eliminating watering of vegetation or lawns during any period of declared emergency due to drought, except an association that uses recycled water for landscape irrigation. Revises that exception to authorize the owner of a separate interest to be fined or assessed if the property subject to same has previously received, and continues to receive recycled water for such irrigation.	08/31/2015 - In SENATE. Read second time and amended. To third reading.
<u>AB 852</u> Burke (D)	Public Works: Prevailing Wages		Expands the definition of public works for the purposes of provisions relating to the prevailing rate of per diem wages, to also include any construction, alteration, demolition, installation, or repair work done under private contract on a project for a general acute care hospital, when the project is paid for, in whole or in part, with the proceeds of conduit revenue bonds. Provides an exception for a specified hospital.	08/31/2015 - In SENATE. Read second time. To third reading.
<u>AB 856</u> Calderon I (D)	Invasion of Privacy		Expands liability for physical invasion of privacy to additionally include a person knowingly entering into the airspace above the land of another person without permission.	08/31/2015 - Enrolled.
<u>AB 876</u> McCarty (D)	Compostable Organics		Requires a county or regional agency to include in its annual report to the Department for Resources Recycling and Recovery an estimate of the amount of organic waste in cubic yards that will be generated in the county of region	09/01/2015 - *****To GOVERNOR.

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			over a specified time period, an estimate of the additional organic waste recycling facility capacity needed to process that amount of waste, and areas identified as locations for new and expended organic waste recycling facilities capable of safely meeting that additional need.	
AB 888 Bloom (D)	Waste Management: Plastic Microbeads		Prohibits a person from selling or offering for promotional purposes in this state a personal care product containing plastic microbeads that are used to exfoliate or cleanse in a rinse-off product. Provides an exception. Makes a violator liable for a civil penalty to be assessed and recovered in a civil action brought in any court of competent jurisdiction by the Attorney General or local officials. Requires the civil penalties collected to be retained by the office that brought the action.	09/01/2015 - In SENATE. Read third time and amended. To second reading.
AB 935 Salas (D)	Water Projects		Amends existing law which establishes in the Natural Resources Agency the Department of Water Resources, which managed and undertakes planning with regard to water resources in the State. Requires the Department to provide funding for certain projects.	09/01/2015 - In SENATE. Read second time. To third reading.
AB 936 Salas (D)	Groundwater Monitoring		Amends existing law which provides that certain entities with authority to assume groundwater monitoring functions with regard to a basin or subbasin for which the Department of Water Resources has assumed those functions are not eligible for a water grant or loan awarded or administered by the state. Authorizes an exemption for the eligibility restriction if the entity submits specified documentation that provides that there are special circumstances justifying noncompliance.	05/28/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
AB 937 Salas (D)	Groundwater Plan/Assistance: Disadvantaged Communities		Requires the Department of Water Resources to provide technical assistance to disadvantaged communities so that they may participate in groundwater planning, including planning for regional groundwater banking, with any county or other local agency.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
AB 938 Salas (D)	Groundwater: Basin Reprioritization		Imposes the requirement to establish a groundwater sustainability agency on a local agency or combination of local agencies overlying a groundwater basin.	05/07/2015 - To SENATE Committee on NATURAL RESOURCES AND WATER.
AB 939 Salas (D)	Groundwater Sustainability Agencies		Amends existing law which requires a local agency to either establish a groundwater sustainability agency within a specified number of years of	09/01/2015 - In ASSEMBLY. Assembly

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			reprioritization and adopt a groundwater sustainability plan within a specified number of years of reprioritization, or to submit an alternative to the Department of Water Resources that the local agency believes satisfies the objectives the objectives within a specified number of years of reprioritization. Regards fees imposed to fund the program.	Rule 77 suspended.;09/01/2015 - In ASSEMBLY. ASSEMBLY concurred in SENATE amendments. To enrollment.
AB 952 Garcia (D)	Local Government: Vacancies		Provides updated procedures for the filling of a vacancy in an elective office by a city council for a vacancy that occurs in the first half or the second half of the term of office and at least a specified number of days prior to the next general municipal election, the person appointed to fill the vacancy holds office until the next general municipal election at which a person is elected to fill that vacancy, and thereafter, until the person elected is qualified.	08/12/2015 - Signed by GOVERNOR.;08/12/2015 - Chaptered by Secretary of State. Chapter No. 185
AB 954 Mathis (R)	Water and Wastewater Loan and Grant Pilot Program		Creates the Water and Wastewater Loan and Grant Program. Require the State Water Resources Control Board to establish a pilot program to provide low-interest loans and grants to local agencies for grants to eligible individual homeowners for purposes relating to drinking water and wastewater treatment. Creates a related fund for use under the program. Transfers a specified amount of funds from the General Fund to the fund.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
AB 957 Mathis (R)	Water Quality, Supply, Infrastructure Improvement		Relates to grants under the Water Quality, Supply, and Infrastructure Improvement Act of 2014 for water supply reliability improvement to include in that improvement criterion whether the project is proposed by a community that is dependent on groundwater from a basin in overdraft, and would include in the public health benefits criterion whether the project is proposed by a community that has extended, or is in the process of extending, its water service deliveries to specified groundwater entities.	04/28/2015 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.
AB 977 Mayes (R)	State Water Pollution Control Revolving Fund		Amends existing law that requires loans under the State Water Pollution Control Revolving Fund to meet specified criteria, including requiring full amortization not later than a specified number of years after project completion. Requires full amortization not later than another specified number of years after project completion.	03/26/2015 - From ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS with author's amendments.;03/26/2015 - In ASSEMBLY. Read

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				second time and amended. Re-referred to Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
AB 1019 Garcia E (D)	Metal Theft and Related Recycling Crimes		Requires the Department of Justice to establish a Metal Theft Task Force Program designed to enhance the capacity of the department to serve as the lead law enforcement agency in the investigation and prosecution of illegal recycling operations, and metal theft and related recycling crimes. Authorizes the department to enter into partnerships with local law enforcement agencies.	05/28/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
AB 1030 Ridley-Thomas S (D)	Global Warming Solutions Act of 2006: Greenhouse Gas		Amends existing law that relates to the Greenhouse Gas Reduction Fund. Requires priority be given to projects involving hiring that support the targeted training and hiring of workers from disadvantaged communities for career-track jobs.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
AB 1068 Allen T (R)	California Environmental Quality Act: Priority Projects		Authorizes each Member of the Legislature to nominate one project within his or her respective district each year, and the Governor to designate those projects as priority projects if the projects meet specified requirements. Requires the Governor to provide a notice of the designation to the appropriate lead agency and to the Office of Planning and Research. Requires an environmental impact report for each project. Authorizes tiering from previously prepared reports. Relates to court stays of projects.	03/19/2015 - To ASSEMBLY Committees on NATURAL RESOURCES and JUDICIARY.
AB 1095 Garcia E (D)	Salton Sea: Restoration Projects		Requires the Natural Resources Agency to submit to the Legislature a list of defined shovel-ready Salton Sea restoration projects, including information regarding project costs and project completion timelines.	09/01/2015 - In ASSEMBLY. Assembly Rule 77 suspended.;09/01/2015 - In ASSEMBLY. ASSEMBLY concurred in SENATE amendments. To enrollment.
AB 1128 Jones-Sawyer (D)	Water Conservation		Makes nonsubstantive changes to existing law that declares the intent of the Legislature to, among other things, promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's	02/27/2015 - INTRODUCED.

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			adopted best management practices and specified requirements for demand management.	
AB 1139 Campos (D)	Personal Income Tax: Credit: Turf Removal		Allows a taxpayer, under the Personal Income Tax Law, a credit for participation in a lawn replacement program.	03/26/2015 - To ASSEMBLY Committee on REVENUE AND TAXATION.;03/26/2015 - From ASSEMBLY Committee on REVENUE AND TAXATION with author's amendments.;03/26/2015 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on REVENUE AND TAXATION.
AB 1144 Rendon (D)	Renewables Portfolio Standard Program: Credits		Provides that renewable energy credits may be used to meet certain portfolio content requirements if the credits are earned by electricity that is generated by an entity that would be excluded from the definition of an electrical corporation by operation of the exclusions for entities employing landfill or digester gas technology that meets certain requirements, including that the electricity is used at a wastewater treatment facility. Prohibits certain marketing claims.	08/17/2015 - From SENATE Committee on APPROPRIATIONS with author's amendments.;08/17/2015 - In SENATE. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
AB 1201 Salas (D)	Delta: Predation by Nonnative Species	Support	Requires the State Department of Fish and Wildlife to develop a science-based plan that addresses predation by nonnative species upon species of fish listed pursuant to the State Endangered Species Act that reside all or a portion of their lives in the Sacramento-San Joaquin Delta and that considers predation reduction for all Chinook salmon and other native species not listed pursuant to the Act. Provides for input from the scientific community, water users and fishing communities.	08/27/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.

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<u>AB 1242</u> Gray (D)	Water Quality: Groundwater Impacts		Requires the State Water Resources Control Board, in formulating State policy for water quality control and adopting or approving a water quality control plan for the Sacramento-San Joaquin Delta, to take into consideration any applicable groundwater sustainability plan or alternative and available information regarding the impacts of groundwater use and management on beneficial uses of surface waters.	09/01/2015 - In SENATE. Read third time and amended. To second reading.
<u>AB 1243</u> Gray (D)	Groundwater Recharge: Grants		Establishes the Groundwater Recharge Grant Fund. Provides that moneys in the fund are available to the State Water Resources Control Board to provide grants to local governments and water districts for groundwater recharge infrastructure projects.	04/14/2015 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.
<u>AB 1315</u> Alejo (D)	Public Contracts Water Pollution Prevention Plans		Prohibits a public entity, charter city, or charter county from delegating to a contractor the development of a plan used to prevent or reduce water pollution or runoff on a public works contract. Provides exceptions. Prohibits those same entities from requiring a contractor on a public works contract that includes compliance with a plan to assume responsibility for the completeness and accuracy of a plan developed by that entity.	05/28/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<u>AB 1325</u> Salas (D)	Delta Smelt		Enacts the Delta Smelt Preservation and Restoration Act of 2016. Requires the development of a deltas smelt hatchery program to preserve and restore the delta smelt. Requires entering into mitigation banking agreements with banking partners of the Department of Fish and Wildlife for the purpose of providing take authorizations to those partners and to obtain funding from banking agreements. Appropriates an unspecified amount of money from an unspecified source to implement these provisions.	04/28/2015 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Failed passage.;04/28/2015 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Reconsideration granted.
<u>AB 1362</u> Gordon (D)	Local Government Assessments Fees and Charges		Defines stormwater for purposes of the Proposition 218 Omnibus Implementation Act to mean any system of public improvements or service intended to provide for the quality, conservation, control, or conveyance of waters that land on or drain across the natural or man-made landscape.	03/23/2015 - To ASSEMBLY Committee on LOCAL GOVERNMENT.
<u>AB 1390</u> Alejo (D)	Groundwater: Adjudication		Establishes special comprehensive adjudication procedures for an action to determine the rights to extract groundwater in a basin. Authorizes determining all rights to groundwater in a basin whether based on appropriation, overlying	09/01/2015 - In SENATE. Read second time and amended. To third reading.

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			right, or other basis. Provides provisions that specify procedures, including court procedures, for the handling and processing of complaints regarding groundwater usage. Relates to comprehensive adjudication and to the use of case management conferences.	
<u>AB 1454</u> Wagner (R)	Water Quality: Trash: Single-Use Carryout Bags		Suspends the operation of certain amendments to water quality control plans relating to the total maximum daily load for trash unless and until specified provisions inoperative due to a pending referendum election become effective. Requires the State Water Resources Control Board to revisit and revise the water quality control plans to address impaired water quality due to trash if the law pending referendum is defeated.	04/23/2015 - Re-referred to ASSEMBLY Committee on RULES.
<u>AB 1463</u> Gatto (D)	Onsite Recycled Water		Requires the State Water Resources Control Board to establish water quality standards and reporting requirements for onsite water recycling systems using blackwater. Authorizes the Department of Housing and Community Development and the State Building Standards Commission to authorize the use of blackwater in onsite water recycling systems only if prescribed conditions are met. Requires the Department to adopt building standards for all categories of residential and commercial onsite recycled water.	06/18/2015 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;06/18/2015 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.
<u>AB 1532</u> Local Government Cmt	Local Government: Omnibus		Amends provisions regarding local governments to include the revision of existing law regarding local agency formation commissions. Revises provisions regarding hospital districts, conflict of interest rules for a commission appointed legal counsel, the annexation of inhabited territory, and the issuance of a certificate of completion or termination regarding the consolidation of cities or districts.	07/15/2015 - Signed by GOVERNOR.;07/15/2015 - Chaptered by Secretary of State. Chapter No. 114
<u>AB 1534</u> Ting (D)	Assessment Analyst: Certification		Prohibits an assessor or any person employed by the Office of the County Assessor from making decisions with regard to change in ownership, or with regard to property tax exemptions, except a homeowners' exemption claim, unless he or she is the holder of a valid assessment analyst certificate issued by the State Board of Equalization. Requires prescribed annual training for certification. Provides for advanced certification. Provide failure to complete	08/31/2015 - In SENATE. Read second time. To third reading.

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SB 7 Wolk (D)	Housing: Water Meters: Multi-unit Structures		training would be grounds for revocation. Requires a landlord to make submeter disclosures to a tenant prior to executing a rental agreement. Relates to tenant billing procedures and requirements. Authorizes building standards that require the installation of water submeters in multiunit residential buildings. Provides structure exemptions. Relates to landlord requirements. Relates to the use of meters or submeters in new mixed-use residential and commercial structures as a condition for service. Requires licensed contractors do the installation.	09/01/2015 - In ASSEMBLY. Read second time. To third reading.
SB 13 Pavley (D)	Groundwater		Authorizes the State Water Resource Control Board to designate a basin as a probationary basin and to develop an interim plan. Relates to deficiency remedies by a local agency or groundwater sustainability agency, and to the designation of a basin as probationary. Relates to establishing a groundwater sustainability plan. Authorizes a mutual water company to participate in such agency. Provides a water corporation or mutual water company may participate. Requires an agreement for agency designation.	08/28/2015 - *****To GOVERNOR.
SB 20 Pavley (D)	State Water Resiliency Investment Act		Creates the State Water Resiliency Investment Fund. Provides that moneys in the Fund are available for the purpose of providing a more dependable water supply in the State. Creates various accounts within the Fund for prescribed purposes.	08/26/2015 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;08/26/2015 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
SB 32 Pavley (D)	Global Warning Solutions Act of 2006		Requires the State Air Resources Board to approve a specified statewide greenhouse gas emission limits that are the equivalent to a specified percentage below the 1990 level to be achieved by 2030 and another percentage below the 1990 level by 2050. Authorizes the Board to approve an interim emissions level target to be achieved by 2040. Revises current provisions of existing law regarding the implementation of the next update of a greenhouse gas scoping plan under existing law.	09/01/2015 - In ASSEMBLY. Read second time. To third reading.

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SB 47 Hill (D)	Environmental Health: Synthetic Turf		Requires the Office of Environmental Health Hazard Assessment, in consultation with the Department of Resources Recycling and Recovery, the State Department of Public Health, and the Department of Toxic Substances Control, to prepare and provide to the Legislature and post on the office's Internet Web site a study analyzing synthetic turf, for potential adverse health impacts. Provides the information to be included in the study. Authorizes grant to crumb rubber businesses to find alternative markets.	05/28/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
SB 113 Galgiani (D)	Disaster Preparedness and Flood Prevention Bond Act		Specifies that the Disaster Preparedness and Flood Prevention Bond Act of 2006 funds provided by the act are only available for appropriation until a specified date and at that time the amount of indebtedness authorized by the act is reduced by the amount of funds that have not been appropriated. Makes available a specified amount of funding for the upgrade of the levee system of a specified reclamation district to provide urban level of flood protection.	07/02/2015 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;07/02/2015 - In SENATE. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES AND WATER.
SB 119 Hill (D)	Protection of Subsurface Installations		Relates to excavation. Makes changes relating to a regional notification center and subsurface installations. Provides for delineation of areas to be excavated, preservation of certain plans, excavator damages for improperly inaccurate field mark, pipeline safety, an exemption for certain residential property owners using hand tools, the creation of an advisory committee, the use of moneys collected as a result of the issuance of citations, gas corporations' damage prevention programs, and related reports.	09/01/2015 - In ASSEMBLY. Read second time. To third reading.
SB 122 Jackson (D)	Environmental Quality Act: Record of Proceedings		Amends the Environmental Quality Act. Relates to a database for the collection, storage, retrieval, and dissemination of environmental documents, notices of exemption, notices of preparation, notices of determination, and notices of completion provided to the office that shall be available online to the public through the internet. Provides for the phase-in of electronic documents. Requires the lead agency to submit to the State Clearinghouse a sufficient number of environmental documents for review.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.
SB 127	Water Quality, Supply, and		Relates to the Water Quality, Supply, and Infrastructure Improvement Act of	02/05/2015 - To SENATE

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Vidak (R)	Infrastructure Improvement		2014. Requires the public agency, in certifying the environmental impact report and in granting approvals for projects funded, in whole or in part, by Proposition 1, including the concurrent preparation of the record of proceedings and the certification of the record of proceeding within 5 days of the filing of a specified notice, to comply with specified procedures.	Committees on ENVIRONMENTAL QUALITY and JUDICIARY.
SB 142 Jackson (D)	Civil law: Unmanned Aerial Vehicles		Extends liability for wrongful occupation of real property and damages to a person who operates an unmanned aircraft or unmanned aircraft system less than a specified distance above ground level within the airspace overlaying the real property, without the express permission of the person or entity with the legal authority to grant access or without legal authority.	08/28/2015 - *****To GOVERNOR.
SB 143 Stone (R)	Diamond Valley Reservoir: Recreational Use	Oppose	Amends existing law that prohibits recreational use in which there is bodily contact with water, in a reservoir in which water is stored for domestic use.	02/05/2015 - To SENATE Committee on ENVIRONMENTAL QUALITY.
SB 173 Nielsen (R)	Groundwater: De Minimis Extractors		Amends existing law that generally excepts a de minimis extractor from the requirement that a person who extracts groundwater from a probational basin or extracts groundwater on or after July 1, 2017, in an area within a basin that is not within the management area of a groundwater sustainability agency and where the county does not assume responsibility to be the groundwater sustainability agency has to file a report of groundwater extraction. Defines a de minimis extractor.	03/24/2015 - In SENATE Committee on NATURAL RESOURCES AND WATER: Failed passage.;03/24/2015 - In SENATE Committee on NATURAL RESOURCES AND WATER: Reconsideration granted.
SB 179 Berryhill (R)	Secondhand Goods: Junk Dealers		Makes nonsubstantive changes to existing law that prohibits a junk dealer or recycler from possessing a reasonably recognizable, disassembled, or inoperative fire hydrant or fire department connection, a manhole cover or lid, or a backflow device, that was owned by an agency, without a written certification on the agency's letterhead that the agency either has sold the material described or is offering the material for sale.	02/19/2015 - To SENATE Committee on RULES.
SB 184 Hertzberg (D)	Local Government: Omnibus Bill		Clarifies that provisions in existing law relating to the authority of the duties of the auditor apply only to the county auditor. Authorizes marginal notations on recorded records. Repeals keeping an index of separate property of married	08/26/2015 - *****To GOVERNOR.

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			women. Authorizes general grantor-grantee index in computerized of electronic format. Deletes certain endorsement requirements. Deletes certain name and address posting on records requirements. Updates government contract cost accounting. Relates to local contract bidding.	
SB 185 De Leon (D)	Public Retirement Systems: Divestiture of Thermal Coal		Prohibits the boards of the Public Employees' Retirement System and the State Teachers' Retirement System from making new investments or renewing existing investments of funds in a thermal coal company. Requires the boards to liquidate investments and to engage with such companies to ascertain if they are transitioning to clean energy generation business models. Requires the boards to file a report including a list of companies of which they have liquidated their investments.	08/31/2015 - In ASSEMBLY. Read second time. To third reading.
SB 208 Lara (D)	Integrated Regional Water Management Plans: Grants		Requires a regional water management group to provide the Department of Water Resources with a list of projects to be funded by the grant funds where the project proponent is a nonprofit organization or a disadvantaged community, or the project benefits a disadvantaged community. Requires the Department to provide advanced payment of a percentage of the grant from those projects that satisfy specified criteria. Authorizes the Department to adopt additional requirements to assure payment is used properly.	09/01/2015 - In ASSEMBLY. Read third time. Passed ASSEMBLY. To enrollment.
SB 216 Pan (D)	Public Employees Retirement System		Amends the Public Employees Retirement System. Repeals the provisions regarding investing in residential realty on the system's investment portfolio. Changes the frequency of a specified report to eliminate the requirement to report on the investments on a cost basis. Makes other changes to the content of the report. Specifies that the option to purchase service credit shall be elected prior to retirement, that the member be returning to State service. Requires supplying retirement eligibility information.	08/26/2015 - *****To GOVERNOR.
SB 223 Galgiani (D)	Division of Boating and Waterways: Oversight Committee		Requires the Division of Boating and Waterways to establish an advisory and oversight committee to evaluate and monitor the activities of the Division relating to the management and control or eradication of invasive aquatic plants. Provides the expertise of members of the committee. Requires the committee to meet a specified amount of times per year and to communicate any findings or recommendations to the Division.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
SB 226	Sustainable Groundwater		Provides for a comprehensive method for determining groundwater rights.	09/01/2015 - In

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Pavley (D)	Management Act		Provides that a court shall use certain procedures for determining rights to groundwater. Requires the rights determination process to be available to specified courts. Authorizes the court to determine all rights to groundwater in a basin. Specifies related service and notice procedures. Requires providing initial disclosures. Requires the imposition of a physical solution where necessary and a stipulated judgment by the court.	ASSEMBLY. Read second time and amended. To second reading.
SB 228 Cannella (R)	Groundwater Storage: Beneficial Use		Declares that the recharging of a groundwater basin by a local groundwater management agency or a local groundwater sustainability agency for the purposes of repelling saline intrusion and recovering basin groundwater levels constitutes a beneficial use of water if the recharge is consistent with the local agency's groundwater management plan or groundwater sustainability plan.	02/26/2015 - To SENATE Committee on NATURAL RESOURCES AND WATER.
SB 248 Pavley (D)	Oil and Gas		Provides for an inspection program for all activities regulated pursuant to provisions concerning drilling, operation, maintenance, and abandonment of oil and gas wells and certain tanks and facilities. Requires inspections to be reported and posted, and the recording of information in a well history, including fluid injection, chemical composition, and waste disposal injection. Provides for shutdown. Requires updating related regulations. Requires notification and clearance of chemical injection.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.
SB 258 Bates (R)	Local Government		States the intent of the Legislature to enact legislation that would protect the right of the public to participate in open deliberations of the legislative bodies of local agencies by clarifying the appropriate use of special meetings.	02/26/2015 - To SENATE Committee on RULES.
SB 272 Hertzberg (D)	State Public Records Act: Local Agencies: Inventory		Requires each local agency, in implementing the State Public Records Act, to create a catalog of enterprise systems, to make the catalog publicly available upon request in the office of the person or officer designated by the agency's legislative body, and to post the catalog on the local agency's Internet Web site. Requires the catalog to disclose a list of the systems utilized by the agency and, among other things, the current system vendor and product.	08/20/2015 - In ASSEMBLY. Read second time. To third reading.
SB 286 Hertzberg (D)	Electricity: Direct Transactions		Requires the Public Utilities Commission to adopt and implement a schedule that implements a specified phase-in period for expanding direct transactions for individual retail nonresidential end-use customers over a maximum time period, raising the allowable limit of kilowatthours that can be supplied by other electrical corporation's distribution service territory to that corporation's share of	08/27/2015 - In ASSEMBLY. Joint Rule 62(a) suspended.

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			the gigawatthours. Requires such customers to be responsible for their share of the costs of specified programs.	
SB 317 De Leon (D)	Safe Neighborhood Parks, Rivers, and Coastal Protection		Enacts the Safe Neighborhood Parks, Rivers, and Coastal Protection Bond Act of 2016, which, if adopted by the voters, would authorize the issuance of bonds in a specified amount pursuant to the State General Obligation Bond Law to finance a safe neighborhood parks, rivers, and coastal protection program.	05/28/2015 - From SENATE Committee on APPROPRIATIONS: Do pass.;05/28/2015 - In SENATE. Read second time. To third reading.
SB 350 De Leon (D)	Clean Energy and Pollution Reduction Act of 2015		Require the quantity of electricity products from eligible renewable energy resources be procured by each retail seller for specified periods. Requires local publicly owned electric utilities to ensure specified quantities of such products be procured. Excludes combustion from municipal waste as eligible energy sources. Requires submission of renewable energy procurement plans. Relates to regulatory disincentives regarding greenhouse emissions reduction. Relates to alternative fuel vehicles.	08/31/2015 - In ASSEMBLY. Read second time. To third reading.
SB 360 Cannella (R)	Biomethane		Authorizes the Public Utilities Commission to consider providing the option to all corporations to engage in competitive bidding and direct investment in ratepayer financed biomethane collection equipment.	03/05/2015 - To SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS.
SB 385 Hueso (D)	Primary Drinking Water Standards: Hexavalent Chromium		Authorizes the State Water Resources Control Board to grant a period of time to achieve compliance with the primary drinking water standard for hexavalent chromium by approving the compliance plan. Requires a public water system to provide specified notice regarding the plan to the persons served and to send status reports to the Board. Authorizes the Board to direct revisions to the plan and to implement, interpret, or make specific provisions by means of criteria, published on its Internet Web site.	08/26/2015 - *****To GOVERNOR.
SB 454 Allen (D)	Water Quality: Oil and Gas: Exempted Aquifer		Relates to water quality, oil and gas wells and exempt aquifers. Prohibits the Division of Oil, Gas, and Geothermal Resources from submitting a proposal for an aquifer exemption to the United States Environmental Protection Agency unless the Division and the State Water Resources Control Board concur in writing that the aquifer meets specified conditions.	06/08/2015 - In SENATE. From third reading. To Inactive File.
SB 471	Water, Energy, Reduction of		Includes reduction of greenhouse emissions associated with water treatment	08/27/2015 - In

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Pavley (D)	Greenhouse Gas Emissions		among the investments that are eligible for funding from the Greenhouse Gas Reduction Fund. Requires the State Water Resources Control Board to establish a grant and loan program for water projects that result in the net reduction of water-related greenhouse gas emissions.	ASSEMBLY. Joint Rule 62(a) suspended.;08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
SB 485 Hernandez (D)	County of Los Angeles: Sanitation Districts		Authorizes specified sanitation districts in the County of Los Angeles, to acquire, construct, operate, maintain, and furnish facilities for the diversion, management, and treatment of stormwater and dry weather runoff, the discharge of the water to the stormwater drainage system, and the beneficial use of the water. Requires a district to consult with the specified entities prior to initiating a stormwater or dry weather runoff program within the boundaries of specified areas.	09/01/2015 - In SENATE. SENATE concurred in ASSEMBLY amendments. To enrollment.
SB 487 Nielsen (R)	Sustainable Groundwater Management Act: Exemptions		Relates to the California Environmental Act (CEQA). Exempts from the requirements of CEQA the formation of a groundwater sustainability agency, the amendment of a groundwater sustainability plan or coordinated groundwater sustainability plan, and the implementation of those plans, except to the extent that the implementation requires the construction or installation of a new facility.	03/12/2015 - To SENATE Committee on ENVIRONMENTAL QUALITY.
SB 551 Wolk (D)	State Water Policy: Water and Energy Efficiency	Seek Amendments	Declares the policy of the state that water use and water treatment shall operate in a manner that is as energy efficient as is feasible and energy use and generation shall operate in a manner that is as water efficient as is feasible. Requires all relevant state agencies to consider this state policy when revising, or establishing policies, regulations, and grant criteria when pertinent to these uses of water and energy.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
SB 552 Wolk (D)	Public Water Systems: Disadvantaged Communities		Requires the State Water Resources Control Board to hold at least one initial public meeting prior to ordering the consolidate or extension of public water system service and to obtain the consent of any domestic well owner. Provides any affected resident and domestic well owner within the service area who does not consent is ineligible for any future water-related grant funding. Requires the Board to compensate certain water systems. Prohibits a charge increase for certain customers.	07/09/2015 - Re-referred to ASSEMBLY Committee on RULES.

EXHIBIT "A"
IRWD 2015 LEGISLATIVE MATRIX
Updated 09/02/2015

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
SB 553 Wolk (D)	Water Conservation		Requires the Department of General Services to identify each public property in the department's state property inventory where it is feasible for water consumption to be reduced and water efficiencies to be achieved through implementation of the relevant recommendations made in the model water efficient landscape ordinance and would require the department to implement the relevant recommendation where feasible.	05/28/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
SB 554 Wolk (D)	Water Commission Disqualifying Financial Interest		Removes a member of the California Water Commission from office if after trial a court finds that the commission member has knowingly participated in any commission decision in which the member has a disqualifying financial interest in the decision.	04/21/2015 - In SENATE Committee on ELECTIONS AND CONSTITUTIONAL AMENDMENTS: Not heard.
SB 555 Wolk (D)	Urban Retail Water Suppliers: Water Loss Management	Support	Require each urban retail water supplier to submit a completed and validated water loss audit report for the previous calendar year. Requires the Department of Water Resources to post reports on its Internet Web site and develop metrics for reporting progress on water loss reduction. Requires rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. Requires the Water Resources Control Board to contribute funds for water loss audit validation assistance.	09/01/2015 - In ASSEMBLY. Read third time and amended. To third reading.
SB 556 De Leon (D)	Victims of Crime: Indemnification: Applications		Relates to indemnification of victims of crime. Defines the time of processing applications. Requires the Victim Compensation and Government Claims Board to post on its Internet Web site its progress and current average time of processing applications, the number of applications approved and denied, and incomplete applications received. Relates to the period of time, including all calendar days, that begins when the board first receives an application and ends when a check is mailed to an eligible victim.	07/13/2015 - In ASSEMBLY. From Consent Calendar. To third reading.
SB 568 Fuller (R)	Groundwater Management		Relates to the Sustainable Groundwater Management Act. Authorizes the State Water Resources Control Board to designate a basin as a probationary basin if the state board makes a certain determination and authorizes the state board to develop an interim plan for the probationary basin.	03/12/2015 - To SENATE Committee on RULES.
SB 615 Berryhill (R)	Waste Discharge: Waivers: Managed Wetlands		Relates to waste discharge requirements, waivers and managed wetlands. Requires each regional board to prescribe waste discharge requirements that implement relevant water quality control plans. Provides for waivers. Amends	04/29/2015 - In SENATE Committee on ENVIRONMENTAL

EXHIBIT "A"
IRWD 2015 LEGISLATIVE MATRIX
Updated 09/02/2015

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			monitoring of wetlands unless results of downstream monitoring demonstrate a violation of water quality discharge standards.	QUALITY: Not heard.
SB 625 Galgiani (D)	Water Management: Synthetic Plastic Microbeads		Prohibits the selling, or offering for promotional purposes a person care product containing synthetic plastic microbeads. Exempts from this prohibition the sale or promotional offer of a product containing a specified amount of such microbeads. Makes a violator liable for a civil penalty for each violation. Authorizes the penalty to be recovered in a civil action brought by the Attorney General. Prohibits any local ordinance, resolution, or rule relating to the sale of such microbeads.	04/22/2015 - Re-referred to SENATE Committees on ENVIRONMENTAL QUALITY and JUDICIARY.
SB 687 Allen (D)	Renewable Gas Standard		Requires the State Air Resources Board to adopt a carbon-based renewable gas standard that requires all gas sellers to provide specified percentages of renewable gas meeting certain deliverability requirements, to retail end-use customers for use in the state that increases over specified compliance periods, and to issue an analysis of the lifecycle emissions of greenhouse gases and reductions for different biogas types and end uses. Requires a renewable gas assessment.	05/28/2015 - In SENATE Committee on APPROPRIATIONS: Held in committee.
SB 704 Gaines T (R)	Public Officers and Employees: Conflicts of Interest		Relates to conflicts of interest of public officers and employees. Provides for an updated definition of remote interest. Includes in the definition the interest of a planner employed by a consulting engineering, architectural, or planning firm.	09/01/2015 - In SENATE. SENATE concurred in ASSEMBLY amendments. To enrollment.;09/01/2015 - Enrolled.
SB 758 Block (D)	Atmospheric Rivers: Research,Mitigation, Forecasting		Establishes the Atmospheric Rivers Research, Mitigation, and Climate Forecasting Program in the State Department of Water Resources to research climate forecasting and the causes and impact that climate change has on atmospheric rivers, to operate reservoirs in a manner that improves flood protection in the State, and to reoperate flood control and water storage facilities to capture water generated from atmospheric rivers.	08/28/2015 - In ASSEMBLY. Read second time. To third reading.
SB 768 Wieckowski (D)	Water-Conserving Plumbing Fixtures		Makes technical, nonsubstantive changes to existing law that requires the replacement of plumbing fixtures that are not water conserving in residential and commercial real property built and available for use on or before a specified date.	03/19/2015 - To SENATE Committee on RULES.
SB 772	Bay Delta Conservation Plan:		States the intent of the Legislature to enact legislation establishing judicial	03/19/2015 - To SENATE

EXHIBIT "A"
IRWD 2015 LEGISLATIVE MATRIX
Updated 09/02/2015

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
Stone (R)	Judicial Review		review procedures for the Bay Delta Conservation Plan.	Committee on RULES.
SB 798 Pavley (D)	Natural Resources		Provides provisions regarding natural resources to include sport fishing regulations, the automated fishing and hunting license data system, the retrocession of jurisdiction by the United States over land within the State, the conveyance of certain State lands to the United States for a lighthouse, membership of the Range Management Advisory Committee, membership on the Coastal Commission, violations of water use and diversion provisions, temporary water diversion permits, and small irrigation water usage.	09/01/2015 - In SENATE. SENATE concurred in ASSEMBLY amendments. To enrollment.
SJR 1 Beall (D)	Social Security: Retirement Benefits: Public Employees		Requests the President and the Congress of the United States to pass legislation repealing the Government Pension Offset and the Windfall Elimination Provisions from the Social Security Act.	07/06/2015 - Chaptered by Secretary of State.;07/06/2015 - Resolution Chapter No. 92

EXHIBIT "B"

AMENDED IN SENATE SEPTEMBER 2, 2015

AMENDED IN SENATE AUGUST 31, 2015

AMENDED IN SENATE AUGUST 19, 2015

AMENDED IN ASSEMBLY APRIL 21, 2015

CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

ASSEMBLY BILL

No. 786

Introduced by Assembly Member Levine

February 25, 2015

An act to amend Section 4735 of the Civil Code, relating to common interest developments, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

AB 786, as amended, Levine. Common interest developments: property use and maintenance.

The Davis-Stirling Common Interest Development Act governs the management and operation of common interest developments. Existing law provides that, unless otherwise provided in the common interest development declaration, the association is responsible for repairing, replacing, or maintaining the common area, other than exclusive use common area, and the owner of each separate interest is responsible for maintaining that separate interest and any exclusive use common area appurtenant to that interest. Existing law makes void and unenforceable any provision of the governing documents or architectural or landscaping guidelines or policies that prohibits use of low water-using plants, or prohibits or restricts compliance with

water-efficient landscape ordinances or regulations on the use of water, as specified.

Existing law also prohibits an association, except an association that uses recycled water for landscape irrigation, from imposing a fine or assessment on separate interest owners for reducing or eliminating watering of vegetation or lawns during any period for which the Governor has declared a state of emergency or the local government has declared a local emergency due to drought.

This bill would revise that exception to instead authorize the owner of a separate interest to be fined or assessed if the property subject to the fine or assessment has previously received, and continues to receive, imposition of a fine or assessment against the owner of a separate interest that receives recycled water from a retail water supplier, as defined, and fails to use that recycled water for landscaping irrigation.

This bill would incorporate additional changes to Section 4735 of the Civil Code proposed by AB 349 that would become operative if this bill and AB 349 are enacted and this bill is enacted last.

This bill would declare that it is to take effect immediately as an urgency statute.

Vote: $\frac{2}{3}$. Appropriation: no. Fiscal committee: no.
State-mandated local program: no.

The people of the State of California do enact as follows:

- 1 SECTION 1. The Legislature finds and declares that due to
- 2 the ongoing emergency drought conditions the state should
- 3 maximize opportunities to conserve potable water, including
- 4 encouraging homeowners to limit the watering of outdoor
- 5 landscaping and removing all impediments to that goal.
- 6 SEC. 2. Section 4735 of the Civil Code is amended to read:
- 7 4735. (a) Notwithstanding any other law, a provision of the
- 8 governing documents or architectural or landscaping guidelines
- 9 or policies shall be void and unenforceable if it does any of the
- 10 following:
- 11 (1) Prohibits, or includes conditions that have the effect of
- 12 prohibiting, the use of low water-using plants as a group or as a
- 13 replacement of existing turf.
- 14 (2) Has the effect of prohibiting or restricting compliance with
- 15 either of the following:

1 (A) A water-efficient landscape ordinance adopted or in effect
2 pursuant to subdivision (c) of Section 65595 of the Government
3 Code.

4 (B) Any regulation or restriction on the use of water adopted
5 pursuant to Section 353 or 375 of the Water Code.

6 (b) This section shall not prohibit an association from applying
7 landscaping rules established in the governing documents, to the
8 extent the rules fully conform with subdivision (a).

9 (c) Notwithstanding any other provision of this part, except as
10 provided in subdivision (d), an association shall not impose a fine
11 or assessment against an owner of a separate interest for reducing
12 or eliminating the watering of vegetation or lawns during any
13 period for which either of the following have occurred:

14 (1) The Governor has declared a state of emergency due to
15 drought pursuant to subdivision (b) of Section 8558 of the
16 Government Code.

17 (2) A local government has declared a local emergency due to
18 drought pursuant to subdivision (c) of Section 8558 of the
19 Government Code.

20 (d) ~~An Subdivision (c) shall not apply to an owner of a separate~~
21 ~~interest may be subject to a fine or assessment if the property~~
22 ~~subject to the fine or assessment has previously received, and~~
23 ~~continues to receive; that, prior to the imposition of a fine or~~
24 ~~assessment described in subdivision (c), receives recycled water,~~
25 ~~as defined in Section 13050 of the Water Code, from a retail water~~
26 ~~supplier, as defined in Section 13575 of the Water Code, and fails~~
27 ~~to use that recycled water for landscaping irrigation.~~

28 SEC. 2.5. Section 4735 of the Civil Code is amended to read:

29 4735. (a) Notwithstanding any other law, a provision of the
30 governing documents or architectural or landscaping guidelines
31 or policies shall be void and unenforceable if it does any of the
32 following:

33 (1) Prohibits, or includes conditions that have the effect of
34 prohibiting, the use of low water-using plants as a group or as a
35 replacement of existing turf.

36 (2) Prohibits, or includes conditions that have the effect of
37 prohibiting, the use of artificial turf or any other synthetic surface
38 that resembles grass.

39 (3) Has the effect of prohibiting or restricting compliance with
40 either of the following:

1 (A) A water-efficient landscape ordinance adopted or in effect
2 pursuant to subdivision (c) of Section 65595 of the Government
3 Code.

4 (B) Any regulation or restriction on the use of water adopted
5 pursuant to Section 353 or 375 of the Water Code.

6 (b) This section shall not prohibit an association from applying
7 landscaping rules established in the governing documents, to the
8 extent the rules fully conform with subdivision (a).

9 (c) Notwithstanding any other provision of this part, except as
10 provided in subdivision (d), an association shall not impose a fine
11 or assessment against an owner of a separate interest for reducing
12 or eliminating the watering of vegetation or lawns during any
13 period for which either of the following have occurred:

14 (1) The Governor has declared a state of emergency due to
15 drought pursuant to subdivision (b) of Section 8558 of the
16 Government Code.

17 (2) A local government has declared a local emergency due to
18 drought pursuant to subdivision (c) of Section 8558 of the
19 Government Code.

20 (d) ~~An~~ *Subdivision (c) shall not apply to an owner of a separate*
21 ~~interest may be subject to a fine or assessment if the property~~
22 ~~subject to the fine or assessment has previously received, and~~
23 ~~continues to receive; that, prior to the imposition of a fine or~~
24 ~~assessment described in subdivision (c), receives recycled water,~~
25 ~~as defined in Section 13050 of the Water Code, from a retail water~~
26 ~~supplier, as defined in Section 13575 of the Water Code, and fails~~
27 ~~to use that recycled water for landscaping irrigation.~~

28 (e) An owner of a separate interest upon which water-efficient
29 landscaping measures have been installed in response to a
30 declaration of a state of emergency described in subdivision (c)
31 shall not be required to reverse or remove the water-efficient
32 landscaping measures upon the conclusion of the state of
33 emergency.

34 SEC. 3. Section 2.5 of this bill incorporates amendments to
35 Section 4735 of the Civil Code proposed by both this bill and
36 Assembly Bill 349. It shall only become operative if (1) both bills
37 are enacted and become effective, (2) each bill amends Section
38 4735 of the Civil Code, and (3) this bill is enacted after Assembly
39 Bill 349, in which case Section 2 of this bill shall not become
40 operative.

1 SEC. 4. This act is an urgency statute necessary for the
2 immediate preservation of the public peace, health, or safety within
3 the meaning of Article IV of the Constitution and shall go into
4 immediate effect. The facts constituting the necessity are:

5 California is in a state of emergency because of the continued
6 drought. In response, Governor Brown issued Executive Order
7 B-29-15, ordering a 25 percent statewide reduction in urban water
8 consumption. Because residential landscaping accounts for 35
9 percent or more of the average urban water usage statewide, many
10 homeowners have voluntarily ceased watering landscaping in order
11 to assist with the drought emergency. However, some homeowners
12 associations have interpreted existing law to allow them to fine
13 homeowners who voluntarily cease using potable water on their
14 landscaping if the homeowners association itself is using a de
15 minimis amount of recycled water on common areas. This is
16 directly contrary to the state's need to conserve the precious and
17 dwindling water supplied for urban, agricultural, and environmental
18 needs.

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EXHIBIT "C"

AMENDED IN ASSEMBLY AUGUST 26, 2015

SENATE BILL

No. 20

Introduced by Senator Pavley

December 1, 2014

An act to ~~repeal and add Section 13752 of~~ *add Division 36 (commencing with Section 86000)* to the Water Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

SB 20, as amended, Pavley. ~~Wells; reports; public availability.~~ *California Water Resiliency Investment Act.*

Under existing law, various measures provide funding for water resources projects, facilities, and programs.

This bill would create the California Water Resiliency Investment Fund in the State Treasury and provide that moneys in the fund are available, upon appropriation by the Legislature, for the purpose of providing a more dependable water supply for California. This bill would create various accounts within the fund for prescribed purposes.

~~Existing law requires a person who digs, bores, or drills a water well, cathodic protection well, or a monitoring well, or abandons or destroys a well, or deepens or reperforates a well, to file a report of completion with the Department of Water Resources. Existing law prohibits those reports from being made available to the public, except under certain circumstances.~~

~~This bill would instead require the department to, upon request, make the reports available to the public. The bill would require the department to provide specified disclaimers when providing the reports to the public. The bill would authorize the department to charge a fee for the provision of a report to recover the department's costs, that does not exceed the reasonable costs to the department of providing the report. The bill~~

would require the release of a report to comply with the Information Practices Act of 1977 and would require the department to redact from the report specified information pertaining to the well owner. The bill would require a person who requests a report to provide his or her name, address, identification number from a government-issued source, as provided, and reason for making the request.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. Division 36 (commencing with Section 86000) is
2 added to the Water Code, to read:

3
4 DIVISION 36. CALIFORNIA WATER RESILIENCY
5 INVESTMENT ACT

6
7 CHAPTER 1. GENERAL PROVISIONS

8
9 86000. This division shall be known and may be cited as the
10 California Water Resiliency Investment Act.

11 86010. The Legislature finds and declares all of the following:

12 (a) California's extreme multiyear drought is raising significant
13 concerns regarding the long-term dependability of water supplies
14 that are critical to the state's residents, economy, and environment.

15 (b) Nearly three-quarters of California is impacted by the severe
16 drought underscoring the need for additional statewide action.

17 (c) The 2015 water year was the driest winter in California's
18 written record and water experts indicate that we could face
19 multiyear droughts that extend years beyond any droughts
20 previously experienced by the state.

21 (d) California could lose 25 percent of the Sierra snowpack by
22 2050 as a result of warmer weather, according to the department.
23 Because the Sierra snowpack is our largest water reservoir, this
24 loss will significantly reduce water supplies when Californians
25 need them the most.

26 (e) By 2050, California is expected to add more than 10 million
27 residents, placing even greater pressure on our water supplies.

28 (f) The current drought has had a disproportionate impact on
29 disadvantaged communities. Falling groundwater levels in portions

1 of the state from reduced rainfall and increased groundwater
2 pumping have left more than 2,000 wells dry or critically near
3 dry, impacting more than 10,000 residents and with a
4 disproportionate impact on disadvantaged communities.

5 (g) Furthermore, thousands of residents of disadvantaged
6 communities lack access to a secure long-term supply of clean
7 drinking water due to polluted groundwater and falling
8 groundwater levels.

9 (h) Reduced streamflows and water for wildlife areas have had
10 a severe impact on fish and wildlife populations, threatening some
11 species with extinction.

12 (i) Reports by the Public Policy Institute of California and others
13 indicate that state and local agencies face a multibillion dollar
14 annual funding deficit in addressing the state’s long-term water
15 needs and that greater investments are needed to protect the state’s
16 economy and natural resources and to ensure that disadvantaged
17 communities have access to safe drinking water.

18 (j) Enactment of Proposition 1, the Water Quality, Supply, and
19 Infrastructure Improvement Act of 2014, provided a critical down
20 payment to address California’s near-term and long-term water
21 needs. Additional actions are needed now to ensure state and local
22 agencies continue to make the needed investments to provide a
23 more dependable water system to meet California’s ongoing needs.

24 (k) To protect the public health and welfare and to protect
25 residential, agricultural, commercial, and environmental uses of
26 water, it is vital that state and local agencies have the resources
27 they need to make responsible and reasonable investments in a
28 more dependable water supply, including by making more efficient
29 use of California’s current sources of water.

30
31 *CHAPTER 2. CALIFORNIA WATER RESILIENCY INVESTMENT*
32 *PROGRAM*
33

34 86020. (a) The California Water Resiliency Investment Fund
35 is hereby created in the State Treasury. Moneys in the fund are
36 available, upon appropriation by the Legislature, for the purpose
37 of, and in held in trust for, providing a more dependable water
38 supply for California.

39 (b) The following accounts are hereby created within the
40 California Water Resiliency Investment Fund:

1 (1) *The Emergency Drought Response and Recovery Account*
2 *to support emergency actions to protect vulnerable populations*
3 *from the severe impacts of droughts, including providing*
4 *emergency drinking water and other residential water supplies,*
5 *food assistance, employment training and placement, and other*
6 *economic relief.*

7 (2) *The Integrated Regional Water Resiliency and Management*
8 *Account to provide matching grants to local and regional agencies*
9 *to increase regional self-reliance and result in integrated,*
10 *multibenefit solutions for ensuring sustainable water resources.*
11 *Eligible projects may include groundwater storage, wastewater*
12 *recycling, stormwater capture, water conservation, flood*
13 *management, and other water supply and quality projects.*

14 (3) *The Safe Drinking Water for Disadvantaged Communities*
15 *Account to support planning, construction, operation, and*
16 *maintenance of drinking water systems for disadvantaged*
17 *communities.*

18 (4) *The Environmental Resilience and Recovery Account to*
19 *provide funding to restore and protect fish and wildlife habitats*
20 *and populations to avoid or reduce conflicts with water*
21 *management systems. Funding from the account shall only be used*
22 *for projects that will provide fisheries, wildlife, or ecosystems with*
23 *benefits or improvements that are greater than required applicable*
24 *environmental mitigation measures or compliance obligations and*
25 *shall not be used to pay for the mitigation or environmental review*
26 *costs of any current or proposed water supply project.*

27 (5) *The Smart Water Data Program Account to support*
28 *improved data and information systems that enable better*
29 *management of water resources and to further facilitate expansion*
30 *of water markets.*

31 ~~SECTION 1. Section 13752 of the Water Code is repealed.~~

32 ~~SEC. 2. Section 13752 is added to the Water Code, to read:~~

33 ~~13752. (a) Upon request, the department shall make available~~
34 ~~to the public a report made in accordance with paragraph (1) of~~
35 ~~subdivision (b) of Section 13751.~~

36 ~~(b) When providing a report to the public pursuant to subdivision~~
37 ~~(a), the department shall also provide a statement that includes all~~
38 ~~of the following:~~

39 ~~(1) The information provided in a report varies in accuracy,~~
40 ~~scale, origin, and completeness.~~

1 ~~(2) The information is provided without warranty of the~~
2 ~~suitability of the information for any particular purpose.~~

3 ~~(3) Use of the information in the report may require professional~~
4 ~~interpretation or judgment.~~

5 ~~(4) Any use of the information provided in a report is at the~~
6 ~~user's own risk.~~

7 ~~(c) (1) The department may charge a fee for the provision of a~~
8 ~~report to recover the department's costs, that does not exceed the~~
9 ~~reasonable costs to the department of providing the report pursuant~~
10 ~~to this section. These costs may include the costs of promulgating~~
11 ~~regulations to implement this section.~~

12 ~~(2) The release of a report in possession of the department shall~~
13 ~~comply with the Information Practices Act of 1977 (Chapter 1~~
14 ~~(commencing with Section 1798) of Title 1.8 of Part 4 of Division~~
15 ~~3 of the Civil Code).~~

16 ~~(3) Prior to releasing a report pursuant to this section, the~~
17 ~~department shall redact from the report the name and address of~~
18 ~~the well owner.~~

19 ~~(d) (1) A person making a request pursuant to subdivision (a)~~
20 ~~shall, on a form provided by the department, provide his or her~~
21 ~~name, address, identification number from an identification card~~
22 ~~issued pursuant to Section 13000 of the Vehicle Code, driver's~~
23 ~~license, or passport, and reason for making the request.~~

24 ~~(2) The department shall maintain copies of the forms submitted~~
25 ~~pursuant to paragraph (1) for five years.~~

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EXHIBIT "D"

AMENDED IN ASSEMBLY SEPTEMBER 1, 2015

AMENDED IN ASSEMBLY AUGUST 17, 2015

AMENDED IN ASSEMBLY JULY 16, 2015

AMENDED IN ASSEMBLY JULY 7, 2015

AMENDED IN SENATE APRIL 16, 2015

AMENDED IN SENATE APRIL 7, 2015

SENATE BILL

No. 555

Introduced by Senator Wolk
(~~Coauthor: Senator~~ Coauthors: *Senators Allen and Pavley*)
(Coauthors: *Assembly Members Chu and Rendon*)

February 26, 2015

An act to add Section 10608.34 to the Water Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

SB 555, as amended, Wolk. Urban retail water suppliers: water loss management.

Existing law requires the state to achieve a 20% reduction in urban per capita water use in California by December 31, 2020, and requires the state to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. Existing law requires each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements.

This bill would require each urban retail water supplier, on or before October 1, 2017, and on or before ~~July~~ *October* 1 of each year thereafter, to submit a completed and validated water loss audit report for the

previous calendar year *or previous fiscal year* as prescribed by rules adopted by the Department of Water Resources on or before January 1, 2017, and updated as provided. The bill would require the department to post all validated water loss audit reports on its Internet Web site in a manner that allows for comparisons across water suppliers and to make these reports available for public viewing. This bill would require the department to provide technical assistance to guide urban retail water suppliers' water loss detection programs. The bill would require the State Water Resources Control Board, no earlier than January 1, 2019, and no later than July 1, 2020, to adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. This bill would require the board to contribute up to \$400,000 using funds available for the 2016–17 fiscal year towards procuring water loss audit report validation assistance for urban retail water suppliers.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. Section 10608.34 is added to the Water Code, to
2 read:
3 10608.34. (a) (1) On or before January 1, 2017, the department
4 shall adopt rules for all of the following:
5 (A) The conduct of standardized water loss audits by urban
6 retail water suppliers in accordance with the method adopted by
7 the American Water Works Association in the third edition of
8 Water Audits and Loss Control Programs, Manual M36 and in the
9 Free Water Audit Software, version 5.0.
10 (B) The process for validating a water loss audit report prior to
11 submitting the report to the department. For the purposes of this
12 section, “validating” is a process whereby an urban retail water
13 supplier uses a technical expert to confirm the basis of all data
14 entries in the urban retail water supplier’s water loss audit report
15 and to appropriately characterize the quality of the reported data.
16 The validation process shall follow the principles and terminology
17 laid out by the American Water Works Association in the third
18 edition of Water Audits and Loss Control Programs, Manual M36
19 and in the Free Water Audit Software, version 5.0. A validated

1 water loss audit report shall include the name and technical
2 qualifications of the person engaged for validation.

3 (C) The technical qualifications required of a person to engage
4 in validation, as described in subparagraph (B).

5 (D) The certification requirements for a person selected by an
6 urban retail water supplier to provide validation of its own water
7 loss audit report.

8 (E) The method of submitting a water loss audit report to the
9 department.

10 (2) The department shall update rules adopted pursuant to
11 paragraph (1) no later than six months after the release of
12 subsequent editions of the American Water Works Association's
13 Water Audits and Loss Control Programs, Manual M36. Except
14 as provided by the department, until the department adopts updated
15 rules pursuant to this paragraph, an urban retail water supplier may
16 rely upon a subsequent edition of the American Water Works
17 Association's Water Audits and Loss Control Programs, Manual
18 M36 or the Free Water Audit Software.

19 (b) On or before October 1, 2017, and on or before ~~July~~ *October*
20 1 of each year thereafter, each urban retail water supplier shall
21 submit a completed and validated water loss audit report for the
22 previous calendar year *or the previous fiscal year* as prescribed
23 by the department pursuant to subdivision (a). Water loss audit
24 reports submitted on or before October 1, 2017, may be completed
25 and validated with assistance as described in ~~paragraph (1)~~ of
26 subdivision (c).

27 (c) Using funds available for the 2016–17 fiscal year, the board
28 shall contribute up to four hundred thousand dollars (\$400,000)
29 towards procuring water loss audit report validation assistance for
30 urban retail water suppliers.

31 (d) Each water loss audit report submitted to the department
32 shall be accompanied by information, in a form specified by the
33 department, identifying steps taken in the preceding year to increase
34 the validity of data entered into the final audit, reduce the volume
35 of apparent losses, and reduce the volume of real losses.

36 (e) At least one of the following employees of an urban retail
37 water supplier shall attest to each water loss audit report submitted
38 to the department:

39 (1) The chief financial officer.

40 (2) The chief engineer.

1 (3) The general manager.

2 (f) The department shall deem incomplete and return to the
3 urban retail water supplier any final water loss audit report found
4 by the department to be incomplete, not validated, unattested, or
5 incongruent with known characteristics of water system operations.
6 A water supplier shall resubmit a completed water loss audit report
7 within 90 days of an audit being returned by the department.

8 (g) The department shall post all validated water loss audit
9 reports on its Internet Web site in a manner that allows for
10 comparisons across water suppliers. The department shall make
11 the validated water loss audit reports available for public viewing
12 in a timely manner after their receipt.


13 (h) Using available funds, the department shall provide technical
14 assistance to guide urban retail water suppliers' water loss detection
15 programs, including, but not limited to, metering techniques,
16 pressure management techniques, condition-based assessment
17 techniques for transmission and distribution pipelines, and
18 utilization of portable and permanent water loss detection devices.

19 (i) No earlier than January 1, 2019, and no later than July 1,
20 2020, the board shall adopt rules requiring urban retail water
21 suppliers to meet performance standards for the volume of water
22 losses. In adopting these rules, the board shall employ full life
23 cycle cost accounting to evaluate the costs of meeting the
24 performance standards. The board may consider establishing a
25 minimum allowable water loss threshold that, if reached and
26 maintained by an urban water supplier, would exempt the urban
27 water supplier from further water loss reduction requirements.

O

September 14, 2015

Prepared and

Submitted by: C. Compton 

Approved by: Paul Cook 

CONSENT CALENDAR

ACWA REGION 10 ELECTION FOR THE 2016-2017 TERM

SUMMARY:

The Association of California Water Agencies (ACWA) is holding elections for its Region 10 officers and Board members for the 2016-2017 term. The Region 10 Board represents and serves the ACWA members of Orange and San Diego Counties. Staff recommends the Board support the slate of candidates selected by the Region 10 Nominating Committee endorsing Brian Brady as Chair, Cathy Green as Vice Chair, and Jim Atkinson, Chuck Gibson, Larry McKenney, Richard Vasquez and DeAna Verbeke as Board Members.

Region 10 Board Ballots must be signed by an IRWD authorized representative and submitted to ACWA by September 30, 2015. Staff recommends the Board support the candidates as selected by the ACWA Region 10 Nominating Committee and authorize the General Manager to sign the Region 10 Board Ballot for the 2016-2017 term.

BACKGROUND:

Every two years ACWA holds elections for each Region Board. The Region 10 Nominating Committee has recommended a slate of candidates for the 2016-2017 Region 10 officers and Board members and ACWA is now in the process of holding the election for these positions.

Region 10's rules and regulations require that:

- The Region 10 Chair and Vice Chair be from different counties;
- At least one of the Chair or Vice Chair positions be an elected/appointed director from a member agency; and
- Region 10 Board membership alternates every two years with three region Board members from one county and two from the other. The county from which the chair comes from shall have two region Board members and the county from which the vice chair comes from shall have three region Board members.

During the 2016-2017 term, the Chair and two region Board members shall be from San Diego County, and the Vice Chair and three region Board members from Orange County.

Each member agency's ballot must be received by September 30, 2015, if it is to be counted. Staff recommends the Board support the candidates as selected by the ACWA Region 10 Nominating Committee and authorize the General Manager to sign the Region 10 Board Ballot for the 2016-2017 term.

The Nomination Committee has recommended the following slate:

Chair: Brian Brady, General Manager, Fallbrook Public Utilities District

Vice Chair: Cathy Green, President, Orange County Water District

Board Members: Jim Atkinson, Director, Mesa Water District
Chuck Gibson, Director, Santa Margarita Water District
Larry McKenney, Director, Municipal Water District of Orange County
Richard L. Vazquez, Director, Vista Irrigation District
DeAna Verbeke, President, Helix Water District

Individual Board candidate nominations may also be selected on the Region 10 Board Ballot, which is provided in Exhibit "A".

IRWD has received several letters from Region 10 Board candidates; copies are included as Exhibit "B".

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on September 8, 2015.

RECOMMENDATION:

THAT THE BOARD SUPPORT THE CANDIDATES AS SELECTED BY THE ACWA REGION 10 NOMINATING COMMITTEE AND AUTHORIZE THE GENERAL MANAGER TO SIGN THE REGION 10 BOARD BALLOT FOR THE 2016-2017 TERM.

LIST OF EXHIBITS:

Exhibit "A" – Official Region 10 Board Ballot for the 2016-2017 Term

Exhibit "B" – Region 10 Board Candidate Correspondence to IRWD

OFFICIAL
REGION 10 Board Ballot

**2016-2017
 TERM**

Clear Form



**Please return completed ballot
 by September 30, 2015**

E-mail: anat@acwa.com
 Mail: ACWA
 910 K Street, Suite 100
 Sacramento, CA 95814

**General Voting
 Instructions:**

- 1** You may either vote for the slate recommended by the Region 10 Nominating Committee or vote for individual region board members (please note rules & regulations for specific qualifications). Mark the appropriate box to indicate your decision.
- 2** Complete your agency information. The authorized representative is determined by your agency in accordance with your agency's policies and procedures.

**Region 10 Rules &
 Regulations:**

The chair and vice chair shall be from different counties. The 2016-2017 Term shall consist of a Chair and 2 Board Members from San Diego County and a Vice Chair and 3 Board Members from Orange County. At least one of the chair or vice chair positions must be an elected/appointed director from a member agency.

Submit

1 Nominating Committee's Recommended Slate

I concur with the Region 10 Nominating Committee's recommended slate below.

Chair:

- **Brian J. Brady**, General Manager, Fallbrook Public Utility District (San Diego County)

Vice Chair:

- **Cathy Green**, President, Orange County Water District (Orange County)

Board Members:

- **Jim Atkinson**, Director, Mesa Water District (Orange County)
- **Charles T. Gibson**, Director, Santa Margarita Water District (Orange County)
- **Larry McKenney**, Metropolitan Water District Director, Municipal Water District of Orange County (Orange County)
- **Richard L. Vasquez**, Director, Vista Irrigation District (San Diego County)
- **DeAna Verbeke**, Board President, Helix Water District (San Diego County)

Individual Board Candidate Nominations

(See Rules & Regulations before selecting)

I do not concur with the Region 10 Nominating Committee's recommended slate. I will vote for individual candidates below as indicated.

Candidates for Chair: (Choose one)

- Brian J. Brady**, General Manager, Fallbrook Public Utility District (San Diego County)

Candidates for Vice Chair: (Choose one)

- Cathy Green**, President, Orange County Water District (Orange County)
- Larry McKenney**, Metropolitan Water District Director, Municipal Water District of Orange County (Orange County)

Candidates for Board Members: (Max of 5 choices)

- Jim Atkinson**, Director, Mesa Water District (Orange County)
- Brian J. Brady**, General Manager, Fallbrook Public Utility District (San Diego County)
- Charles T. Gibson**, Director, Santa Margarita Water District (Orange County)
- Cathy Green**, President, Orange County Water District (Orange County)
- Hal J. Martin**, Director, Vallecitos Water District (San Diego County)
- Larry McKenney**, Metropolitan Water District Director, Municipal Water District of Orange County (Orange County)
- Richard L. Vasquez**, Director, Vista Irrigation District (San Diego County)
- DeAna Verbeke**, Board President, Helix Water District (San Diego County)

2

AGENCY NAME

AUTHORIZED REPRESENTATIVE DATE

DIRECTORS

PHILIP L. ANTHONY
DENIS R. BILODEAU, P.E.
SHAWN DEWANE
JAN M. FLORY
CATHY GREEN
DINA NGUYEN
ROMAN A. REYNA
STEPHEN R. SHELDON
HARRY S. SIDHU, P.E.
ROGER C. YOH, P.E.

EXHIBIT "B"



SINCE 1933

ORANGE COUNTY WATER DISTRICT

ORANGE COUNTY'S GROUNDWATER AUTHORITY

OFFICERS

President
CATHY GREEN

First Vice President
DENIS R. BILODEAU, P.E.

Second Vice President
PHILIP L. ANTHONY

General Manager
MICHAEL R. MARKUS, P.E., D.WRE

August 12, 2015

Steven E. LaMar, President
Irvine Ranch Water District
P.O. Box 57000
Irvine, CA 92619-7000

RE: Request for your vote in support of Cathy Green for ACWA Region 10 Board Vice Chair

Dear President LaMar and Board of Directors:

On behalf of Orange County Water District (OCWD), it is a great honor to recommend Cathy Green for election to the Association of California Water Agencies (ACWA) Region 10 board as Vice Chair. The ACWA Region 10 nominating committee put Cathy Green on the slate for Vice Chair of ACWA Region 10, with good reason.

Cathy Green has served as an ACWA Region 10 Director, an ACWA State Legislative Committee member, and on ACWA's Water Quality committees since 2012. Additionally, she has participated on the Water Advisory Committee of Orange County (WACO).

Cathy Green was elected to the OCWD Board of Directors in November 2010 and was re-elected in 2012. She was selected by the board to serve as its 2013 and 2014 1st Vice President and as its 2015 President.

Prior to President Green's service on OCWD's Board, she was elected to two consecutive terms on the Huntington Beach City Council where she served two terms as Mayor.

President Green was involved as a council liaison and committee member on many city boards, commissions and committees. In addition, President Green is a registered nurse and holds a degree in law. Due to her extensive leadership role in local government, her experience and guidance at OCWD, WACO and ACWA and her extensive knowledge of water-related issues facing ACWA Region 10, I would appreciate your organization's vote for Cathy Green's continued representation on the ACWA Region 10 Board as Board Vice Chair. If you have any questions or need additional information, please do not hesitate to contact me at mmarkus@ocwd.com or at (714) 378-3305. Thank you for your consideration.

Sincerely,

Michael R. Markus, P.E., D.WRE, BCEE, F.ASCE
General Manager

CC: Paul A. Cook



*Dedicated to
Satisfying our Community's
Water Needs*

BOARD OF DIRECTORS

Shawn Dewane
*President
Division V*

Ethan Temianka
*Vice President
Division III*

Jim Atkinson
*Director
Division IV*

Fred R. Bockmiller, Jr., P.E.
*Director
Division I*

James R. Fisler
*Director
Division II*

Paul E. Shoenberger, P.E.
General Manager

Phil Lauri, P.E.
Assistant General Manager

Coleen L. Monteleone
*Assistant General Manager
District Secretary*

Andrew N. Hamilton
District Treasurer

**Bowie, Arneson,
Wiles & Giannone**
Legal Counsel

1965 Placentia Avenue
Costa Mesa, CA 92627
tel 949.631.1200
fax 949.574.1036
info@MesaWater.org
MesaWater.org

August 17, 2015

Mr. Steven LaMar, President
Irvine Ranch WD
P.O. Box 57000
Irvine, CA 92619-7000

Subject: Request your Vote in Support of Jim Atkinson for the ACWA
Region 10 Board

Dear President LaMar:

On behalf of Mesa Water District (Mesa Water®), it is a great honor to recommend Jim Atkinson for election to the Association of California Water Agencies (ACWA) Region 10 Board. We are fortunate to have such a qualified candidate in Jim Atkinson, who is listed on the ballot as part of the nominating committee's recommended slate, and who is unanimously supported by Mesa Water's Board of Directors.

Recently appointed (in May 2015) to the ACWA Region 10 Board, Jim Atkinson has served on Mesa Water's Board of Directors for 17 years. During that time, he has made fair and informed decisions that have greatly benefited constituents shared by Mesa Water® and fellow water providers throughout Orange County. Also, since 1998, Director Atkinson has participated in the Water Advisory Committee of Orange County (WACO); and, since 2012, he has served on ACWA's Water Quality Committee for Region 10 as one of two Orange County representatives.

Due to his public service experience -- and his 30-year career at The Aerospace Corporation in El Segundo, working as a the Laboratory Operations Business Manager -- Director Atkinson possesses the qualifications, knowledge and understanding of the many business, government, and water-related issues facing ACWA Region 10. Attached is Director Atkinson's Statement of Qualifications for election to the ACWA Region 10 Board. Most importantly, Director Atkinson has proven leadership abilities that can guide ACWA Region 10 to continued success in providing excellent added value to the member agencies it serves.

If you have any questions or requests for additional information, please feel free to contact our General Manager, Paul E. Shoenberger, P.E., by calling 949.631.1206 or emailing PaulS@MesaWater.org. Thank you for your consideration in supporting Jim Atkinson.

Sincerely,

Shawn Dewane
Board President

Cc: Mesa Water Board of Directors
Paul E. Shoenberger, P.E., Mesa Water General Manager

Elect Jim Atkinson to ACWA Region 10 Board

Jim Atkinson Director, Mesa Water District



OBJECTIVE: To further the goals of ACWA Region 10 in best serving its members -- and the industry as a whole -- by applying my analytical skills, and my water industry leadership experience, as a member of the ACWA Region 10 Board.

STATEMENT OF QUALIFICATIONS:

- Mesa Water District (Mesa Water®) Director, 1998-present
- Three-term Board President, Mesa Water® ('02, '03, '08)
- ACWA Region 10 Board Member (appointed May 2015)
- ACWA Water Quality Committee (Region 10), 2012-present
- Colorado River Water Users Association, 2002-present (includes serving on the Public Affairs Committee)
- Southern California Water Committee, 2010-present
- Water Advisory Committee Orange County, 1998-present
- Chair of various Mesa Water® Committees (Audit Ad Hoc, Executive, Engineering & Operations, Finance, Human Resources, and Public Information)
- Laboratory Operations Business Manager, The Aerospace Corp.

BIOGRAPHY: Initially elected in 1998 and re-elected several times since, Jim Atkinson serves on the Mesa Water District (Mesa Water®) Board of Directors, representing Division 4 which encompasses the College Park, Mesa del Mar, and Monticello communities of Costa Mesa, as well as John Wayne Airport. Having been Mesa Water's Board President for three prior terms -- in 2002, 2003, and 2008 -- Director Atkinson currently serves as Vice Chairman of the District's Legislative & Public Affairs Committee, and as an alternate on Mesa Water's Engineering & Operations Committee.

In addition to serving on Mesa Water's Board, Director Atkinson was appointed in May 2015 to the Region 10 Board of the Association of California Water Agencies (ACWA), and he is one of two Orange County representatives for Region 10 on ACWA's Water Quality Committee. Additionally, he represents Mesa Water® at the Orange County Water District, and on the Colorado River Water Users Association's Public Affairs Committee. He also represents Mesa Water® at the Water Advisory Committee Orange County and on the Southern California Water Committee.

Director Atkinson has previously chaired Mesa Water's Audit Ad Hoc, Executive, Engineering & Operations, Finance, Human Resources, and Public Information Committees. Additionally, as a Costa Mesa resident for over 30 years, he has served as a Vice President and Director of the Mesa del Mar Homeowners Association, and is active in the community including serving as a Leadership Tomorrow Board member from 2002 to 2006 (after completing the program in 2001), where his role included hosting an educational Water Workshop day.

With Master of Business Administration and Bachelor of Science degrees from the University of La Verne, Director Atkinson worked as the Laboratory Operations Business Manager at The Aerospace Corporation for over 30 years. His experiences there included Business Administration of the Research Laboratory Operations, as well as Construction Management and Facilities Management. Through this employment, he attended earthquake response and recovery training at the California Specialized Training Institute's Emergency Operations Center. He was also an International Code Conference (ICC) Certified Member and an ICC Certified Plumbing Inspector.

Due to his hobby of racing model sailboats with International One Meter boats, Director Atkinson was appointed, in 2011, as the Region 6 Director on the American Model Yachting Association (AMYA) Board.

BOARD OF DIRECTORS
BETTY H. OLSON, PH.D CHARLEY WILSON
CHARLES T. GIBSON SAUNDRA F. JACOBS
JUSTIN McCUSKER

DANIEL R. FERONS
GENERAL MANAGER



Santa Margarita Water District

August 28, 2015

President Steven E. La Mar
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

Dear President La Mar,

On behalf of the Santa Margarita Water District (SMWD) Board of Directors, I have enclosed a resolution supporting Director Charles T. Gibson as a nominee for the Association of California Water Agencies (ACWA) Region 10 Board of Directors. I am contacting you to request your agency's support of Director Gibson's nomination.

Director Gibson currently serves on the Board of SMWD and as a Region 10 representative on the ACWA Federal Affairs Committee. His level of commitment to both the District and to the region is exemplary. At the District, he has helped to establish policies that support good institutional leadership and that frame the Board's strategic decision making. On the ACWA Federal Affairs Committee, he has attended every meeting of the committee and participated in meaningful ways in its work. Director Gibson would be an active member of the Region 10 Board and would work diligently for all agencies in Region 10.

Thank you for your consideration of Director Gibson's nomination. If you have any questions please feel free to contact Director Gibson at charlesg@smwd.com or 949-459-6400.

Sincerely,

A handwritten signature in blue ink that reads "Betty H. Olson".

Betty H. Olson Ph.D
President

Charles T. Gibson

For

2016-2017 Association of California Water Agencies

Region 10 Board Member

Charles “Chuck” Gibson has over 30 years’ experience in consulting and organizational development in the private sector, as well as in governmental and other non-profit entities, such as States of California, Utah and Nevada and various public utilities in the West and Midwest.

As a managing legislative analyst, he was responsible for development of legislative and regulatory measures affecting Los Angeles City Department of Water and Power water policy. As a congressional aide for a district covering portions of Los Angeles County and northern Orange County, he reviewed and drafted reports on matters of federal interest regarding a variety of public works measures. As a senior manager for a major management consulting firm, he conducted organization and productivity improvement reviews at the state, regional and local levels of governance, including in the water management and public utility arenas.

For the last ten years he utilized skills acquired in his professional career to engage in community leadership and community building. This unique experience allowed Mr. Gibson to understand the dynamics of voluntary service, requirements for motivating volunteers and techniques to foster collaboration among a variety of people and organizations.

Chuck Gibson was elected to the Board of the Santa Margarita Water District in November 2012, serving as chair of the Engineering Committee and most recently, as Chair of the Administration and Finance Committee. In addition, he is an appointed alternate Board member on the San Juan Basin Authority (SJBA) responsible for watershed planning and management of certain water resources in the basin. Over the last two years, he engaged in a host of issues related to groundwater management, water re-use, recycling and desalination through participation in SMWD and SJBA activities and through attending specialized continuing education on these topics. He participates in meetings of industry organizations such as Water Advisory Committee of Orange County, Orange County Water Association and Southern California Water Committee.

As an appointed Region 10 representative on ACWA Federal Affairs Committee, Chuck has been recognized for his effectiveness in working on regulations to clarify definition of Waters of the United States (WOTUS) under jurisdiction of the Clean Water Act. He has worked with the statewide membership of ACWA for improvements in water supply reliability and water use efficiency, focusing on recycled water projects, storage and water use efficiency policies that will improve resiliency of water supply and enhance the environment.

September 14, 2015
Prepared by: E. Blaska
Submitted by: B. Beeman / P. Weghorst *PBW*
Approved by: Paul Cook *PC*

CONSENT CALENDAR

DROUGHT OUTREACH PROGRAM UPDATE AND ADDITIONAL BUDGET FUNDING

SUMMARY:

In response to the statewide drought and the Governor's mandate for IRWD to reduce potable water use by 16 percent by February 2016, staff continues to develop and implement an extensive drought outreach plan. Fiscal Year 2015-16 drought outreach efforts have been funded from over-allocation funding. Staff estimates that further implementation of the drought outreach plan will exceed the Fiscal Year 2015-16 budgeted amount of \$355,500 by approximately \$350,000. Staff recommends that the Board approve an additional budget of \$350,000 for Fiscal Year 2015-16 that will provide \$255,000 in funding for drought outreach programs and \$95,000 for drought outreach-related consulting services and authorize the General Manager to execute a variance in the amount of \$95,000 with Crocker & Crocker for continued assistance with the District's drought outreach efforts.

BACKGROUND:

A comprehensive IRWD customer drought outreach plan was developed in response to the Governor's mandate for IRWD to reduce potable water use by 16 percent by February 2016. The goal of the outreach plan is to reduce customers' outdoor water use. Major components of the program include:

- "Brown is the New Green" advertising campaign
 - Irvine Spectrum and Marketplace advertising
 - Public service announcements in movie theaters, City of Irvine television channel and local Cox cable channel
 - Lawn and magnetic vehicle signs
 - IRWD website promotion and Facebook advertising
 - Landscape Makeover Contest outreach
 - New home water checkup collateral materials
 - Customer baseline survey and focus groups to test materials and messaging
 - Monthly customer postcard campaign
- "Still Seeing Green? We're using Recycled Water" advertising campaign
 - Signs for lawns, street medians, development common areas and parks
 - IRWD website promotion and Facebook advertising
 - Promotion with cities for websites and lobbies
- Drought and water use efficiency outreach to customers
 - IRWD website and customer newsletter articles
 - Updates on Facebook and Twitter
 - "Ask for Help" letter to customers
 - Drought survival guide development and distribution
 - IRWD website drought portal

- Irvine Company magazine and City of Irvine Magazine articles
- Drought Street Team outreach in restaurants, fitness centers and hotels
- Monthly targeted outreach postcards to customer groups
- Homeowners Association (HOA) outreach in Irvine and Lake Forest
- RightScape landscape customer workshop outreach for Orange Park Acres (OPA) and HOAs
- Drought Survival Expo collateral materials, event development, implementation and outreach
- Rebate “help” cards for IRWD’s lobby
- Coordination with cities in IRWD’s service area
 - Information for cities of Lake Forest, Tustin, and Newport Beach and OPA websites
 - Drought Survival Expo outreach/planning/partnership with City of Irvine
 - Collateral material for websites, events and lobbies
 - Presentations to Irvine City Council and Committee meetings
- Recycled water fill station outreach
 - Signs for fill station facility and IRWD’s lobby
 - Outreach materials for city websites and City of Irvine television channel
 - Promotion on IRWD’s website and social media channels
 - Postcard mailing to customers and monthly billing insert article
 - Promotion using on-hold telephone messages
 - Promotional fliers for water use efficiency and drought outreach events

To continue these efforts, including new drought outreach programs, water saving messages, collateral materials and promotion, an additional \$255,000 to the budget is needed for the remainder Fiscal Year 2015-16.

Consulting Services:

In spring 2014, staff issued a Request for Proposal to public outreach consultants to assist with the preparation and implementation of an outdoor water conservation education program. Crocker & Crocker was selected and a contract in the amount of \$149,290 was approved by the Water Resources Policy and Communications Committee in May 2014. In the spring of 2015 the General Manager approved a variance in the amount of \$95,055 with Crocker & Crocker to provide additional assistance with drought outreach efforts. Major drought outreach milestones facilitated through Crocker & Crocker include:

- Design and implementation of RightScape, the outdoor water saving campaign;
- Media ad campaign creation, concept development, design of artwork, media buy pricing and placement;
- Video creation for cinema advertising campaign;
- Drought tolerant plant booklet development and printing;
- Microsite content and image development and customer training portal;
- Drought Street Team outreach for restaurants, fitness centers and hotels;
- RightScape outreach folder production for home water checkups;
- Content for customer newsletters and outreach materials;
- Video on “How to Check for Outdoor Leaks”; and

- Assistance with all promotional materials, including a Drought Survival Expo banner.

To continue drought outreach efforts with the assistance of consulting services, a budget increase and contract variance with Crocker & Crocker is needed in the amount of \$95,000. The variance and updated Scope of Work is attached as Exhibit "A".

Drought Outreach Program Budget:

The following table presents the current Fiscal Year 2015-16 budget for the drought outreach program along with the additional budget requirements as described above. Staff recommends that the Board approve an additional \$350,000 in funding for drought outreach and related consulting services. Staff also recommends that the Board authorize the General Manager to execute a variance in the amount of \$95,000 with Crocker & Crocker for continued assistance with customer drought outreach efforts.

Drought Outreach Program
Budget Overview

	Fiscal Year 2015-16 Budget Funding	Proposed Additional Fiscal Year 2015-16 Budget Funding
Customer Drought Outreach Programs	\$266,987.05	\$255,000.00
Crocker & Crocker Consultant Services	88,512.95	95,000.00
<i>Total</i>	<i>\$355,500.00</i>	<i>\$350,000.00</i>

FISCAL IMPACTS:

The additional budget request of \$350,000 for Fiscal Year 2015-16 will be funded from over-allocation revenues.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on September 8, 2015.

RECOMMENDATION:

THAT THE BOARD APPROVE AN ADDITIONAL \$350,000 IN FUNDING FOR DROUGHT OUTREACH AND RELATED CONSULTING SERVICES AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A VARIANCE IN THE AMOUNT OF \$95,000 WITH CROCKER & CROCKER FOR CONTINUED ASSISTANCE WITH THE DISTRICT'S DROUGHT OUTREACH EFFORTS.

LIST OF EXHIBITS:

Exhibit "A" – Variance and Updated Scope of Work with Crocker & Crocker



Irvine Ranch Water District

August 24, 2015

September 2015 to June 2016 Scope of Work

Task One – Branding and Messaging

Activity 1: Messaging Linked to Drought and Statewide Water Restrictions

- Based on the water restrictions announced by the Governor and the Water Resources Control Board, determine key messages about IRWD's more-than-adequate water supply and reliability while taking a position of support for the statewide drought crisis response and meeting its mandatory cutbacks.
- After years of drought and with El Nino forecast, now is a good time to focus on smart watering trees to help ensure they do not uproot during heavy rains.

Activity 2: Messaging Linked to RightScope

- As the drought messaging evolves, the focus will move from simply conserving water, to sustainable water efficiency by using The Right Plants, The Right Schedule and The Right Equipment.
- Expand the Professor Wright and Roger story line through increased presence in digital and print outreach materials, website and opening and closing animated bumpers on videos.

Activity 3: Media Planning and Buying

- Continue to build drought awareness through the district using paid media to reach target audiences. This will include extending the existing contracts for the following media:
 - Theatre ads
 - Transit ads
 - Outdoor billboard ads
- Extend drought awareness through the district using paid media to reach target audiences. This will include a review of the following media opportunities:
 - Grocery cart ads
 - Mobile billboard ads
 - Valpak mailer
 - Online ads
 - Pandora ads
 - Other localized media

- Budget provided under separate cover includes production and media placement costs.

Task Two – Stakeholder Outreach

The communications of the brand and key messaging will be extended through key outreach strategies to stakeholder groups and the general public.

Activity 1: Drought and Statewide Water Restrictions Outreach

- Develop materials to address the drought and IRWD’s progress towards the statewide water restrictions. These could include:
 - Articles for Liquid News and Pipelines
 - Post card
 - Social media posts
 - Homepage slider images
 - Tip card

Activity 2: Daylight Savings Promotion

- While the message may change from ACWA’s “Check your sprinklers” campaign, there is an opportunity to capitalize on Daylight Savings with alternative water efficient messaging.
 - Facebook Posts
 - Liquid News and Pipelines articles
 - Social media photo contest
 - Take the pledge

Activity 3: Business Outreach

- Based on the positive results from the first round of stakeholder outreach to restaurants, gyms, golf courses and hotels, Crocker & Crocker recommends another week of outreach within the IRWD service area.
 - Revise tabletop tent cards with water efficiency messages
 - Revise window static clings for restaurants not wanting table tents
 - Design menu insert for participating restaurants
 - Coordinate with restaurants and food service outlets for distribution
 - Monitor use and provide replacement cards
 - Budget includes hiring visitation team to go door-to-door to restaurants to ask for participation, distribute tent cards and menu inserts or to install window static clings.

Activity 4: Organizational Outreach

- Install temporary displays at public locations to run for at least one month. This could include:

- Libraries
- Public buildings
- On campus at UCI and IVC
- Large retail locations
- Design yard signs to distribute to residents – Partnering with Roger to RightScape.
- Develop and promote Water Champions Program.

Task Three – Other Outreach Materials

Activity 1: Miscellaneous Materials

- Write and produce art for Pipelines
- Write and produce art for Liquid News
- Help with event promotional materials and signage
- Develop communications and promotional materials as needed
- Shoot video at drought expo and subsequent events. This video can be posted in its entirety on the website or used as short clips for social media.

Task Four – Develop Microsite

Crocker & Crocker will develop a comprehensive RightScape microsite.

- Develop RightScape Microsite
 - Develop content architecture based on analytics
 - Develop wireframes
 - Develop content and copy
 - Identify and develop graphics and art
 - Develop layered Photoshop files for programmer

Task Five – Project Management

Crocker & Crocker has a defined approach to project management to ensure ongoing client communications and updates, accurate billing and complete reports. The following activities ensure cost and quality control:

- Monthly program and communications evaluation (metrics)
- Proactive meeting agendas and meeting reports
- Detailed invoices and invoice summaries
- Detailed out-of-scope estimates when needed
- In-person, telephone and video conference meetings



Budget Development Worksheet

Irvine Ranch Water District

September 1, 2015 to June 30, 2016

2015 Rates:		\$185	\$160	\$130	\$105	\$65	\$130			
Tasks (enter in same name/order as on scope)	Total Hours	Principal	Art Director	Project Manager / Writer	Project Coordinator	Project Admin	Media Buyer	Total Fees	Direct Costs	Project TOTAL
Task 1: Branding and Messaging										
Activity 1: Drought & Statewide Water Restrictions	75.00	25	15	25	10			\$ 11,325	\$ 800	\$ 12,125
Activity 2: RightScope	60.00	20	10	20	10			\$ 8,950	\$ 800	\$ 9,750
Activity 3: Media Planning & Buying	36.00	5	3	7	6		15	\$ 4,895		\$ 4,895
Task 2: Stakeholder Outreach										
Activity 1: Drought & Statewide Water Restrictions	44.00	15	9	15	5			\$ 6,690	\$ 800	\$ 7,490
Activity 2: Daylight Savings Promotions	23.00	5	3	10	5			\$ 3,230	\$ 455	\$ 3,685
Activity 3: Business Outreach	78.00	15	8	40	15			\$ 10,830	\$ 6,000	\$ 16,830
Activity 4: Organizational Outreach	34.00	10	9	10	5			\$ 5,115		\$ 5,115
Task 3: Other Outreach Materials								\$ -		\$ -
Activity 1: Miscellaneous Materials	80.00	25	20	25	10			\$ 12,125	\$ 1,000	\$ 13,125
Task 4: Microsite	73.00	20	20	25	8			\$ 10,990	\$ 2,500	\$ 13,490
Task 5: Project Management	54.00	15		25	14			\$ 7,495	\$ 1,000	\$ 8,495
SUBTOTAL	557.00	155.00	97.00	202.00	88.00	0.00	15.00	\$ 81,645	\$ 13,355	\$ 95,000
Optional Tasks										
								\$ -		\$ -
								\$ -		\$ -
								\$ -		\$ -
								\$ -		\$ -
SUBTOTAL	-	0.00	0.00	0.00	0.00	0.00	0.00	\$ -	\$ -	\$ -
GRAND TOTAL	557.00	155.00	97.00	202.00	88.00	0.00	15.00	\$ 81,645	\$ 13,355	\$ 95,000

IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Project Title: Drought Outreach

Project No.: Consultants Date: 09/09/2015

Purchase Order No.: 520208 Variance No.: 2

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (*attach any back-up material*):
Add funding to the Crocker consultant professional services agreement for help with drought outreach.

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Total Project Hours	557					\$81,645
Total Direct Costs						\$13,355
Total \$ =						\$95,000

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
	Adding to Projects	N/A		

Required Approval Determination:

Total Original Contract	\$ <u>149,290</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances	\$ <u>95,055</u>	
This Variance	\$ <u>95,000</u>	<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
Total Sum of Variances	\$ <u>190,055</u>	
New Contract Amount	\$ <u>339,345</u>	<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Percentage of Total Variances to Original Contract	<u>127%</u> %	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.

ENGINEER/CONSULTANT: _____

Eric Blum Company Name
Project Engineer/Manager 9/9/15 Date

IRVINE RANCH WATER DISTRICT

[Signature] Department Director 9/10/2015 Date

Engineer's/Consultant's Management Date

General Manager/Board Date

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: Drought Outreach


Project No.: Consultants Project Manager: Erika Blaska

Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
1	Drought Outreach funding	5/15/2015	5/19/2015	\$95,055
2	Drought outreach funding	9/09/2015		\$95,000

September 14, 2015

Prepared by: S. Malloy

Submitted by: K. Burton 

Approved by: Paul Cook 

CONSENT CALENDAR

MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS FINAL ACCEPTANCE

SUMMARY:

The Michelson Water Recycling Plant (MWRP) Phase 2 Expansion and Flood Protection Improvements project is complete. The contractor, J.R. Filanc Construction Company, Inc., has completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

Construction of the MWRP Phase 2 Expansion and Flood Protection Improvements project was awarded to J. R. Filanc Construction, Co. in July 2009 in the amount of \$87,479,450. This project expands the recycled water production capacity of MWRP to 28 million gallons per day (mgd) and protects MWRP from flooding of San Diego Creek.

Construction included 48- to 60-inch reinforced concrete influent interceptor sewers, headworks, additional primary sedimentation tanks, primary effluent pump station, flow equalization basin improvements, one additional aeration blower, 11 mgd membrane bioreactors, high rate clarifier, spent backwash tank and pumping modifications, ultraviolet disinfection system, chlorine contact basin modifications, recycled water product pumps and controls, chemical systems, odor control, central electrical building, sodium hypochlorite system, waste activated sludge pumps replacements, stormwater pump station improvements, associated electrical and instrumentation improvements, and a floodwall to provide protection from a 100-year flood in San Diego Creek.

Project Title:	Michelson Water Recycling Phase 2 Expansion and Flood Protection Improvements Project
Project No.:	20214 (1599), 30214 (1706), 20542 (1150), and 30542 (1118)
Design Engineer:	HDR Engineering
Construction Management by:	IRWD Staff, Arcadis-US, and HDR Engineering
Contractor:	J.R. Filanc Construction Company, Inc.
Original Contract Cost:	\$87,479,450.00
Final Contract Cost:	\$93,482,875.60

Design Cost:		
IRWD	\$ 2.9 Million	
Consultants	<u>\$10.5 Million</u>	
Total		\$ 13.4 Million

Construction Management Cost:		
IRWD	\$ 6.5 Million	
Consultants	<u>\$ 5.0 Million</u>	
Total		\$ 11.5 Million

Construction Cost:		
Filanc	\$93.5 Million	
Others	<u>\$15.3 Million</u>	
Total		\$108.8 Million

Capitalized Interest		<u>\$ 10.6 Million</u>
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Total Project Cost (Est.)		<u>\$144.3 Million</u>
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Total Budget:	\$163,869,000	
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Final Change Order Approved On: December 22, 2014

FISCAL IMPACTS:

Projects 20214 (1599), 30214 (1706), 20542 (1150), and 30542 (1118) were included in the FY 2014-15 Capital Budget. The existing budgets are sufficient to fund the final payment for the projects.

ENVIRONMENTAL COMPLIANCE:

The Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements, Projects 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118) 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.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

Consent Calendar: Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection
Improvements Final Acceptance
September 14, 2015
Page 2

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS; AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

Exhibit "A" – Construction Change Order Summary

EXHIBIT "A"

MWRP Phase 2 Expansion and Flood Protection Improvements PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118) Construction Summary

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
1	Approved by Director of Engineering and Construction Approved on November 19, 2009			\$195.40	\$0.00	\$195.40	0.0%	\$87,479,645.40	0	0	0	1,094	8/1/2012
1.1	Partnering Workshop – IRWD and the Contractor agreed to split equally the cost of partnering. The initial partnering workshop was held on September 3, 2009. This change request represents the Contractor’s portion of the cost of that initial workshop. It is a credit to IRWD.	A	(\$6,561.60)						0				
1.2	Installation of Bollards – The Contractor installed bollards around the IRWD MWRP Phase 2 Field Office Trailer and K-rails around the interim sodium hypochlorite System to protect from traffic	A	\$ 3,655.72						0				
1.3	Relocation of 4-inch Natural Gas Pipeline	B	\$ 3,101.28						0				
2	Approved by Director of Engineering and Construction Approved on December 3, 2009			\$16,018.04	\$195.40	\$16,213.44	0.0%	\$87,495,663.44	0	0	0	1,094	8/1/2012
2.1	Previously Approved Change Request #4 – Tree Removal and Grinding at Flood Improvements and Duck Club	A	\$ 6,696.00						0				
2.2	Previously Approved NOPE #1 – Demolish Abandoned Building	D	\$ 7,641.87						0				
2.3	Repair of 10-inch PVC Groundwater Line at the New Headworks Area	B	\$ 1,680.17						0				
3	Approved by Director of Engineering and Construction Approved on December 18, 2009			\$0.00	\$16,213.44	\$16,213.44	0.0%	\$87,495,663.44	0	0	0	1,094	8/1/2012
3.1	Construct Temporary Access Road to Staging Area 3	A	\$						0				
4	Approved by Board of Directors Approved on January 25, 2010			\$143,950.10	\$16,213.44	\$160,163.54	0.2%	\$87,639,613.54	0	0	0	1,094	8/1/2012
4.1	Upsize Area 600 Aeration Blower from 350 to 500 hp	C	\$ 66,355.57						0				
4.2	Upsizing Soft Starters for Area 700 Blowers from 350 to 450 hp	C	\$ 41,529.75						0				
4.3	Infrared Windows to Measure Stray Currents	A	\$ 36,064.78						0				
5	Approved by Director of Engineering and Construction Approved on December 29, 2009			\$5,081.52	\$160,163.54	\$165,245.06	0.2%	\$87,644,695.06	0	0	0	1,094	8/1/2012
5.1	Relocation of K-rail to Allow Construction Equipment access for pond maintenance (PR 10942)	D	\$ 5,081.52						0				
6	Approved by Engineering & Operations Comm Approved on January 19, 2010			\$77,478.00	\$165,245.06	\$242,723.06	0.3%	\$87,722,173.06	0	0	0	1,094	8/1/2012
6.1	WAS and Skimming Pumps Replacement (PR 20779)	D	\$ 77,478.00						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount							Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00							Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date	
7	Approved by AGM Approved on February 9, 2010			\$10,214.87	\$242,723.06	\$252,937.93	0.3%	\$87,732,387.93	0	0	0	1,094	8/1/2012	
7.1	Relocation and Repair of Unknown Utilities. The Contractor relocated a 1-inch air line and repaired a 2-inch chlorine line, both of which were not shown on the Plans (CCR #10)	B	\$ 2,588.36						0					
7.2	Removal and Disposal of Unknown Electrical Ductbanks at future Sodium Hypochlorite Feed Facility (CCR #12)	B	\$ 2,216.31						0					
7.3	Non-compensable Weather-Related Delay	B	\$ -						0					
7.4	Non-compensable Time Extension Due to Change Order No.	C	\$ -						0					
7.5	Addition of Manways on Sodium Hypochlorite Tanks (CCR #23)	A	\$ 5,410.20						0					
8	Approved by Board of Directors Approved on February 22, 2010			-\$1,135,820.75	\$252,937.93	-\$882,882.82	-1.0%	\$86,596,567.18	0	0	0	1,094	8/1/2012	
8.1	Delete Bid Item A.28 – System Integration	A	\$ (1,624,460.00)						0					
8.2	System Integration Coordination and SCADA Hardware Procurement	A	\$ 488,639.25						0					
9	Approved by AGM Approved on March 18, 2010			-\$36,064.78	-\$882,882.82	-\$918,947.60	-1.1%	\$86,560,502.40	0	0	0	1,094	8/1/2012	
9.1	Deletion of Change Order 4, Line Item 3 – Installation of Infrared Windows	A	\$ (36,064.78)						0					
10	Approved by AGM Approved on March 23, 2010			\$6,963.45	-\$918,947.60	-\$911,984.15	-1.0%	\$86,567,465.85	0	0	0	1,094	8/1/2012	
10.1	Removal of 18-inch pipe and installation of 24-inch blind flange at Sodium Hypochlorite System excavation (CR #24)	B	\$2,708.66						0					
10.2	Addition of 24-inch side manway for Manganese Hydroxide tanks (CR #27)	A	\$5,667.83						0					
10.3	Relocation of 54" Primary Effluent Line (CR #29)	A	(\$15,928.00)						0					
10.4	Change in PVC C900/C905 Manufacturer (CR #30)	A	\$14,514.96						0					
11	Approved by Director of Engineering and Construction Approved on April 26, 2010			\$21,033.73	-\$911,984.15	-\$890,950.42	-1.0%	\$86,588,499.58	0	0	0	1,094	8/1/2012	
11.1	Abandoned 24-inch line at high rate clarifier location (CR #026)	B	\$15,782.97						0					
11.2	Exploratory Excavation for Duct Bank at MPS-2 electrical building	B	\$3,035.98						0					
11.3	Provide chain operators and chain, and grease fittings for plug valves for the WAS/Skimming Pumps Replacement Project (PR 20779) (CR #036)	D	\$2,214.78						0					
12	Approved by Director of Engineering and Construction Approved on April 28, 2010			\$17,121.47	-\$890,950.42	-\$873,828.95	-1.0%	\$86,605,621.05	0	0	0	1,094	8/1/2012	
12.1	Relocation of Existing 10-inch and 6-inch GW line (CR #014)	B	\$17,121.47						0					

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount							Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00							Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date	
13	Approved by AGM Approved on April 28, 2010 13.1 Modifications in Checkered Aluminum Plates at the Headworks Area (CR 037)	C	\$34,095.00	\$34,095.00	-\$873,828.95	-\$839,733.95	-1.0%	\$86,639,716.05	0	0	0	1,094	8/1/2012	
14	Approved by Director of Engineering and Construction Approved on May 4, 2010 14.1 Electrical Substation Work (Two additional 5-inch Conduits and Connection btwn IRWD and SCE) (CR 028)	A	\$16,655.10	\$16,655.10	-\$839,733.95	-\$823,078.85	-0.9%	\$86,656,371.15	0	0	0	1,094	8/1/2012	
15	Approved by AGM Approved on May 21, 2010 15.1 Credit for Not Relocating the 18-inch diameter drain line at HRC (CR #019) 15.2 Credit for Slab Penetration Modifications, Detail P17 (RFI 0102) (CR #032)	A A	(\$42,262.00) (\$6,745.95)	-\$49,007.95	-\$823,078.85	-\$872,086.80	-1.0%	\$86,607,363.20	0	0	0	1,094	8/1/2012	
16	Approved by Director of Engineering and Construction Approved on May 25, 2010 16.1 Abandonment of 6" Pipes at MBR Screen Area (CR 042) 16.2 Addition of Three Transformers at UV Disinfection Facility (RFI 0149) 16.3 Remove encasement on existing utilities to allow construction of future Primary Sedimentation Tanks (CR 051)	B C B	\$2,536.36 \$18,633.63 \$1,188.43	\$22,358.42	-\$872,086.80	-\$849,728.38	-1.0%	\$86,629,721.62	0	0	0	1,094	8/1/2012	
17	Approved by Engineering & Operations Committee Approved on June 15, 2010 17.1 Demolition of Old Clarifier Bottoms (CR 013)	B	(\$55,420.00)	-\$55,420.00	-\$849,728.38	-\$905,148.38	-1.0%	\$86,574,301.62	0	0	0	1,094	8/1/2012	
18	Approved by Director of Engineering and Construction Approved on July 28, 2010 18.1 Water Control Gate Revisions (CR #034) 18.2 Repair of Existing Vault west of High Rate Clarifier (CR #063) 18.3 Additional Demolition at Abandoned Aerobic Digester Area (CR #063)	C B B	\$17,923.23 \$1,451.75 \$5,507.26	\$24,882.24	-\$905,148.38	-\$880,266.14	-1.0%	\$86,599,183.86	0	0	0	1,094	8/1/2012	
19	Approved by Director of Engineering and Construction Approved on July 30, 2010 19.1 Platform modifications at Sodium Hypochlorite Feed System (CR 025) 19.2 Pothole of existing 36-inch filter influent pipe (CR 043) 19.3 Delete 6" knife gate valve and add 6" plug valve at Primary Sedimentation (CR 046) 19.4 Repair of reclaimed water leak near old control room (CR 064) 19.5 MBR fine screen cover plates modifications (CR 064)	A A A B B	\$2,478.67 \$4,503.99 \$662.31 \$1,173.07 \$7,240.64	\$16,058.68	-\$880,266.14	-\$864,207.46	-1.0%	\$86,615,242.54	0	0	0	1,094	8/1/2012	
20	Approved by Assistant GM Approved on August 26, 2010 20.1 Area 600 Blower Discharge Modifications (CR 050)	A	\$34,622.27	\$34,622.27	-\$864,207.46	-\$829,585.19	-0.9%	\$86,649,864.81	0	0	0	1,094	8/1/2012	

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
21	Approved from Board of Directors Approved on August 23, 2010 21.1 Valve Vaults Modifications (CR 020)	A	\$277,384.97	\$277,384.97	-\$829,585.19	-\$552,200.22	-0.6%	\$86,927,249.78	0	0	0	1,094	8/1/2012
22	Approved by Director of Engineering and Construction Approved on August 26, 2010 22.1 Site Cleanup Due to Existing Filter Overflow (CR 065) 22.2 Hollow shaft motor modifications to Vertical Turbine & Vertical Propeller Pumps (CR 069)	B A	\$4,271.51 \$18,845.55	\$23,117.06	-\$552,200.22	-\$529,083.16	-0.6%	\$86,950,366.84	0	0	0	1,094	8/1/2012
23	Approved by Director of Engineering and Construction Approved on September 9, 2010 23.1 MBR Anoxic Wall Modifications (CR 061) 23.2 Repair Existing 6-inch GW near SCE Station (CR 067) 23.3 Unforeseen Conditions at SCE Conduit Installation (CR 075)	C B B	\$6,399.86 \$3,449.83 \$13,719.91	\$23,569.60	-\$529,083.16	-\$505,513.56	-0.6%	\$86,973,936.44	0	0	0	1,094	8/1/2012
24	Approved by Engineering and Operations Committee Approved on September 21, 2010 24.1 UVE Piping Modifications at Chlorine Contact Tanks (CR	A	(\$52,172.00)	-\$52,172.00	-\$505,513.56	-\$557,685.56	-0.6%	\$86,921,764.44	0	0	0	1,094	8/1/2012
25	Approved by Board of Directors Approved on September 27, 2010 25.1 Modifications to Campus Drive Entrance (CR 022)	A	\$186,651.45	\$186,651.45	-\$557,685.56	-\$371,034.11	-0.4%	\$87,108,415.89	0	0	0	1,094	8/1/2012
26	Approved by Director of Engineering and Construction Approved on October 20, 2010 26.1 Change of Strut Material from FRP to Stainless Steel 316/Install CAT5 Cable from PLC 1600 to PLC 9 (CR 074) [PR 20214, 30214] 26.2 Existing Primary Sludge Pump Room Demolition and Modifications (CR 076) [PR 20214, 30214] 26.3 Fence Repair at SCE Substation (CR 078) [PR 20214, 30214] 26.4 SHC Electrical and Controls and Milestone Revisions (CR 079) [PR 20214, 30214] 26.5 Change to more Energy Efficient Air Conditioning Units (Five Total) (Submittal 15604-001) (CR 081) [PR 20214, 30214] 26.6 Grouting of the Sodium Hypochlorite Tanks at their Permanent Site (CR 084) [PR 20214, 30214]	A C B B A A	\$1,539.18 \$3,909.94 \$1,957.62 \$324.07 \$9,101.41 \$2,560.52	\$19,392.74	-\$371,034.11	-\$351,641.37	-0.4%	\$87,127,808.63	0	0	0	1,094	8/1/2012
27	Approved by Engineering & Operations Committee Approved on November 4, 2010 27.1 Primary Sedimentation Tanks Flo-Clip Baffles Value Engineering (CR 080)	A	(\$58,157.82)	-\$58,157.82	-\$351,641.37	-\$409,799.19	-0.5%	\$87,069,650.81	0	0	0	1,094	8/1/2012
28	Approved by GM Approved on November 24, 2010 28.1 Ducts for Future Phase 3 MBR (RFI 44) (RFI 016) 28.2 Sodium Hypochlorite LCP Modifications (CR 071)	A A	\$32,021.80 \$7,503.44	\$39,525.24	-\$409,799.19	-\$370,273.95	-0.4%	\$87,109,176.05	0	0	0	1,094	8/1/2012

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
29	Approved by Director of Engineering & Construction Approved on December 22, 2010			\$23,964.61	-\$370,273.95	-\$346,309.34	-0.4%	\$87,133,140.66	0	0	0	1,094	8/1/2012
29.1	MBR Aeration Piping Access Platforms (CR-066)	A	\$14,074.73						0				
29.2	Electrical Conduit Installation near MWRP Phase 2 Trailers (Unforeseen Conditions) (CR 077)	B	\$9,889.88						0				
30	Approved by Assistant GM Approved on December 22, 2010			\$48,684.10	-\$346,309.34	-\$297,625.24	-0.3%	\$87,181,824.76	0	0	0	1,094	8/1/2012
30.1	Pipe Support (20-PE and 18-ML) Modifications per Submittal 15090-003 (CR 073)	C	\$20,880.97						0				
30.2	Material Change to SS 316 for Dry Type Transformer Submittal 16460-001 and Panelboard Submittal 16441-002	A	\$27,803.13						0				
31	Approved by Engineering & Operations Committee Approved on January 18, 2011			\$61,136.74	-\$297,625.24	-\$236,488.50	-0.3%	\$87,242,961.50	0	0	0	1,094	8/1/2012
31.1	Modifications at Campus Drive Access (CR 085)	A	\$61,136.74						0				
32	Approved by Director of Engineering & Construction Approved on January 31, 2011			\$24,303.15	-\$236,488.50	-\$212,185.35	-0.2%	\$87,267,264.65	0	0	0	1,094	8/1/2012
32.1	Delete Grout Fillet and Add Embeds at Headworks Grit Chambers (CR 090)	A	\$8,156.20						0				
32.2	LCPs for Vertical Recirculating Chopper Pumps and Sump Pumps (CR 097)	C	\$15,000.00						0				
32.3	Install Additional "Pipe Below Ground" Warning Tape (CR- 099)	A	\$1,146.95						0				
33	Approved by Board of Directors Approved on February 28, 2011			\$282,840.15	-\$212,185.35	\$70,654.80	0.1%	\$87,550,104.80	0	0	0	1,094	8/1/2012
33.1	Revised chlorine feed to filters (CR-038)	C	-\$3,510.68						0				
33.2	PEPS meter vaults and bypass piping revisions (CR-039)	C	-\$165,696.50						0				
33.3	MPS-2 Pump Discharge Pipe Modifications (NOPE #003/CR- 040)	D	\$54,005.58						0				
33.4	Modifications to MPS-2 Building Due to Unknown Duct Banks (RFI 160) (CR-049)	B	\$16,500.00						0				
33.5	WAS/Foam Pump Revisions (CR-053)	C	-\$5,696.40						0				
33.6	Floodwall Revisions per County of Orange and FEMA comments (CR-083)	A	\$350,685.85						0				
33.7	Modifications to Grating Supports at PST Splitter Box (CR- 33.8	C	\$5,266.73						0				
33.8	Change to NEMA 3R SS 316 Cabinets and Additional Taps for UV Disinfection Transformers Added by CR 047/CO 16 (CR-104)	A	\$12,003.29						0				
33.9	Miscellaneous Time &Material								0				
	Demo Oversized Footing/Rebar on Existing Retaining Wall behind Paint Shop (CR-100)	B	\$5,391.41						0				
	Removal of Unknown Concrete at the North Interceptor (CR- 107)	B	\$2,917.38						0				
	Thrust block on storage line at HRC vault (CR-108)	B	\$3,638.22						0				
	Removal of encased pipe for pile driving at MBR (CR-109)	B	\$2,756.79						0				
	Repair pile damaged when performing CR-109 (CR-110)	B	\$1,320.34						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
34	Install hydrophilic waterstop at PST launders (CR-113) Approved by Director of Engineering & Construction Approved on March 23, 2011	B	\$3,258.14	\$21,844.56	\$70,654.80	\$92,499.36	0.1%	\$87,571,949.36	0	0	0	1,094	8/1/2012
34.1	Groundwater Well Modifications (CR-041) [PR 20214, 30214]	A	\$2,338.20						0				
34.2	Bypass for Shutdown at HRC Vault (CR-106) [PR 20214, 30214]	A	\$11,200.90						0				
34.3	Removal and Disposal of Abandoned 8-inch Reclaimed Water Line in the area of North Influent Interceptor Junction Structure (CR-111) [PR 20214, 30214]	B	\$3,039.17						0				
34.4	Additional Pipe Supports for 20" PE at MBR (CR-135) [PR 20214, 30214]	B	\$2,811.22						0				
34.5	Repair existing 6-in Reclaimed Water Line near Headworks (CR-138) [PR 20214, 30214]	C	\$2,455.07						0				
35	Approved by Asst. GM Approved on April 18, 2011			\$43,741.00	\$92,499.36	\$136,240.36	0.2%	\$87,615,690.36	0	0	0	1,094	8/1/2012
35.1	Area 600 Blower Discharge Modifications (CR-055) [PR 20214, 30214]	A	\$28,785.00						0				
35.2	Area 600 Blower Structural Support Modifications (CR-077) [PR 20214, 30214]	B	\$14,956.00						0				
36	Approved by Director of Engineering and Construction Approved on May 16, 2011			\$23,514.97	\$136,240.36	\$159,755.33	0.2%	\$87,639,205.33	0	0	0	1,094	8/1/2012
36.1	Area 300 Primary Sedimentation and Area 700 Membrane Bioreactors FRP Launder Modifications (CR-087) [PR 20214, 30214]	A	\$4,757.27						0				
36.2	Area 700 Membrane Bioreactors GE Piping Modifications (CR-136) [PR 20214, 30214]	B	\$16,933.64						0				
36.3	Addition of speed feedback on Various variable speed pumps (Chemical Systems) (CR-116) [PR 20214, 30214]	A	\$1,824.06						0				
37	Approved by Assistant GM Approved on May 30, 2011			\$46,369.50	\$159,755.33	\$206,124.83	0.2%	\$87,685,574.83	0	0	0	1,094	8/1/2012
37.1	Replacement of Existing Area 600 Discharge Pipe Coupling (CR-117) [PR 20214, 30214]	A	\$14,011.85						0				
37.2	Modifications to Primary Sedimentation Tank Embeds and Cover Plates (CR-125) [PR 20214, 30214]	A	\$6,751.65						0				
37.3	Increase of Bid Item A.8 - Additional Pre-drilling of Piles (CR-098) - 3,658 LF @ \$7/LF [PR 20214, 30214]	B	\$25,606.00						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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38	Approved by Director of Engineering and Construction Approved on May 30, 2011			\$24,692.00	\$206,124.83	\$230,816.83	0.3%	\$87,710,266.83	0	0	0	1,094	8/1/2012
38.1	Two-Sided (Split Faced) Masonry for Flood Protection Improvements (CR-088) [PR 20542, 30542]	C	\$19,704.00						0				
38.2	Architectural Modifications of MBR Building per Revised Drawing A-702 (CR-149) [PR 20214, 30214]	C	\$4,988.00						0				
39	Approved by Engineering & Operations Committee Approved on June 21, 2011			\$60,515.80	\$230,816.83	\$291,332.63	0.3%	\$87,770,782.63	0	0	0	1,094	8/1/2012
39.1	Additional Architectural Modifications at High Rate Clarifier (CR-082) [PR 20214, 30214]	A	\$60,515.80						0				
40	Approved by Director of Engineering and Construction Approved on June 23, 2011			\$23,214.05	\$291,332.63	\$314,546.68	0.4%	\$87,793,996.68	0	0	0	1,094	8/1/2012
40.1	Double Containment Piping Modification for Sodium Hypochlorite System (CR-095) [PR 20214, 30214/Oracle]	A	\$16,157.16						0				
40.2	Change of Enclosure from NEMA 4 to NEMA 4X SS for Chopper Pumps in CR-097 (CR-133) [PR 20214,	A	\$1,347.00						0				
40.3	Sodium Hypochlorite Tank Pad at PST Odor Control (CR-146) [PR 20214, 30214/Oracle 1599, 1706]	B	\$5,709.89						0				
41	Approved Assistant GM Approved on June 24, 2011			\$48,005.26	\$314,546.68	\$362,551.94	0.4%	\$87,842,001.94	0	0	0	1,094	8/1/2012
41.1	MPS-2 replacement of existing valves (NOPE #4) (CR-126) [PR 20214, 30214/Oracle 1599, 1706]	A	\$35,068.26						0				
41.2	Graybar Modifications per RFI 372 (CR-144) [PR 20214, 30214/Oracle 1599, 1706]	A	\$3,429.00						0				
41.3	Steel Joists Modifications Due to Additional Load Requirements per Submittal 05221-001 (CR-153) [PR 20214,	B	\$9,508.00						0				
42	Approved by Engineering & Operations Committee Approved on July 13, 2011			\$59,150.74	\$362,551.94	\$421,702.68	0.5%	\$87,901,152.68	0	0	0	1,094	8/1/2012
42.1	MBR Aeration and Permeate Piping Modifications (CR-048) [PR 20214, 30214/Oracle 1599, 1706]	B	\$59,150.74						0				
43	Approved by Board of Directors Approved on July 25, 2011			\$1,132,283.71	\$421,702.68	\$1,553,986.39	1.8%	\$89,033,436.39	120	0	120	1,214	11/29/2012
43.1	Pipelines and Utilities for Future Biosolids (CR-017) (PR 20847/Oracle 1617)	D	\$503,272.17						60				
43.2	Biosolids Sewer Force Main (CR-045) (PR 20847/Oracle	D	\$626,976.14						60				
43.3	Geotechnical Investigation at Staging Area 2 for Biosolids Project (CR 137) (PR 20847/Oracle 1617)	D	\$2,035.40						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
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44	Approved on Director of Engineering & Construction Approved on August 18, 2011			\$24,974.48	\$1,553,986.39	\$1,578,960.87	1.8%	\$89,058,410.87	0	120	120	1,214	11/29/2012
44.1	Chemical Systems Pump Pad Modifications (CR-105) (PR 20214,30214/Oracle 1599,1706)	A	\$1,833.71						0				
44.2	Installation of 6" Gate Valve and Change of Pipe Size on PW near SII Junction (CR-140) (PR 20214,30214/Oracle	A	\$9,141.00						0				
44.3	PLC-300 additional I/O to accommodate VFD change of Primary Sludge Pumps (PR 20214,30214/Oracle 1599,1706)	A	\$13,999.77						0				
44.4	Non-compensable time extension of Milestone 5 – Floodwall Installation delay due to FEMA review and regulatory compliance	B	\$0.00						0				
45	Approved by Director of Engineering & Construction Approved on August 29, 2011			\$24,935.87	\$1,578,960.87	\$1,603,896.74	1.8%	\$89,083,346.74	0	0	0	1,214	11/29/2012
45.1	Deletion of Monorail and Door Modifications at Headworks (CR-103) (PR 20214,30214/Oracle 1599,1706)	A	\$3,570.03						0				
45.2	Hollow Metal Door Modifications (CR-156) (PR 20214,30214/Oracle 1599,1706)	A	\$7,396.38						0				
45.3	Miscellaneous T&M (CR-166) (PR 20214,30214/Oracle 1599,1706)	B	\$13,969.46						0				
46	Approved by Board of Directors Approved on September 26, 2011			\$476,789.37	\$1,603,896.74	\$2,080,686.11	2.4%	\$89,560,136.11	0	120	120	1,214	11/29/2012
46.1	Replacement of Sand Canyon Zone A and Associated Piping, Valves, and Appurtenances (CR-130) (PR 30038/Oracle 1643)	D	\$455,216.07						0				
46.2	As Needed Potholing Related to Strainer Replacement and Pipe Installation (CR-130) (PR 30038/Oracle 1643)	D	\$21,573.30						0				
47	Approved by Director of Engineering & Construction Approved on October 13, 2011			\$24,215.90	\$2,080,686.11	\$2,104,902.01	2.4%	\$89,584,352.01	0	120	120	1,214	11/29/2012
47.1	Installation of Davits at PST, MBR, SBW Walkway, and HRC (CR-134) (PR 20214 (1599)/30214 (Oracle 1706))	A	\$6,153.02						0				
47.2	Miscellaneous T&M Work (CR-183) (PR 20214 (1599)/30214 (Oracle 1706))	B	\$18,062.88						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

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Design Engineer HDR

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48	Approved by Director of Engineering & Construction Approved on October 18, 2011			\$24,860.93	\$2,104,902.01	\$2,129,762.94	2.4%	\$89,609,212.94	0	120	120	1,214	11/29/2012
48.1	Primary splitter box low pressure air pipe material and restraints (CR-162)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$6,583.45						0				
48.2	FRP Launder Modifications at MBR RAS Box (CR-168)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$4,318.00						0				
48.3	Concrete with PVC behind Auto Shop (CR-112)/(PR 20214 (1599)/30214 (Oracle 1706))	B	\$1,262.67						0				
48.4	Door Hardware Modifications per RFI-0339 (CR-139)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$7,428.82						0				
48.5	SBW Pumps Low Level Circuit modifications (CR-178)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$2,261.42						0				
48.6	Site Lighting Modifications (CR-068)/(PR 20214 (1599)/30214 (Oracle 1706))	C	\$3,006.57						0				
49	Approved from Board of Directors Approved on October 24, 2011			\$318,886.24	\$2,129,762.94	\$2,448,649.18	2.8%	\$89,928,099.18	0	120	120	1,214	11/29/2012
49.1	Biosolids Indicator Piles (CR-175)/PR 20847 (1617)	D	\$318,886.24						0				
50	Approved by Director of Engineering & Construction Approved on November 21, 2011			\$24,957.84	\$2,448,649.18	\$2,473,607.02	2.8%	\$89,953,057.02	0	120	120	1,214	11/29/2012
50.1	Odor scrubber cleaning at Primary Sedimentation Tanks (CR-158) (PR 20214,30214/Oracle 1599,1706)	A	\$2,564.33						0				
50.2	Existing Ductbank Modifications (CR-185) (PR 20214,30214/Oracle 1599,1706)	A	\$13,764.46						0				
50.3	Additional Concrete Fillets at High Rate Clarifier (CR-188) (PR 20214,30214/Oracle 1599,1706)	A	\$8,629.05						0				
51	Approved by Director of Engineering & Construction Approved on November 22, 2011			\$24,342.17	\$2,473,607.02	\$2,497,949.19	2.9%	\$89,977,399.19	0	120	120	1,214	11/29/2012
51.1	Filter Pump Station-2(FPS-2) Potable Water Line Addition (CR-172) (PR 20214 (1599)/30214 (Oracle 1706))	A	\$6,296.80						0				
51.2	Pothole 8 Inch Drain Line from High Rate Clarifier to Manhole #3 (CR-197) (PR 20214 (1599)/30214 (Oracle 1706))	B	\$18,045.37						0				
52	Approved by Board of Directors Approved on December 12, 2011			\$284,442.00	\$2,497,949.19	\$2,782,391.19	3.2%	\$90,261,841.19	0	120	120	1,214	11/29/2012
52.1	36" Stormwater Pipeline for Biosolids (CR-174) (PR 20847)	D	\$284,442.00						0				
53	Approved by Director of Engineering & Construction Approved on December 8, 2011			\$24,885.30	\$2,782,391.19	\$2,807,276.49	3.2%	\$90,286,726.49	0	120	120	1,214	11/29/2012
53.1	Modifications to MBR Pump Room Drains and Valve Vaults (CR-096) (PR 20214/30214 (1599/1706))	C	\$8,460.88						0				
53.2	Central Electrical Building Masonry Veneer Modifications (CR-159) (PR 20214/30214 (1599/1706))	C	\$5,243.55						0				
53.3	Sodium Hydroxide Tank Pad Modifications (CR-161)	A	\$2,578.57						0				
53.4	Addition of Gutter and Downspout at Membrane Bioreactors Structure (CR-164) (PR 20214/30214 (1599/1706))	C	\$8,602.30						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
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54	Approved by Director of Engineering & Construction Approved on December 9, 2011			\$24,569.34	\$2,807,276.49	\$2,831,845.83	3.2%	\$90,311,295.83	0	120	120	1,214	11/29/2012
54.1	Grit Pump and Mixer Power Feed Modifications (CR-115) (PR 20214,30214/Oracle 1599,1706)	A	\$3,764.78						0				
54.2	8-inch Plant Drain Residuals to Headworks Piping Modifications at High Rate Clarifier (CR-171) (PR 20214,30214/Oracle 1599,1706)	A	\$11,720.63						0				
54.3	Vault Drain Line to PEPS (CR-176) (PR 20214,30214/Oracle 1599,1706)	B	\$9,083.93						0				
55	Approved by Director of Engineering & Construction Approved on January 11, 2012			\$24,469.23	\$2,831,845.83	\$2,856,315.06	3.3%	\$90,335,765.06	0	120	120	1,214	11/29/2012
55.1	Sodium Hypochlorite and Ferric Chloride Chemical Piping Additions (CR-128) (PR 20214,30214/Oracle 1599,1706)	A	\$9,994.81						0				
55.2	Modifications to the Existing Filter Effluent Channels (CR- 204) (PR 20214,30214/Oracle 1599,1706)	C	\$14,474.42						0				
56	Approved by Director of Engineering & Construction Approved on January 20, 2012			\$24,315.75	\$2,856,315.06	\$2,880,630.81	3.3%	\$90,360,080.81	47	120	167	1,261	1/15/2013
56.1	Existing Sludge Pump Room Modifications (CR-147) (PR 20214,30214/Oracle 1599,1706)	B	\$19,483.75						0				
56.2	Structural Modifications for 20" LPA Penetration at MBR Building (CR-213) (PR 20214,30214/Oracle 1599,1706)	C	\$4,832.00						47				
57	Approved by Board of Directors Approved on February 27, 2012			\$116,206.53	\$2,880,630.81	\$2,996,837.34	3.4%	\$90,476,287.34	0	167	167	1,261	1/15/2013
57.1	Change from 2-Ton Bridge Crane to 5-Ton Bridge Crane (CR- 195) (PR 20214,30214/Oracle 1599,1706)	C	\$116,206.53						0				
58	Approved by Board of Directors Approved on February 27, 2012			(\$669,030.20)	\$2,996,837.34	\$2,327,807.14	2.7%	\$89,807,257.14	0	167	167	1,261	1/15/2013
58.1	Final Quantity Adjustment due to Differing Site Conditions of Bid Item A.06 – Precast Prestressed Concrete Driven Piles – Structure Piles (PR 20214,30214/Oracle 1599,1706)	B	(\$669,030.20)						0				
59	Approved by Director of Engineering & Construction Approved on February 23, 2012			\$24,975.26	\$2,327,807.14	\$2,352,782.40	2.7%	\$89,832,232.40	0	167	167	1,261	1/15/2013
59.1	South Influent Interceptor Modifications (CR-169) (PR 20214,30214/Oracle 1599,1706)	B	\$24,975.26						0				

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60	Approved by Director of Engineering & Construction Approved on February 24, 2012			\$24,875.42	\$2,352,782.40	\$2,377,657.82	2.7%	\$89,857,107.82	0	167	167	1,261	1/15/2013
60.1	Installation of 1" and 2" Conduits at High Rate Clarifier (CR-058) (PR 20214,30214/Oracle 1599,1706)	B	\$1,225.50						0				
60.2	Floodwall Revisions Due to 5 kV and Transmitter Conflict (CR-148) (PR 20542 (1150)/30542 (1118))	B	\$1,485.98						0				
60.3	Pump call relays for Area 800 polymer and sand feed LCPs (CR-189) (PR 20214,30214/Oracle 1599,1706)	A	\$1,013.84						0				
60.4	Modifications to Flood Wall Entrance on Riparian (CR-222) (PR 20542 (1150)/30542 (1118))	B	\$17,922.87						0				
60.5	Existing 30-Inch Wall Spools at SBW Tank (CR-223)(PR 20214,30214/Oracle 1599,1706)	A	\$3,227.23						0				
61	Approved by Engineering & Operations Committee Approved on March 20, 2012			\$56,853.28	\$2,377,657.82	\$2,434,511.10	2.8%	\$89,913,961.10	0	167	167	1,261	1/15/2013
61.1	Additional sampling stations, samplers, analyzers, and associated electrical, instrumentation, and programming at Primary Effluent Pump Station, Membrane Bioreactor, and Chlorine Contact Tanks (CR-131) (PR 20214,30214/Oracle	A	\$56,853.28						0				
62	Approved by Director of Engineering & Construction Approved on March 19, 2012			\$24,734.25	\$2,434,511.10	\$2,459,245.35	2.8%	\$89,938,695.35	0	167	167	1,261	1/15/2013
62.1	Additional Electrical Work to Site Glass for Scum Line at Primary Sludge Room (CR-044)(PR 20214,30214/Oracle	C	\$3,247.25						0				
62.2	T12/T13 Substation Pad Modifications (CR-120)(PR 20214,30214/Oracle 1599,1706)	C	\$13,144.00						0				
62.3	Removal of ACP Pipe in Primary Sludge Room (CR-124) (PR 20214,30214/Oracle 1599,1706)	B	\$3,562.83						0				
62.4	Pressure Testing of 14-Inch Butterfly Valves at MPS-2 (CR-187) (PR 20214,30214/Oracle 1599,1706)	A	\$2,454.83						0				
62.5	Pipe Rental for Secondary Clarifier Bypass (CR-202) (PR 20214,30214/Oracle 1599,1706)	A	\$2,325.34						0				
62.6	Non-compensatory Time Extension of 117 Days for Milestone #5 – Floodwall Installation	B	\$0.00						0				
63	Approved by Director of Engineering & Construction Approved on March 26, 2012			\$24,724.63	\$2,459,245.35	\$2,483,969.98	2.8%	\$89,963,419.98	0	167	167	1,261	1/15/2013
63.1	Remove and Replace Existing Slide Gate at Backwash Supply Tank (CR-165)(PR 20214,30214/Oracle 1599,1706)	A	\$18,991.09						0				
63.2	HRC Polymer Storage & Feed System Modifications (CR-170)(PR 20214,30214/Oracle 1599,1706)	C	\$3,435.19						0				
63.3	Potholing for Utilities Not Shown on Drawings near MgOH Tanks (CR-211)(PR 20214,30214/Oracle 1599,1706)	C	\$2,298.35						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
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64	Approved by E&O Committee Approved on April 17, 2012 64.1 Grading Modifications at High Rate Clarifier (CR-179) (PR 20214,30214/Oracle 1599,1706)	A	\$76,429.27	\$76,429.27	\$2,483,969.98	\$2,560,399.25	2.9%	\$90,039,849.25	0	167	167	1,261	1/15/2013
65	Approved by Director of Engineering & Construction Approved on April 19, 2012 65.1 Filler pieces between steel roof joists at CEB (CR-154)(PR 20214,30214/Oracle 1599,1706)	C	\$1,072.20	\$24,226.85	\$2,560,399.25	\$2,584,626.10	3.0%	\$90,064,076.10	0	167	167	1,261	1/15/2013
	65.2 Highline & Relocate 6-in GW due to revised location of electrical manholes (CR-201)(PR 20214,30214/Oracle	B	\$10,739.37						0				
	65.3 Additional Building Signage at UV Facility (CR-205) (PR 20214,30214/Oracle 1599,1706)	A	\$3,432.94						0				
	65.4 Area 400 PEPS Electrical Room HVAC Modifications (CR-215) (PR 20214,30214/Oracle 1599,1706)	C	\$2,186.05						0				
	65.5 Revisions to the Seimens Pre-Negotiated Component Scope for the Odor Scrubber (CR-226) (PR 20214,30214/Oracle	A	\$6,796.29						0				
66	Approved by General Manager Approved on May 1, 2012 66.1 High Rate Clarifier and Chlorine Contact Tank Coating Modifications (CR-155) 30542 (1118)	A	\$28,953.41	\$28,953.41	\$2,584,626.10	\$2,613,579.51	3.0%	\$90,093,029.51	0	167	167	1,261	1/15/2013
67	Approved by General Manager Approved on May 7, 2012 67.1 Membrane Bioreactors Air Scour Blower Control I/O Conduit Modifications (CR-101) PR 20124 (1599)	A	\$21,906.75	\$48,235.02	\$2,613,579.51	\$2,661,814.53	3.0%	\$90,141,264.53	0	167	167	1,261	1/15/2013
	67.2 Primary Sludge Pump Modifications (CR-114) PR 20214 (1599)	A	\$26,328.27						0				
68	Approved by Exe. Dir. Of Engineering & Planning Approved on May 18, 2012 68.1 Backwash Surge Line Reroute to Backwash Supply Wetwell (CR-198) PR 30124 (1706)	A	\$20,308.25	\$24,943.20	\$2,661,814.53	\$2,686,757.73	3.1%	\$90,166,207.73	0	167	167	1,261	1/15/2013
	68.2 Additional Eyewash at the UV Disinfection Facility (CR-200) PR 30214 (1706)	A	\$4,634.95						0				
69	Approved by Exe. Dir. Of Engineering & Planning Approved on May 23, 2012 69.1 Modifications to Existing Slab-On-Grade at Filters (CR-142) PR 30124 (1706)	A	\$2,816.82	\$24,942.86	\$2,686,757.73	\$2,711,700.59	3.1%	\$90,191,150.59	0	167	167	1,261	1/15/2013
	69.2 Flood Wall Modifications (CR-167) PR 20542 (1150)/PR 30542 (1118)	A	\$3,488.62						0				
	69.3 Filters Air Flow Meter Repair and Bollards Addition (CR-173) PR 30124 (1706)	A	\$2,185.92						0				
	69.4 Bridge Crane Photo Sensors at Membrane Bioreactors and Ultraviolet Disinfection Facility (CR-177) PR 20214 (1599)/PR 30214 (1706)	A	\$16,451.50						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount							Contract Days				Original Completion Date:
			Original Contract Amount: \$ 87,479,450.00							Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date	
70	Approved by General Manager Approved on June 26, 2012 Credit for Landscape Restoration of a Portion of the Screen Berm North of MWRP (CR-255) PR 20542 (1150)/PR 30542	A	(\$48,672.95)	(\$48,672.95)	\$2,711,700.59	\$2,663,027.64	3.0%	\$90,142,477.64	0	167	167	1,261	1/15/2013	
71	Approved by Acting Exec. Director of Engineering & Construction Approved on June 28, 2012			\$23,926.51	\$2,663,027.64	\$2,686,954.15	3.1%	\$90,166,404.15	0	167	167	1,261	1/15/2013	
71.1	Surge Tank Tower Cable and Conduit Repair and Relocation (CR-210) /Photocell for 3 nightlights at UV (CR-236) PR	B	\$7,226.25						0					
71.2	8" line stop for removal of existing 8" sewer line (CR 217) PR 20214 (1599)	B	\$6,200.00						0					
71.3	Demolition of existing 24" SBW Pipe conflicting with new 8" SBW (CR 229) PR 20214 (1599)	B	\$4,277.45						0					
71.4	Demolition of existing concrete ductbank encasement near Headworks (CR 233) PR 20214 (1599)	B	\$4,596.34						0					
71.5	Installation of 4-inch gate valve and associated repairs near FPS-2 Due to Failure of Existing 4-inch Reclaimed Water Loop (CR 234) PR 30214 (20214)	A	\$1,626.47						0					
72	Approved by Acting Exec. Director of Engineering & Construction Approved on June 28, 2012			\$23,047.77	\$2,686,954.15	\$2,710,001.92	3.1%	\$90,189,451.92	0	167	167	1,261	1/15/2013	
72.1	Irrigation Line Road Crossings Additions (CR-186) PR 20214 (1599), 30214 (7106)	C	\$14,596.59						0					
72.2	Transformer 12, 13 conduit relocation (CR 239) PR 20214 (1599), 30214 (7106)	B	\$865.37						0					
72.3	Biosolids conduit realignment near SWP Station (CR 245) PR 20847 (1617)	B	\$3,605.70						0					
72.4	Repair of unknown 2" and 4" RW pipe during excavation of biosolids piping (CR 260) PR 20847 (1617)	B	\$3,980.11						0					
73	Approved by Acting Exec. Director of Engineering & Construction Approved on July 3, 2012			\$16,525.80	\$2,710,001.92	\$2,726,527.72	3.1%	\$90,205,977.72	0	167	167	1,261	1/15/2013	
73.1	MBR Roof and Bridge Crane Modifications (CR-264) PR 20214 (1599)	C	\$16,525.80						0					
74	Approved by E&O Committee Approved on July 24, 2012			\$52,342.09	\$2,726,527.72	\$2,778,869.81	3.2%	\$90,258,319.81	0	167	167	1,261	1/15/2013	
74.1	Relocation of Existing 16-Inch Reclaimed Water Pipeline near Flow Equalization Basin (CR-240) PR 20542 (1150) and 30542 (1118)	B	\$52,342.09						0					
75	Approved by Board of Directors Approved on August 13, 2012			\$473,570.14	\$2,778,869.81	\$3,252,439.95	3.7%	\$90,731,889.95	0	167	167	1,261	1/15/2013	
75.1	MPS-1 Building Demolition and Electrical Relocation (CR-209) PR 20214 (1599) and 30214 (1706)	A	\$473,570.14						0					

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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76	Approved by General Manager Approved on July 30, 2012			\$29,412.41	\$3,252,439.95	\$3,281,852.36	3.8%	\$90,761,302.36	0	167	167	1,261	1/15/2013
76.1	MPS-2 Pump Pad Modifications (CR-232) PR 30214 (1706)	A	\$29,412.41						0				
77	Approved by Board of Directors Approved on August 27, 2012			\$151,336.95	\$3,281,852.36	\$3,433,189.31	3.9%	\$90,912,639.31	0	167	167	1,261	1/15/2013
77.1	Chlorine Contact Tank Repairs (CR-152) PR 30214 (1706)	B	\$151,336.95						0				
78	Approved by Exec. Dir. Of Engineering and Planning Approved on August 15, 2012			\$24,341.31	\$3,433,189.31	\$3,457,530.62	4.0%	\$90,936,980.62	0	167	167	1,261	1/15/2013
78.1	Unforeseen Conditions Associated with 36-inch HDPE Biosolids Storm Drain Installation PR 20847 (1617)	B	\$11,473.24						0				
78.2	Remove and Replace Two 8-Inch Reclaimed Water Gate Valves on South Side of Chlorine Contact Tanks (CR-257) PR	A	\$1,832.69						0				
78.3	Removal of Unknown Concrete at Existing Structure northwest of PEPS to install 54" PE line PR 20124 (1599)	B	\$6,833.18						0				
78.4	Headworks Scum Piping Modifications (CR-269) PR 20124 (1599)	B	\$4,202.20						0				
79	Pending Approval from General Manager Sent for Approval on September 20, 2012			\$49,030.10	\$3,457,530.62	\$3,506,560.72	4.0%	\$90,986,010.72	0	167	167	1,261	1/15/2013
79.1	Chlorine Contact Tank Repairs (CR-152) PR 30214 (1706)	A	\$49,030.10						0				
80	Approved by Exe. Director of Engineering and Planning Approved on September 24, 2012			\$24,593.00	\$3,506,560.72	\$3,531,153.72	4.0%	\$91,010,603.72	0	167	167	1,261	1/15/2013
80.1	Arc Flash/Coordination Study (CR-252) PR 20214 (1599)	A	\$24,593.00						0				
81	Approved by E&O Committee Approved on November 16, 2012			\$66,811.32	\$3,531,153.72	\$3,597,965.04	4.1%	\$91,077,415.04	0	167	167	1,261	1/15/2013
81.1	Storage Building (CR-295) PR 20847 (1617)	D	\$66,811.32						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

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Design Engineer HDR

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82	Approved by Exe. Director of Engineering and Planning Approved on November 1, 2012			\$24,888.24	\$3,597,965.04	\$3,622,853.28	4.1%	\$91,102,303.28	0	167	167	1,261	1/15/2013
82.1	SCADA Programming Modifications at UV Disinfection Facility (CR-235) PR 30214 (1706)	A	\$2,598.23										
82.2	Re-Fabricate Cofferdam Due to Existing Conditions at Primary Effluent Channel (CR-259) PR 20124 (1599)	B	\$3,904.14										
82.3	Repair of Existing 6" Waste Activated Sludge (WAS) Pipeline south of Existing Rectangular Secondary Clarifiers (CR-268) PR 20214 (1599)	B	\$2,979.43										
82.4	Membrane Bioreactor Low Pressure Air Flange Modifications (CR-271) PR 20214 (1599)	B	\$1,394.68										
82.5	Cut and Plug Abandoned 6-inch sewer line north of existing Headworks (CR-272) PR 20214 (1599)	B	\$429.63										
82.6	Electrical Manhole No. MHG6C Sump Pump Work (CR-277) PR 20124 (1599)	C	\$2,104.38										
82.7	Crack Repair of Existing Primary Sedimentation Tank Influent Channel (CR-292) PR 20214 (1599)	B	\$3,476.68										
82.8	Modifications to Ledger Angle, Grating, and FRP launder troughs in Primary Sedimentation Tank splitter box (CR-293) PR 20214 (1599)	B	\$2,767.83										
82.9	Pressure Regulators at Headworks (CR-294) PR 20214 (1599)	B	\$5,233.24						0				
83	Approved by Board of Directors Approved on November 26, 2012			-\$228,007.95	\$3,622,853.28	\$3,394,845.33	3.9%	\$90,874,295.33	0	167	167	1,261	1/15/2013
83.1	Final quantity adjustments for Bid Item No. A.07 - Predrilled Precast Pre-stressed Concrete Drive Piles - Influent Sewer	B	-\$210,094.00						0				
83.2	Final quantity adjustments for Bid Item No. B.01 - Precast Pre-stressed Concrete Driven Pile	B	\$89,362.00						0				
83.3	Final quantity adjustments for Bid Item No. B.02 - Predrilled Precast Pre-stressed Concrete Driven Piles	B	-\$107,275.95						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

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84	Approved by Acting GM Approved on December 28, 2012 84.1 Removal and Disposal of Existing Motors, Pumps, and Equipment in MPS- Building (CR-221) PR 20214, 30214	A	\$37,859.85	\$37,859.85	\$3,394,845.33	\$3,432,705.18	3.9%	\$90,912,155.18	0	167	167	1,261	1/15/2013
85	Approved by Exe. Director of Engineering and Planning Approved on December 28, 2012 85.1 Installation of 10-Inch Tee on Biosolids Piping (CR-253) PR 20847 (1617) 85.2 Two Additional Concrete Supports for the 36-Inch RAS Line at MBR (CR-242) PR 20214 (1599) 85.3 Addition of Two 8-inch Plug Valves to Plant Drain Line for Sampling at Headworks (CR-303) PR 20214 (1599)	D D C A	\$1,783.30 \$6,211.81 \$16,054.86	\$24,049.97	\$3,432,705.18	\$3,456,755.15	4.0%	\$90,936,205.15	0	167	167	1,261	1/15/2013
86	Approved by Exe. Director of Engineering and Planning Approved on December 28, 2012 86.1 Removal of Buried Concrete to Allow Construction of Groundwater Well No 0140 (CR-273) PR 20214 (1599) 86.2 Additional Concrete Fillets on the East Wall Corners of New PSTs (CR-304) PR 20214 (1599) 86.3 HVAC Modifications at PEPS Electrical Room (CR-305) PR 20214 (1599) 86.4 Coating of Vactor Station (CR-306) PR 20214 (1599)	B A B A	\$2,893.01 \$10,727.59 \$3,433.39 \$3,174.82	\$20,228.81	\$3,456,755.15	\$3,476,983.96	4.0%	\$90,956,433.96	0	167	167	1,261	1/15/2013
87	Approved by E&O Committee Approved on January 15, 2013 87.1 Research Pads (CR-219) PR 20214 (1599)	D	\$79,315.00	\$79,315.00	\$3,476,983.96	\$3,556,298.96	4.1%	\$91,035,748.96	0	167	167	1,261	1/15/2013
88	Approved by Exe. Director of Engineering and Planning Approved on January 29, 2013 88.1 Headworks Building Load-Out Container Wheel Guides and Stops (CR-249) PR 20214 (1599) 88.2 Modifications to Existing Junction Box at PEPS (CR-291) PR 20214 (1599) 88.3 Investigation to Expose High Pressure Corroded 8-Inch Reclaimed Water Line (CR-298) PR 20214 (1599) 88.4 Alum Sidewalk Revisions (CR-311) PR 20214 (1599) 88.5 Equipment Rental for ES-3 Shutdown (CR-312) PR 20214 88.6 Removal of Unknown Ductbank near South Influent Interceptor (CR-313) PR 20214 (1599)	A B B A B B	\$8,337.79 \$5,249.47 \$1,471.66 \$3,556.22 \$2,423.20 \$3,460.80	\$24,499.14	\$3,556,298.96	\$3,580,798.10	4.1%	\$91,060,248.10	0	167	167	1,261	1/15/2013

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

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Design Engineer HDR

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89	Approved by Exe. Director of Engineering and Planning Approved on February 6, 2013			\$23,272.79	\$3,580,798.10	\$3,604,070.89	4.1%	\$91,083,520.89	0	167	167	1,261	1/15/2013
89.1	Installation of Ultraviolet (UV) Light Shields at UV Facility (CR-208) PR 30214 (1706)	A	\$8,607.30						0				
89.2	Odor Control Drains to Primary Sedimentation Tanks Effluent Channels (CR-216) PR 20214 (1599)	C	\$1,085.54						0				
89.3	Addition of Standby Sodium Hypochlorite Injection Point (CR-228) PR 20214 (1599)	A	\$2,652.29						0				
89.4	Relocate conduit for Groundwater Well No. 140, North of Primary Sedimentation Tanks (CR-315) PR 20214 (1599)	B	\$1,678.49						0				
89.5	Miscellaneous Modifications at High Rate Clarifier (CR-299) PR 20124 (1599)	B	\$5,014.13						0				
89.6	Miscellaneous Modifications (CR-300) PR 20124 (1599)	B	\$4,235.04						0				
90	Approved by Board of Directors Approved on March 25, 2013			\$410,000.00	\$3,604,070.89	\$4,014,070.89	4.6%	\$91,493,520.89	197	167	364	1,458	7/31/2013
90.1	Project Related Field Office Overhead PR 20214 (1599), 30214 (1706), 20542 (1150), 30542 (1118)	B	\$410,000.00						197				
91	Approved by Exe. Director of Engineering and Planning Approved on March 28, 2013			\$24,948.94	\$4,014,070.89	\$4,039,019.83	4.6%	\$91,518,469.83	0	364	364	1,458	7/31/2013
91.1	Installation of Medium Voltage Switchgear Kirk Keys (CR-182) (PR 20214 (1599), 30214 (1706))	C	\$4,341.69						0				
91.2	Additional Lights, Emergency Lights, and Exit Lights at Various Locations (CR-194) PR 20214 (1599)	A	\$20,607.25						0				
92	Approved by Exe. Director of Engineering and Planning Approved on March 28, 2013			\$49,044.94	\$4,039,019.83	\$4,088,064.77	4.7%	\$91,567,514.77	0	364	364	1,458	7/31/2013
92.1	Modifications to High Rate Clarifier (HRC) and ES-3 Valve Controls (CR-91) PR 30214 (1706)	A	\$18,782.41						0				
92.2	Field Modifications at MSP-2 Circuit Breaker 10 (CR-157) PR	A	\$12,395.07						0				
92.3	Additional Lights at HRC and Existing Primary Sludge Room (CR-256) PR 20214 (1599) and PR 30214 (1706)	A	\$17,867.46						0				
93	Approved by Exe. Director of Engineering and Planning Approved on April 23, 2013			\$23,546.00	\$4,088,064.77	\$4,111,610.77	4.7%	\$91,591,060.77	0	364	364	1,458	7/31/2013
93.1	Electrical Modifications at Headworks Building, MBR Pump Room, and Blower Room (CR-309) PR 20214 (1599)	A	\$23,546.00						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
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94	Approved by Exe. Director of Engineering and Planning Approved on April 24, 2013			\$22,281.00	\$4,111,610.77	\$4,133,891.77	4.7%	\$91,613,341.77	0	364	364	1,458	7/31/2013
94.1	Headworks Tipping Trough Electrical Modifications (CR-092) PR 20214 (1599)	A	\$3,044.00						0				
94.2	Power to roll-up doors at Membrane Bioreactors and High Rate Clarifier (CR-141) PR 20124 (1599), 30214 (1706)	C	\$2,453.00						0				
94.3	Addition of Safety Ramps at Ultraviolet Disinfection Facility (CR-258) PR 30214 (1706)	A	\$716.00						0				
94.4	Cabinet Pad at Ultraviolet Disinfection Facility (CR-262) PR 30214 (1706)	A	\$1,224.00						0				
94.5	High Rate Clarifier Reclaimed Water Line Extension (CR-284) PR 30214 (1706)	A	\$11,243.00						0				
94.6	Addition of Air Vacuum Valve at Membrane Bioreactor Back Pulse Pump(CR-307) PR 20214 (1599)	B	\$669.00						0				
94.7	Repair of 6-Inch Groundwater Line, east of Chlorine Contact Tank and 3" Potable Water Line at Filters (CR-319) PR 20214 (1599), 30214 (1706)	C	\$1,032.00						0				
94.8	Electrical Rewiring of Membrane Bioreactors Fine Screens (CR-323) PR 20214 (1599)	C	\$1,900.00						0				
95	Approved by Board of Directors Approved on May 27, 2013			\$370,963.00	\$4,133,891.77	\$4,504,854.77	5.1%	\$91,984,304.77	92	364	456	1,550	10/31/2013
95.1	8-inch Reclaimed Water Line Lateral for Biosolids (CR-221) PR 20847 (1617)	D	\$81,600.00						0				
95.2	MWRP Security Fence Improvements (CR-288) PR 20124 (1599), 30214 (1706)	A	\$289,363.00						0				
95.3	Deletion of one water quality sampler (CR-062) PR 20124 (1599), Deletion of demolition of existing and abandoned 30-inch sewer (CR-224) PR 20124 (1599), and Use of Schedule 10 stainless steel in lieu of Schedule 40 for low pressure air at membrane bioreactors (CR-225) PR 20124 (1599)	A	(\$34,390.00)						0				
95.4	Premium offset for Builder's Risk insurance through October 31, 2013	A	\$34,390.00						0				
95.5	Time Extension related to sequencing of CCO No. 74 - MPS-1 Building Demolition and Existing Primary Sedimentation Motor Control Center Electrical Relocation	A	\$0.00						92				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
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96	Approved by Exe. Director of Engineering and Water Quality Approved on August 19, 2013			\$23,975.88	\$4,504,854.77	\$4,528,830.65	5.2%	\$92,008,280.65	0	456	456	1,550	10/31/2013
96.1	Install 2" flush out assembly per W-13 at end of 4" DW s/o MBR (CR-241) PR 20214 (1599)	A	\$1,528.33						0				
96.2	6-Inch GW Potholing and Concrete Cap (CR-318) PR 20214 (1599)	B	\$7,675.03						0				
96.3	Relocation of UVT and Conductivity Analyzer at UV Structure (CR-328) PR 30214 (1706)	A	\$4,036.26						0				
96.4	Removal of Baffles at Existing PSTs (CR-329) PR 20214 (1599)	A	\$5,405.51						0				
96.5	Blower Room Piping Modifications (CR-335) PR 20214	A	\$5,330.75						0				
97	Approved by Exe. Director of Engineering and Water Quality Approved on October 24, 2013			\$24,999.85	\$4,528,830.65	\$4,553,830.50	5.2%	\$92,033,280.50	0	456	456	1,550	10/31/2013
97.1	New Potable Water Service Line to Existing MWRP Generator Radiators at Headworks (CR-265) PR 20214	D	\$2,562.54						0				
97.2	Removal of Baffles at Existing PSTs (CR-329) PR 20214 (1599)	C	\$5,405.51						0				
97.3	Addition of Master Solenoid Valve for MBR Fine Screens Water Supply (CR-331) PR 20214 (1599)	A	\$5,943.97						0				
97.4	Provide Spent Backwash Turbidity Meter (CR-336) PR 30214 (1706)	C	\$7,099.69						0				
97.5	New Rotameter at Membrane Bioreactor (MBR) Fine Screens (CR-337) PR 20214 (1599)	C	\$1,801.35						0				
97.6	Removal of steel plates at the existing filters (CR-342) PR 30214 (1706)	C	\$2,186.79						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
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Design Engineer HDR

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			Original Contract Amount: \$ 87,479,450.00						Original Days: 1,094				8/1/2012
Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
101	Approved by Acting GM Approved on January 2, 2014			\$49,268.74	\$4,615,998.34	\$4,665,267.08	5.3%	\$92,144,717.08	0	456	456	1,550	10/31/2013
	101.1 Install Oil Sample Tubes at the Membrane Bioreactors (CR-308) PR 20214 (1599)	A	\$7,733.82						0				
	101.2 Drill and tap discharge risers and install 1" x 1/2" PVC bushings for anti-siphon at MBR Fine Screens (CR-340) PR	C	\$489.78						0				
	101.3 Remove existing 6-inch primary sludge pipe in the primary sludge pump room (CR-344) PR 20214 (1599)	C	\$2,019.68						0				
	101.4 Demolish existing equipment pads in former chlorine room (CR-350) PR 20214 (1599)	A	\$8,212.27						0				
	101.5 Groundwater Pump No 9 Conduit Re-routing (CR-351) PR 20214 (1599)	B	\$12,633.62						0				
	101.6 Relocate existing 4-inch potable water (CR-356) PR 20214 (1599)	B	\$1,908.00						0				
	101.7 Modify Handrail at spent back wash tank (CR-358) PR 20214 (1599)	A	\$2,716.25						0				
	101.8 Install additional hose bibs in headworks load-out room (CR-361) PR 20214 (1599)	A	\$2,709.59						0				
	101.9 Install additional solenoid valves at mixed liquor pump station and storm water pump station (CR-333) PR 20214 (1599)	A	\$10,845.73						0				
102	Approved by Exe. Director of Engineering and Planning Approved on January 7, 2014			\$24,985.22	\$4,665,267.08	\$4,690,252.30	5.4%	\$92,169,702.30	0	456	456	1,550	10/31/2013
	102.1 Additional pressure switches at Permeate and Backpulse Pumps (CR-355) PR 20214 (1599)	A	\$8,305.92						0				
	102.2 Access Ramp to South Junction Structure for Vector Trucks (CR-333) PR 20214 (1599)	B	\$3,461.31						0				
	102.3 Miscellaneous Work Time and Materials (CR-364) PR 20214 (1599)	A	\$13,217.99						0				
103	Approved by Exe. Director of Engineering and Planning Approved on January 21, 2014			\$0.00	\$4,690,252.30	\$4,690,252.30	5.4%	\$92,169,702.30	225	456	681	1,775	6/13/2014
	103.1 Non-compensatory Time Extension of 125Days per Jan 2, 2014 agreement	A	\$0.00						225				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

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104	Approved by Board of Directors Approved on January 27, 2014			\$242,461.11	\$4,690,252.30	\$4,932,713.41	5.6%	\$92,412,163.41	0	681	681	1,775	6/13/2014
104.1	Riparian View Modifications (CR-83A) PR 20542 (1150), 30542 (1118)	A	\$189,182.30						0				
104.2	Recycled Water Modifications (CR-227) PR 30214 (1706)	A	\$53,278.81						0				
105	Approved by Exe Director of Engineering and Planning Approved on March 3, 2014			\$24,788.21	\$4,932,713.41	\$4,957,501.62	5.7%	\$92,436,951.62	0	681	681	1,775	6/13/2014
105.1	Control Chlorine Residual Sample Pump Relocation (CR-282) PR 30542 (1706) Task 3520	A	\$4,793.22						0				
105.2	Membrane Bioreactor LCP-2100/2200 Pump Alarm Modifications per RFI 550 (CR-334) PR 20214 (1599) Task	C	\$1,483.82						0				
105.3	Pothole, Excavate & Reroute utilities to construct the Magnesium Hydroxide Facility (CR-365) PR 20214 (1599)	B	\$7,060.00						0				
105.4	MBR Mixed Liquor Wet Well Float Relocation (CR-366) PR 20214 (1599) Task 3520	B	\$11,451.17						0				
106	Approved by Exe Director of Engineering and Planning Approved on March 14, 2014			\$23,306.03	\$4,957,501.62	\$4,980,807.65	5.7%	\$92,460,257.65	0	681	681	1,775	6/13/2014
106.1	MBR Communication Modifications (CR-324) PR 20214 (1599) Task 3510	A	\$1,094.48						0				
106.2	Install Time Delay Relays for Headworks Screen Local Control Panels (CR-327) PR 20214 (1599) Task 3510	A	\$978.76						0				
106.3	Air Scour Flow Meter Modifications per RFI 551 (CR-332) PR 20214 (1599) Task 3520	A	\$791.01						0				
106.4	Chemical Containment Curb at MBR Sodium Hypochlorite Tank (CR-353) PR 20214 (1599) Task 3505	A	\$2,878.52						0				
106.5	Corrosion Protection Modifications at PEPS (CR-354) PR 20214 (1599) Task 3520	B	\$4,305.49						0				
106.6	Add Three Stainless Steel Ball Valves to Magnesium Hydroxide Pump Discharge Lines and Hose Connections (CR-367) PR 20214 (1599) Task 3520	A	\$803.42						0				
106.7	Install Gutter and Diverters at MBR Roof (CR-368) PR 20214 (1599) Task 3505	A	\$12,454.35						0				
107	Approved by Exe. Dir of Eng and Water Quality Approved on March 27, 2014			\$41,774.78	\$4,980,807.65	\$5,022,582.43	5.7%	\$92,502,032.43	0	681	681	1,775	6/13/2014
107.1	30-Inch Permeate/30-Inch Filter Effluent Intertie Modifications (CR-370) PR 30214 (1706) Task 3520	A	\$41,774.78						0				
108	Approved by Exe. Director of Engineering and Planning Approved on April 28, 2014			\$20,255.57	\$5,022,582.43	\$5,042,838.00	5.8%	\$92,522,288.00	0	681	681	1,775	6/13/2014
108.1	Install Isolation Valves on MBR Permeate Pump Suction Line (CR-296) PR 20214 (1599) Task 3520	C	\$2,853.30						0				
108.2	Install Orifice Plates for the MBR Mixed Liquor Pumps (CR-349) PR 20214 (1599) Task 3520	C	\$4,753.68						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

Contractor: J R Filanc Construction
Design Engineer HDR

			Contract Amount						Contract Days				Original Completion Date:
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Change Order	Description	Category	Change Order Line Item Amount	Change Order Amount	Previous Change Orders	Cumulative Total of Change Orders	% of Original Contract Amount	Revised Contract Amount	Change Order Days	Previous Change Orders	Cum. Total C.O. days	Revised Total Contract Days	Revised Completion Date
108.3	Davit Crane Modifications at CCT (CR-357) PR 20214 (1599) Task 3520	A	\$3,157.88						0				
108.4	Install Flange X PE spools on MBR Cassette Grating for mounting LITs and Floats (CR-373) PR 20214 (1599) Task	A	\$9,490.71						0				
109	Approved by Exe. Director of Engineering and Planning Approved on July 14, 2014			\$24,290.82	\$5,042,838.00	\$5,067,128.82	5.8%	\$92,546,578.82	0	681	681	1,775	6/13/2014
109.1	Install Temp. 21-in PVC temp UV Bypass for UV validation (CR-384) PR 20214 Task 3235	A	\$24,290.82						0				
110	Approved by Exe. Director of Engineering and Planning Approved on July 31, 2014			\$24,757.37	\$5,067,128.82	\$5,091,886.19	5.8%	\$92,571,336.19	0	681	681	1,775	6/13/2014
110.1	Miscellaneous Time and Materials Items (CR-266, CR-371 and CR-376) PR 20214 (1599) Task 3540	B	\$24,757.37						0				
111	Approved by Exe. Director of Engineering and Planning Approved on August 8, 2014			\$24,993.97	\$5,091,886.19	\$5,116,880.16	5.8%	\$92,596,330.16	0	681	681	1,775	6/13/2014
111.1	Additional Gates and Termination Posts for Fencing Along Riparian View (CR-374) PR 20214 (1599) Task 3505	A	\$9,117.05						0				
111.2	Ferric Chloride Relocation (CR-377) PR 20214 (1599) Task 3520	A	\$9,048.40						0				
111.3	Replace Headworks Screen Panel (CR-379) PR 20214 (1599) Task 3520	B	\$2,189.55						0				
111.4	Miscellaneous Time and Materials Items (CR-397) PR 20214 (1599) Task 3520	B	\$4,638.97						0				
112	Approved by General Manager Approved on August 12, 2014			\$49,495.35	\$5,116,880.16	\$5,166,375.51	5.9%	\$92,645,825.51	0	681	681	1,775	6/13/2014
112.1	Modifications to Ultraviolet Diffuser Line (CR-248) PR 20214 (1599) Task 3520	A	\$3,777.59						0				
112.2	Modifications at Flow Equalization Basins (CR-251) PR 20214 (1599) Task 3520	A	\$4,820.67						0				
112.3	Potable Water to Secondary Clarifier RAS Pumps (CR-254) PR 20214 (1599) Task 3520	A	\$3,104.81						0				
112.4	Methanol Tank Modifications (CR-289) PR 20214 (1599) Task 3520	A	\$15,743.50						0				
112.5	Retaining Wall near the Stormwater Pump Station (CR-317) PR 20214 (1599) Task 3520	C	\$1,582.83						0				
112.6	Re-setting Risers of Two Pullboxes (CR-348) PR 20214 (1599) Task 3510	C	\$1,056.00						0				
112.7	Install New Indicating Light Transmitter Mounting Brackets at MBR Fine Screens (CR-369) PR 20214 (1599) Task 3510	A	\$5,397.64						0				
112.8	Install New Flow Indicating Transmitter Box at South Interceptor (CR-378) PR 20214 (1599) Task 3510	A	\$1,586.56						0				
112.9	Provide Fuses for MPS-2 Pump 160 (CR-380) PR 20214 (1599) Task 3510	A	\$5,779.54						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
PR 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118)
Construction Summary**

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Design Engineer HDR

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98	Approved by Exe. Director of Engineering and Water Quality Approved on November 1, 2013			\$13,773.34	\$4,553,830.50	\$4,567,603.84	5.2%	\$92,047,053.84	0	456	456	1,550	10/31/2013
98.1	Seal Exterior Insulation Finishing System (EIFS) of High Rate Clarifier (CR-326) PR 20214 (1599)	A	\$873.28						0				
98.2	Install 2-in Air/Vacuum Valve on High Rate Clarifier Residual Pump Discharge pipe (CR-343) PR 20214 (1599)	C	\$3,231.39						0				
98.3	Install Drain Lines at Primary Sedimentation Tank Pump Room Deck (CR-345) PR 20214 (1599)	A	\$4,938.08						0				
98.4	Install Additional Manhole at South Influent Sewer (CR-346) PR 20214 (1599)	A	\$1,353.23						0				
98.5	Modifications to the Flow Switches at the Primary Sedimentation Tank Sludge Room (CR-214) PR 20214(1599)	A	\$3,798.53						0				
98.6	Removal of Baffles at Existing PSTs (CR-329) PR 20214 (1599) - Credit	C	(\$5,405.51)						0				
98.7	Re-route 1-Inch Conduit from MPS-2 Pump Station to Chlorine Contact Tank (CR-261) PR 20214 (1599)	C	\$3,188.92						0				
98.8	Ultrasonic Flowmeter at Existing Aeration Basins (CR-352) PR 20214 (1599)	C	\$1,795.42						0				
98.9	Non-compensatory item - Repair Leaks in the Existing Primary Sludge Room in Lieu of Filling 100-feet of Abandoned South Influent Sewer as part of CCO-095 with	A	\$0.00						0				
99	Approved by Exe. Director of Engineering and Water Quality Approved on December 3, 2013			\$23,877.70	\$4,567,603.84	\$4,591,481.54	5.2%	\$92,070,931.54	0	456	456	1,550	10/31/2013
99.1	Area 200 Headworks Modifications (CR-290) PR 20214	A	\$13,360.87						0				
99.2	Remove and replace 12"x12" Slide Gate in Spent Backwash (CR-341) PR 20214 (1599)	A	\$10,516.83						0				
100	Approved by Exe. Director of Engineering and Water Quality Approved on December 5, 2013			\$24,516.80	\$4,591,481.54	\$4,615,998.34	5.3%	\$92,095,448.34	0	456	456	1,550	10/31/2013
100.1	Provide Modulating Butterfly Valves with AUMA Actuators on FEB discharge to Activated Sludge PR 20214 (1599) (CR-347)	C	\$24,516.80						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
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	112.10 Miscellaneous Time and Materials Items (CR-401) PR 20214 (1599) Task 3520	A	\$6,646.21						0				
113	Approved by Exe. Director of Engineering & Water Quality Approved on August 12, 2014			\$24,174.12	\$5,166,375.51	\$5,190,549.63	5.9%	\$92,669,999.63	0	681	681	1,775	6/13/2014
	113.1 Alum Feed Piping to High Rate Clarifier (CR-280) PR 20214	A	\$9,837.59						0				
	113.2 Additional membrane Bioreactor Roof Gutter Drain Piping (CR-383) PR 20214 (1599) Task 3520	A	\$10,626.22						0				
	113.3 Modifications to Sump Pumping in Existing Electrical Vaults, South of Blower Bldg. (CR-399) PR 20214 (1599) Task 3520	A	\$3,710.31						0				
114	Approved by Exe. Director of Engineering & Water Quality Approved on September 30, 2014			\$62,612.52	\$5,190,549.63	\$5,253,162.15	6.0%	\$92,732,612.15	0	681	681	1,775	6/13/2014
	114.1 Modifications to chlorination locations and sampling locations at the UV Facility (CR-247) PR 20214 (1599) Task 3245	A	\$1,651.95						0				
	114.2 Miscellaneous Electrical-Related Work Items (CR-409) PR 20214 (1599) Task 3510	A	\$57,969.71						0				
	114.3 Headworks Building Retaining Wall (CR-310) PR 20214 (1599) Task 3505	B	\$2,990.86						0				
115	Approved by Board of Directors Approved on October 27, 2014			\$655,000.00	\$5,253,162.15	\$5,908,162.15	6.8%	\$93,387,612.15	0	681	681	1,775	6/13/2014
	115.1 Modifications to curb, paving, and hardscape at MWRP. (CR-288 and CR-390) PR 30214 (1706) Task 3505	A	\$655,000.00						0				
116	Approved by Exe. Director of Engineering & Water Quality Approved on October 27, 2014			\$72,763.77	\$5,908,162.15	\$5,980,925.92	6.8%	\$93,460,375.92	0	681	681	1,775	6/13/2014
	116.1 Headworks Lighting Modifications (CR-089) PR 20214 (1599) Task 3510	A	\$6,597.88						0				
	116.2 Relocation of Ultraviolet Disinfection Facility Instruments and Analyzer (CR-278) PR 20214 (1599) Task 3510	A	\$4,116.19						0				
	116.3 Grading and Trail Restoration near Floodwall (CR-286) PR 20214 (1599) Task 3505	A	\$7,162.00						0				
	116.4 Coating of Retaining Wall Behind Paint Shop (CR-359) PR 20214 (1599) Task 3505	A	\$5,000.00						0				
	116.5 Modifications to the MPS-2 HVAC Ducting (CR-391) PR 20214 (1599) Task 3520	C	\$7,887.70						0				
	116.6 Pump Rental for New Primary Sedimentation Tank Operation (CR-392) PR 20214 (1599) Task 3520	B	\$42,000.00						0				
117	Pending Approval by Exe. Director of Engineering & Water Quality Pending Approval on November 3, 2014			\$71,646.96	\$5,980,925.92	\$6,052,572.88	6.9%	\$93,532,022.88	0	681	681	1,775	6/13/2014
	117.1 Clarification to Roof Closure Pieces (CR-145) PR 20214 (1599) Task 3505	A	\$12,486.00						0				
	117.2 Repainting Alum Tanks to Medium Bronze (CR-190) PR 20214 (1599) Task 3520	B	\$811.00						0				

**MWRP Phase 2 Expansion and Flood Protection Improvements
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	117.3 Interior Protective Coating for Sight Glasses (CR-203) PR 20214 (1599) Task 3520	A	\$1,730.37						0				
	117.4 Miscellaneous Time and Materials – Electrical Related (CR-316) PR 20214 (1599) Task 3510	B	\$5,619.59						0				
	117.5 Primary Effluent Pump Station Surge Suppressors Installation (CR-398) PR 20214 (1599) Task 3520	B	\$51,000.00						0				
118	Approved by Board of Directors Approved on November 24, 2014			-\$49,147.28	\$6,052,572.88	\$6,003,425.60	6.9%	\$93,482,875.60	0	681	681	1,775	6/13/2014
	118.1 Delete LSH-2231 and conduit C-757 per RFI 116 (CR-118) PR 20214 (1599) Task 3510	A	(\$1,695.00)						0				
	118.2 Delete HRC and MBR Lighting Modifications per RFIs 193 and 240 (CR-119) PR 20214 (1599) Task 3510	A	(\$4,861.53)						0				
	118.3 Shadetree Nursery Plant Donation (CR-385) PR 20214 (1599) Task 3505	A	(\$6,000.00)						0				
	118.4 Delete Landscaping at MWRP Gate 1 (CR-386) PR 20214 (1599) Task 3505	A	(\$39,932.00)						0				
	118.5 Deletion of Gate 10 from CR-288/CCO-095 (CR-387) PR 20214 (1599) Task 3505	A	(\$20,158.75)						0				
	118.6 Backcharge for Irrigation Line Break at Flow Equalization Basins (CR-408) PR 20214 (1599) Task 3520	A	(\$1,500.00)						0				
	118.7 Deletion of Bid Items B-12, B-13, and B-14 (CR-409)	A	(\$20,000.00)						0				
	118.8 Deletion of Bid Item A-32 (Differing Site Conditions) (CR-118)	A	(\$100,000.00)						0				
	118.9 Additional Support for System Testing (CR-402)	A	\$145,000.00						0				

A - District Convenience/Initiation - Project Related	\$ 2,645,334.41	3.0%
B - Differing Site Conditions	\$ 361,958.85	0.4%
C - Design Oversight	\$ 405,237.11	0.5%
D - District Convenience/Initiation - Non-Project Related	\$ 2,590,895.23	3.0%
TOTAL (A + B + C + D)	\$ 6,003,425.60	6.9%
TOTAL (A+B+C - (CCO No. 8 - SCADA))	\$ 4,548,351.12	5.2%

September 14, 2015

Prepared by: K. Welch/E. Akiyoshi

Submitted by: F. Sanchez/P. Weghorst

Approved by: Paul Cook

CONSENT CALENDAR

VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR CITY OF IRVINE PLANNING AREA 1 ORCHARD HILLS (VESTING TENTATIVE TRACT MAP 16530)

SUMMARY:

In June 2015, staff received a request from the City of Irvine to complete a Verification of Sufficient Water Supplies (WSV) for Planning Area 1 Orchard Hills Neighborhood 3. Staff has completed the WSV for the project and recommends Board approval of the verification.

BACKGROUND:

The City of Irvine proposes a project in Planning Area 1 called the Orchard Hills Neighborhood 3 which is located east of Portola Parkway, south of State Route 261 and west of State Route 241. The proposed 359 acre development will include 1,000 residential units, parks and agricultural use areas. A location map of the Planning Area 1 Orchard Hills Neighborhood 3 is attached as Exhibit "A".

On August 23, 2004, the Board approved a Water Supply Assessment (WSA) for the annexation of Planning Areas 1 and 2 and a portion of Planning Area 9 into the Northern Sphere Area which included the proposed Orchard Hills Neighborhood 3 Project. 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 Planning Area 1 Orchard Hills Neighborhood 3 (Vesting Tentative Tract Map 16530). Staff has prepared the WSV for the project as provided in Exhibit "B".

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 actions on state water supplies, current drought regulations and current water supplies and demand projections available since the WSA was approved. This information, together with the WSA completed by IRWD in 2004, reflects IRWD's confirmation that the project water demands, together with demands from any other developments that have previously received WSVs or will-serve, or other projects that have come to IRWD's attention either through developers or through the respective land use agency approval process, 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, SB 221 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 that approximately 336 acre-feet per year (AFY) of potable water demands and 544 AFY of non-potable demands are associated with the project. The potable water demands

have decreased and non-potable demands have increased since the approval of the WSA as a result of the expansion of IRWD's recycled water system in the planning area.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This study is exempt from the California Environmental Quality Act 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 by the Water Resources Policy and Communications Committee on September 8, 2015.

RECOMMENDATION:

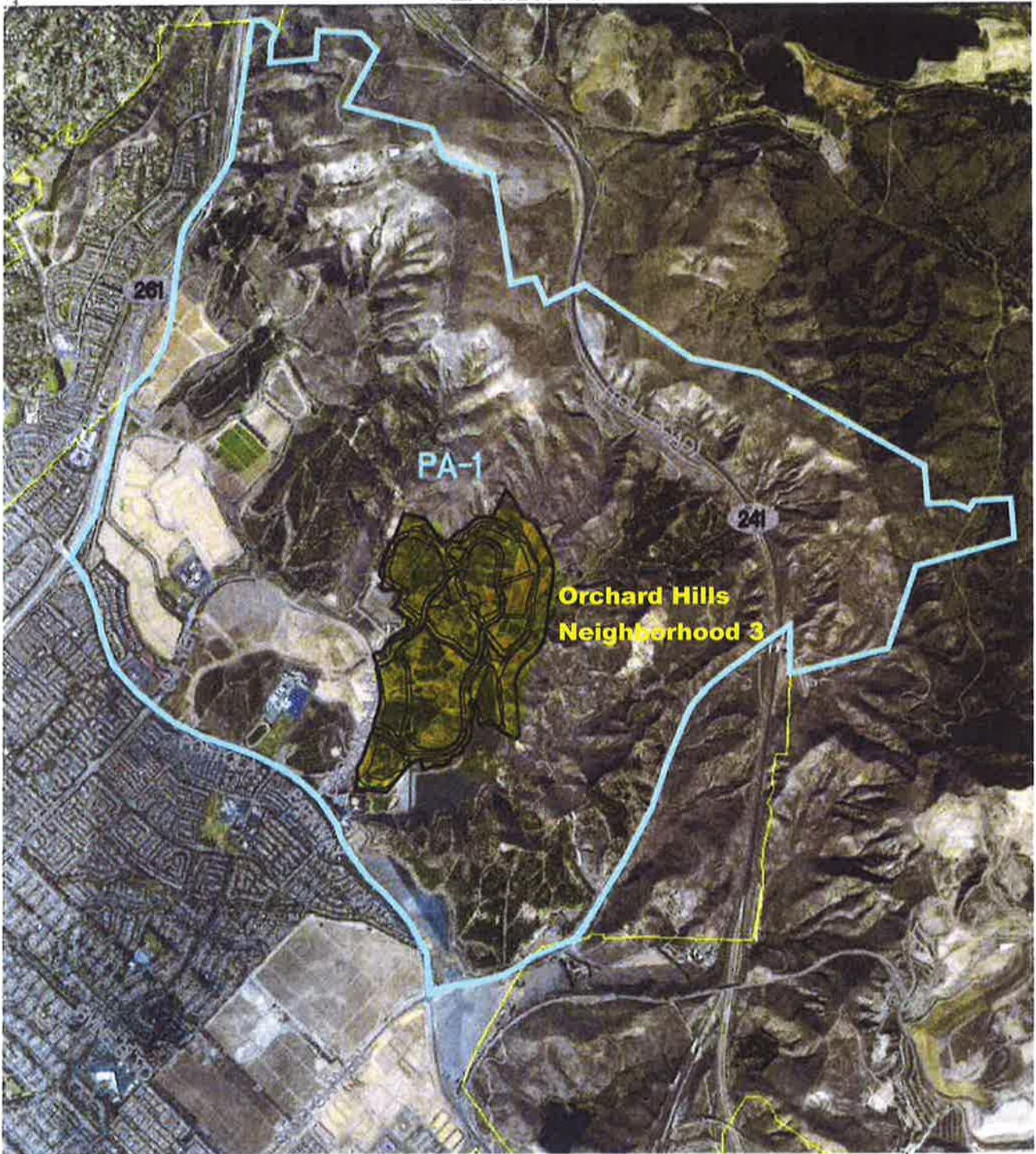
THAT THE BOARD APPROVE THE VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR PLANNING AREA 1 ORCHARD HILLS NEIGHBORHOOD 3 (VESTING TENTATIVE TRACT MAP 16530).

LIST OF EXHIBITS:

Exhibit "A" – Location Map

Exhibit "B" – Verification of Sufficient Supplies for Planning Area 1 Orchard Hills
Neighborhood 3 (Vesting Tentative Tract Map 16530)

EXHIBIT "A"



LEGEND

-  PROJECT BOUNDARY
-  PLANING AREA



PLANING AREA 1
GENERAL PLAN AMMENDMENT AND ZONE CHANGE
IRVINE, CA

LOCAL VICINITY

EXHIBIT "B"

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

To: (Lead Agency)
City of Irvine
One Civic Center Plaza
Irvine, CA 92623-9575

(Applicant)
The Irvine Company
550 Newport Center Drive
Newport Beach, CA 92660

Project Information

Project Title: PA 1 Orchard Hills Neighborhood 3 Vesting Tentative Tract Map 16530

Tentative Map Application No. 16530 Verification requested prior to tentative map application

Number of residential units in Project: 1,000

Uses in Project including non-residential (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 August 23, 2004. 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 and is supplemented herein. Copies of the summarized items 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 2025. These Figures have been revised (pages 9 through 20) in order to reflect updated information on supplies, as well as to update the 20-year planning horizon through 2035. In addition, since the date of the approved Assessment for this project (November 28, 2005), IRWD has recalibrated and updated demand projections based on water use and development phasing.

The Assessment describes IRWD's assessment of supply availability which contains several margins of safety or buffers. In addition to the information provided in the Assessment,

this water supply verification has considered information concerning recent events. See the following “Recent Actions on Delta Pumping,” “IRWD’s Evaluation of Effect of Reduced MWD Supplies to IRWD,” “Climate Change,” “Catastrophic Supply Interruption Planning” and “Recent Actions Related to Drought Conditions.”

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 have an effect on State Water Project (SWP) operations and supplies. On June 4, 2009, a federal biological opinion imposed rules that 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. MWD is in the process of updating its 2010 IRP. MWD plans to review and update IRP resource targets, and assess strategy for managing short and long term uncertainty. MWD’s schedule shows a published report would be available in 2016.

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 2015 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 1,682,000 acre-feet and Colorado base average supplies are 656,000 acre-feet. A 22% reduction of SWP supplies equates to 370,000 acre-feet which is approximately 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 2015 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 a shortage stage under its Water Supply Allocation Plan, adopted in February, 2009 and a cutback is applied to IRWD's actual usage rather than its connected capacity. IRWD's evaluation of reduced MWD supplies to IRWD as shown in Figures 1a, 2a and 3a conservatively analyzes the effect of up to a MWD level 5 Regional Shortage Level. 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. The Water Shortage Contingency Plan was further revised on October 13, 2014. 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. On April 14, 2015, MWD approved the implementation of its Water Supply Allocation Plan at a level 3 Regional Shortage Level and a 15% reduction in regional deliveries effective July 1, 2015, through June 30, 2016. As a result of IRWD's diversified water supplies, IRWD is reliant on MWD for only 20% of its total supplies. IRWD's evaluation of reduced MWD supplies to IRWD as shown in Figures 1a, 2a and 3a for a MWD level 5 Regional Shortage Level would include MWD's 2015 actions to implement a level 3 Regional Shortage Level and 15% reduction.

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. DWR estimated that approximately 520,000 AF had been lost to the SWP for 2010 of which nearly 240,000 AF would have been available to MWD. This amount is equivalent to about 16% 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, IRWD has developed water banking projects in Kern County, California which may be called upon for delivery of supplemental banked water to IRWD under a short-term MWD allocation.³ IRWD may also convert non-potable water uses to recycled water as a way to conserve potable water. 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 2035 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

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 "2013-2014 Engineer's Report on the groundwater conditions, water supply and basin utilization" references a report (OCWD Report on Evaluation of Orange County Groundwater Basin Storage and Operational Strategy) 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, "Although it is considered to be generally acceptable to allow the basin to decline to 500,000 AF overdraft for brief periods due to severe drought conditions and lack of supplemental water... an accumulated overdraft of 100,000 AF best represents an optimal basin management target. This optimal target level provides sufficient storage space to accommodate anticipated recharge from a single wet year while also providing water in storage for at least 2 or 3 consecutive years of drought." MWD replenishment water is a supplemental source of recharge water and OCWD estimates other main supply sources for recharge are available.

³ IRWD has developed water banking projects (Water Bank) in Kern County, California and has entered into a 30-year water banking partnership with Rosedale-Rio Bravo Water Storage District (RRB) to operate IRWD's Strand Ranch portion of the Water Bank. The Water Bank can improve IRWD's water supply reliability by capturing lower cost water available during wet hydrologic periods for use during dry periods. The Water Bank can enhance IRWD's ability to respond to drought conditions and potential water supply interruptions.

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 Senate Bill 7 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, 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 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 also addressed supply interruption planning in its WRMP and UWMP.

Recent Actions Related to Drought Conditions. In response to the historically dry conditions throughout the state of California, on April 1, 2015, Governor Brown issued an Executive Order directing the State Water Resources Control Board (SWRCB) to impose restrictions to achieve an aggregate statewide 25 percent reduction in potable water use through February 2016. The Governor’s Order also includes mandatory actions aimed at reducing water demands, with a particular focus on outdoor water use. On May 5, 2015, the SWRCB adopted regulations which require that IRWD achieve a 16% reduction in potable water use. On April 14, 2015, MWD approved actions to implement the Water Supply Allocation Plan at a level 3 Regional Shortage Level and a 15% reduction in regional deliveries effective July 1, 2015, through June 30, 2016. On July 13, 2015, IRWD declared a Level Two shortage condition pursuant to Section 15 of its Rules and Regulations. IRWD will implement actions to reduce potable water demands during the drought; however, this does not affect IRWD’s long-term supply capability to meet the demands. As discussed under “IRWD’s Evaluation of Effect of Reduced MWD Supplies to IRWD” (page 7), IRWD has effectively analyzed an imported water supply reduction up to a level 5 Regional Shortage Stage in Figures 1a, 2a, 3a. These Figures do not reflect a reduction in demands thus representing a more conservative view of IRWD’s supply capability. In particular, the reduction in demand mandated by Senate Bill 7 in 2010, requiring urban retail water suppliers to establish water use targets to achieve a 20% reduction in daily per capita water use by 2020, has not been factored into the demands in this analysis. Similarly, notwithstanding the Governor’s order, IRWD’s conservative supply-

sufficiency analysis in Figures 1a, 2a and 3a does not include the ordered reduction in potable demands.

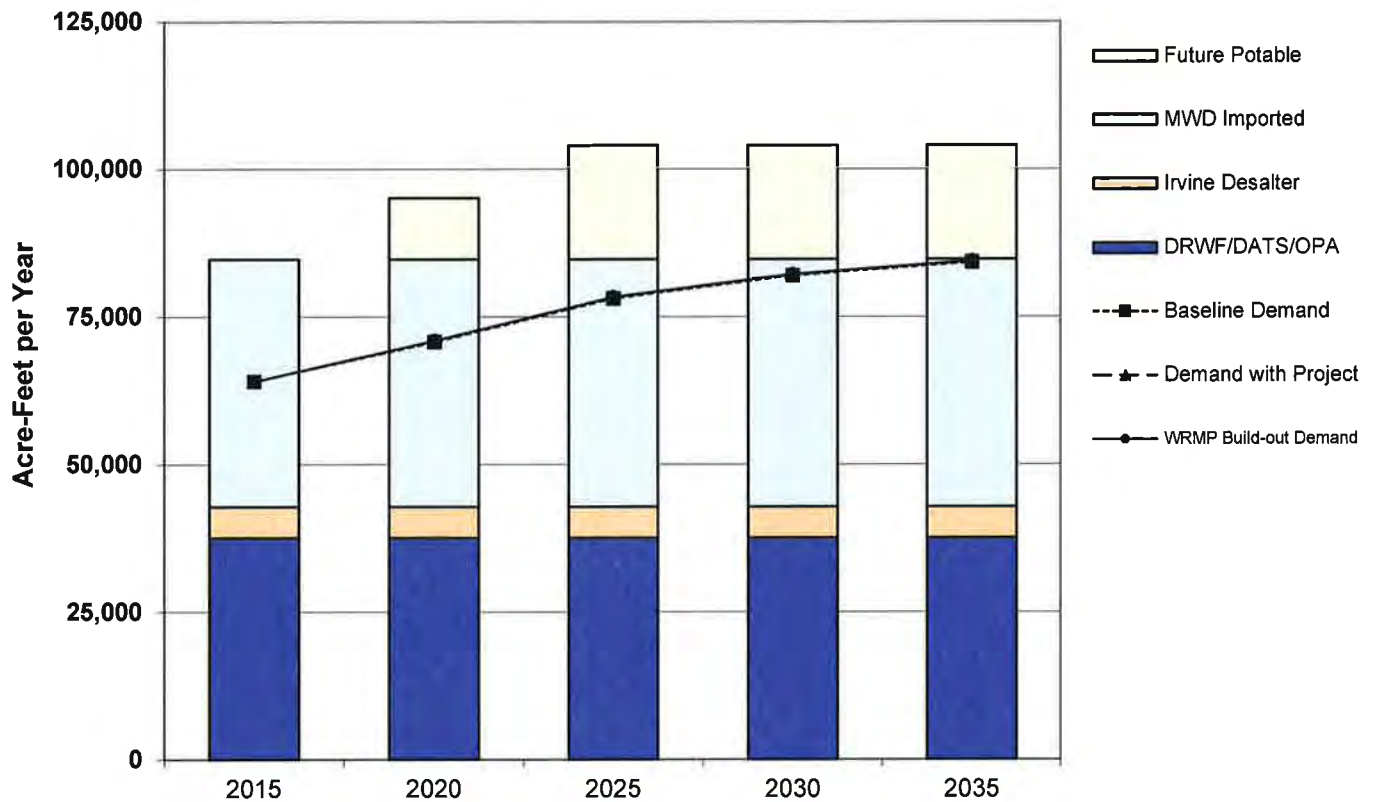
Detailed Verification

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 "Recent Actions on Delta Pumping," "IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD," "Climate Change," "Catastrophic Supply Interruption Planning" and "Recent Actions Related to Drought Conditions," above and the Assessment, Section 1, incorporated herein by reference.

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

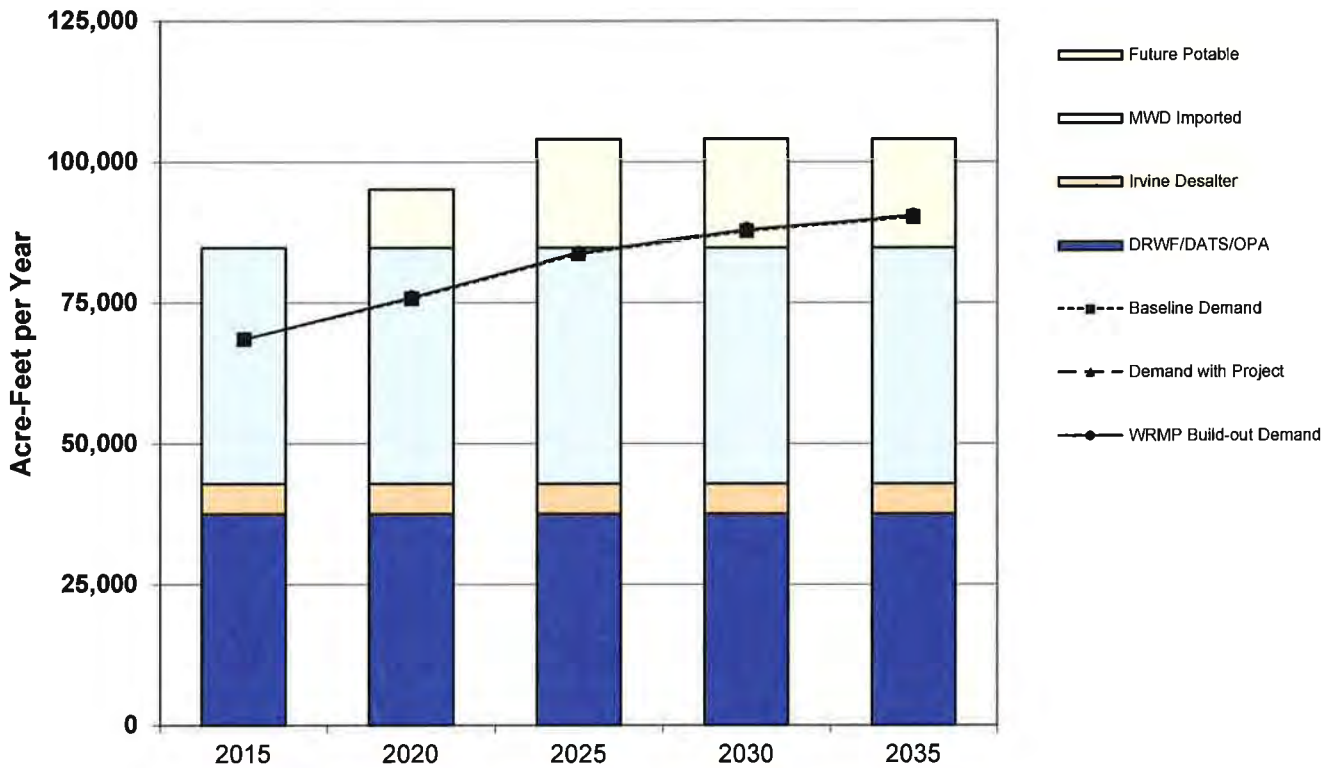


(in acre-feet per year)	2015	2020	2025	2030	2035
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Supplies Under Development					
Future Potable	-	10,328	19,211	19,211	19,211
Maximum Supply Capability	91,100	101,427	110,311	110,311	110,311
Baseline Demand	64,043	70,761	78,138	81,982	84,236
Demand with Project	64,043	70,970	78,347	82,191	84,444
WRMP Build-out Demand	64,043	70,970	78,347	82,191	84,444
Reserve Supply with Project	27,057	30,458	31,964	28,120	25,866

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**

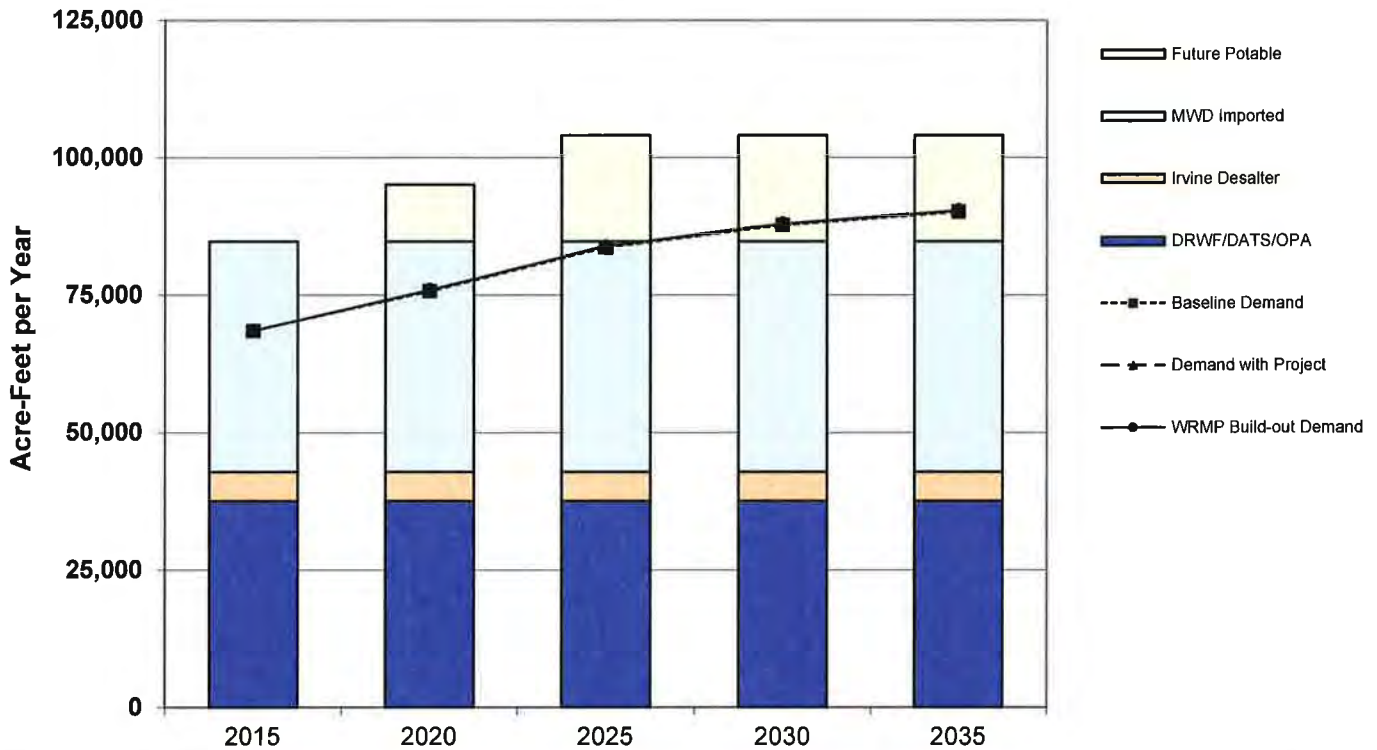


(in acre-feet per year)	2015	2020	2025	2030	2035
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Supplies Under Development					
Future Potable	-	10,328	19,211	19,211	19,211
Maximum Supply Capability	91,100	101,427	110,311	110,311	110,311
Baseline Demand	68,526	75,715	83,608	87,721	90,132
Demand with Project	68,526	75,937	83,831	87,944	90,355
WRMP Build-out Demand	68,526	75,937	83,831	87,944	90,355
Reserve Supply with Project	22,574	25,490	26,480	22,367	19,955

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**

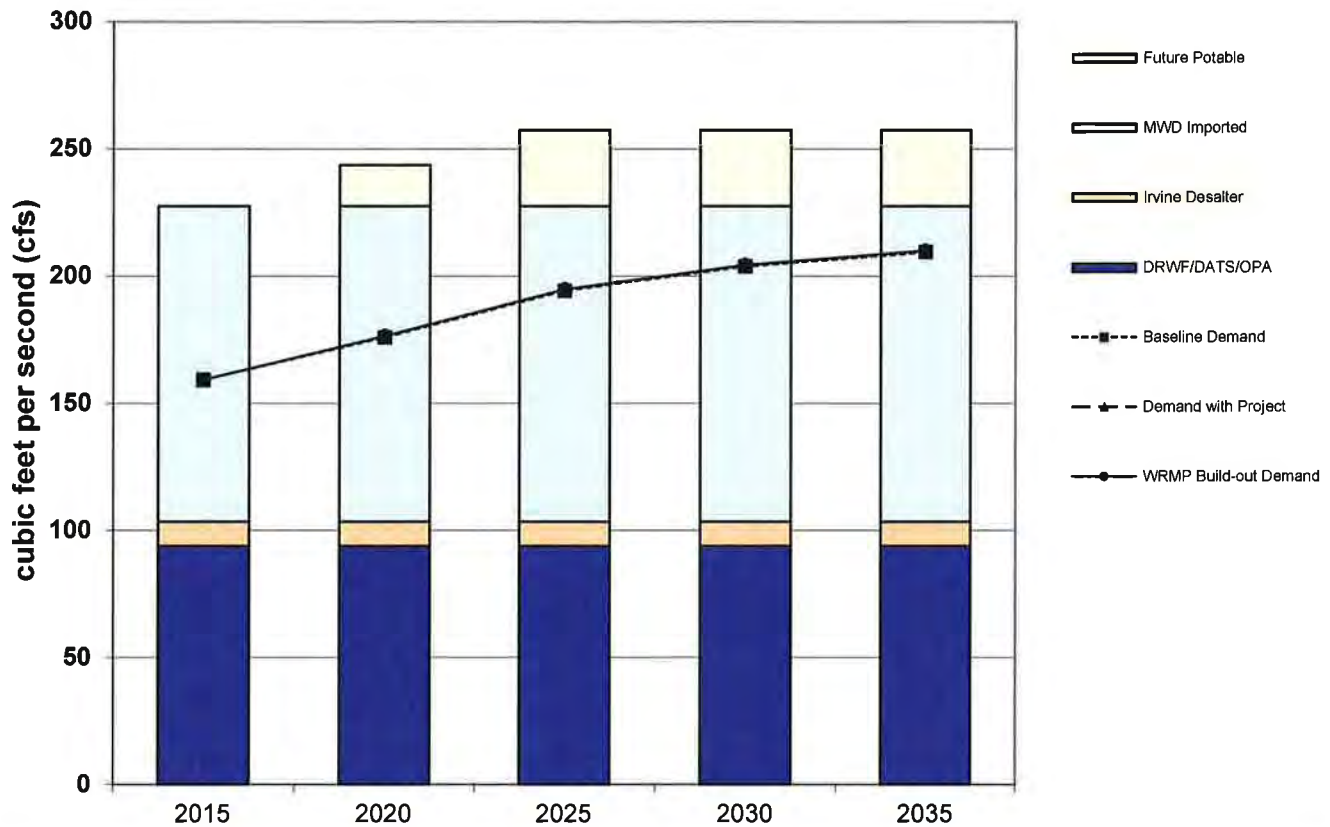


(in acre-feet per year)	2015	2020	2025	2030	2035
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Supplies Under Development					
Future Potable	-	10,328	19,211	19,211	19,211
Maximum Supply Capability	91,100	101,427	110,311	110,311	110,311
Baseline Demand	68,526	75,715	83,608	87,721	90,132
Demand with Project	68,526	75,937	83,831	87,944	90,355
WRMP Build-out Demand	68,526	75,937	83,831	87,944	90,355
Reserve Supply with Project	22,574	25,490	26,480	22,367	19,955

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).

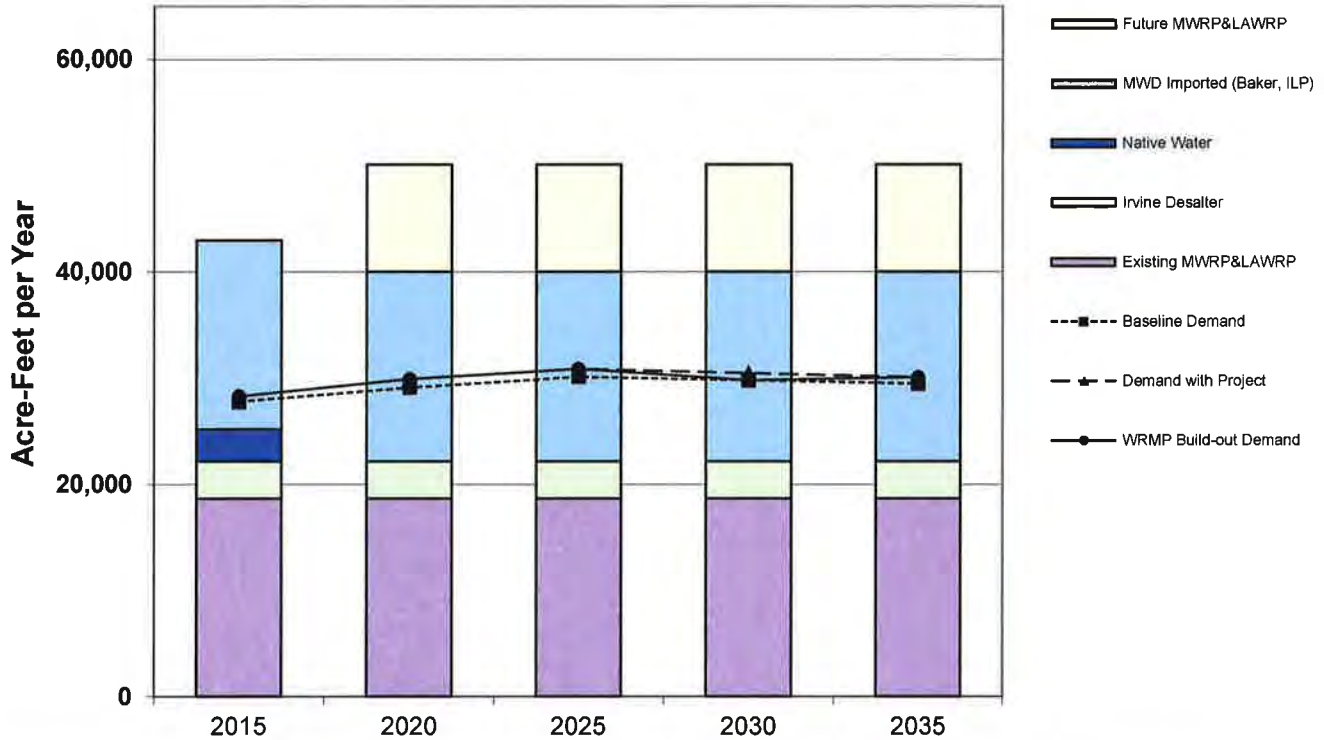
MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

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



(in cfs)	2015	2020	2025	2030	2035
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	124.1	124.1	124.1	124.1	124.1
DRWF/DATS/OPA	93.9	93.9	93.9	93.9	93.9
Irvine Desalter	9.5	9.5	9.5	9.5	9.5
Wells 21 & 22	10.9	10.9	10.9	10.9	10.9
<u>Supplies Under Development</u>					
Future Potable	-	16.1	29.7	29.7	29.7
Maximum Supply Capability	238.4	254.5	268.1	268.1	268.1
Baseline Demand	159.2	175.9	194.3	203.8	209.4
Demand with Project	159.2	176.4	194.8	204.3	209.9
WRMP Build-out Demand	159.2	176.4	194.8	204.3	209.9
Reserve Supply with Project	79.2	78.1	73.3	63.8	58.2

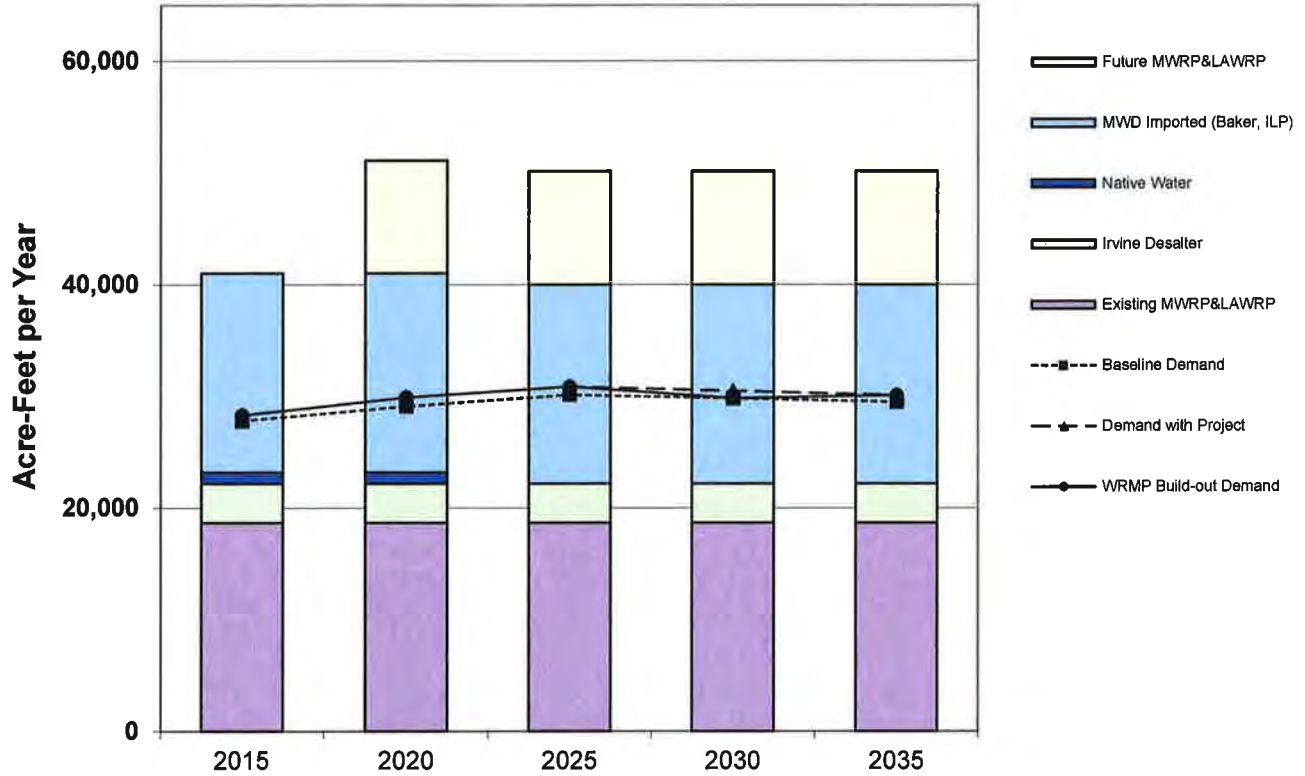
**Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2035
Current Nonpotable Supplies					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	3,000	-	-	-	-
Maximum Supply Capability	42,997	50,097	50,097	50,097	50,097
Baseline Demand	27,802	29,105	30,121	29,802	29,479
Demand with Project	28,303	29,903	30,854	30,469	30,081
WRMP Build-out Demand	28,303	29,903	30,854	29,802	30,081
Reserve Supply with Project	14,694	20,193	19,243	20,295	20,015

Note: Downward trend reflects reduction in agricultural use over time.
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.
 MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

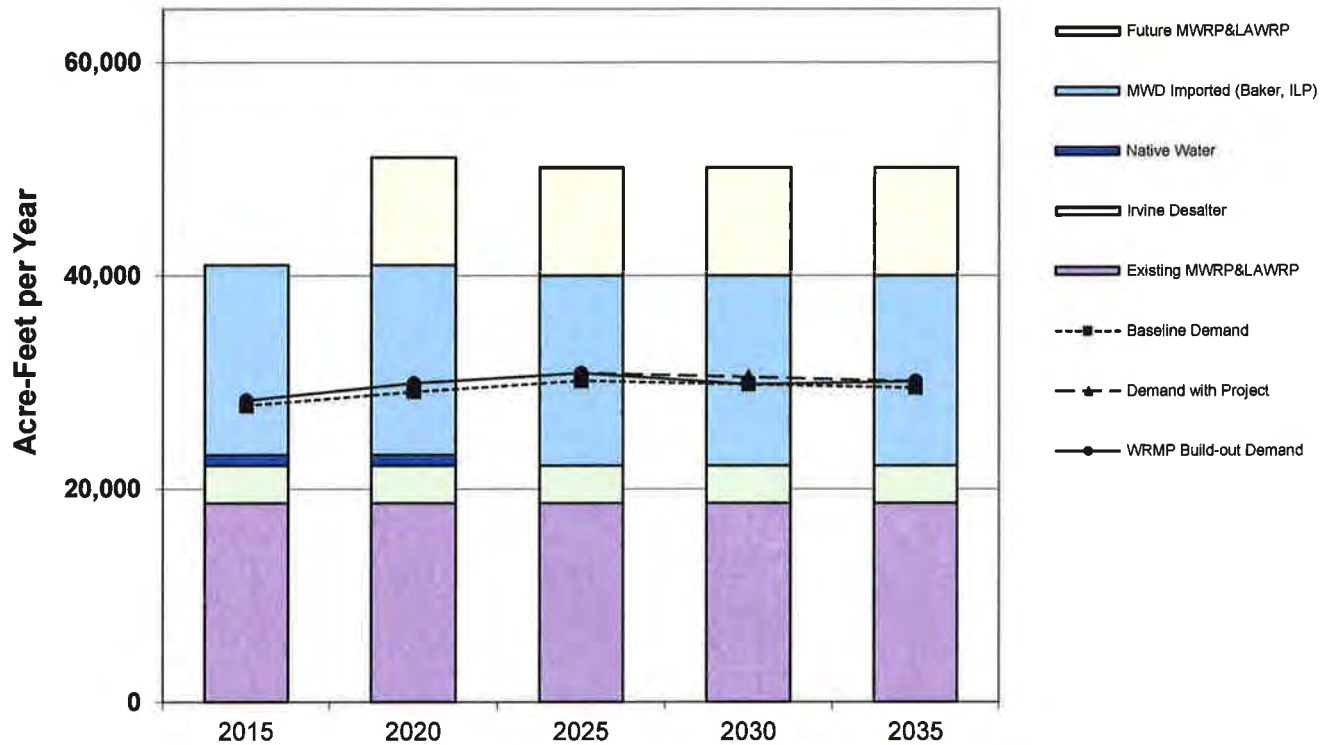
**Figure 6
IRWD Single Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2035
<u>Current Nonpotable Supplies</u>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	1,000	1,000	-	-	-
Maximum Supply Capability	40,997	51,097	50,097	50,097	50,097
Baseline Demand	27,802	29,105	30,121	29,802	29,479
Demand with Project	28,303	29,903	30,854	30,469	30,081
WRMP Build-out Demand	28,303	29,903	30,854	29,802	30,081
Reserve Supply with Project	12,694	21,193	19,243	19,628	20,015

Note: Downward trend reflects reduction in agricultural use over time.
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.
 MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

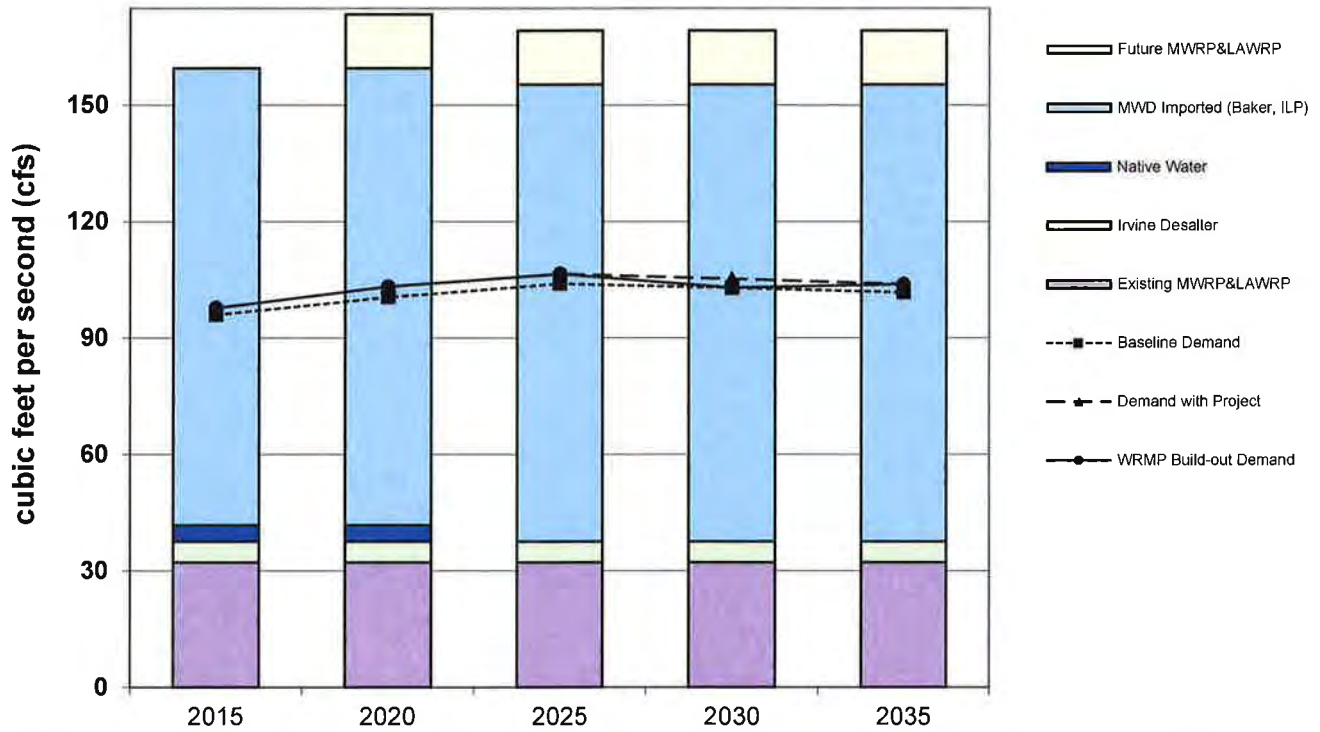
**Figure 7
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2035
Current Nonpotable Supplies					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	1,000	1,000	-	-	-
Maximum Supply Capability	40,997	51,097	50,097	50,097	50,097
Baseline Demand	30,215	31,870	32,838	32,415	31,988
Demand with Project	30,215	31,997	33,014	32,602	32,187
WRMP Build-out Demand	30,215	31,997	33,014	32,415	32,187
Reserve Supply with Project	10,781	19,100	17,083	17,495	17,910

Note: Downward trend reflects reduction in agricultural use over time.
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.
 MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

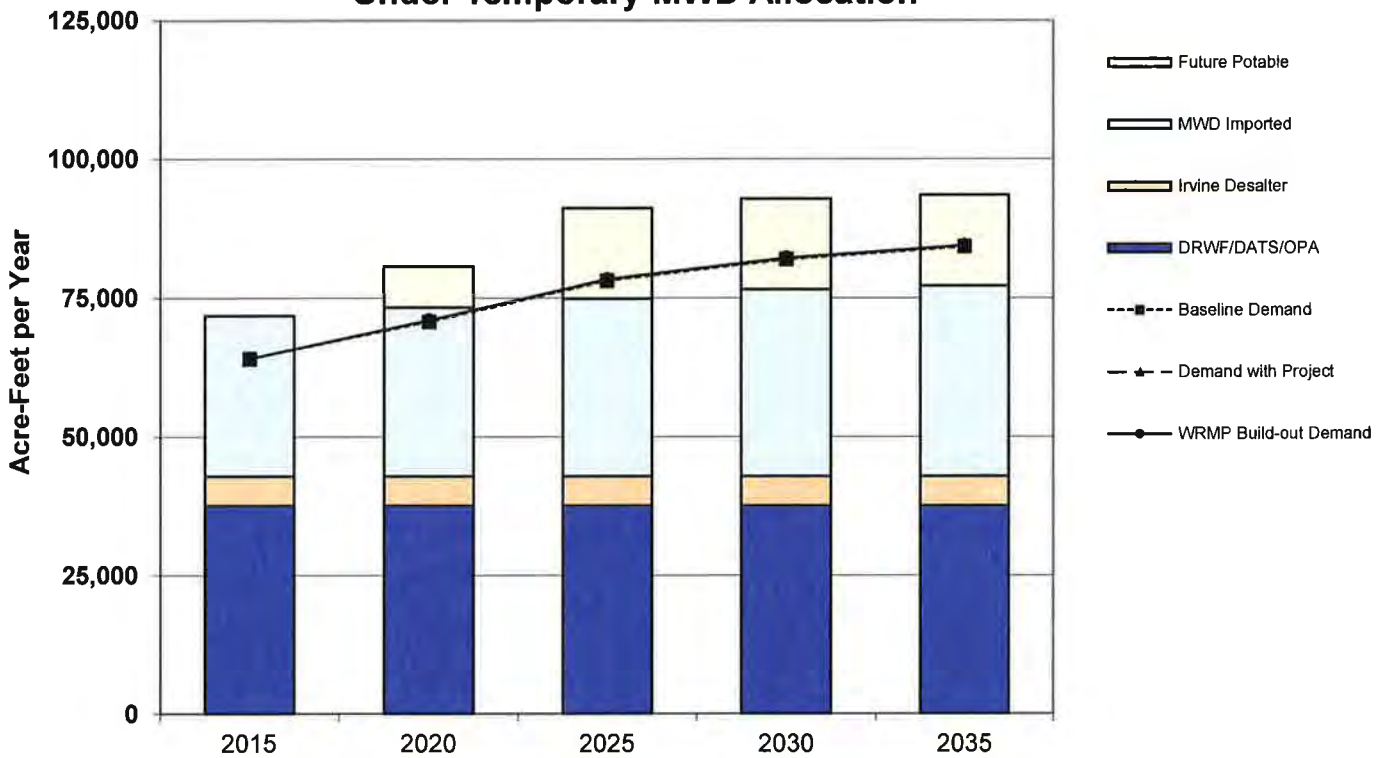
**Figure 8
IRWD Maximum-Dry Supply & Demand - Nonpotable Water**



(in cfs)	2015	2020	2025	2030	2035
Current Nonpotable Supplies					
Existing MWRP&LAWRP	32.2	32.2	32.2	32.2	32.2
Future MWRP&LAWRP	-	14.0	14.0	14.0	14.0
MWD Imported (Baker, ILP)	117.7	117.7	117.7	117.7	117.7
Irvine Desalter	5.4	5.4	5.4	5.4	5.4
Native Water	4.2	4.2	-	-	-
Maximum Supply Capability	159.5	173.4	169.2	169.2	169.2
Baseline Demand	96.0	100.5	104.0	102.9	101.8
Demand with Project	97.7	103.3	106.5	105.2	103.9
WRMP Build-out Demand	97.7	103.3	106.5	102.9	103.9
Reserve Supply with Project	61.7	70.2	62.7	66.3	65.4

Note: Downward trend reflects reduction in agricultural use over time.
Native water will be treated to potable through the Baker Water Treatment Plant after 2016.

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

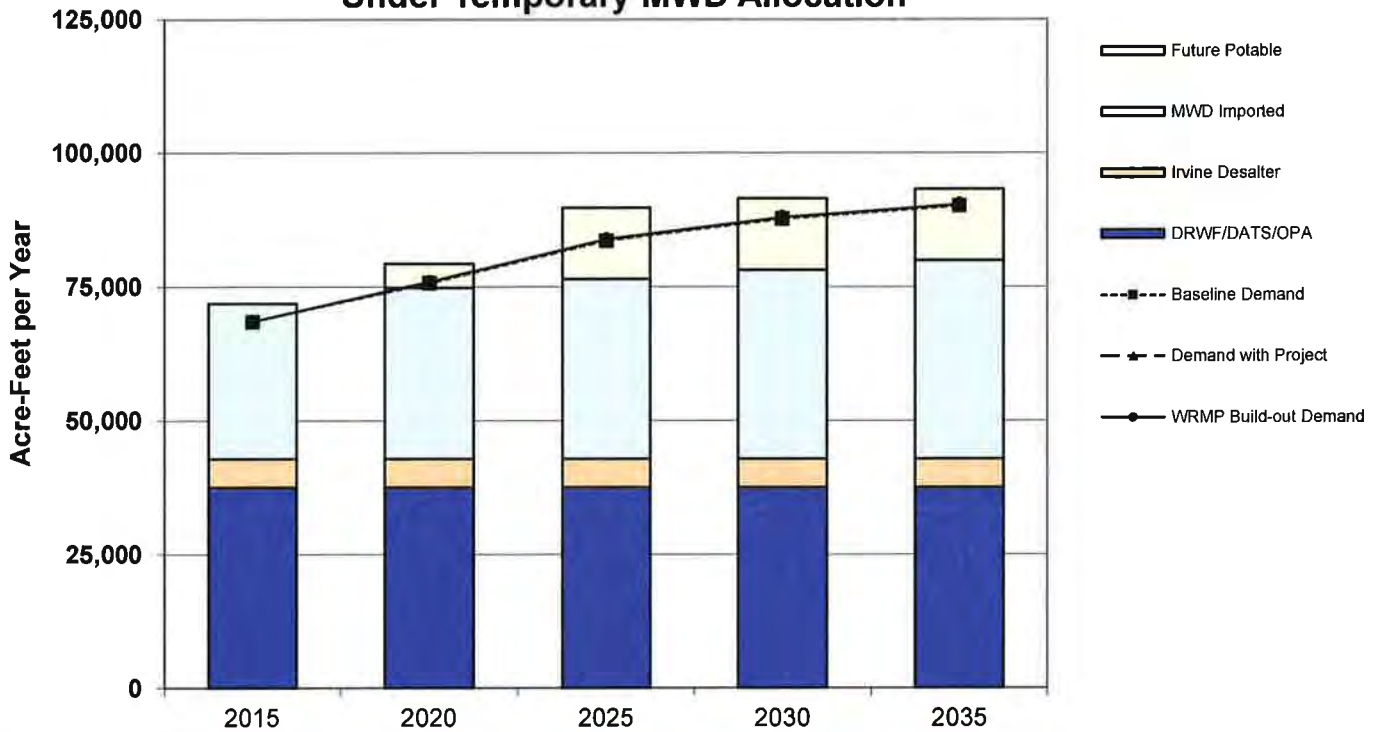


(in acre-feet per year)	2015	2020	2025	2030	2035
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	29,000	30,479	32,034	33,668	34,345
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Supplies Under Development					
Future Potable	-	7,469	16,352	16,352	16,352
Maximum Supply Capability	78,170	87,119	97,557	99,191	99,868
Baseline Demand	64,043	70,761	78,138	81,982	84,236
Demand with Project	64,043	70,970	78,347	82,191	84,444
WRMP Build-out Demand	64,043	70,970	78,347	82,191	84,444
Reserve Supply with Project	14,127	16,149	19,210	17,000	15,423

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 or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available MWD and native water only.

**Figure 2a
IRWD Single Dry-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation***

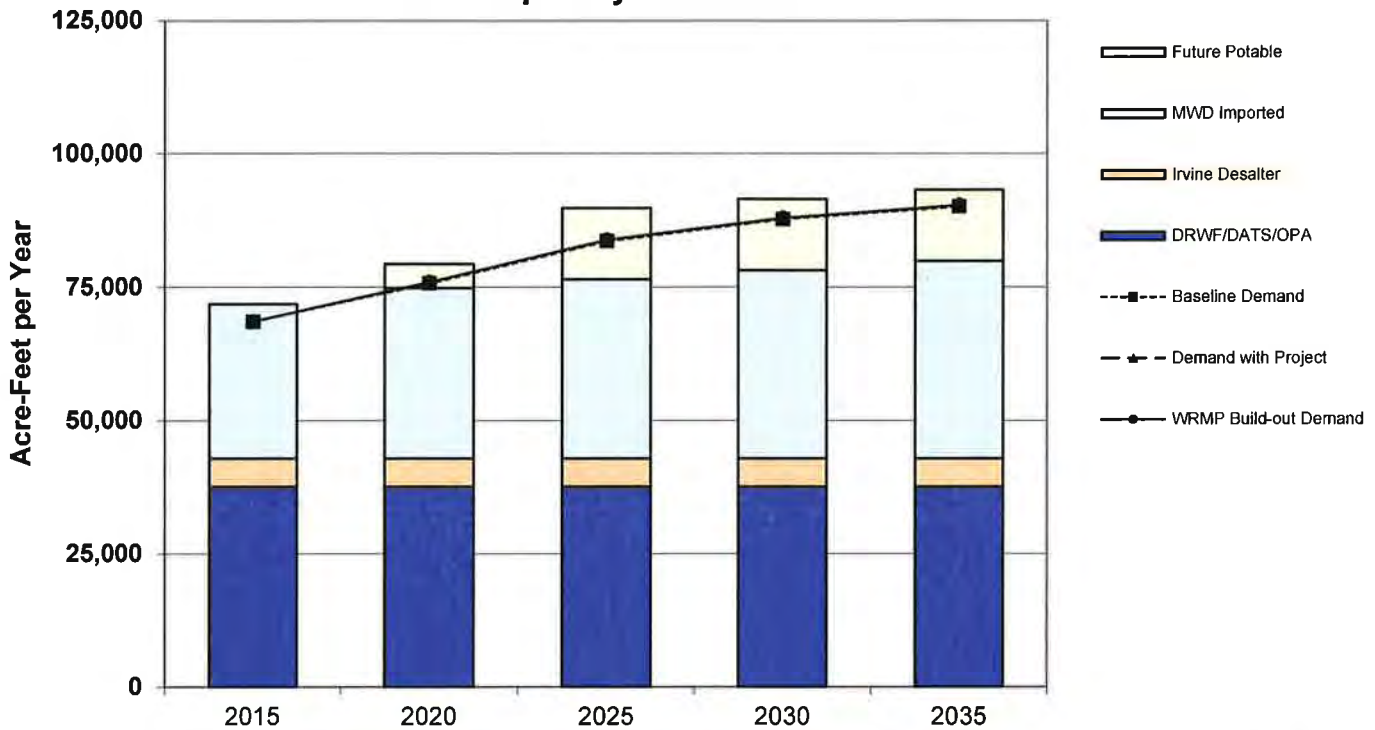


(in acre-feet per year)	2015	2020	2025	2030	2035
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	29,000	32,003	33,603	35,284	37,048
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<u>Supplies Under Development</u>					
Future Potable	-	4,469	13,352	13,352	13,352
Maximum Supply Capability	78,170	85,643	96,126	97,806	99,571
Baseline Demand	68,526	75,715	83,608	87,721	90,132
Demand with Project	68,526	75,937	83,831	87,944	90,355
WRMP Build-out Demand	68,526	75,937	83,831	87,944	90,355
Reserve Supply with Project	9,644	9,705	12,295	9,862	9,215

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan 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 or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available MWD and native water only.

**Figure 3a
IRWD Multiple Dry-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation***



(in acre-feet per year)	2015	2020	2025	2030	2035
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	29,000	32,003	33,603	35,284	37,048
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Supplies Under Development					
Future Potable	-	4,469	13,352	13,352	13,352
Maximum Supply Capability	78,170	85,643	96,126	97,806	99,571
Baseline Demand	68,526	75,715	83,608	87,721	90,132
Demand with Project	68,526	75,937	83,831	87,944	90,355
WRMP Build-out Demand	68,526	75,937	83,831	87,944	90,355
Reserve Supply with Project	9,644	9,705	12,295	9,862	9,215

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan 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 or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available MWD and native water only.

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 updated 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	914	
Deep Aquifer Treatment System-DATS	12.5	8,618	2
Wells 21 & 22	10.9	6,329	2
Irvine Desalter	9.5	5,309	3
			49,170
Total Potable Current Supplies	238.4		99,086
Nonpotable - Recycled Water			
MWRP (18 mgd)	23.9	17,340	4
LAWRP (5.5 mgd)	8.3	5,975	4
Future MWRP & LAWRP	20.0	14,450	5
			37,765
Nonpotable - Imported			
Baker Aqueduct	52.7	12,221	6
Irvine Lake Pipeline	65.0	9,000	7
			21,221
Nonpotable - Groundwater			
Irvine Desalter-Nonpotable	5.4	3,514	8
			3,514
Nonpotable Native			
Irvine Lake	4.2	3,048	9
			3,048
Total Nonpotable Current Supplies	179.5		65,548
Total Combined Current Supplies	417.9		164,635
Supplies Under Development			
Potable Supplies			
Well 106	2.0	1,118	
Well 53	5.6	3,658	
Future OPA Wells	8.0	5,225	
Baker Water Treatment Plant	10.5	6,858	
Wells 51 & 52	3.6	2,351	
Total Potable Under Development Supplies	29.7	19,211	19,211
Total Under Development	29.7		19,211
Total Supplies			
Potable Supplies	268.1		118,297
Nonpotable Supplies	179.5		65,548
Total Supplies (Current and Under Development)	447.6		183,846

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 4, 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 Future estimated MWRP & LAWRP recycled water production.

6 By 2020, Baker capacity will be allocated to Baker Water Treatment Plant (WTP) participants and IRWD will own 46.50 cfs in Baker Aqueduct after Baker WTP, of which 10.5 cfs will be for potable treatment. IRWD will have 35 cfs remaining capacity for non-potable uses. The nonpotable average use is based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 2.5 (see Footnote 8, page 25).

7 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.

8 Contract amount - See Nonpotable Supply-Groundwater (i) and (ii). Maximum day well capacity (cfs) is compatible with contract amount.

9 Based on 70+ years historical average of Santiago Creek Inflow into Irvine Lake. By 2020, native water will be treated through Baker WTP.

*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 - recycled	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:

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 1]. The well is operated within the Orange County Groundwater Basin. (See Assessment, Section 2(b) – POTABLE SUPPLY – GROUNDWATER.)

Wells 21 and 22 (currently available): IRWD completed construction of treatment facilities, pipelines and wellhead facilities for Wells 21 and 22. Water supplied through this project became available in 2013. The wells are operated within the Orange County Groundwater Basin. (See Assessment, Section 2(b) – POTABLE SUPPLY – GROUNDWATER.)

Baker Water Treatment Plant (currently available): IRWD has also begun construction of the Baker Water Treatment Plant project (the Baker WTP) in partnership with El Toro Water District, Mouton-Niguel Water District, Santa Margarita Water District and Trabuco Canyon Water District. The Baker WTP will be supplied with untreated imported water from MWD and native Irvine Lake water supply. IRWD will own 10.5 cfs of treatment capacity rights in the Baker WTP.⁴ (See Assessment, Section 2(b) – POTABLE SUPPLY – IMPORTED.)

(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. The Water Shortage Contingency Plan was further revised on October 13, 2014. Section 15 of the Rules and Regulations serves as

⁴ The Baker WTP shall be supplied nonpotable imported water through the existing Baker Pipeline. IRWD's existing Baker Pipeline capacity (See Assessment, Section 2(b)(1) NONPOTABLE SUPPLY – IMPORTED) shall be apportioned to the Baker WTP participants based on Baker WTP capacity ownership, and IRWD shall retain 10.5 cfs of pipeline capacity through the Baker WTP for potable supply and shall retain 36 cfs in Reach 1U of the Baker Pipeline capacity for nonpotable supply.

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 2-22). 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 and updated in 2014. 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: "Evaluation of Orange County Groundwater Basin Storage and Operational Strategy", as referenced in *2013-2014 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 recycled water expansion program is also shown as currently available in addition to its currently available recycled water supply from its own existing recycling program. The recycled 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 plans to complete construction of the Michelson Water Recycling Plant Phase 2 Capacity Expansion Project by the end of 2015. With this expansion, IRWD will increase its capacity to produce sufficient recycled water to meet the projected demand in the year 2035. Additional recycling 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*, pages 2-12 to 2-14)

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 include: additional transfers and storage agreements such as ICS Exchange, Agreements with CVWD, Additional Palo Verde Irrigation District Transfers, Arizona Programs – CAP, Hayfield Groundwater Extraction Project, Mojave Groundwater Storage Program, North of Delta/In-Delta Transfers, San Bernardino Valley Water MWD Central Feeder, Shasta Return, and Semitropic Agricultural Water Reuse. (2010 *RUWMP*, Sections 3.1, 3.2, and 3.3) See also MWD’s 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to MWD’s current and under development supplies.

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,” “IRWD’s Evaluation of Effect of Reduced MWD Supplies to IRWD,” “Climate Change,” “Catastrophic Supply Interruption Planning” and “Recent Actions Related to Drought Conditions.”

In addition, as stated above, IRWD has developed water banking projects in Kern County, California which be called upon for delivery of supplemental banked water to IRWD, if

needed, in response to shortage conditions or potential water supply interruptions.

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 No. 11881) and Baker WTP (PR No. 11747), IRWD adopted its fiscal year 2015-16 capital budget on June 8, 2015 (Resolution No. 2015-13), budgeting portions of the funds for such projects. (A copy is available from IRWD on request.) IRWD has approximately \$615.2 million (water) and \$784.8 million (wastewater) of unissued, voter-approved bond authorization. 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. 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.

The following information is added:

In addition the Orange County Water District (OCWD) reports listed in the Assessment Reference List, OCWD has also prepared a Long Term Facilities Plan ("LTFP") which was received by the OCWD Board in July 2009, and was last updated in November 2014. The LTFP Chapter 3 describes the efforts being undertaken by OCWD to eliminate long-term overdraft in the Orange County Groundwater Basin.

Sustainable Groundwater Management Act. Pursuant to the Sustainable Groundwater Management Act (SGMA), the DWR has designated the Orange County groundwater basin as a medium priority basin for purposes of groundwater management. By January 31, 2017, local groundwater producers must establish or designate an entity (referred to as a groundwater sustainability agency, or "GSA"), subject to DWR's approval, to manage each high and medium priority groundwater basin. The SGMA specifically calls for OCWD, which regulates the Orange County groundwater basin, to serve as the GSA for such basin.

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

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

Integrated Water Resources Plan Update, Metropolitan Water District of Southern California, July, 2004

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

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

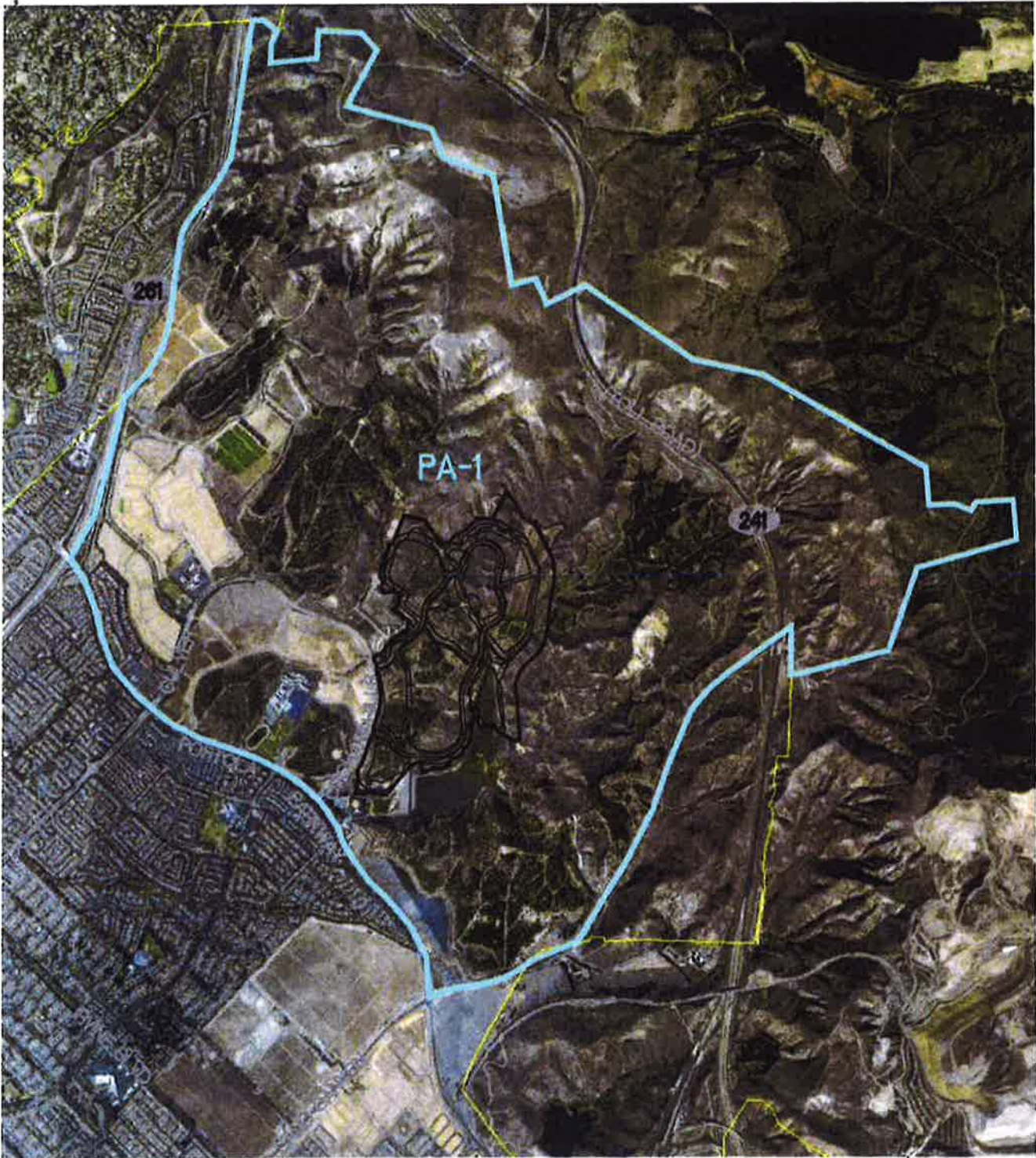
Long-Term Facilities Plan 2014 Update, Orange County Water District, November 2014

2013-14 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District, February 2015

Progress on Incorporating Climate Change into Management of California's Water Resources, California Department of Water Resources, July, 2006

Exhibit A

Depiction of Project Area



LEGEND

-  PROJECT BOUNDARY
-  PLANING AREA



PLANING AREA 1
 GENERAL PLAN AMMENDMENT AND ZONE CHANGE
 IRVINE, CA

LOCAL VICINITY

Exhibit B

Uses Included in Project



June 17, 2015

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 Irvine hereby requests verification of the availability of a sufficient water supply for the below-described project. Under Government Code §66473.7(b)(1), written verification of the availability of a sufficient water supply is required in conjunction with or prior to the approval of any tentative map that includes a residential subdivision of more than 500 dwelling units, subject to certain exemptions.

The City has determined that the subject project (1) includes a subdivision meeting the criteria requiring verification of availability of sufficient water supply 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: PA 1 Orchard Hills Neighborhood 3 - Vesting Tentative Tract Map 16530

Location of project: Planning Area 1 is bounded by the Lomas de Santiago Ridge to the north, future Jeffrey Road extension to the east, SR-261 to the west and Portola Parkway to the south within the City of Irvine. Neighborhood 3 is generally located north of Orchard Hills Drive.

Planning Area(s): PA 1, Orchard Hills (refer to attached Exhibits 1, 2, 3, and VTTM 16530 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:

Northern Sphere Area Project Water Supply Assessment March 2002

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.* 00634203-PTT Tentative Tract No.* 16530

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

(*A copy of the tentative map application including the proposed subdivision was sent to IRWD on: June 17, 2015, (Government Code §66455.3))

Type of development included in the project:

Residential: No. of dwelling units: 1000

Shopping center or business: No. of employees _____ Sq. ft. of floor space _____

Commercial office: No. of employees approx _____ 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: 359 acres

Acreage devoted to landscape: 87ac

Greenbelt N/A golf course N/A parks 4.5 ac

Agriculture 38 ac other landscaped areas N/A

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, see attached project description. If no, describe the existing General Plan Designation N/A

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 IRVINE

By: 

Melissa Chao, Senior Planner

REQUEST RECEIVED:

Date: June 17, 2015

By: Kelli Willet
Irvine Ranch Water District

REQUEST COMPLETE:

Date: June 30, 2015

By: Kelli Willet
Irvine Ranch Water District

Project Description

The proposed project involves the City of Irvine's (City) Planning Area (PA) 1 (Orchard Hills Neighborhood 3), in Orange County, California. Refer to Exhibit 1, which depicts the regional location of the project, and Exhibit 2, which depicts its local vicinity. As shown on Exhibit 2, PA 1 is located east of Portola Parkway, South of State Route (SR)-261 and west (SR)-241. PA-1 is a triangle-shaped area bound by I-5 to the northeast, I-405 to the south, and SR-241 to the northwest.

The approximate 359-acre project site in PA 1 (refer to Exhibit 2) is Vesting Tentative Tract Map 16530. Vesting Tentative Tract Map 16530 would authorize development of residential homes, private parks, landscape and public open space areas by subdividing 359 acres of property into 9 numbered lots and 70 lettered lots creating a new neighborhood in Orchard Hills, Neighborhood 3. The General Plan Land Use for the site is Low Residential and Agriculture. The existing zoning is 2.2D Low Density Residential and 1.1 Exclusive Agriculture. The Vesting Tentative Tract Map application includes, but is not limited to, the following information: mass grading and pad elevations suitable for residential development, access roads, landscaping/open space areas, and on-site infrastructure (domestic water, recycled water, sanitary sewer and storm drains).

Exhibit C
Water Supply Assessment

**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 Areas 1 and 2 (see 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 8/23/04 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.

Leslie Bonkowski
Signature

8/23/04
Date

District Secretary
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 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:

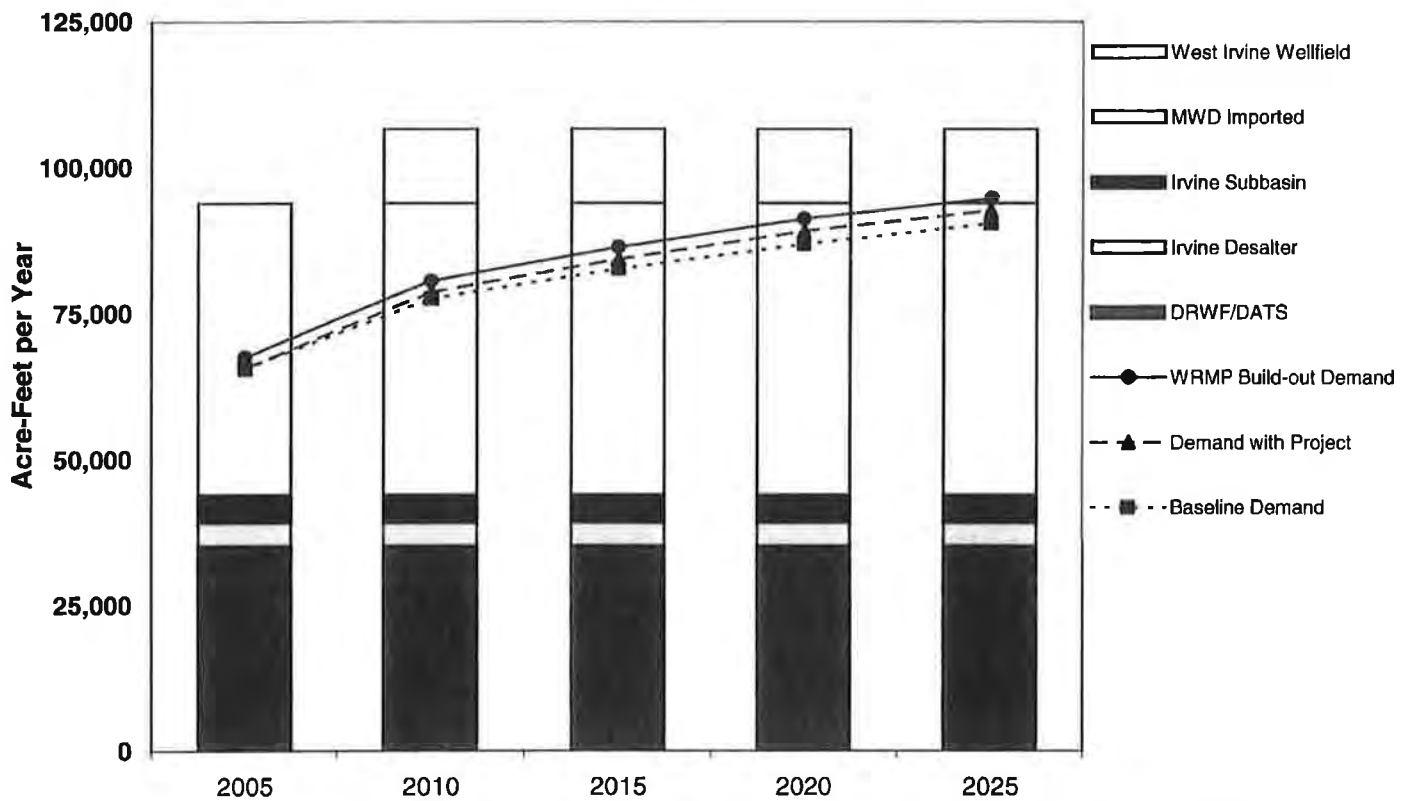
- Significant quantities of "reserve" water supplies (excess of supplies over demands) will be available to serve as a buffer against inaccuracies in demand projections, future changes in land use, or alterations in supply availability.
- The potential exists for the treatment and conversion of some 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):

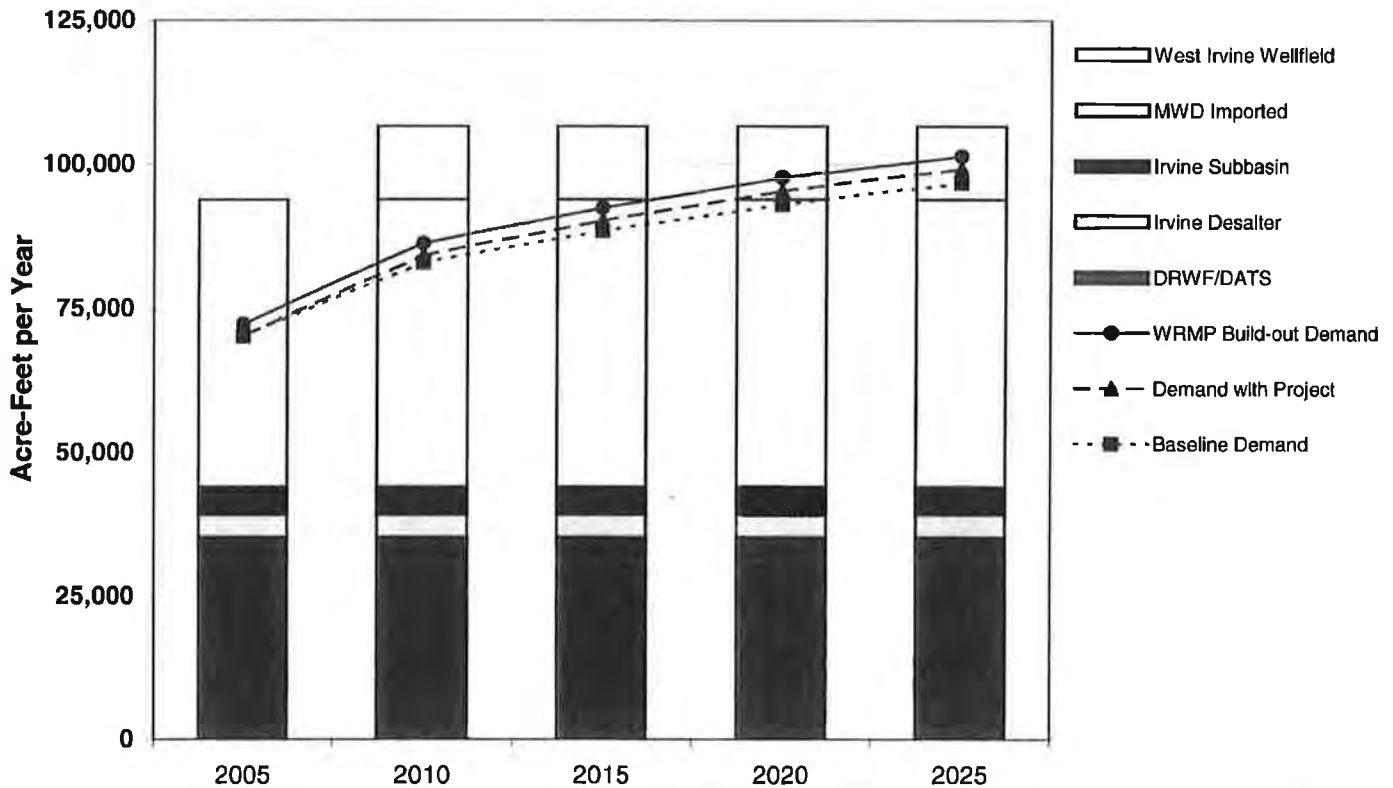
**Figure 1
IRWD Normal-Year Supply & Demand - Potable Water**



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Potable Supplies</u>					
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
<u>Supplies Under Development</u>					
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	65,645	77,581	82,657	86,938	90,469
Demand with Project	65,649	78,701	84,327	89,157	92,688
WRMP Build-out Demand	67,592	80,672	86,385	91,230	94,761
Reserve Supply with Project	28,248	27,897	22,271	17,441	13,910

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).

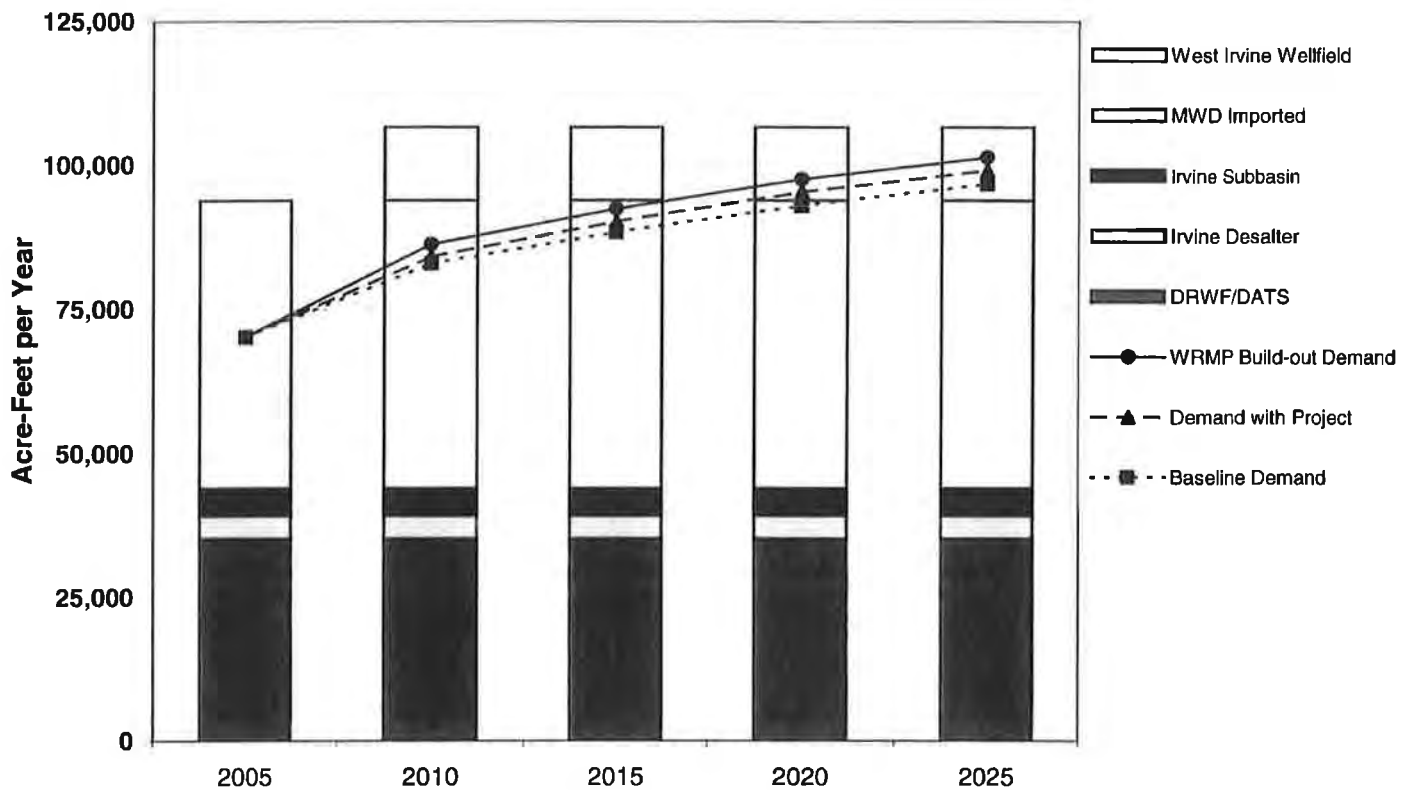
**Figure 2
IRWD Single Dry-Year Supply & Demand - Potable Water**



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Potable Supplies</u>					
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
<u>Supplies Under Development</u>					
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	70,241	83,012	88,444	93,024	96,802
Demand with Project	70,245	84,210	90,230	95,398	99,176
WRMP Build-out Demand	72,323	86,319	92,432	97,616	101,394
Reserve Supply with Project	23,653	22,388	16,368	11,200	7,421

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).

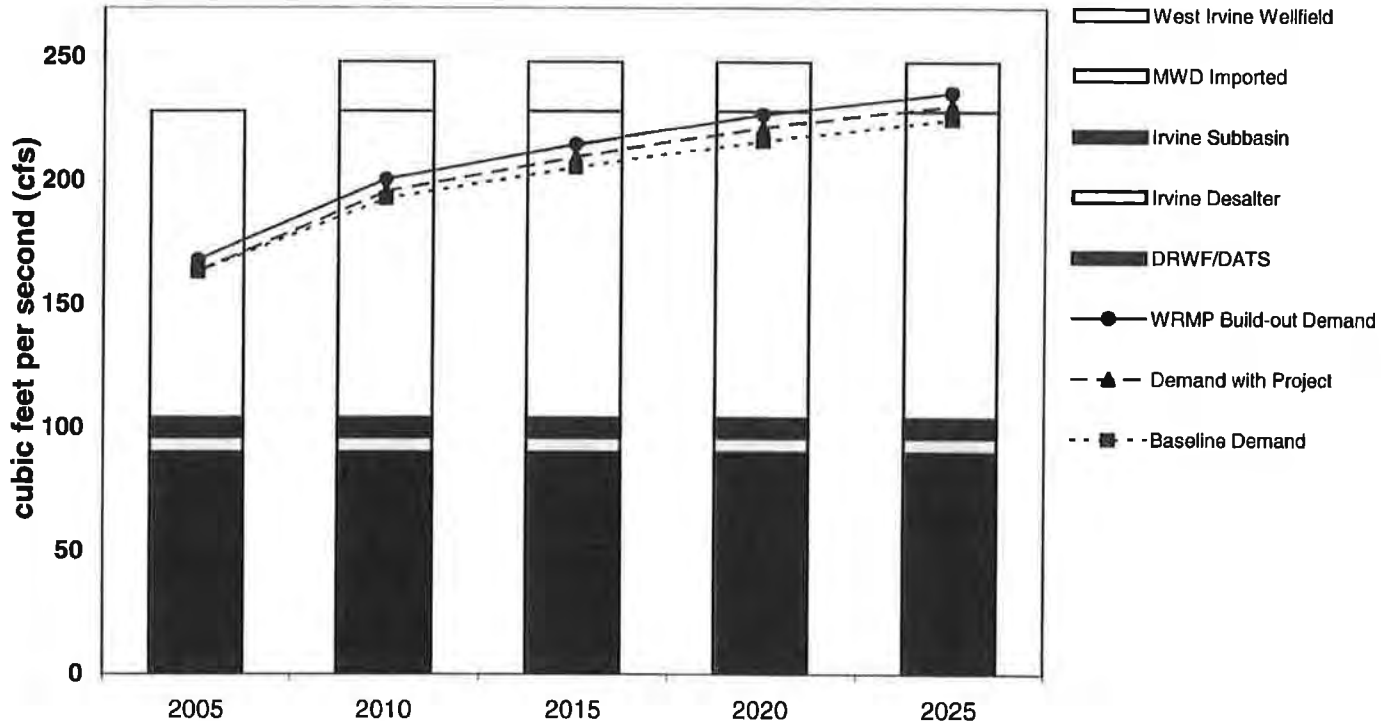
**Figure 3
IRWD Multiple Dry-Year Supply & Demand - Potable Water**



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Potable Supplies</u>					
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
<u>Supplies Under Development</u>					
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	70,241	83,012	88,444	93,024	96,802
Demand with Project	70,245	84,210	90,230	95,398	99,176
WRMP Build-out Demand	70,245	86,319	92,432	97,616	101,394
Reserve Supply with Project	23,653	22,388	16,368	11,200	7,421

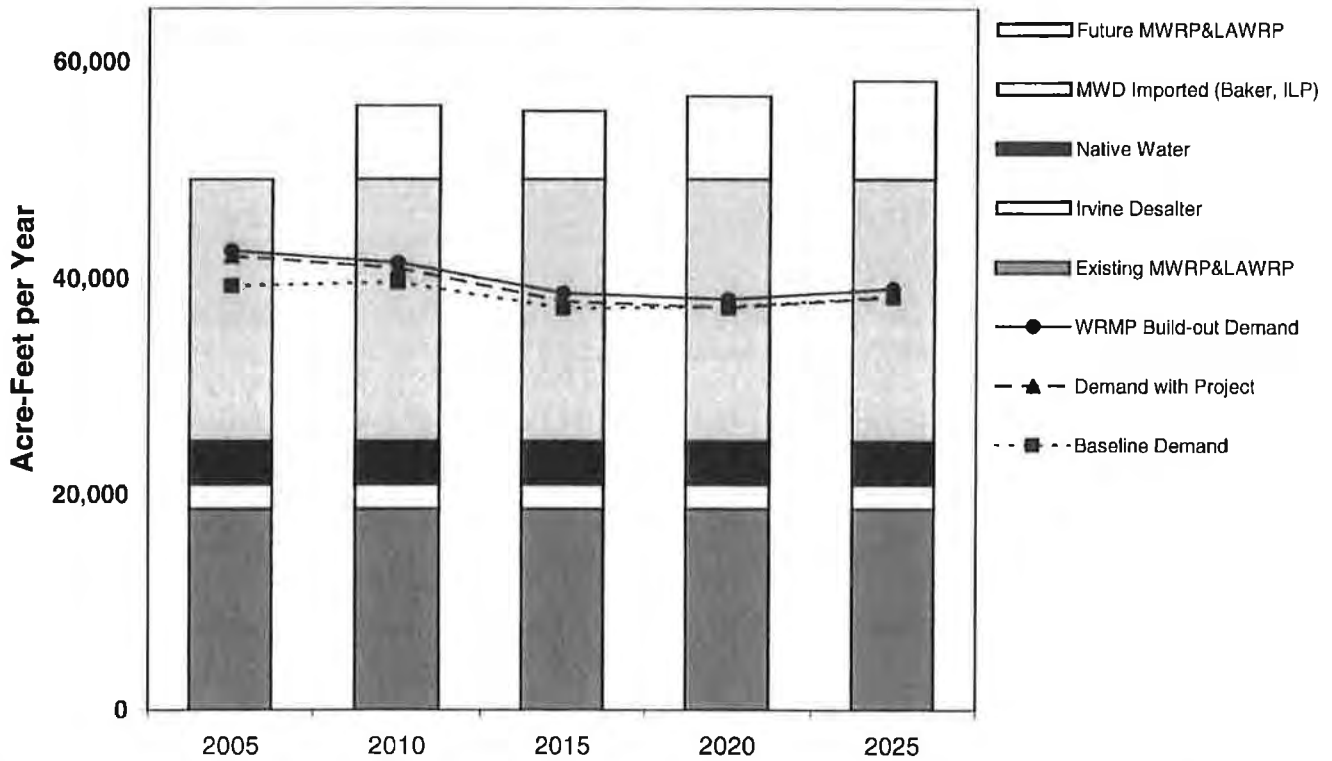
Notes: Supplies identical to Normal-Year based on Report on Metropolitan's Water Supplies (3/25/03) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating 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
<u>Current Potable Supplies</u>					
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
<u>Supplies Under Development</u>					
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	163.2	192.9	205.5	216.1	224.9
Demand with Project	163.2	195.7	209.7	221.7	230.4
WRMP Build-out Demand	168.0	200.6	214.8	226.8	235.6
Reserve Supply with Project	70.2	52.4	38.4	26.4	17.7

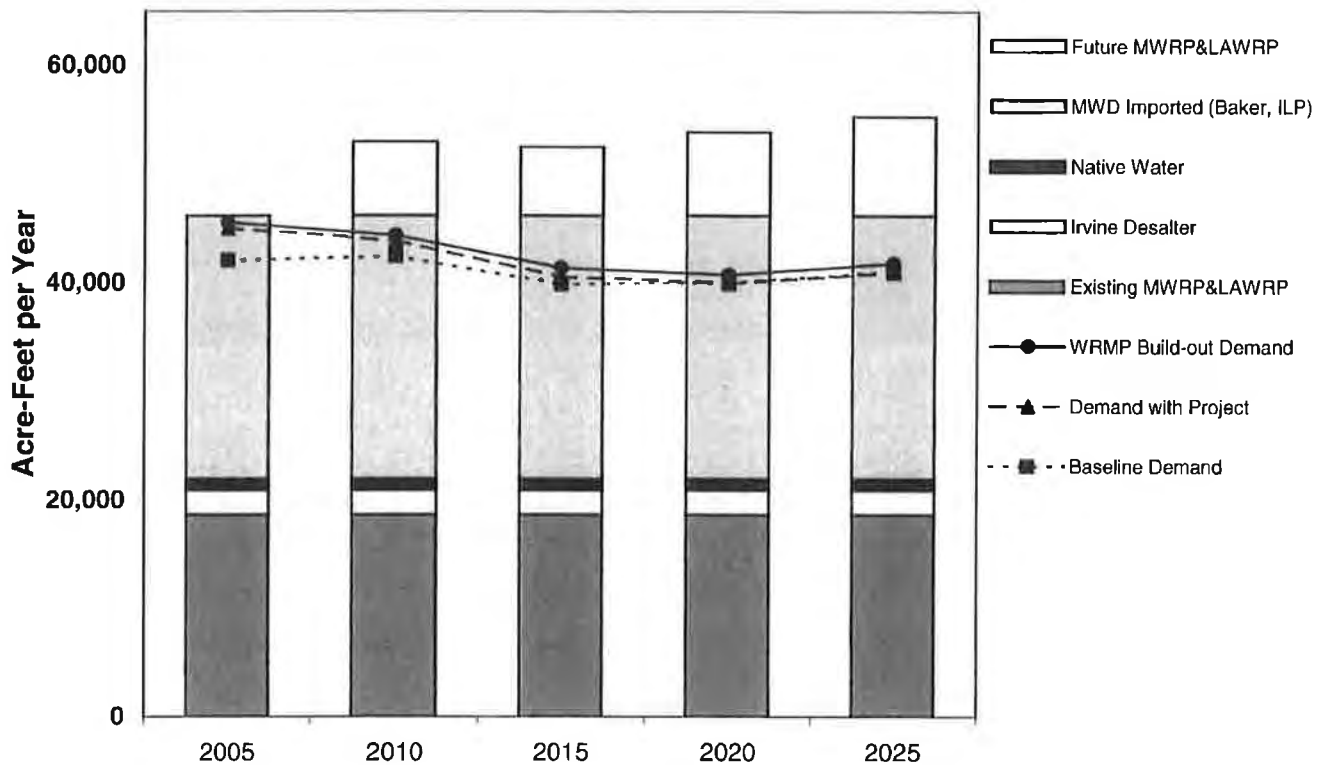
Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Nonpotable Supplies</u>					
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
<u>Supplies Under Development</u>					
Future MWRP&LAWRP	-	6,794	6,311	7,687	9,107
Maximum Supply Capability	49,201	55,995	55,512	56,888	58,308
Baseline Demand	39,354	39,669	37,283	37,408	38,394
Demand with Project	42,101	40,997	37,909	37,332	38,318
WRMP Build-out Demand	42,604	41,485	38,688	38,111	39,098
Reserve Supply with Project	7,100	14,998	17,603	19,556	19,990

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

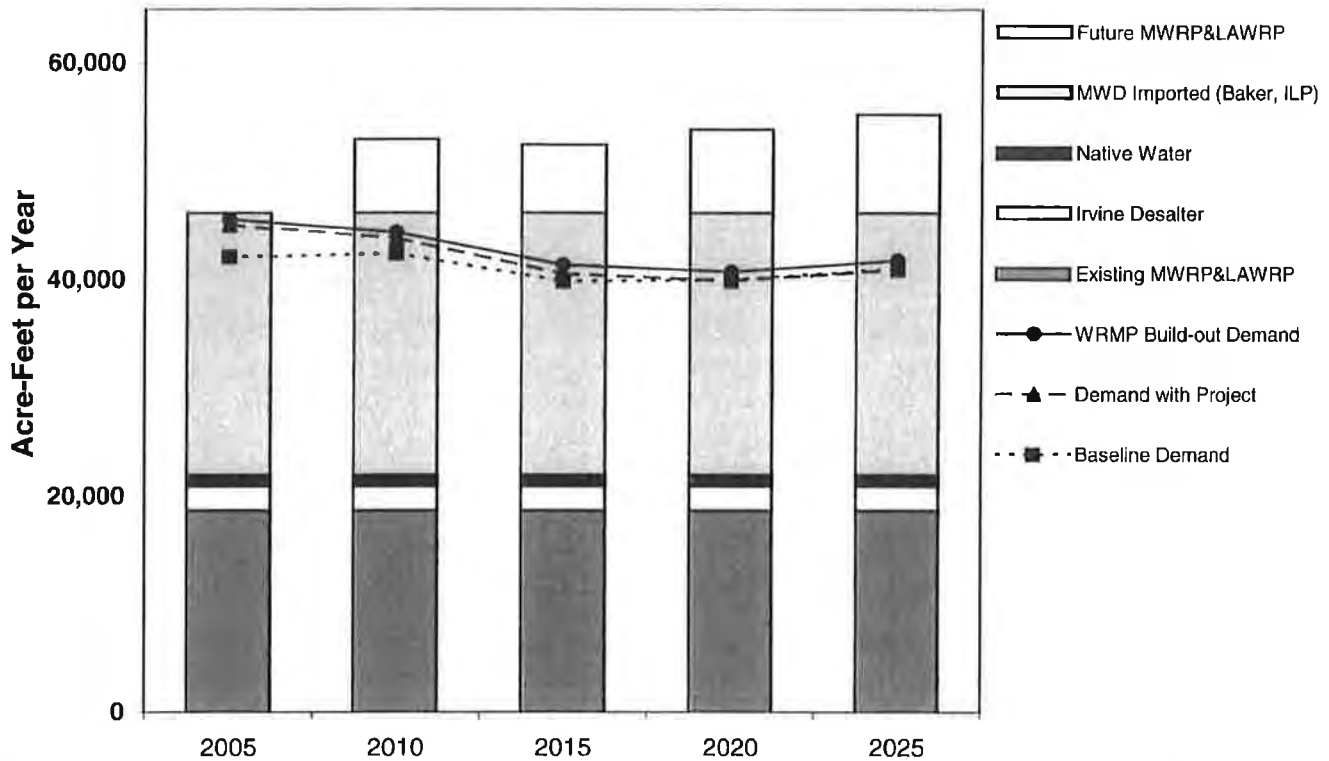
Figure 6
IRWD Single Dry-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Nonpotable Supplies</u>					
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
<u>Supplies Under Development</u>					
Future MWRP&LAWRP	-	6,794	6,311	7,687	9,107
Maximum Supply Capability	46,201	52,995	52,512	53,888	55,308
Baseline Demand	42,109	42,446	39,893	40,026	41,082
Demand with Project	45,048	43,867	40,563	39,945	41,001
WRMP Build-out Demand	45,586	44,389	41,397	40,779	41,834
Reserve Supply with Project	1,153	9,128	11,949	13,943	14,307

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

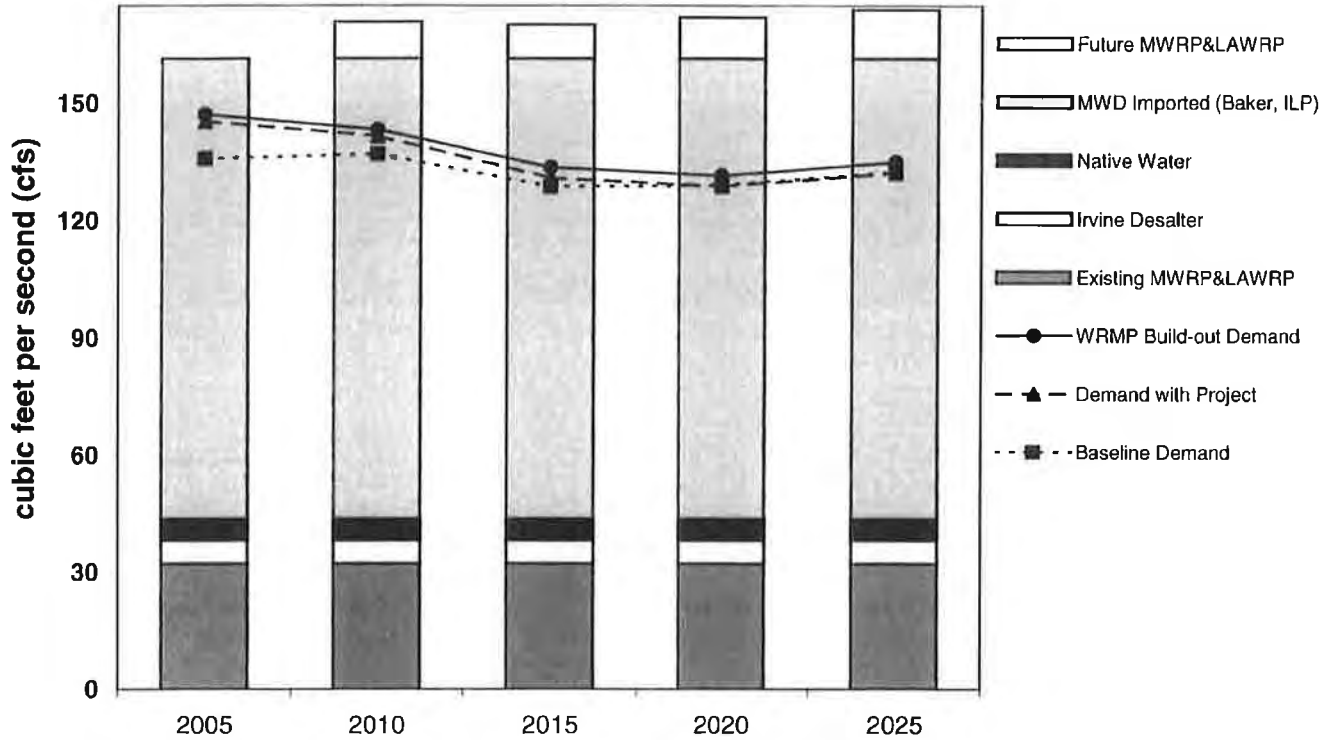
Figure 7
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Nonpotable Supplies</u>					
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
<u>Supplies Under Development</u>					
Future MWRP&LAWRP	-	6,794	6,311	7,687	9,107
Maximum Supply Capability	46,201	52,995	52,512	53,888	55,308
Baseline Demand	42,109	42,446	39,893	40,026	41,082
Demand with Project	45,048	43,867	40,563	39,945	41,001
WRMP Build-out Demand	45,586	44,389	41,397	40,779	41,834
Reserve Supply with Project	1,153	9,128	11,949	13,943	14,307

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
<u>Current Nonpotable Supplies</u>					
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
<u>Supplies Under Development</u>					
Future MWRP&LAWRP	-	9.4	8.7	10.6	12.6
Maximum Supply Capability	161.4	170.8	170.1	172.0	174.0
Baseline Demand	135.9	137.0	128.7	129.2	132.6
Demand with Project	145.4	141.6	130.9	128.9	132.3
WRMP Build-out Demand	147.1	143.2	133.6	131.6	135.0
Reserve Supply with Project	16.0	29.2	39.2	43.1	41.7

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 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.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	5,568	2,282
2010	35,200	12,700	4,800	5,568	2,282
2015	35,200	12,700	4,800	5,568	2,282
2020	35,200	12,700	4,800	5,568	2,282
2025	35,200	12,700	4,800	5,568	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:

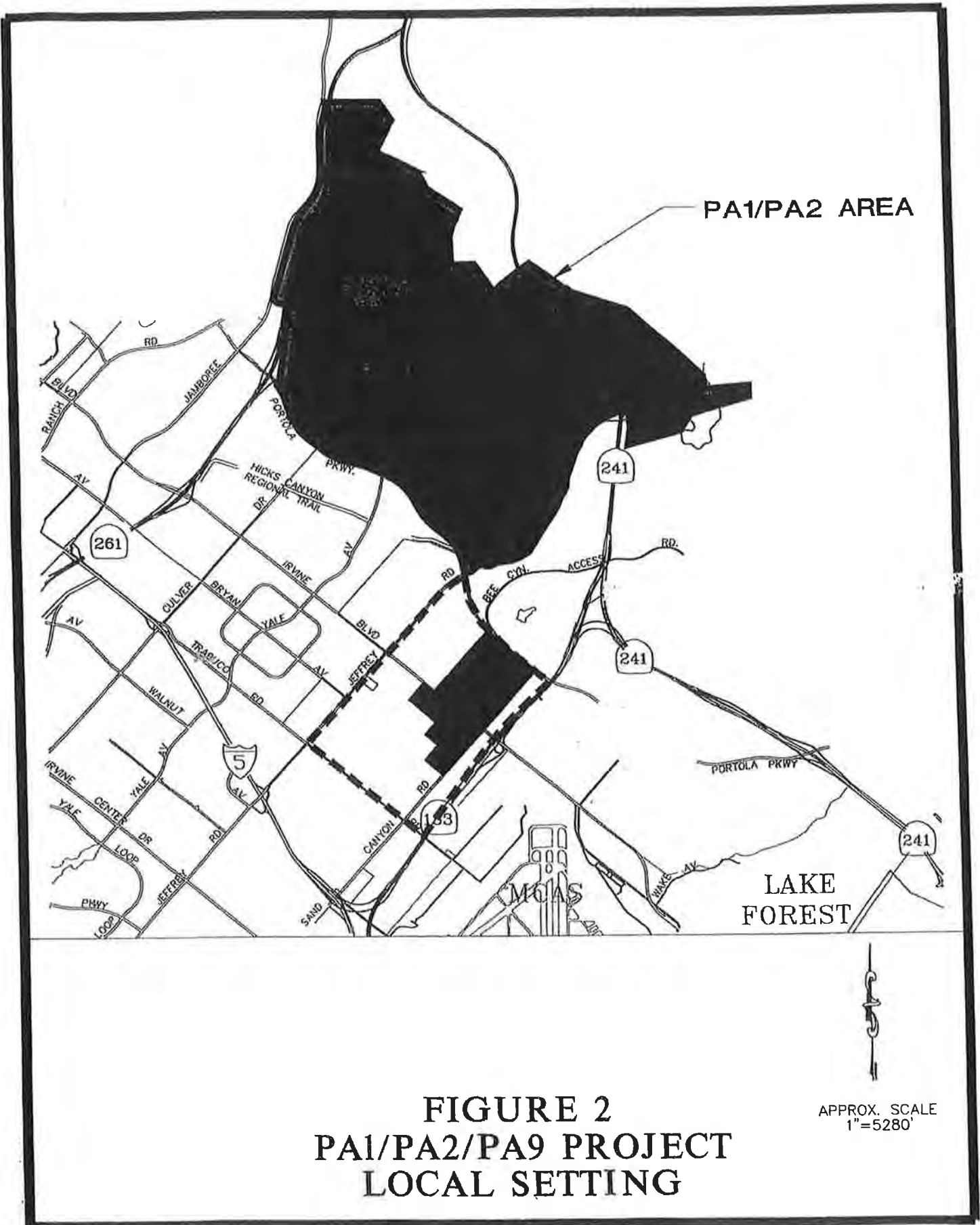
- Changes in the Project have substantially increased water demand.
- Changes in circumstances or conditions have substantially affected IRWD's ability to provide a sufficient water supply for the Project.
- Significant new information has become available which was not known and could not have been 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



**FIGURE 2
PA1/PA2/PA9 PROJECT
LOCAL SETTING**

APPROX. SCALE
1"=5280'

Exhibit B
Uses Included in Project



Community Development Department

www.ci irvine.ca.us

City of Irvine, One Civic Center Plaza, P.O. Box 19575, Irvine, California 92623-9575 (949) 724-6000

May 14, 2004

ENGINEERING AND PLANNING
MAY 17 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 Irvine hereby requests an assessment of water supply availability for the below-described project. The City has determined that the project is a "project" as defined in Water Code §10912, and has determined that an environmental impact report (EIR) is required for the project. The Notice of Preparation of the draft EIR was sent to your agency on April 15, 2004.

Proposed Project Information

Project Title: General Plan Amendment, Zone Change, and Annexation for Planning Area 1 and 2 and a portion of Planning Area 9

Location of project: The project area is located in unincorporated Orange County within the City's Sphere of Influence (see Figure 1). Planning Areas 1 and 2 are located north of Portola Parkway and east of the City of Tustin and SR-261. Planning Area 9 is located west of SR-133 and south of Portola Parkway (see Figure 2).

A previous Water Supply Assessment that included the Planning Area 9 portion of the project was prepared on March 12, 2002.

This application requests a new Water Supply Assessment, due to the following (check all that apply):

- Changes in the project have substantially increased water demand
- Changes in circumstances or conditions have substantially affected IRWD's ability to provide a sufficient water supply for the project
- Significant new information has become available which was not known and could not have been known at the date of the prior Water Supply Assessment

Type of Development:

- Residential: No. of dwelling units: PA 1&2 - 4,310 DU; PA 9 - additional 1,593 DU
 Shopping center or business: No. of employees: NA Sq. ft. of floor space: 200,000
 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: Deletion of 2,566,000 sq ft of Medical and Science from PA 9

Total acreage of project: PA1&2 - 4,235 ac; PA9 - 1,277 ac (no change)

Acreage devoted to landscape:

Greenbelt NA golf course none parks NA
Agriculture 508 ac other landscaped areas 2,205 ac Preservation _____

Number of schools Two elementary schools Number of public facilities NA

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:

Hillside development may impact fire flow requirements.

What is the current land use of the area subject to a land use change under the project?
Undeveloped land with major portions devoted to interim agricultural uses.

Is the project included in the existing General Plan? Yes If no, describe the existing General Plan Designation. The overall development intensity has been contemplated within the existing General Plan; however, the applicant proposes to relocate 1,593 residential units from Planning Area 1 and 2 to Planning Area 9 and delete 2,566,000 square feet of Medical and Science from Planning Area 9.

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: Alan Worthington
Principal Planner

REQUEST RECEIVED:

Date: 6/14/04

By: Kelli Wilch
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 6/14/04

By: [Signature]
Irvine Ranch Water District



May 27, 2004

ENGINEERING AND PLANNING

MAY 28 2004

**IRVINE RANCH
WATER DISTRICT**

Kelli Welch
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.*)

In response to your May 24, 2004, telephone request for additional information, the City of Irvine is providing a breakdown of the proposed General Plan amendments to Planning Areas 1 & 2 and to Planning Area 9. This information supplements our May 14, 2004, request for a water supply availability assessment.

Planning Areas 1 and 2

The City is requesting that IRWD prepare a new water supply availability assessment as no previous assessment directly related to these planning areas has been conducted.

Planning Area	Estate Residential 0-1 DU	Low Density Residential 0-5 DU	Community Commercial
Existing PA1	222	4,380	23,769
Existing PA2	25	1,276	0
Total	247	5,656	23,769
Proposed changes in development intensity with this GPA	(-247)	(-1,346)	+ 176,231
Proposed development intensity in new Planning Area 1 (combining PAs 1 & 2)	0	4,310	200,000

Planning Area 9

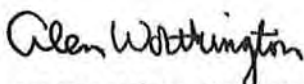
The City is requesting that IRWD prepare a revision to a previous water supply availability assessment for this planning area. This planning area was included in the Northern Sphere water supply availability assessment and updated on April 6, 2004, in conjunction with a City-initiated General Plan amendment for Subarea 9C. Please note that the 9C General Plan amendment has not yet been reviewed or approved by the City Council of the City of Irvine.

Planning Area	Medium Density Residential 0-10 DU	Medium-High Density Residential 0-25 DU	Multi-Use Sq. Ft.	Research/Industrial Sq. Ft.
Existing PA9 (approved as part of the Northern Sphere GPA)	3,750	1,800	450,000	4,166,000
Proposed changes in development intensity with 9C GPA		+3,000		(-1,600,000)
Subtotal with 9C GPA	3,750	4,800	450,000	2,566,000
Proposed changes in development intensity with this GPA	+1,593	0	0	(-2,566,000)
Proposed development intensity in PA9 with both GPAs	5,343	4,800	450,000	0

The City wants IRWD to analyze the water supply availability for Planning Area 9 using the combined changes proposed by both General Plan amendments as shown in the last row of the table above.

The City assumes that this additional information will enable IRWD to complete the water supply availability assessment for the proposed General Plan amendment to both Planning Areas 1 & 2 and to Planning Area 9. If you need additional information, please do not hesitate to call me at (949) 724-6370.

Sincerely,



GLEN WORTHINGTON
 Principal Planner

September 14, 2015

Prepared by: K. Welch/E. Akiyoshi

Submitted by: F. Sanchez/P. Weghorst

Approved by: Paul Cook

CONSENT CALENDAR

VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR CITY OF IRVINE PLANNING AREA 39 PHASE 2 (TENTATIVE TRACT MAP 17759)

SUMMARY:

In June 2015, staff received a request from the City of Irvine to complete a Verification of Sufficient Water Supplies (WSV) for Planning Area 39 Phase 2. Staff has completed the WSV for the project and recommends Board approval of the verification.

BACKGROUND:

The City of Irvine's Planning Area 39 Phase 2 proposed project is located southwest of Irvine Center Drive, northwest of Bake Parkway and northeast of Lake Forest Drive. It includes the existing Verizon Amphitheater site. The proposed 187.9 acre development will include 1,950 residential units, several parks and a school site. A location map of the Planning Area 39 Phase 2 area is attached as Exhibit "A".

On November 28, 2005, the Board approved a Water Supply Assessment (WSA) for Planning Areas 18/39/33/34 which included the proposed Planning Area 39 Phase 2 Project. 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 Planning Area 39 Phase 2 (Vesting Tentative Tract Map 17759). Staff has prepared the WSV for the project provided in Exhibit "B".

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 actions on state water supplies, current drought regulations and current water supplies and demand projections available since the WSA was approved. This information, together with the WSA completed by IRWD in 2005, reflects IRWD's confirmation that the project water demands, together with demands from any other developments that have previously received WSVs or will-serve, or other projects that have come to IRWD's attention either through developers or through the respective land use agency approval process, 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, SB 221 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 that approximately 476 acre-feet per year (AFY) of potable water demands and 89 AFY of non-potable demands are associated with the project. These demands are included in the WSA that was approved on November 28, 2005.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This study is exempt from the California Environmental Quality Act 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 by the Water Resources Policy and Communications Committee on September 8, 2015.

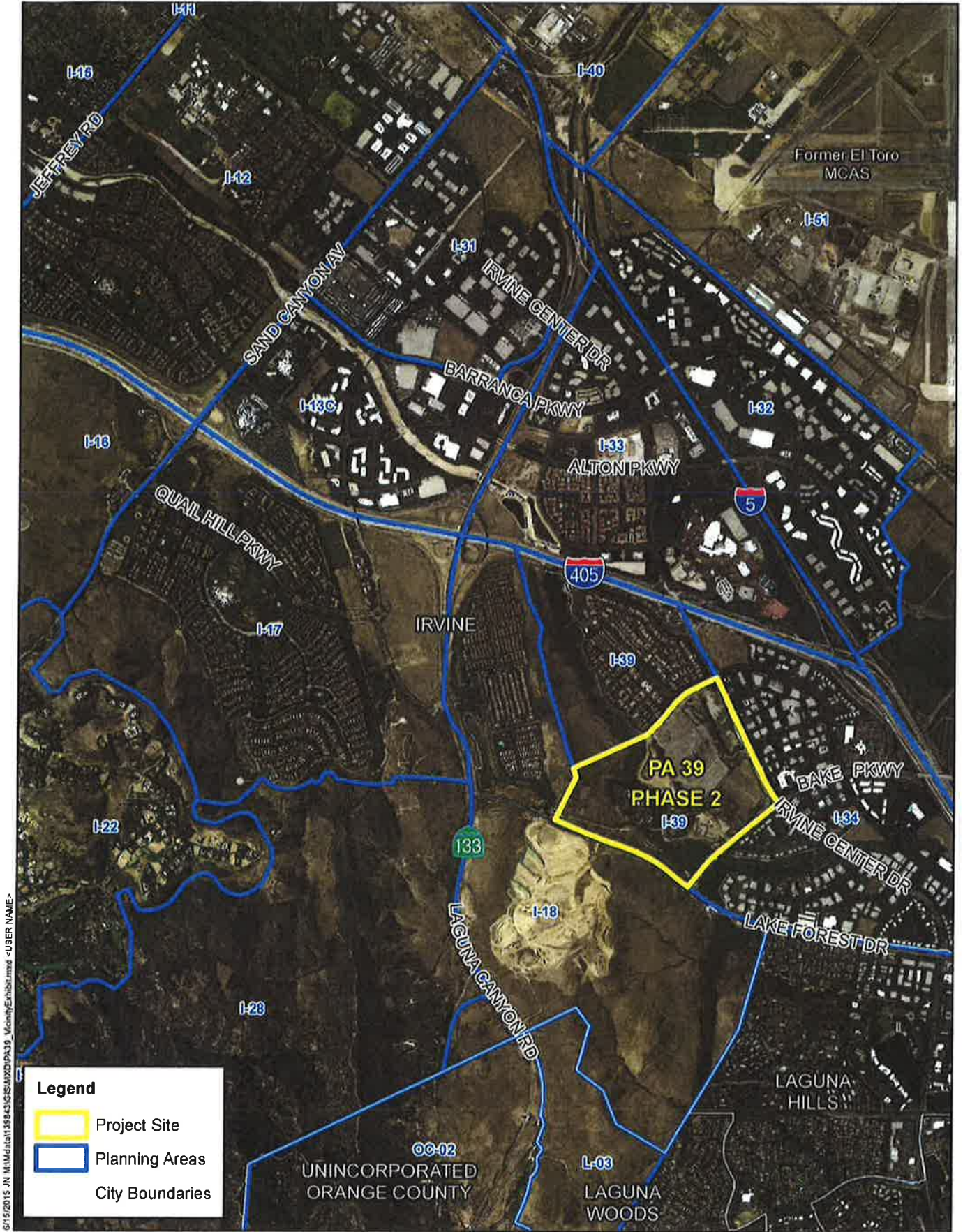
RECOMMENDATION:

THAT THE BOARD APPROVE THE VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR PLANNING AREA 39 PHASE 2 (VESTING TENTATIVE TRACT MAP 17759).

LIST OF EXHIBITS:

- Exhibit "A" – Location Map
- Exhibit "B" – Verification of Sufficient Supplies for Planning Area 39 Phase 2 (Vesting Tentative Tract Map 17759)

EXHIBIT "A"



07/15/2015 JIN H:\Midata\1159843\GIS\AUX\PA39_Vicinity\Exhibit.mxd -USER NAME-

Legend

- Project Site
- Planning Areas
- City Boundaries



Source: The Irvine Company, County of Orange, Eagle Aerial 2014

PLANNING AREA 39 PHASE 2 • VTTM 17759

Local Vicinity

EXHIBIT "B"

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

To: (Lead Agency)
City of Irvine
One Civic Center Plaza
Irvine, CA 92623-9575

(Applicant)
The Irvine Company
550 Newport Center Drive
Newport Beach, CA 92660

Project Information

Project Title: PA 39 Phase 2 Vesting Tentative Tract Map 17759

Tentative Map Application No. 17759 Verification requested prior to tentative map application

Number of residential units in Project: 1,950

Uses in Project including non-residential (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 November 28, 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 and is supplemented herein. Copies of the summarized items 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 2025. These Figures have been revised (pages 9 through 20) in order to reflect updated information on supplies, as well as to update the 20-year planning horizon through 2035. In addition, since the date of the approved Assessment for this project (November 28, 2005), IRWD has recalibrated and updated demand projections based on water use and development phasing.

The Assessment describes IRWD's assessment of supply availability which contains several margins of safety or buffers. In addition to the information provided in the Assessment,

this water supply verification has considered information concerning recent events. See the following “Recent Actions on Delta Pumping,” “IRWD’s Evaluation of Effect of Reduced MWD Supplies to IRWD,” “Climate Change,” “Catastrophic Supply Interruption Planning” and “Recent Actions Related to Drought Conditions.”

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 have an effect on State Water Project (SWP) operations and supplies. On June 4, 2009, a federal biological opinion imposed rules that 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. MWD is in the process of updating its 2010 IRP. MWD plans to review and update IRP resource targets, and assess strategy for managing short and long term uncertainty. MWD’s schedule shows a published report would be available in 2016.

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 2015 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 1,682,000 acre-feet and Colorado base average supplies are 656,000 acre-feet. A 22% reduction of SWP supplies equates to 370,000 acre-feet which is approximately 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 2015 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 a shortage stage under its Water Supply Allocation Plan, adopted in February, 2009 and a cutback is applied to IRWD's actual usage rather than its connected capacity. IRWD's evaluation of reduced MWD supplies to IRWD as shown in Figures 1a, 2a and 3a conservatively analyzes the effect of up to a MWD level 5 Regional Shortage Level. 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. The Water Shortage Contingency Plan was further revised on October 13, 2014. 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. On April 14, 2015, MWD approved the implementation of its Water Supply Allocation Plan at a level 3 Regional Shortage Level and a 15% reduction in regional deliveries effective July 1, 2015, through June 30, 2016. As a result of IRWD's diversified water supplies, IRWD is reliant on MWD for only 20% of its total supplies. IRWD's evaluation of reduced MWD supplies to IRWD as shown in Figures 1a, 2a and 3a for a MWD level 5 Regional Shortage Level would include MWD's 2015 actions to implement a level 3 Regional Shortage Level and 15% reduction.

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. DWR estimated that approximately 520,000 AF had been lost to the SWP for 2010 of which nearly 240,000 AF would have been available to MWD. This amount is equivalent to about 16% 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, IRWD has developed water banking projects in Kern County, California which may be called upon for delivery of supplemental banked water to IRWD under a short-term MWD allocation.³ IRWD may also convert non-potable water uses to recycled water as a way to conserve potable water. 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 2035 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

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 "2013-2014 Engineer's Report on the groundwater conditions, water supply and basin utilization" references a report (OCWD Report on Evaluation of Orange County Groundwater Basin Storage and Operational Strategy) 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, "Although it is considered to be generally acceptable to allow the basin to decline to 500,000 AF overdraft for brief periods due to severe drought conditions and lack of supplemental water... an accumulated overdraft of 100,000 AF best represents an optimal basin management target. This optimal target level provides sufficient storage space to accommodate anticipated recharge from a single wet year while also providing water in storage for at least 2 or 3 consecutive years of drought." MWD replenishment water is a supplemental source of recharge water and OCWD estimates other main supply sources for recharge are available.

³ IRWD has developed water banking projects (Water Bank) in Kern County, California and has entered into a 30-year water banking partnership with Rosedale-Rio Bravo Water Storage District (RRB) to operate IRWD's Strand Ranch portion of the Water Bank. The Water Bank can improve IRWD's water supply reliability by capturing lower cost water available during wet hydrologic periods for use during dry periods. The Water Bank can enhance IRWD's ability to respond to drought conditions and potential water supply interruptions.

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 Senate Bill 7 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, 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 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 also addressed supply interruption planning in its WRMP and UWMP.

Recent Actions Related to Drought Conditions. In response to the historically dry conditions throughout the state of California, on April 1, 2015, Governor Brown issued an Executive Order directing the State Water Resources Control Board (SWRCB) to impose restrictions to achieve an aggregate statewide 25 percent reduction in potable water use through February 2016. The Governor's Order also includes mandatory actions aimed at reducing water demands, with a particular focus on outdoor water use. On May 5, 2015, the SWRCB adopted regulations which require that IRWD achieve a 16% reduction in potable water use. On April 14, 2015, MWD approved actions to implement the Water Supply Allocation Plan at a level 3 Regional Shortage Level and a 15% reduction in regional deliveries effective July 1, 2015, through June 30, 2016. On July 13, 2015, IRWD declared a Level Two shortage condition pursuant to Section 15 of its Rules and Regulations. IRWD will implement actions to reduce potable water demands during the drought; however, this does not affect IRWD's long-term supply capability to meet the demands. As discussed under “IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD” (page 7), IRWD has effectively analyzed an imported water supply reduction up to a level 5 Regional Shortage Stage in Figures 1a, 2a, 3a. These Figures do not reflect a reduction in demands thus representing a more conservative view of IRWD's supply capability. In particular, the reduction in demand mandated by Senate Bill 7 in 2010, requiring urban retail water suppliers to establish water use targets to achieve a 20% reduction in daily per capita water use by 2020, has not been factored into the demands in this analysis. Similarly, notwithstanding the Governor's order, IRWD's conservative supply-

sufficiency analysis in Figures 1a, 2a and 3a does not include the ordered reduction in potable demands.

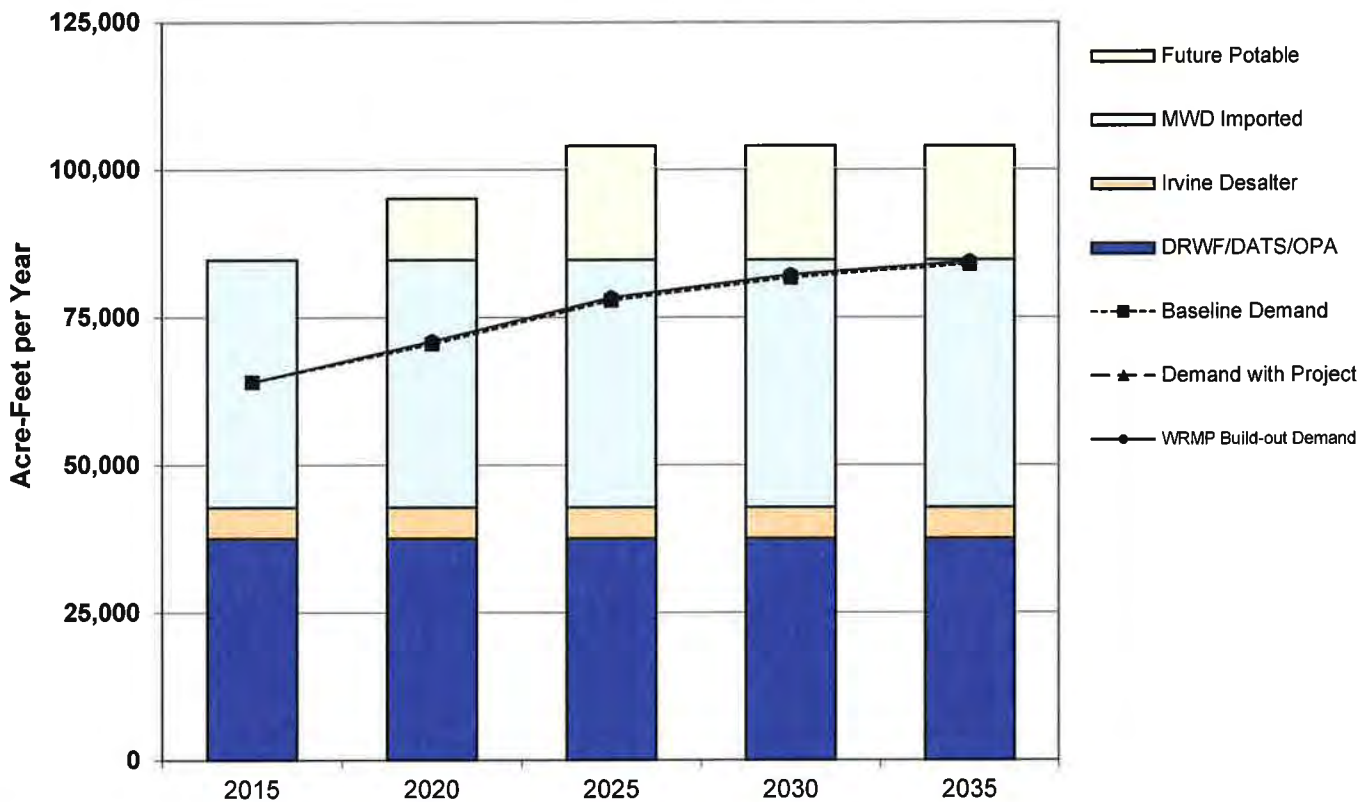
Detailed Verification

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 "Recent Actions on Delta Pumping," "IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD," "Climate Change," "Catastrophic Supply Interruption Planning" and "Recent Actions Related to Drought Conditions," above and the Assessment, Section 1, incorporated herein by reference.

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

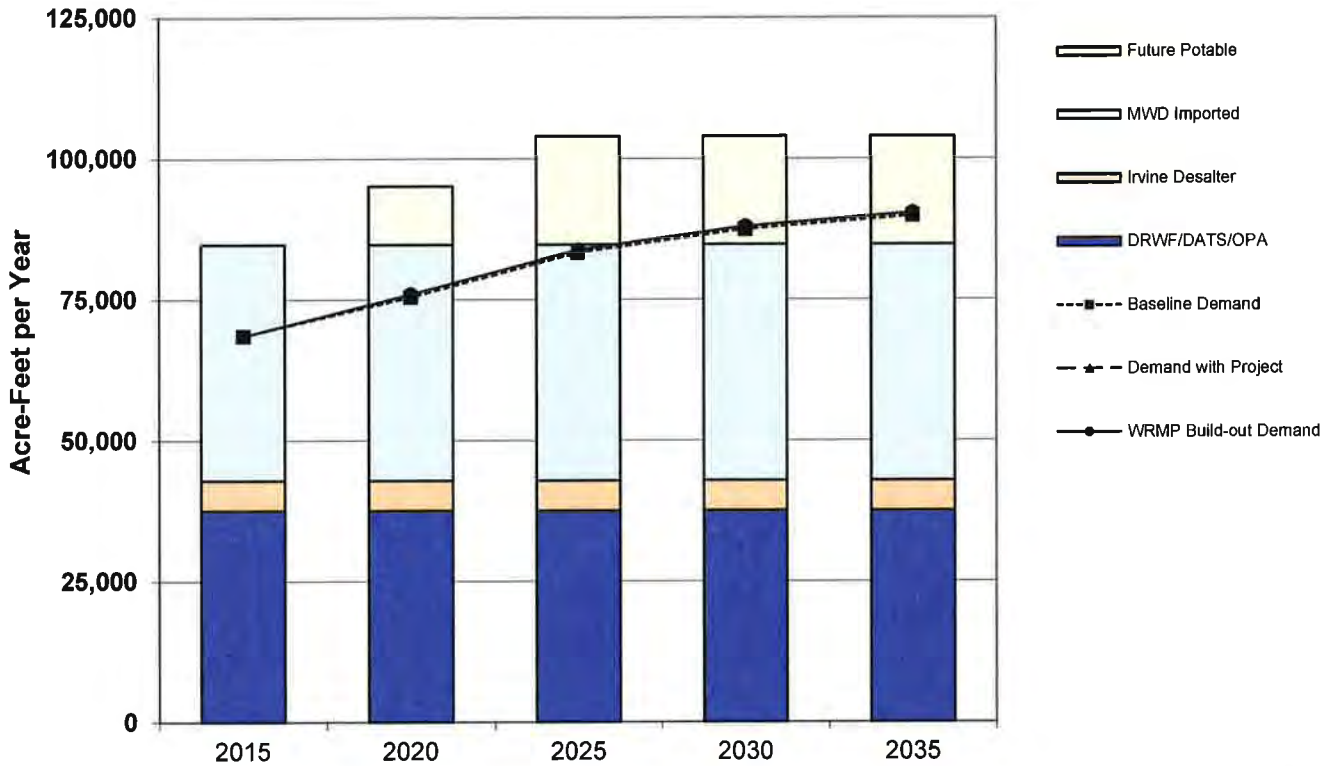


(in acre-feet per year)	2015	2020	2025	2030	2035
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Supplies Under Development					
Future Potable	-	10,328	19,211	19,211	19,211
Maximum Supply Capability	91,100	101,427	110,311	110,311	110,311
Baseline Demand	64,043	70,493	77,870	81,714	83,968
Demand with Project	64,043	70,970	78,347	82,191	84,444
WRMP Build-out Demand	64,043	70,970	78,347	82,191	84,444
Reserve Supply with Project	27,057	30,458	31,964	28,120	25,866

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

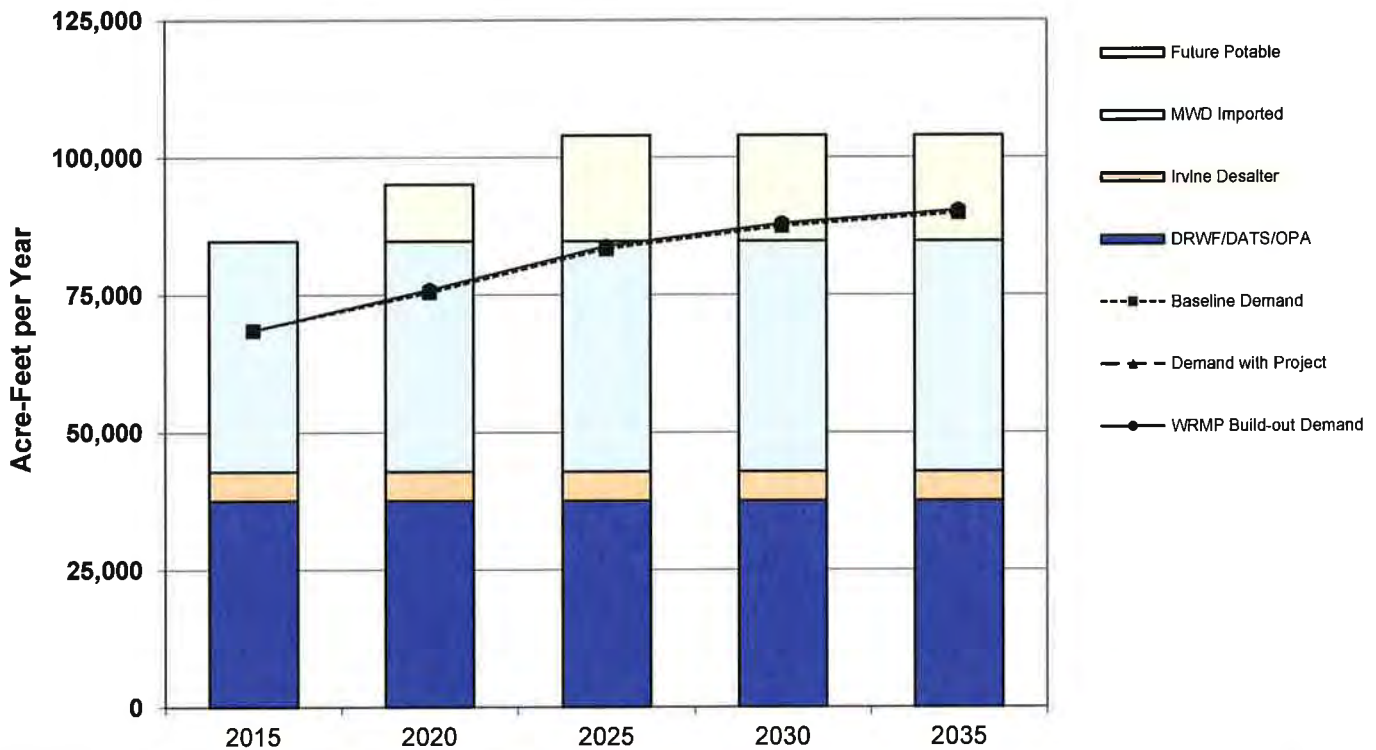


(in acre-feet per year)	2015	2020	2025	2030	2035
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<u>Supplies Under Development</u>					
Future Potable	-	10,328	19,211	19,211	19,211
Maximum Supply Capability	91,100	101,427	110,311	110,311	110,311
Baseline Demand	68,526	75,428	83,321	87,434	89,846
Demand with Project	68,526	75,937	83,831	87,944	90,355
WRMP Build-out Demand	68,526	75,937	83,831	87,944	90,355
Reserve Supply with Project	22,574	25,490	26,480	22,367	19,955

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**

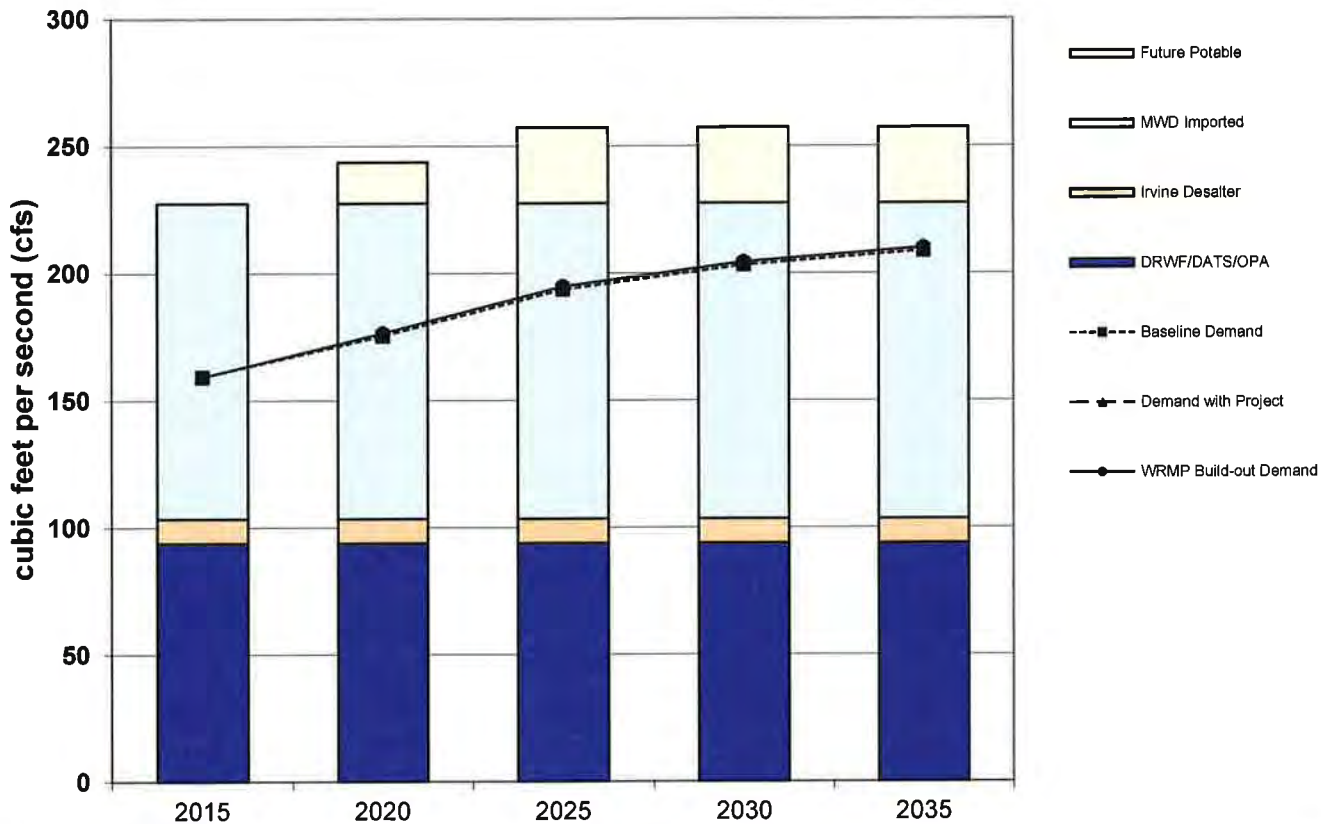


(in acre-feet per year)	2015	2020	2025	2030	2035
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<u>Supplies Under Development</u>					
Future Potable	-	10,328	19,211	19,211	19,211
Maximum Supply Capability	91,100	101,427	110,311	110,311	110,311
Baseline Demand	68,526	75,428	83,321	87,434	89,846
Demand with Project	68,526	75,937	83,831	87,944	90,355
WRMP Build-out Demand	68,526	75,937	83,831	87,944	90,355
Reserve Supply with Project	22,574	25,490	26,480	22,367	19,955

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).

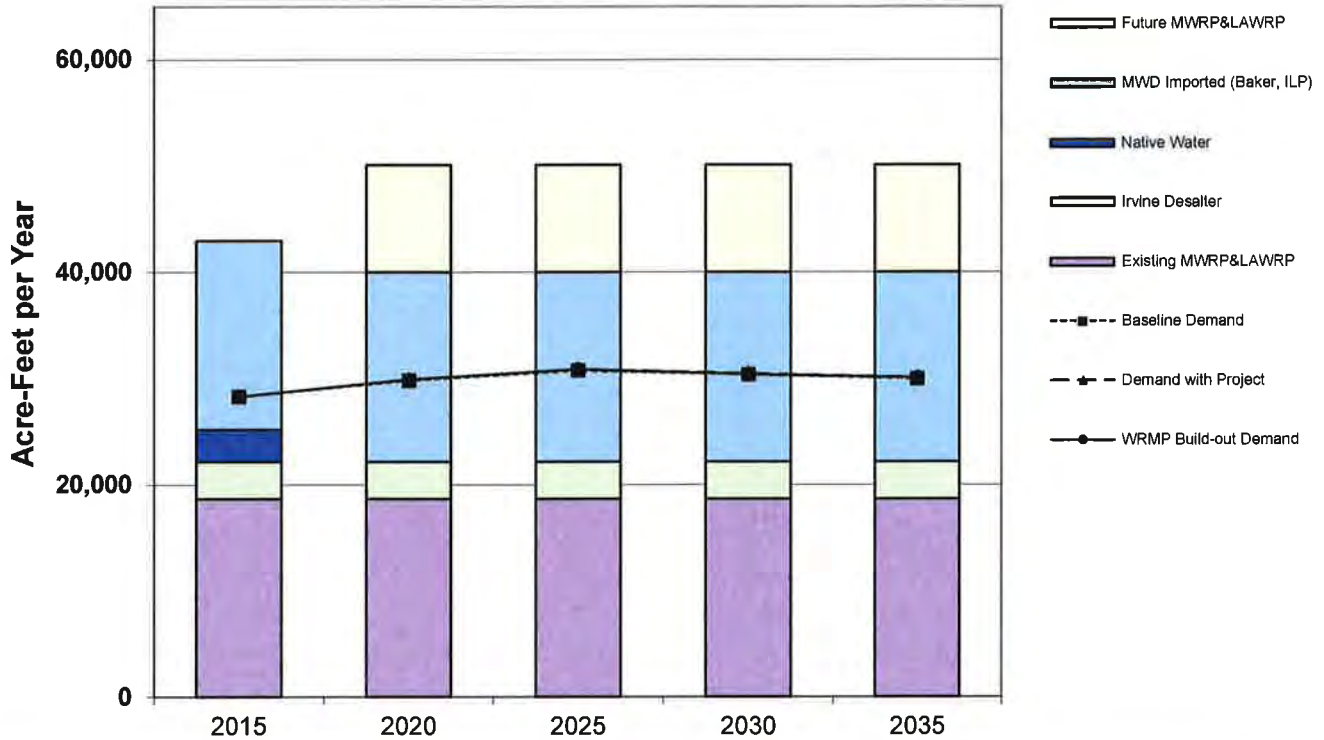
MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

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



(in cfs)	2015	2020	2025	2030	2035
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	124.1	124.1	124.1	124.1	124.1
DRWF/DATS/OPA	93.9	93.9	93.9	93.9	93.9
Irvine Desalter	9.5	9.5	9.5	9.5	9.5
Wells 21 & 22	10.9	10.9	10.9	10.9	10.9
<u>Supplies Under Development</u>					
Future Potable	-	16.1	29.7	29.7	29.7
Maximum Supply Capability	238.4	254.5	268.1	268.1	268.1
Baseline Demand	159.2	175.3	193.6	203.2	208.8
Demand with Project	159.2	176.4	194.8	204.3	209.9
WRMP Build-out Demand	159.2	176.4	194.8	204.3	209.9
Reserve Supply with Project	79.2	78.1	73.3	63.8	58.2

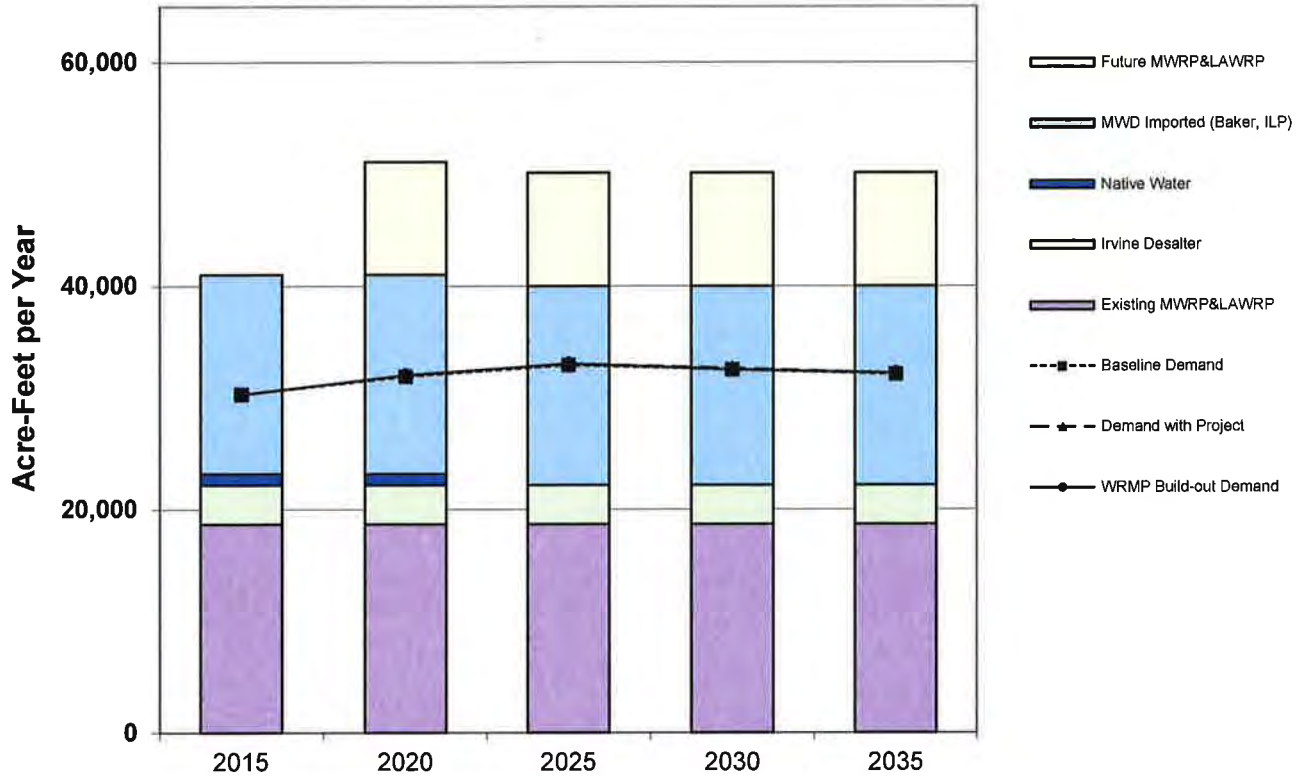
Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2015	2020	2025	2030	2035
<u>Current Nonpotable Supplies</u>					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	3,000	-	-	-	-
Maximum Supply Capability	42,997	50,097	50,097	50,097	50,097
Baseline Demand	28,303	29,814	30,765	30,380	29,992
Demand with Project	28,303	29,903	30,854	30,469	30,081
WRMP Build-out Demand	28,303	29,903	30,854	30,380	30,081
Reserve Supply with Project	14,694	20,193	19,243	19,717	20,015

Note: Downward trend reflects reduction in agricultural use over time.
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.
 MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

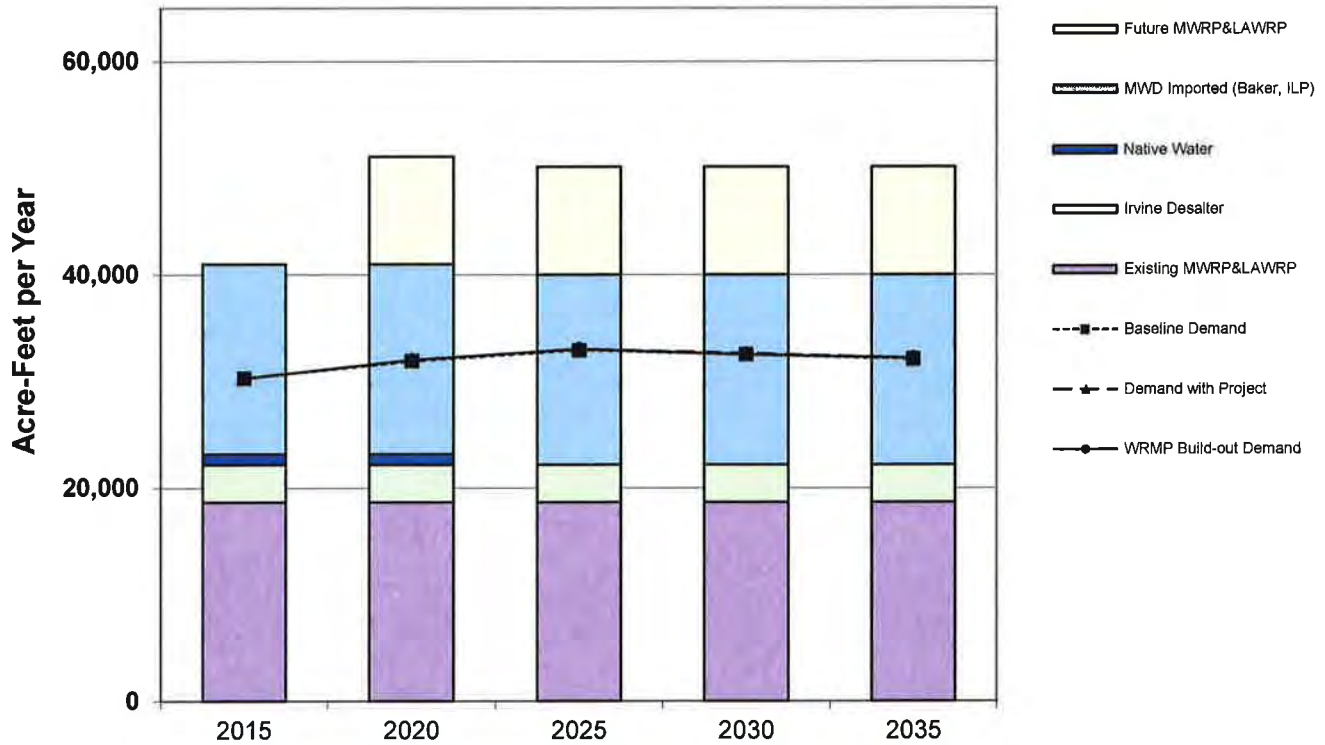
**Figure 6
IRWD Single Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2035
Current Nonpotable Supplies					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	1,000	1,000	-	-	-
Maximum Supply Capability	40,997	51,097	50,097	50,097	50,097
Baseline Demand	30,284	31,901	32,919	32,507	32,092
Demand with Project	30,284	31,997	33,014	32,602	32,187
WRMP Build-out Demand	30,284	31,997	33,014	32,507	32,187
Reserve Supply with Project	10,713	19,100	17,083	17,495	17,910

Note: Downward trend reflects reduction in agricultural use over time.
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.
 MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

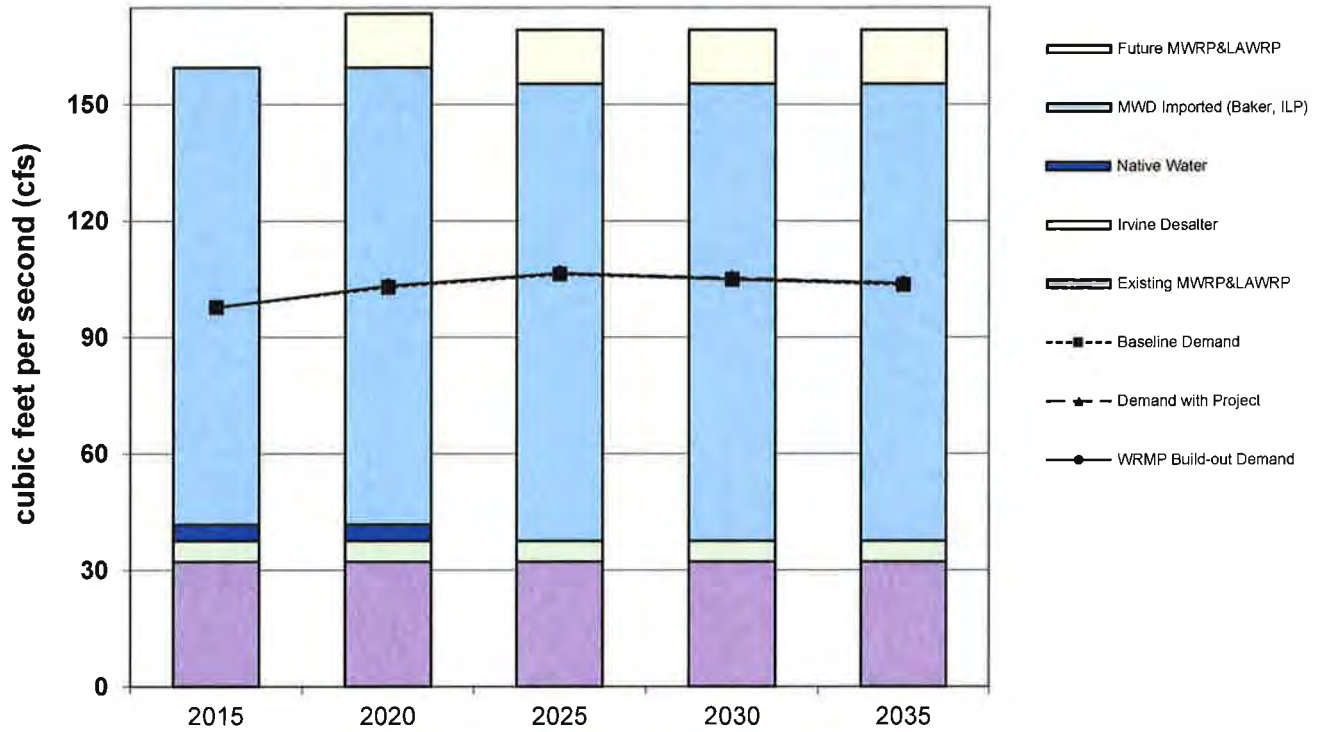
**Figure 7
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2015	2020	2025	2030	2035
Current Nonpotable Supplies					
Existing MWRP&LAWRP	18,657	18,657	18,657	18,657	18,657
Future MWRP&LAWRP	-	10,100	10,100	10,100	10,100
MWD Imported (Baker, ILP)	17,826	17,826	17,826	17,826	17,826
Irvine Desalter	3,514	3,514	3,514	3,514	3,514
Native Water	1,000	1,000	-	-	-
Maximum Supply Capability	40,997	51,097	50,097	50,097	50,097
Baseline Demand	30,215	31,870	32,838	32,415	31,988
Demand with Project	30,215	31,997	33,014	32,602	32,187
WRMP Build-out Demand	30,215	31,997	33,014	32,415	32,187
Reserve Supply with Project	10,781	19,100	17,083	17,495	17,910

Note: Downward trend reflects reduction in agricultural use over time.
 Native water will be treated to potable through the Baker Water Treatment Plant after 2016.
 MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

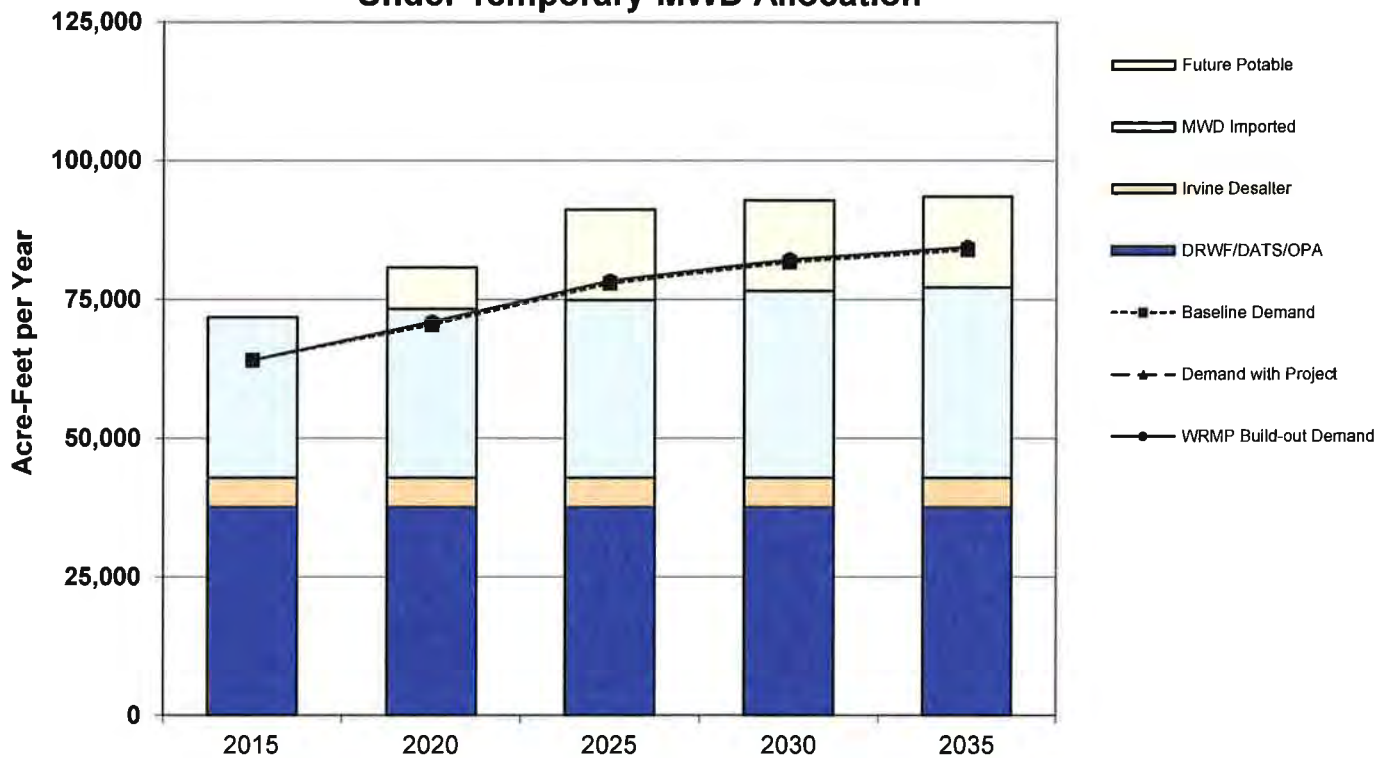
**Figure 8
IRWD Maximum-Dry Supply & Demand - Nonpotable Water**



(in cfs)	2015	2020	2025	2030	2035
Current Nonpotable Supplies					
Existing MWRP&LAWRP	32.2	32.2	32.2	32.2	32.2
Future MWRP&LAWRP	-	14.0	14.0	14.0	14.0
MWD Imported (Baker, ILP)	117.7	117.7	117.7	117.7	117.7
Irvine Desalter	5.4	5.4	5.4	5.4	5.4
Native Water	4.2	4.2	-	-	-
Maximum Supply Capability	159.5	173.4	169.2	169.2	169.2
Baseline Demand	97.7	102.9	106.2	104.9	103.6
Demand with Project	97.7	103.3	106.5	105.2	103.9
WRMP Build-out Demand	97.7	103.3	106.5	104.9	103.9
Reserve Supply with Project	61.7	70.2	62.7	64.3	65.4

Note: Downward trend reflects reduction in agricultural use over time.
Native water will be treated to potable through the Baker Water Treatment Plant after 2016.

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

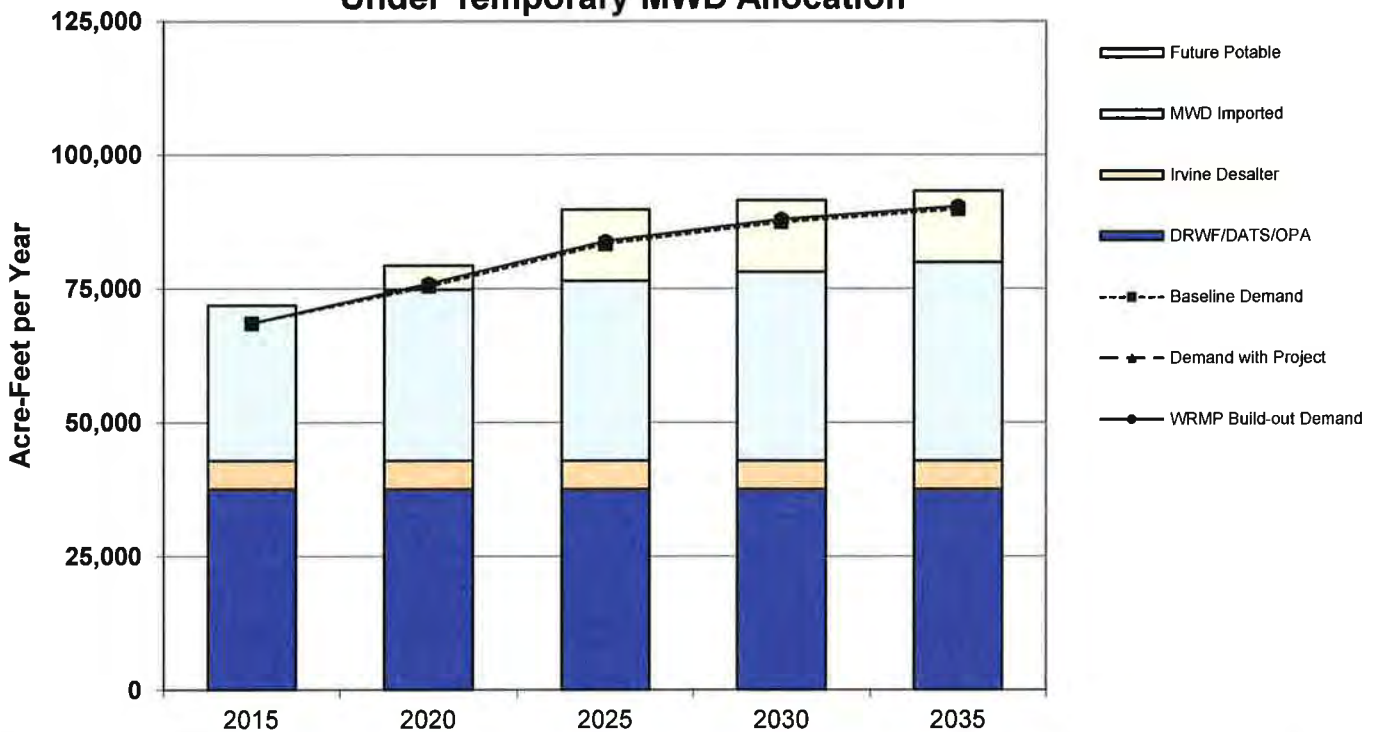


(in acre-feet per year)	2015	2020	2025	2030	2035
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	29,000	30,479	32,034	33,668	34,345
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Supplies Under Development					
Future Potable	-	7,469	16,352	16,352	16,352
Maximum Supply Capability	78,170	87,119	97,557	99,191	99,868
Baseline Demand	64,043	70,493	77,870	81,714	83,968
Demand with Project	64,043	70,970	78,347	82,191	84,444
WRMP Build-out Demand	64,043	70,970	78,347	82,191	84,444
Reserve Supply with Project	14,127	16,149	19,210	17,000	15,423

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 or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available MWD and native water only.

Figure 2a
IRWD Single Dry-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*

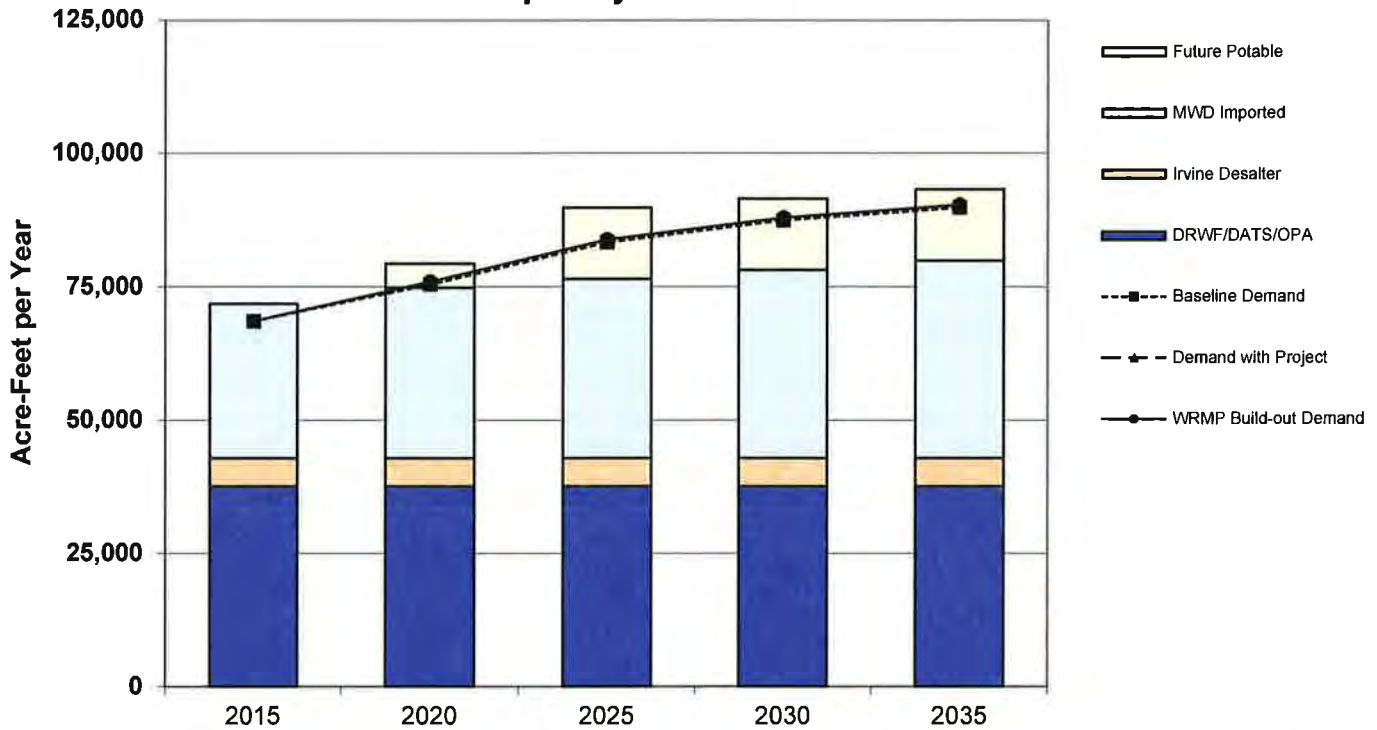


(in acre-feet per year)	2015	2020	2025	2030	2035
<u>Current Potable Supplies</u>					
MWD Imported (EOCF#2, AMP, OCF)	29,000	32,003	33,603	35,284	37,048
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
<u>Supplies Under Development</u>					
Future Potable	-	4,469	13,352	13,352	13,352
Maximum Supply Capability	78,170	85,643	96,126	97,806	99,571
Baseline Demand	68,526	75,428	83,321	87,434	89,846
Demand with Project	68,526	75,937	83,831	87,944	90,355
WRMP Build-out Demand	68,526	75,937	83,831	87,944	90,355
Reserve Supply with Project	9,644	9,705	12,295	9,862	9,215

Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan 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 or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available MWD and native water only.

Figure 3a
IRWD Multiple Dry-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*



(in acre-feet per year)	2015	2020	2025	2030	2035
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	29,000	32,003	33,603	35,284	37,048
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Supplies Under Development					
Future Potable	-	4,469	13,352	13,352	13,352
Maximum Supply Capability	78,170	85,643	96,126	97,806	99,571
Baseline Demand	68,526	75,428	83,321	87,434	89,846
Demand with Project	68,526	75,937	83,831	87,944	90,355
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Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan 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 or transfer water from IRWD's water bank. IRWD may also reduce demands by implementing shortage contingency measures as described in the UWMP. Under a MWD allocation, the Baker WTP supplies (under "Future Potable") will be limited to available MWD and native water only.

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 updated 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	914	
Deep Aquifer Treatment System-DATS	12.5	8,618	2
Wells 21 & 22	10.9	6,329	2
Irvine Desalter	9.5	5,309	3
			49,170
Total Potable Current Supplies	238.4		99,086
Nonpotable - Recycled Water			
MWRP (18 mgd)	23.9	17,340	4
LAWRP (5.5 mgd)	8.3	5,975	4
Future MWRP & LAWRP	20.0	14,450	5
			37,765
Nonpotable - Imported			
Baker Aqueduct	52.7	12,221	6
Irvine Lake Pipeline	65.0	9,000	7
			21,221
Nonpotable - Groundwater			
Irvine Desalter-Nonpotable	5.4	3,514	8
			3,514
Nonpotable Native			
Irvine Lake	4.2	3,048	9
			3,048
Total Nonpotable Current Supplies	179.5		65,548
Total Combined Current Supplies	417.9		164,635
Supplies Under Development			
Potable Supplies			
Well 106	2.0	1,118	
Well 53	5.6	3,658	
Future OPA Wells	8.0	5,225	
Baker Water Treatment Plant	10.5	6,858	
Wells 51 & 52	3.6	2,351	
Total Potable Under Development Supplies	29.7	19,211	19,211
Total Under Development	29.7		19,211
Total Supplies			
Potable Supplies	268.1		118,297
Nonpotable Supplies	179.5		65,548
Total Supplies (Current and Under Development)	447.6		183,846

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 4, 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 Future estimated MWRP & LAWRP recycled water production.

6 By 2020, Baker capacity will be allocated to Baker Water Treatment Plant (WTP) participants and IRWD will own 46.50 cfs in Baker Aqueduct after Baker WTP, of which 10.5 cfs will be for potable treatment. IRWD will have 35 cfs remaining capacity for non-potable uses. The nonpotable average use is based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 2.5 (see Footnote 8, page 25).

7 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.

8 Contract amount - See Nonpotable Supply-Groundwater (i) and (ii). Maximum day well capacity (cfs) is compatible with contract amount.

9 Based on 70+ years historical average of Santiago Creek Inflow into Irvine Lake. By 2020, native water will be treated through Baker WTP.

*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 - recycled	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:

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 1]. The well is operated within the Orange County Groundwater Basin. (See Assessment, Section 2(b) – POTABLE SUPPLY – GROUNDWATER.)

Wells 21 and 22 (currently available): IRWD completed construction of treatment facilities, pipelines and wellhead facilities for Wells 21 and 22. Water supplied through this project became available in 2013. The wells are operated within the Orange County Groundwater Basin. (See Assessment, Section 2(b) – POTABLE SUPPLY – GROUNDWATER.)

Baker Water Treatment Plant (currently available): IRWD has also begun construction of the Baker Water Treatment Plant project (the Baker WTP) in partnership with El Toro Water District, Mouton-Niguel Water District, Santa Margarita Water District and Trabuco Canyon Water District. The Baker WTP will be supplied with untreated imported water from MWD and native Irvine Lake water supply. IRWD will own 10.5 cfs of treatment capacity rights in the Baker WTP.⁴ (See Assessment, Section 2(b) – POTABLE SUPPLY – IMPORTED.)

(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. The Water Shortage Contingency Plan was further revised on October 13, 2014. Section 15 of the Rules and Regulations serves as IRWD’s “conservation ordinance”. As stated in IRWD’s Water Shortage Contingency Plan, use

⁴ The Baker WTP shall be supplied nonpotable imported water through the existing Baker Pipeline. IRWD’s existing Baker Pipeline capacity (See Assessment, Section 2(b)(1) NONPOTABLE SUPPLY – IMPORTED) shall be apportioned to the Baker WTP participants based on Baker WTP capacity ownership, and IRWD shall retain 10.5 cfs of pipeline capacity through the Baker WTP for potable supply and shall retain 36 cfs in Reach 1U of the Baker Pipeline capacity for nonpotable supply.

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 2-22)*. 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 and updated in 2014. 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: "Evaluation of Orange County Groundwater Basin Storage and Operational Strategy", as referenced in *2013-2014 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 recycled water expansion program is also shown as currently available in addition to its currently available recycled water supply from its own existing recycling program. The recycled 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 plans to complete construction of the Michelson Water Recycling Plant Phase 2 Capacity Expansion Project by the end of 2015. With this expansion, IRWD will increase its capacity to produce sufficient recycled water to meet the projected demand in the year 2035. Additional recycling 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*, pages 2-12 to 2-14)

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 include: additional transfers and storage agreements such as ICS Exchange, Agreements with CVWD, Additional Palo Verde Irrigation District Transfers, Arizona Programs – CAP, Hayfield Groundwater Extraction Project, Mojave Groundwater Storage Program, North of Delta/In-Delta Transfers, San Bernardino Valley Water MWD Central Feeder, Shasta Return, and Semitropic Agricultural Water Reuse. (2010 *RUWMP*, Sections 3.1, 3.2, and 3.3) See also MWD's 2010 *RUWMP*, Appendix A.3 Justifications for Supply Projections with respect to MWD's current and under development supplies.

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," "IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD," "Climate Change," "Catastrophic Supply Interruption Planning" and "Recent Actions Related to Drought Conditions."

In addition, as stated above, IRWD has developed water banking projects in Kern County, California which be called upon for delivery of supplemental banked water to IRWD, if needed, in response to shortage conditions or potential water supply interruptions.

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 No. 11881) and Baker WTP (PR No. 11747), IRWD adopted its fiscal year 2015-16 capital budget on June 8, 2015 (Resolution No. 2015-13), budgeting portions of the funds for such projects. (A copy is available from IRWD on request.) IRWD has approximately \$615.2 million (water) and \$784.8 million (wastewater) of unissued, voter-approved bond authorization. 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. 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.

The following information is added:

In addition the Orange County Water District (OCWD) reports listed in the Assessment Reference List, OCWD has also prepared a Long Term Facilities Plan ("LTFP") which was received by the OCWD Board in July 2009, and was last updated in November 2014. The LTFP Chapter 3 describes the efforts being undertaken by OCWD to eliminate long-term overdraft in the Orange County Groundwater Basin.

Sustainable Groundwater Management Act. Pursuant to the Sustainable Groundwater Management Act (SGMA), the DWR has designated the Orange County groundwater basin as a medium priority basin for purposes of groundwater management. By January 31, 2017, local groundwater producers must establish or designate an entity (referred to as a groundwater sustainability agency, or "GSA"), subject to DWR's approval, to manage each high and medium priority groundwater basin. The SGMA specifically calls for OCWD, which regulates the Orange County groundwater basin, to serve as the GSA for such basin.

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

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

Integrated Water Resources Plan Update, Metropolitan Water District of Southern California, July, 2004

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

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

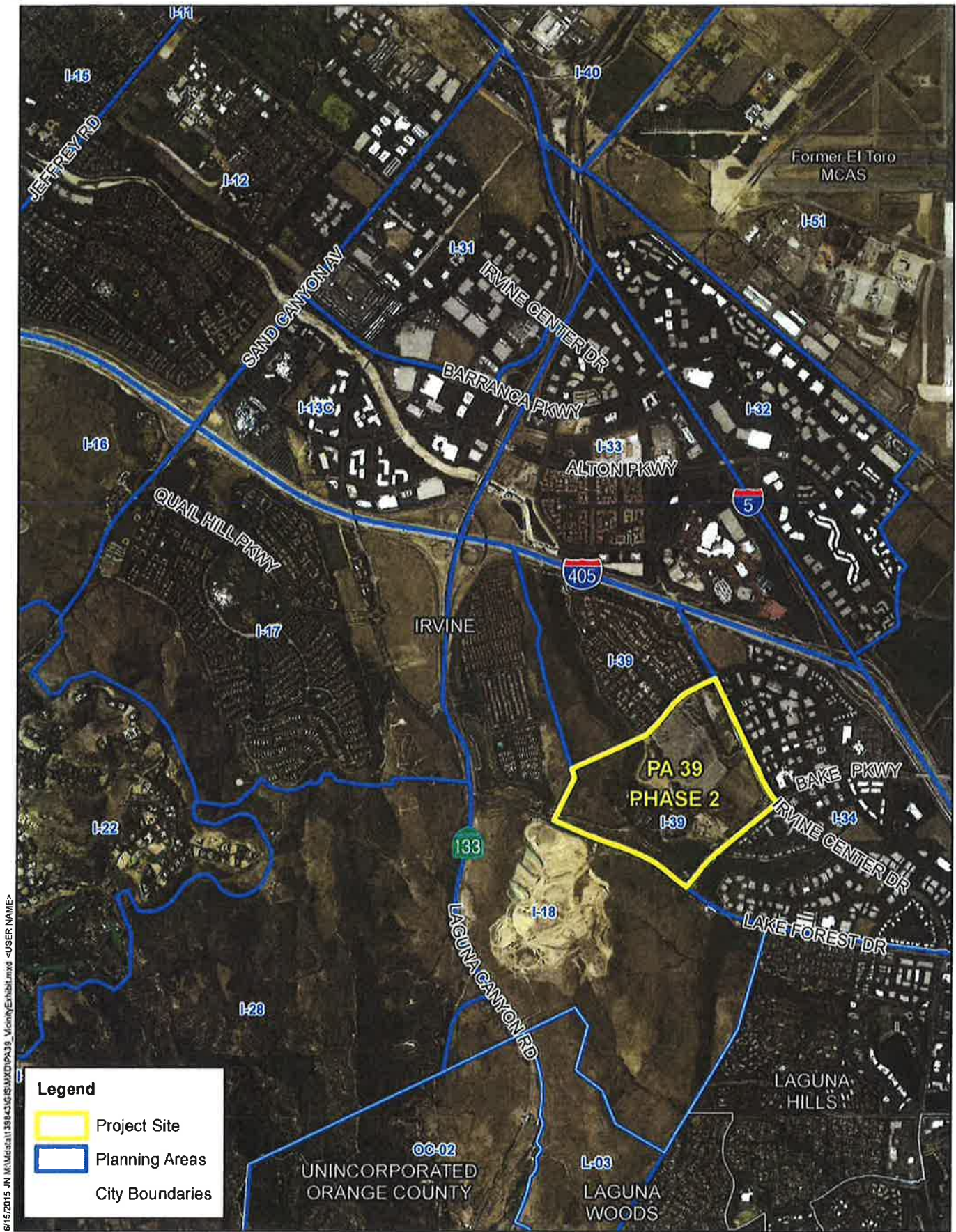
Long-Term Facilities Plan 2014 Update, Orange County Water District, November 2014

2013-14 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District, February 2015

Progress on Incorporating Climate Change into Management of California's Water Resources, California Department of Water Resources, July, 2006

Exhibit A

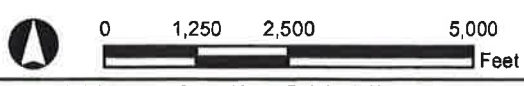
Depiction of Project Area



6/15/2015 11:38:45 AM (S:\MCD\PA39_Vicinity\Exhibit.mxd) <USER NAME>

Legend

- Project Site
- Planning Areas
- City Boundaries



Source: The Irvine Company, County of Orange, Eagle Aerial 2014

PLANNING AREA 39 PHASE 2 • VTTM 17759

Local Vicinity

Exhibit B

Uses Included in Project



June 15, 2015

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 Irvine hereby requests verification of the availability of a sufficient water supply for the below-described project. Under Government Code §66473.7(b)(1), written verification of the availability of a sufficient water supply is required in conjunction with or prior to the approval of any tentative map that includes a residential subdivision of more than 500 dwelling units, subject to certain exemptions.

The City has determined that the subject project (1) includes a subdivision meeting the criteria requiring verification of availability of sufficient water supply 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: PA 39 Phase 2 Vesting Tentative Tract Map 17759

Location of project: City of Irvine: Planning Area 39

Planning Area(s): PA 39
(See attached exhibits and reduced copy of VTTM 17759)

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 11/28/05: WSA for PA 18/39/33/34 GPA/ZC EIR (SCH#2005081099)

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.* 00611282-PTT Tentative Tract No.* 17759
 Verification is being requested prior to tentative map application (Government Code §66473.7(1) (Indicate next project approval sought: _____))

(*A copy of the tentative map application including the proposed subdivision was sent to IRWD on: June 15, 2015, (Government Code §66455.3))

Type of development included in the project:

- Residential: No. of dwelling units: 1,950
- 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: Elementary School, Daycare Facility, Parks, and Cell Tower Facility

Total acreage of project: 187.9 acres Gross VTTM 17759

Acreage devoted to landscape: 56.2 acres
 Greenbelt N/A golf course N/A parks: 16.6 acres
 Agriculture N/A other landscaped areas N/A

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 N/A

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 IRVINE
 By: Stacy Tran, Senior Planner, Community Development Department



REQUEST RECEIVED:

Date: June 17, 2015
 By: Kellie Weller
 Irvine Ranch Water District

REQUEST COMPLETE:

Date: June 30, 2015
 By: Kellie Weller
 Irvine Ranch Water District

Project Description

The proposed Vesting Tentative Tract Map is part of the City of Irvine's (City) Planning Area (PA) 39 (Los Olivos), in Orange County, California. Refer to Exhibit 1, which depicts the regional location of the project, and Exhibit 2, which depicts its local vicinity. As shown on Exhibit 2, PA 39, Phase 2 is located southwest of Irvine Center Drive, south of Interstate (I) 405, northwest of Bake Parkway and northeast of Lake Forest Drive.

The proposed development will include 1,950 residential units on 81.5 acres; public and private parks totaling 16.6 acres; a 10 acre school site, a daycare facility on 2.2 acres and small cell tower facility on a less than 0.1 acre site. In addition 61.5 acres will be devoted to landscape, water quality basin, streets, and open space. A reduced sized copy of the Vesting Tentative Tract is included as reference.

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 2010.

In addition to the WRMP and the 2005 UWMP mentioned above, other supporting documentation referenced herein is found in Section 6 of this assessment.

Due to the number of contracts, statutes and other documents comprising IRWD's written proof of entitlement to its water supplies, in lieu of attachment of such items, they are identified by title and summarized in Section 2(b) of this assessment (written contracts/proof of entitlement). Copies of the summarized items have been provided to the City and can be obtained from IRWD.

Assessment Methodology

Water use factors; dry-year increases. IRWD employs water use factors to enable it to assign water demands to the various land use types and aggregate the demands. The water use factors are based on average water use and incorporate the effect of IRWD's tiered-rate conservation pricing and its other water conservation programs. The factors are derived from historical usage (billing data) and a detailed review of water use factors within the IRWD service areas conducted as a part of the WRMP. Water demands also reflect normal hydrologic conditions (precipitation). Lower levels of precipitation and higher temperatures will result in higher water demands, due primarily to the need for additional water for irrigation. To reflect this, base (normal) WRMP water demands have been increased 7% in the assessment during both "single-dry" and "multiple-dry" years. This is consistent with IRWD's 2005 UWMP and historical regional demand variation as documented in the Metropolitan Water District of Southern California's ("MWD's") Integrated Resources Plan (1996) (Volume 1, page 2-10).

Planning horizon. For consistency with IRWD's WRMP, the assessment reviews demands and supplies through the year 2025, 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 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.

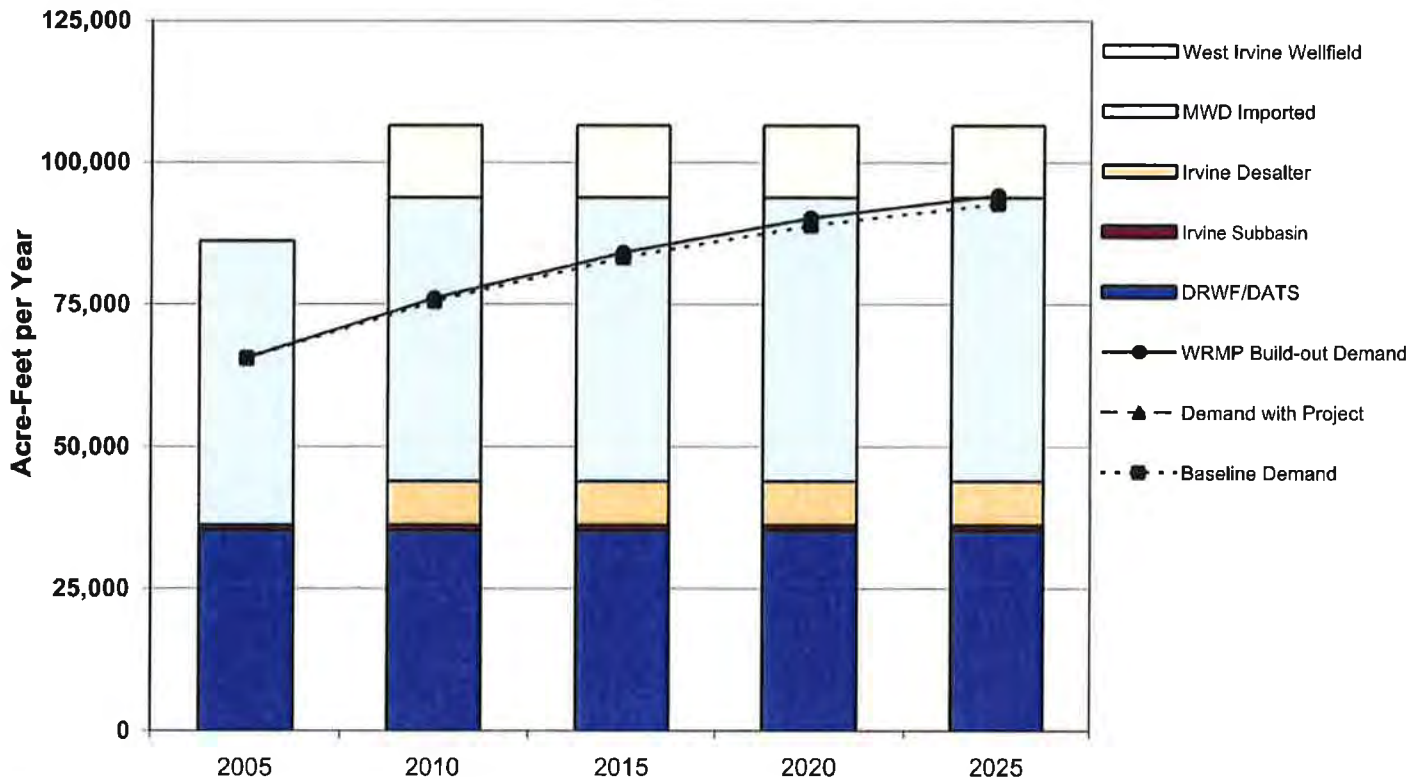
- Information provided by MWD, as the imported water supplier, concerning the adequacy of its regional supplies, summarized herein, demonstrates MWD's inclusion of reserves in its regional supply assessments.
- Although groundwater supply amounts shown in this assessment assume production levels within 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):

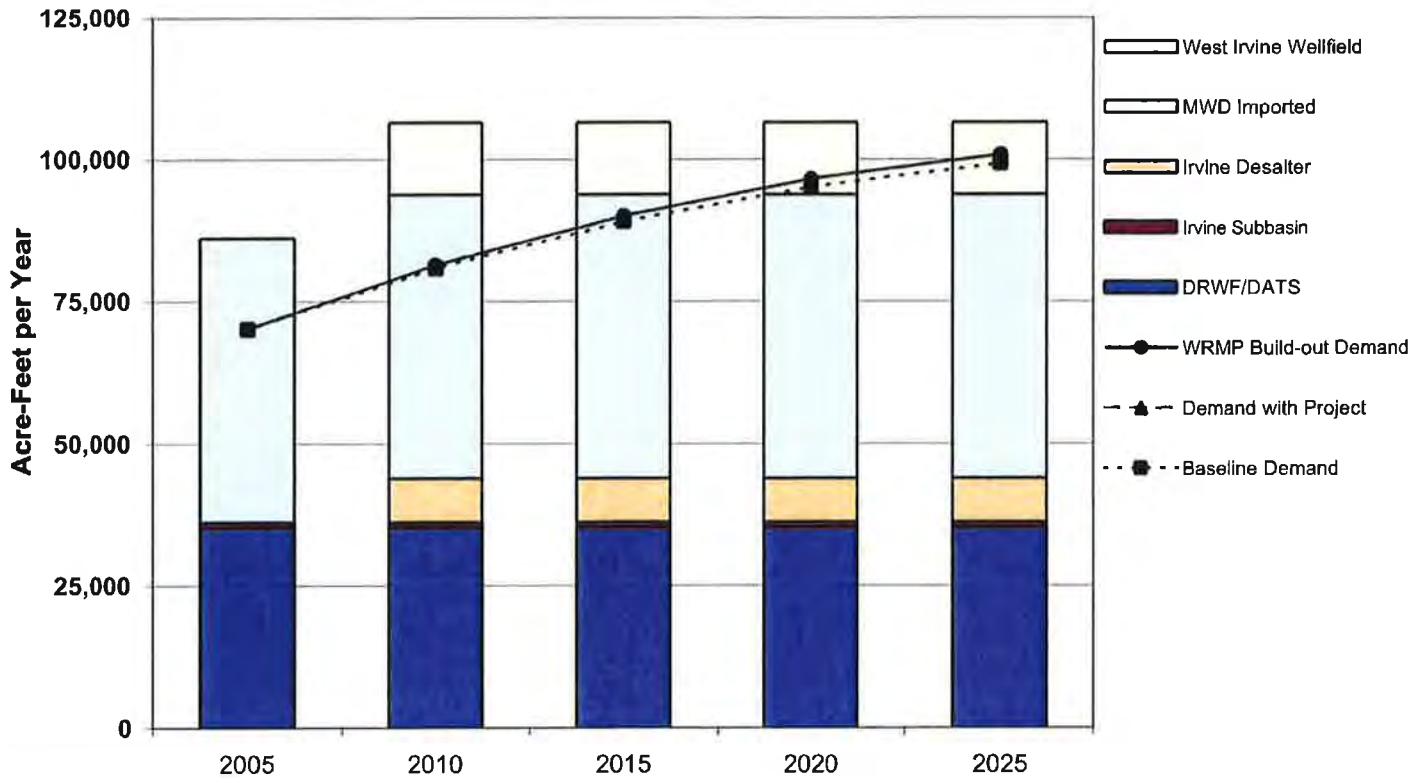
**Figure 1
IRWD Normal-Year Supply & Demand - Potable Water**



(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	1,000	1,000	1,000	1,000	1,000
Irvine Desalter	-	7,694	7,694	7,694	7,694
Supplies Under Development					
West Irvine Wellfield	-	12,700	12,700	12,700	12,700
Maximum Supply Capability	86,116	106,510	106,510	106,510	106,510
Baseline Demand	65,527	75,577	83,240	88,929	92,776
Demand with Project	65,604	76,072	84,132	90,219	94,233
WRMP Build-out Demand	65,604	76,072	84,132	90,219	94,233
Reserve Supply with Project	20,512	30,438	22,378	16,291	12,277

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).

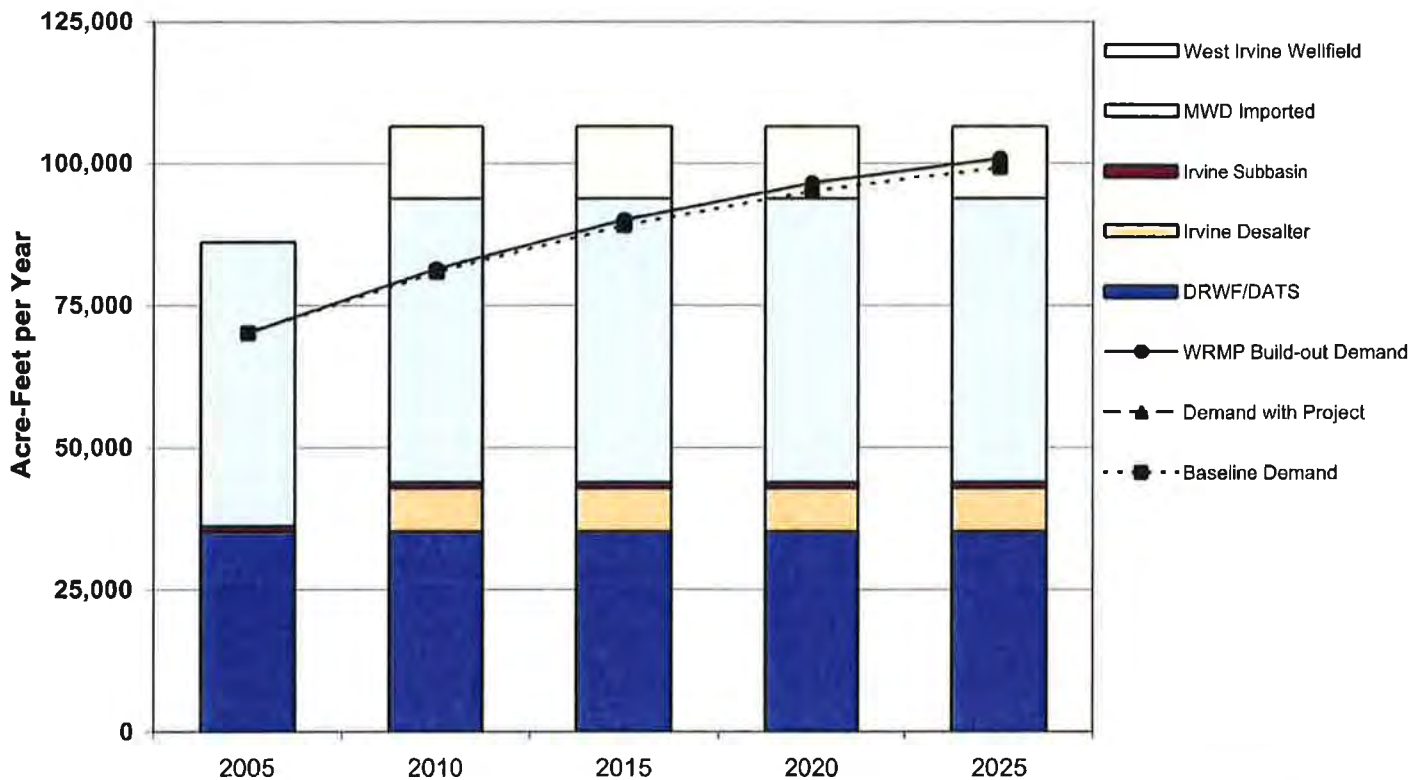
**Figure 2
IRWD Single Dry-Year Supply & Demand - Potable Water**



(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	1,000	1,000	1,000	1,000	1,000
Irvine Desalter	-	7,694	7,694	7,694	7,694
Supplies Under Development					
West Irvine Wellfield	-	12,700	12,700	12,700	12,700
Maximum Supply Capability	86,116	106,510	106,510	106,510	106,510
Baseline Demand	70,114	80,868	89,066	95,154	99,270
Demand with Project	70,196	81,397	90,021	96,534	100,829
WRMP Build-out Demand	70,196	81,397	90,021	96,534	100,829
Reserve Supply with Project	15,919	25,113	16,489	9,976	5,680

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).

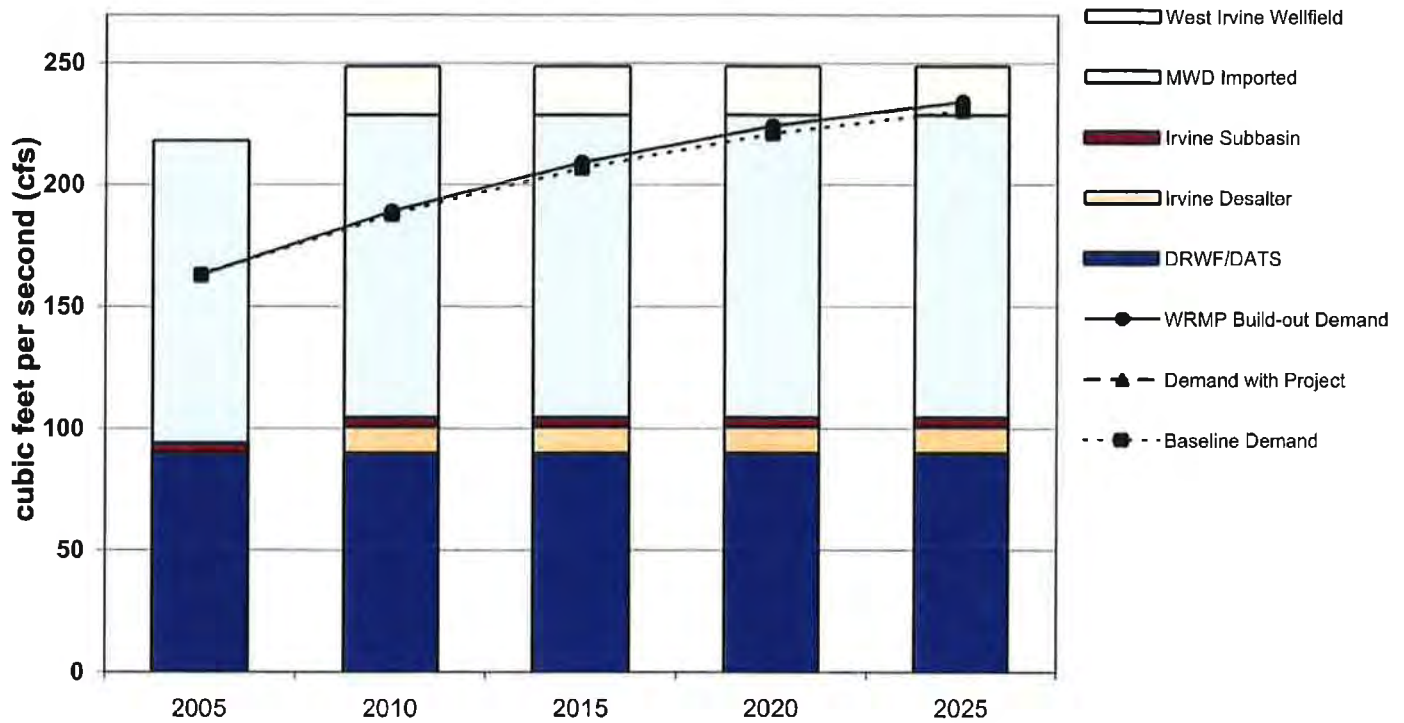
**Figure 3
IRWD Multiple Dry-Year Supply & Demand - Potable Water**



(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	1,000	1,000	1,000	1,000	1,000
Irvine Desalter	-	7,694	7,694	7,694	7,694
Supplies Under Development					
West Irvine Wellfield	-	12,700	12,700	12,700	12,700
Maximum Supply Capability	86,116	106,510	106,510	106,510	106,510
Baseline Demand	70,114	80,868	89,066	95,154	99,270
Demand with Project	70,196	81,397	90,021	96,534	100,829
WRMP Build-out Demand	70,196	81,397	90,021	96,534	100,829
Reserve Supply with Project	15,919	25,113	16,489	9,976	5,680

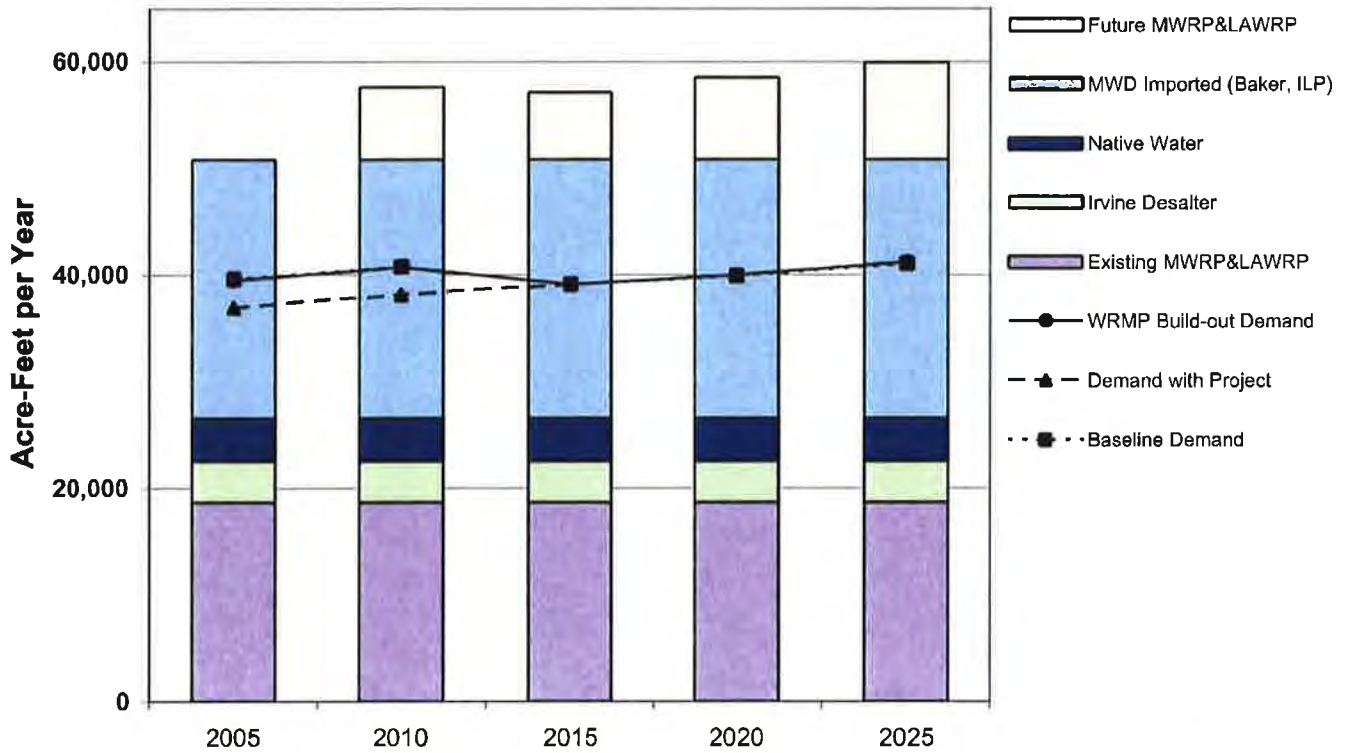
Notes: Supplies identical to Normal-Year based on Metropolitan's Regional Urban Water Management Plan (11/8/05) and usage of groundwater under drought conditions (OCWD Master Plan). Demands increased 7% from Normal-Year. By agreement, IRWD is required to count the production from the Irvine Subbasin in calculating available supplies for TIC developments (see Potable Supply-Groundwater).

**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	4.0	4.0	4.0	4.0	4.0
Irvine Desalter	-	10.6	10.6	10.6	10.6
Supplies Under Development					
West Irvine Wellfield	-	20.0	20.0	20.0	20.0
Maximum Supply Capability	218.1	248.7	248.7	248.7	248.7
Baseline Demand	162.9	187.9	206.9	221.1	230.7
Demand with Project	163.1	189.1	209.2	224.3	234.3
WRMP Build-out Demand	163.1	189.1	209.2	224.3	234.3
Reserve Supply with Project	55.0	59.6	39.6	24.4	14.4

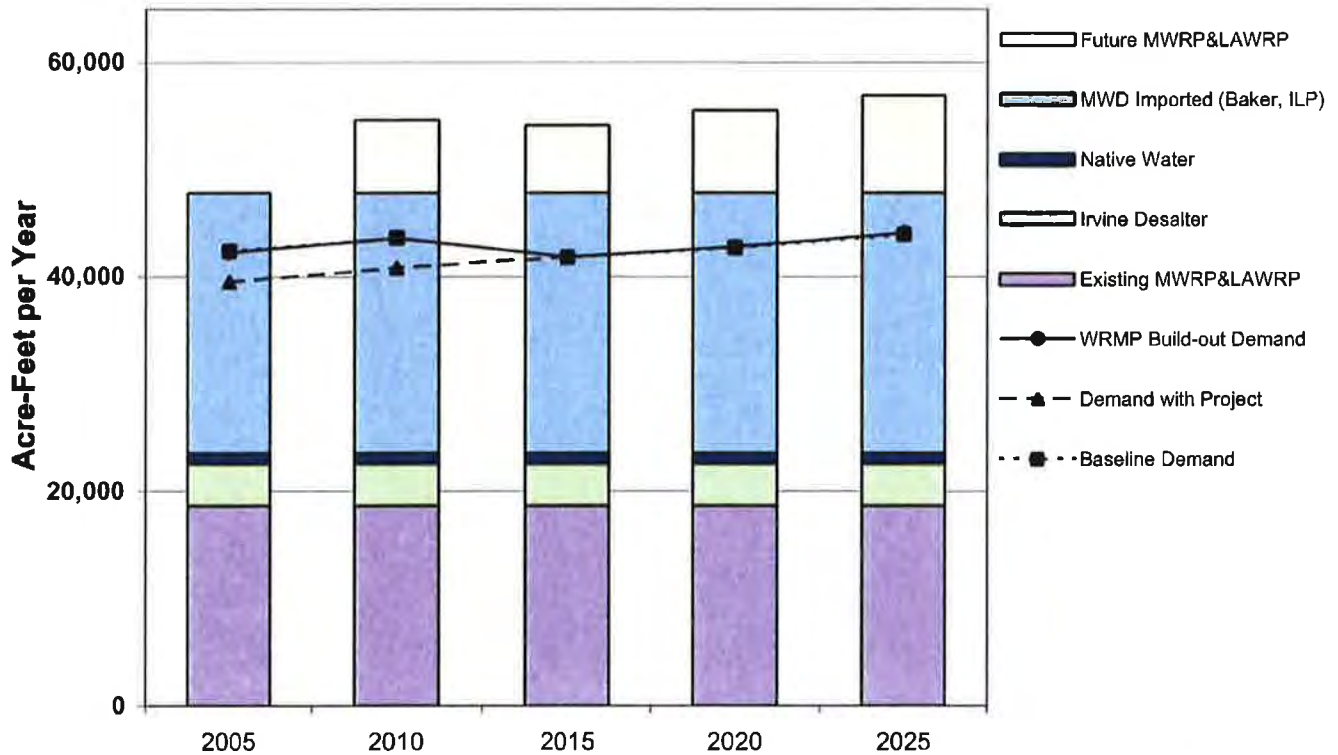
**Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water**



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Nonpotable Supplies</u>					
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	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	-	6,794	6,311	7,687	9,107
Maximum Supply Capability	50,817	57,611	57,128	58,504	59,924
Baseline Demand	39,609	40,770	39,086	39,903	41,061
Demand with Project	36,944	38,162	39,109	39,989	41,197
WRMP Build-out Demand	39,511	40,729	39,109	39,989	41,197
Reserve Supply with Project	13,873	19,448	18,019	18,515	18,726

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

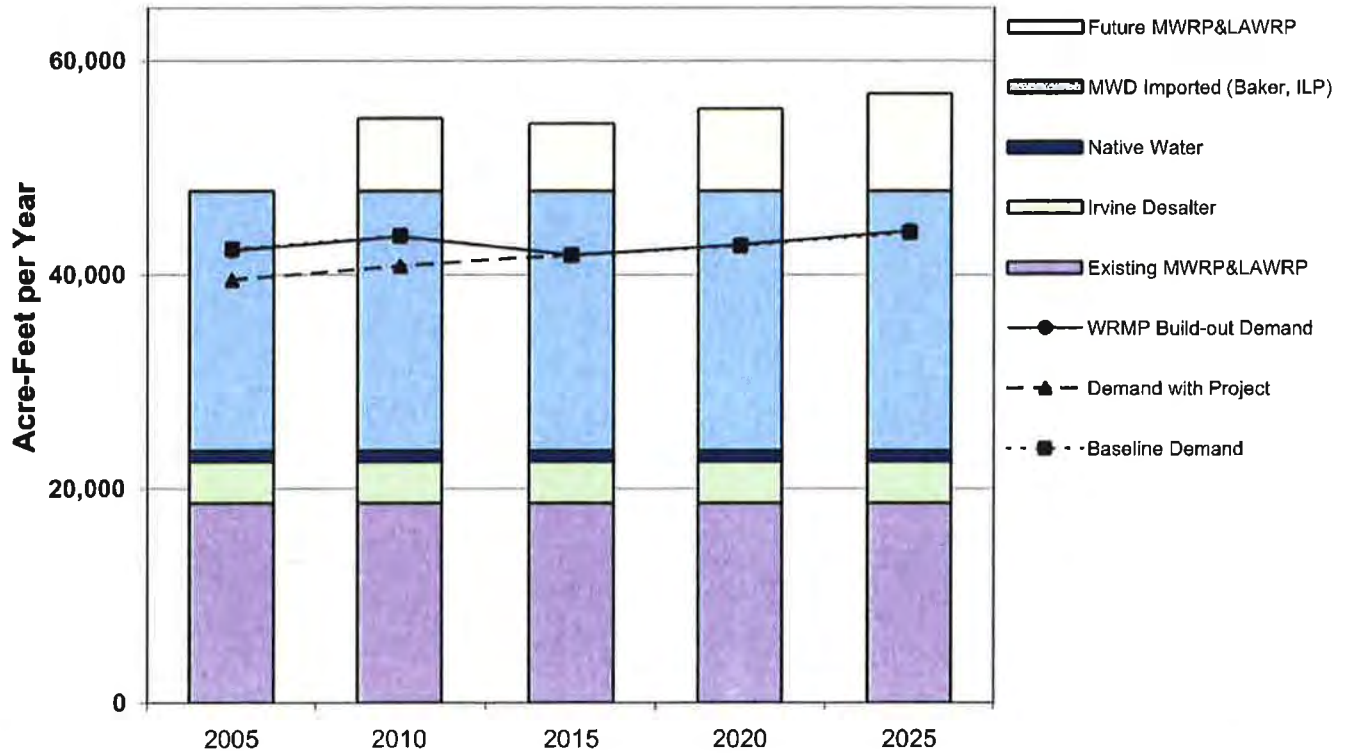
Figure 6
IRWD Single Dry-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Nonpotable Supplies</u>					
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	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	-	6,794	6,311	7,687	9,107
Maximum Supply Capability	47,817	54,611	54,128	55,504	56,924
Baseline Demand	42,381	43,623	41,822	42,696	43,935
Demand with Project	39,530	40,834	41,847	42,788	44,081
WRMP Build-out Demand	42,277	43,580	41,847	42,788	44,081
Reserve Supply with Project	8,287	13,777	12,281	12,716	12,843

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

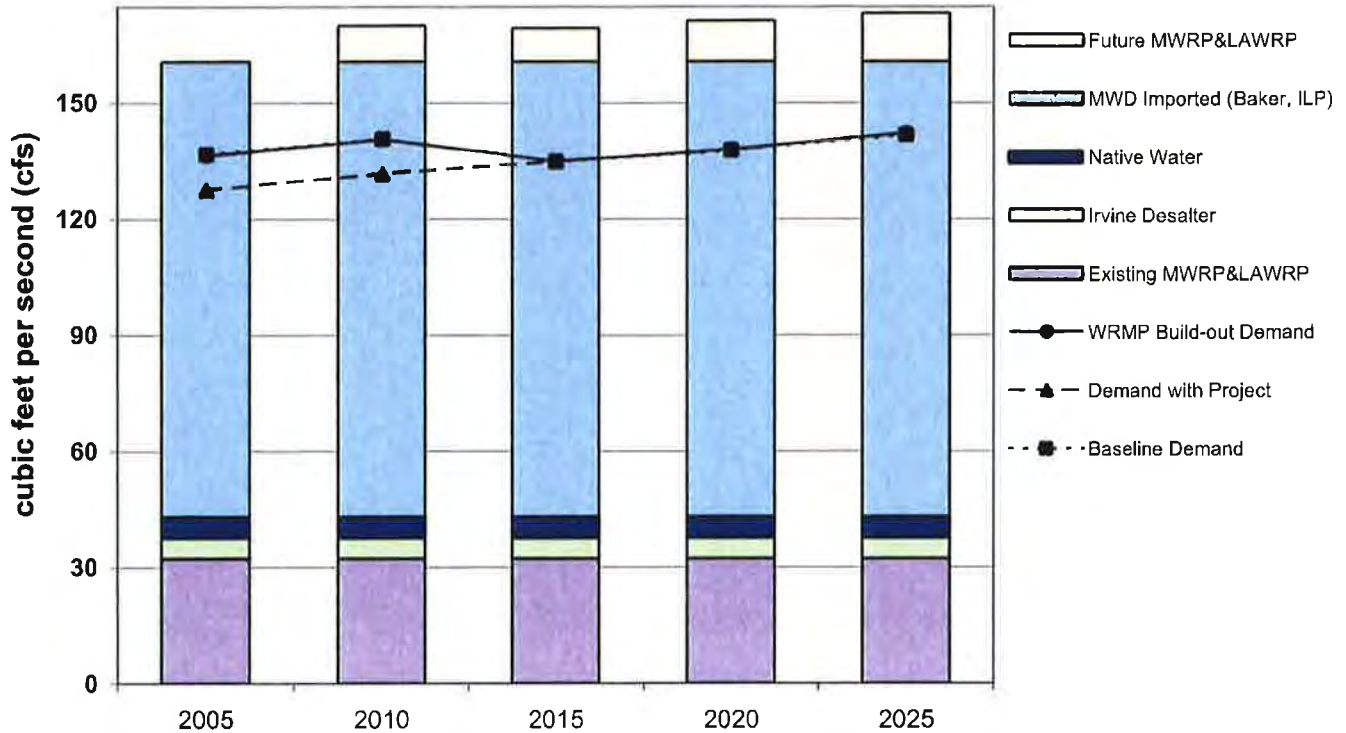
Figure 7
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2005	2010	2015	2020	2025
<u>Current Nonpotable Supplies</u>					
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	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	-	6,794	6,311	7,687	9,107
Maximum Supply Capability	47,817	54,611	54,128	55,504	56,924
Baseline Demand	42,381	43,623	41,822	42,696	43,935
Demand with Project	39,530	40,834	41,847	42,788	44,081
WRMP Build-out Demand	42,277	43,580	41,847	42,788	44,081
Reserve Supply with Project	8,287	13,777	12,281	12,716	12,843

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	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
Supplies Under Development					
Future MWRP&LAWRP	-	9.4	8.7	10.6	12.6
Maximum Supply Capability	160.8	170.2	169.5	171.4	173.4
Baseline Demand	136.8	140.8	135.0	137.8	141.8
Demand with Project	127.6	131.8	135.0	138.1	142.3
WRMP Build-out Demand	136.4	140.6	135.0	138.1	142.3
Reserve Supply with Project	33.2	38.4	34.5	33.3	31.1

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	10.6	7,694	3
Irvine Subbasin	4.0	1,000	3
Total Potable Current Supplies	228.7		93,810
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	5.4	3,898	7
Nonpotable Native			
Irvine Lake	5.5	4,000	8
Total Nonpotable Current Supplies	160.8		55,475
Total Combined Current Supplies	389.5		149,285
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	248.7		106,510
Nonpotable Supplies	180.8		69,925
Total Supplies	429.5		176,435

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 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 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 & 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 19 (b)(1)(iii))

(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 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 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 MWRP site to produce sufficient reclaimed water to meet the projected demand in the year 2025 and is currently undergoing CEQA compliance on the increase. (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 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.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. In its most recently adopted Regional Urban Water Management Plan ("RUWMP") (November 2005), MWD has extended its planning timeframe out through 2030 to ensure that MWD's 2005 RUWMP may be used as a source document for meeting requirements for sufficient supplies. In addition, the RUWMP includes a "Justification for Supplies" appendix that details the planning, legal, financial, and regulatory basis for including each source of supply in the plan. The RUWMP summarizes MWD's planning initiatives over the past ten years, which includes the Integrated Resources Plan (IRP), the IRP Update, the Water Surplus and Drought Management Plan, Strategic Plan and Rate Structure. The reliability analysis in MWD's IRP Update (July 2004) showed that MWD can maintain reliable supplies under the conditions that have existed in past dry periods throughout the period 2010 through 2025. The RUWMP includes tables that show the region can provide reliable supplies under both the single driest year (1977) and multiple dry years (1990-92) through 2030. MWD has also identified buffer supplies, including additional State Water Project groundwater storage and transfers that could serve to supply the additional water needed.

It is anticipated that MWD will revise its regional supply availability analysis 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 RUWMP. IRWD has not been made aware of any significant changes that would adversely affect those conclusions.

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 2005 UWMP, section III-3.

(b) Description of the groundwater basin(s) from which the Project will be supplied:

The Orange County Groundwater Basin ("Basin") is described at pages 3-1 through 3-14 of the OCWD Master Plan Report, dated April, 1999 ("MPR")⁷. 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

⁷ OCWD is currently preparing a Long Term Facilities Plan, which is expected to provide updated information.

production from the basin during normal rainfall and drought periods. (Source: 2003-2004 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 ⁸
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
2001	20,377	1,687	3,967	543

(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

⁸ 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.

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 ⁹	W Irvine ¹⁰	Subbasin ¹¹	IDP (Potable)	IDP (Nonpotable)
2005	35,200	0	4,800	0	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.¹²

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.

⁹ 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.

¹⁰ Under development.

¹¹ Subbasin potable water production (other than Irvine Desalter Project). Amounts shown are available as potable-quality production, without treatment.

¹² OCWD adopted a basin production percentage of 64% for 2005-06 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.

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: _____ . Check all of the following that apply:**

- Changes in the Project have substantially increased water demand.
- Changes in circumstances or conditions have substantially affected IRWD's ability to provide a sufficient water supply for the Project.
- Significant new information has become available which was not known and could not have been known at the date of the prior Water Supply Assessment.

6. References

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

2005 Urban Water Management Plan, Irvine Ranch Water District/Los Alisos Water District, December, 2005

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

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

Southern California's Integrated Resources Plan Update, Metropolitan Water District of Southern California, July, 2004

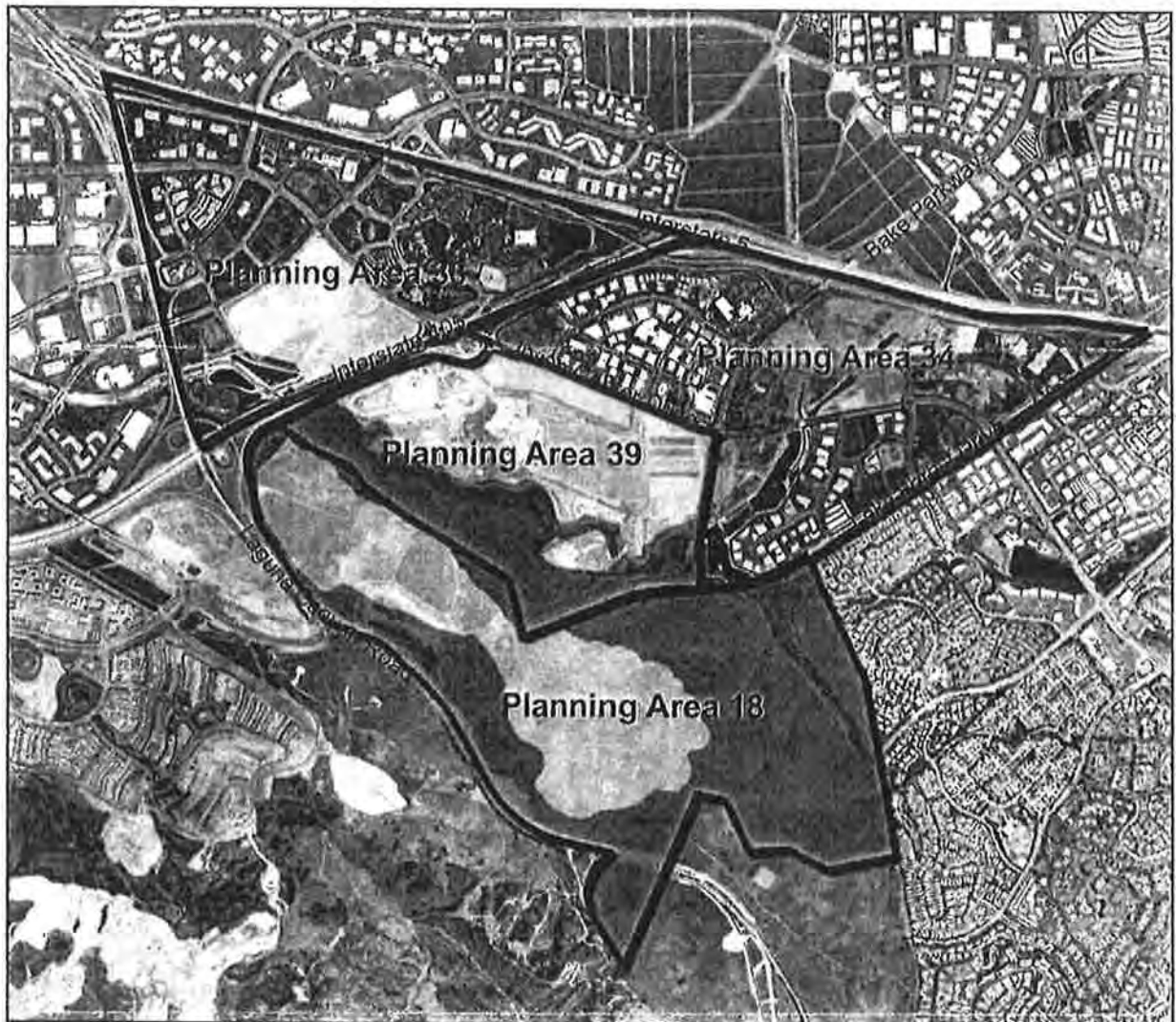
Master Plan Report, Orange County Water District, April, 1999

2003-2004 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District

Exhibit A

Depiction of Project Area

Proposed Land Use



 Proposed General Plan Amendment Diagram

This exhibit shows the proposed land use changes in Planning Areas 18 and 39. Land uses are residential and open space.

The western portion of Planning Area 39 is now part of Planning Area 18. The eastern two-thirds portion of Planning Area 39 will remain Planning Area 39. The shared boundary between Planning Area 18 and Planning Area 39 is aligned with the major ridgeline visible from the I-5 and I-405 highways.

The revised Planning Area 18 boundary will extend northward from its current location, along Laguna Canyon Road, span the Lake Forest Drive extension to the I-405 and SR-133 interchange, turn south to follow the ridgeline separating the revised Planning Area 39 boundary and San Diego Creek.

Planning Area 33 and 34 boundaries and land use designation will remain unchanged. Residential development in the area will be allowed as a conditionally permitted use.

LEGEND

-  Planning Area
-  Residential
-  Open Space

Exhibit B

Uses Included in Project



Community Development Department

www.ci.irvine.ca.us

July 7, 2005

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

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

The City of Irvine hereby requests an assessment of water supply availability for the below-described project. The City has determined that the project is a "project" as defined in Water Code §10912, and has determined that an environmental impact report is required for the project. Please note that the reduction of square footage in Planning Areas 33 and 34 has changed.

Proposed Project Information

Project Title: PA 18/39/33/34 General Plan Amendment, Zone Change and EIR

Location of project: See attached exhibits and narrative.

- (For projects requiring a new assessment under Water Code §10910 (h).) Previous Water Supply Assessment including this project was prepared on: _____. This application requests a new Water Supply Assessment, due to the following (check all that apply):
- Changes in the project have substantially increased water demand
- Changes in circumstances or conditions have substantially affected IRWD's ability to provide a sufficient water supply for the project
- Significant new information has become available which was not known and could not have been known at the date of the prior Water Supply Assessment

Type of Development:

- Residential: No. of dwelling units: 4,450 (PA 18 and 39) plus potential for an additional 1,600 (PA 33).
- Shopping center or business: No. of employees _____ Sq. ft. of floor space N/A
- Commercial office: No. of employees _____ Sq. ft. of floor space a REDUCTION of 648 square feet in PA 33 for each residential unit developed in PA 33.
- Hotel or motel: No. of rooms N/A

X *Industrial, manufacturing, processing or industrial park:* No. of employees _____
No. of acres _____ Sq. ft. of floor space a REDUCTION of 2,340,500 square feet in PA 34.

Mixed use (check and complete all above that apply) N/A

Other: N/A

Total acreage of project: Development Acres: 127 (PA18); 176 (PA 39). No change in existing acreage in PA 33 and PA 34 only a reallocation of development intensity.

Open Space Acres: 400 acres (PA18); 120 (PA 39)

Acreage devoted to landscape:

Greenbelt N/A golf course N/A parks Approx. 21 acres
Agriculture None other landscaped areas 110 acres slopes/fuel modification zones.

Number of schools: Undetermined at this time. Number of public facilities Undetermined at this time.

Other factors or uses that would affect the quantity of water needed, such as peak flow requirements or potential uses to be added to the project to reduce or mitigate environmental impacts:
N/A

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

PA 18 -- Undeveloped.

PA 39 -- Commercial recreation including Verizon Amphitheater, Wild Rivers Water Park, and the former Lion Country Safari theme park.

PA 33 -- Mass graded and developed sites with backbone infrastructure in place.

PA 34 -- Mass graded and developed sites with backbone infrastructure in place.

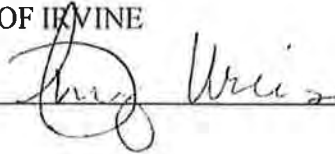
Is the project included in the existing General Plan? See attached. If no, describe the existing General Plan Designation See attached

The City acknowledges that IRWD's assessment will be based on the information hereby provided to IRWD concerning the project. If it is necessary for corrected or additional information to be submitted to enable IRWD to complete the assessment, the request will be considered incomplete until IRWD's receipt of the corrected or additional information. If the project, circumstances or conditions change or new information becomes available after the issuance of a Water Supply Assessment, the Water Supply Assessment may no longer be valid. The City will request a new Water Supply Assessment if it determines that one is required.

The City acknowledges that the Water Supply Assessment shall not constitute a "will-serve" or in any way entitle the project applicant to service or to any right, priority or allocation in any supply, capacity or facility, and that the issuance of the Water Supply Assessment shall not affect IRWD's obligation to provide service to its existing customers or any potential future customers including the project applicant. In order to receive service, the project applicant shall be required to file a completed Application(s) for Service and Agreement with the Irvine Ranch Water District on IRWD's forms, together with all fees and charges, plans and specifications, bonds and conveyance of necessary easements, and meet all other requirement as specified therein.

CITY OF IRVINE

By: _____



REQUEST RECEIVED:

Date: _____

8/29/05

By: _____


Irvine Ranch Water District

REQUEST COMPLETE:

Date: _____


9/8/05

By: _____


Irvine Ranch Water District

General Plan Land Use



 *General Plan Land Use Map*

LEGEND

-  **Planning Area**
-  **Residential**
-  **Open Space**
-  **Commerical Recreation**
-  **Reservoir**

This exhibit shows the current General Plan designated land uses for Planning Areas 18, 39, 33, and 34. Land uses include commercial recreation, residential, and open space.

The planning area boundaries are depicted by red lines. Planning Area 33 is the most northern planning area, Planning area 34 is to the east. Planning Area 39 is centrally located and Planning Area 18 is the most southern of the properties. Changes to these boundaries are explained in the following exhibit.

PA 18/33/34/39

PROJECT NARRATIVE:

Planning Area 18

Planning Area (PA) 18 is located in the City of Irvine, in Orange County California. As part of the proposed project the current boundary of PA 18 would be modified to include the western portion of PA 39. PA 18, as modified, is generally bound by State Route 133 (SR-133) to the west; Interstate 405 (I-405) to the north; and PA 39 and San Diego Creek to the east. The southern and eastern boundaries of PA 18 form the Irvine city boundary; the Cities of Laguna Hills and Laguna Woods and the Laguna Coast Wilderness Park are located to the south and east. Access to the project site is currently provided from SR-133. The southwestern portion of PA 18 extends west of SR-133.

The PA 18 project site encompasses approximately 753 acres. The site topography varies and generally includes canyons and hillsides to the south, and relatively flat fallow land to the north, with site elevations ranging from 210 to 530 feet). Existing residential development in the City of Laguna Hills is adjacent to the southeastern boundary of PA 18. To the north and west of PA 18 is the I-405, Planning Area 17 (Quail Hill) and Planning Area 28 open space.

The project applicant is currently processing a General Plan Amendment and Zone Change for the project site that would allow for the development of a maximum of 750 dwelling units. In addition to residential uses, the proposed project includes parks, trails, and infrastructure necessary to support the proposed residential development. Access to the project site would be provided from SR-133 that is currently being realigned by Caltrans, and Lake Forest Drive that will be extended from Bake Parkway to SR-133 as part of the project. Based on the conceptual land use plans for the project, the area of impact is approximately 357 acres. The proposed project also involves the preservation of open space, primarily in the eastern portion of the project site and along SR-133.

Implementation of the project would require off-site improvements including a water reservoir and associated access road southwest of the project site, and remedial grading along the western project boundary. These off-site impact areas encompass approximately 11 acres.

Planning Area 39

Planning Area (PA) 39 is located in the City of Irvine, in Orange County California. As part of the proposed project the current boundary of PA 39 would be modified; the western portion of the planning area would be included as part of PA 18. PA 39, as modified, is generally bound by PA 18 to the west; Interstate 405 (I-405) to the north; Irvine Center Drive to the east; and the proposed extension of Lake Forest Drive and PA 18 to the south. Access to the project site is provided from Irvine Center Drive.

The PA 39 project site encompasses approximately 398 acres. San Diego Creek traverses the site in a north/south trending direction. Existing development is limited to the western portion of the site and consists of the Verizon Amphitheater and Wild Rivers water park, as well as structures remaining onsite from the previous Lion Country Safari. Active agricultural operations are located in the southeastern portion of the site. The site topography varies and includes canyons and hillsides to the west, and relatively flat, disturbed/developed area to the east with site elevations ranging from 183 to 454 feet.

The project applicant is currently processing a General Plan Amendment and Zone Change for the project site that would ultimately allow for the development of approximately 3,700 residential units. In addition to proposed residential uses, associated infrastructure, neighborhood parks, and a trail along San Diego Creek are also proposed with this project. The proposed project also involves the preservation of open space, primarily in the southern portion of the project site adjacent to San Diego Creek. Based on the type of land uses proposed for the site and existing constraints to development, it is estimated that the area of impact for the proposed project is 260 acres.

Planning Area 33 (Lot 109)

Planning Area (PA) 33 is bounded by I-5 to the northeast, I-405 to the south, and SR-133 to the northwest. The portion of Planning Area 33 being changed to allow residential use is a 29-acre site (Lot 109) bounded by Alton Parkway, Meridian and Pacifica.

The PA 33 project site (Lot 109) encompasses approximately 29 acres. The site topography is relatively flat and in a mass graded condition. A residential development adjacent to the site is under construction immediately to the east.

The project applicant is currently processing a General Plan Amendment and Zone Change for the project site that would allow for the development of a maximum of 1,600 dwelling units.

Planning Area 34

Planning Area (PA) 34 is located in the City of Irvine, in Orange County California. Planning Area 34 is bounded by I-5 to the northeast, I-405 to the north. Irvine Center Drive and Bake Parkway to the west, and Lake Forest Drive to the south. Planned but unused, surplus commercial intensity will be removed from Planning Area 34 and reallocated to Planning Area 39 as residential intensity.

The project applicant is currently processing a General Plan Amendment and Zone Change for the project site that would reduce development intensity by 2,340,500 square feet (360,500 square feet of Community Commercial and 1,980,000 square feet of General Industrial).

September 14, 2015

Prepared by: Tony Mossbarger

Submitted by: Cheryl Clary

Approved by: Paul Cook



ACTION CALENDAR

UTILITY BILLING SYSTEM MANAGED SUPPORT SERVICES

SUMMARY:

The District successfully went “live” with its new Oracle Customer Care and Billing (CC&B) utility billing system in August 2014 with Infosys Limited as the District’s System Integrator. IRWD required additional resources post-implementation and stabilization to supplement existing staff to support and operate the system. In October 2014, the Board authorized the retention of Infosys to provide additional support and training services through July 2015. Staff has identified the need to continue these support services through fiscal year 2016. In addition, staff has identified certain one-time projects including development of a single bill during rate changes and other necessary projects. Staff recommends the Board approve the retention of Infosys to provide additional support services and authorize the General Manager to execute a professional services contract for an amount not to exceed \$432,000 for managed support services and one-time projects for the period August 1, 2015 to June 30, 2016.

BACKGROUND:

The Utility Billing Software Managed Support Services contract was awarded to Infosys in October 2014 for \$595,000. The contract provided managed support services for the period November 1, 2014 to July 31, 2015. The General Manager extended this contract one month thru August 2015 under a variance due to the impact of the fiscal year rate change that went into effect July 1, 2015. Many system configuration changes associated with the rate change needed additional time to be completed.

Staff has identified the need to continue a managed services agreement for the period August 1, 2015 through June 30, 2016. Under the proposed revised scope, Infosys will provide support for issues involving a high degree of complexity, while District staff will handle routine and less complex requests. The proposed Managed Support Services from September 1, 2015 through June 30, 2016, has been reduced from the previous support contract but is still needed due to internal staffing and resource availability. The proposed support request is \$25,000 per month for ten months from September 2015 through June 2016, a total of \$250,000.

In addition to the Managed Support Services, staff has identified the need for certain additional one-time projects which staff does not have the existing resources to complete. These projects include:

- Implementation of a revised bill format to accommodate rate changes in a single bill;
- Real-time integration of CC&B with the Geographical Information System (GIS) for field activities to avoid shut offs when a customer has made a recent payment;
- Additional security functionality in the connection fee portal which will prevent inspectors from making unauthorized changes;

- Automation of the variance calculation functionality for livestock variances; and
- Conversion of additional data from the legacy system to CC&B to assist the Water Efficiency team in analyzing customer usage.

The revised scope for the managed support services and change requests is included in Exhibit "A".

FISCAL IMPACTS:

The fiscal year 2015-16 approved operating budget includes \$341,000 of the recommended contract amount of \$432,000. The total amount for the requested one-time projects is \$116,000, of which \$78,000 relates to the revised bill format.

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 at the Finance and Personnel Committee on September 1, 2015.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT FOR AN AMOUNT NOT TO EXCEED \$432,000 WITH INFOSYS LIMITED.

LIST OF EXHIBITS:

Exhibit "A" – Infosys Revised Scope for Managed Support Services and Change Requests

Commercials

- Total fixed price for **10 months of L2/L3 support** is revised to **250 K**
- Scope and resource loading details are provided below
- No Enhancements hours
- Only CC&B Technical Resources are considered for the support. OUBI and BIP applications are not considered in the scope.
- Onsite Office hours : 9:00 AM PST/PDT – 5:30 PM PST/PDT
- Average 29 hours per ticket for L2/L3 support
- In addition, relationship discount given to meet budgetary requirements

	Sep'15	Oct'15	Nov'15	Dec'15	Jan'16	Feb'16	Mar'16	Apr'16	May'16	Jun'16
Tickets Per Month	20	20	20	20	20	13	13	13	13	13
Onsite Resource	1	1	1	1	1	1	1	1	1	1
Offshore Resource	2	2	2	2	2	1	1	1	1	1

L2 & L3 Support

- Fixed Price Quote for the 10 months of L2/ L3 extended support would be \$250 K USD

CR Ticket	Ticket Description	Area	Details already shared in PMO/ Remarks	Onsite Effort (Hrs.)	Offshore Effort (Hrs.)	UAT Onsite (Hrs.)	UAT Offshore (Hrs.)	TOTAL
14868	CC&B GIS Real time Integration	Customer Service	Effort: 60 Hrs., Approved, waiting for GIS Design Doc Analysis of 12 Hrs. has already been utilized. Effort to be revised to include onsite effort needed for UAT support. *note: no hours left, remaining hours allocated to other high priority projects (WE)	16	60	24	32	132
17209	Security Implementation in Dev Service Connection Fee Portal	Development Service	Effort: 78 Hrs., (Offshore) 8 Hrs. (Onsite) IS Review in Progress	8	78	8	12	106
17943	New live stock variance in Rate	Water Efficiencies	Effort: 156 Hrs., (Offshore) 20 Hrs. (Onsite) IS Review in Progress	20	156	16	24	216
16900	Redesign of BIP report "Total Reclaimed Account Report"	Finance	Option1: Effort: 40 Hrs., (Offshore) 4 Hrs. (Onsite) Option2: Effort: 30 Hrs., (Offshore) 3 Hrs. (Onsite) IS Review in Progress	3	30	4	4	41
16521	Account and premise update of historical customer contact	Water Efficiencies		16	60	4	16	96
16518	The CSRs migrated to CC&B do not span the past 5 years as we thought they would	Water Efficiencies		20	124	8	16	168
17806	Rate Proration	Customer Service		256	748	160	180	1344
TOTAL				339	1256	224	284	2103

Effort	Person Hrs	Rate	\$ Value
TOTAL ONSITE	563	110	61930
TOTAL OFFSHORE	1540	35	53900
TOTAL EFFORT	2103		115830.00

Time line (3.5 months)

Starting from September 01, 2015 till Mid December 2015

September 14, 2015

Prepared by: M. Tetterer

Submitted by: P. Weghorst

Approved by: Paul Cook

Jm
PW
Paul Cook

ACTION CALENDAR

RECYCLED WATER USE SITE INSPECTION AND TESTING CONSULTANT SELECTIONS

SUMMARY:

The Irvine Ranch Water District (IRWD) is required by the State Water Resources Control Board, Division of Drinking Water (DDW) to regularly inspect and test for cross connections at many of the recycled water sites throughout its service area to assure compliance with regulatory requirements and best management practices. During Fiscal Year 2014-2015, IRWD contracted with a firm to augment staff's efforts to complete inspection and test work in a timely manner. The District again needs these services over the next two years, and staff has requested proposals from qualified firms to conduct field inspections and cross-connection testing at existing recycled water use sites on an on-call basis. Staff has evaluated the proposals and recommends the Board authorize the General Manager to execute Professional Service Agreements with both Real Water Consultants, Inc. and John Robinson Consulting, Inc., each in an amount not-to-exceed \$400,000 to provide on-call recycled water use site field inspection and testing services over the next two years.

BACKGROUND:

IRWD currently serves recycled water to approximately 5,300 sites that vary in size and complexity. Some are smaller irrigation sites such as medians and parkways that have only recycled water on site, while others are larger irrigation sites, such as golf courses and homeowners associations that are more complex that also use potable water. IRWD also serves approximately 610 single-family lots, several industrial customers, and over 60 dual-plumbed commercial buildings where recycled water is used for flushing toilets and urinals as well as in cooling towers.

The type of recycled water use site determines the regulatory requirements for conducting visual inspections and periodic cross-connection tests. For example, dual-plumbed commercial buildings require visual inspections every year and a cross-connection test at least once every four years, whereas annual one-way cross-connection tests and inspections are required for single-family lots. The tests confirm that systems are properly identified and that recycled water systems are not connected to a potable water system. Of the approximately 5,300 IRWD recycled water use sites, approximately 1,000 sites are homeowners associations which are required to have inspections and cross-connection tests conducted annually.

Staff continues working with other water recycling agencies in Orange County to develop reduced frequency requirements for inspection and testing of recycled water use sites. It is anticipated that recommendations will be submitted to DDW for its consideration early next year. IRWD staff is leading the effort in putting together the new requirements.

Last year IRWD hired a firm to help supplement staff's efforts in performing recycled water use site inspections and tests. The firm provided these services at 1,746 sites at an average cost of \$261 per site. To continue augmenting staff's efforts for the next two fiscal years, staff recommends retaining the services of two qualified firms to conduct site inspection and testing under the direction of staff.

Consultant Selection Process:

Staff submitted a Request for Proposal (RFP) to perform recycled water site inspection and testing at 13 different recycled water use site types in IRWD's service area. The scope of work includes contacting each site supervisor to arrange for a field meeting, conducting the field work, completing associated paperwork and providing site supervisor training. The RFP was sent to three firms and two submitted proposals: John Robinson Consulting, Inc. and Real Water Consulting, Inc. Staff evaluated the proposals and has prepared the Consultant Selection Matrix provided as Exhibit "A".

Staff has determined that the two firms are nearly equally qualified in terms of experience and qualifications and has negotiated equal costs that are presented in the Scope of Work and Cost Proposal as shown on Exhibit "B". To improve the efficiency of the overall program, staff recommends that the Board authorize the General Manager to execute Professional Services Agreements with both firms for a combined total of \$800,000 to provide on-call recycled water inspection and testing services over the next two years.

FISCAL IMPACTS:

The Fiscal Year 2015-16 Operating Budget includes \$400,000 to conduct recycled water site inspection and testing work through the use of on-call consulting services. Staff expects that \$400,000 will also be included in the Fiscal Year 2016-17 budget for performing the same services.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on September 8, 2015.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE PROFESSIONAL SERVICES AGREEMENTS WITH BOTH JOHN ROBINSON CONSULTING, INC. AND REAL WATER CONSULTING INC., EACH IN AN AMOUNT NOT TO EXCEED \$400,000, TO PROVIDE FIELD INSPECTORS TO ASSIST STAFF WITH PERFORMING INSPECTION AND TESTING OF RECYCLED WATER USE SITES OVER THE NEXT TWO YEARS.

LIST OF EXHIBITS:

Exhibit "A" – Consultant Selection Matrix

Exhibit "B" – Scope of Work and Cost Proposal

EXHIBIT "A"

**CONSULTANT SELECTION MATRIX
RECYCLED WATER INSPECTION AND TESTING PROGRAM - FY 15/16**

	Weight	John Robinson Inc.	Real Water Inc.
QUALIFICATIONS	35%		
*AWWA Cross Connection Control Specialist	60%	1	1
*ABPA Cross Connection Control Specialist			
*USC Cross Conn. Control (40 hrs course)			
*Distribution, Irrigation & Plan check basics.	40%	1	1
# of Field Personnel		3 full-time, 5 part-time	4 full-time, 2 part-time
Weighted Score (Qualifications)		0.35	0.35
EXPERIENCE	35%		
Performing Inspections	30%	2	1
Performing Testing	30%	2	1
Administration	10%	1	1
Customer Contact / Interface	30%	2	2
Weighted Score (Experience)		0.67	0.46
PROJECT UNDERSTANDING	30%	1	1
Weighted Score (Project Understanding)		0.30	0.30
COMBINED WEIGHTED SCORE	100%	1.32	1.11

Rated on a scale from 1 (highest) to 5 (lowest)

Ranking	2	1
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EXHIBIT "B"

SCOPE OF WORK AND COST PROPOSAL

The Consultant shall provide hourly and per meter cost proposal to complete the tasks identified on Attachment "A" and as directed by the IRWD representative. Below are the descriptions of each of the different types of recycled water meters that IRWD currently serves and also the approximate number of active meters for each specific type. **Hourly Rate: \$79.00**

Type 1: *Single-supply, agricultural sites with no potable water systems within the irrigated area.*

- **Sample:** *Agriculture field located at the corner of Alton Parkway and Muirlands (south side of Alton). Irvine, CA.*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 41 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 138.25 Assumed hours: 1.75
 2. Testing only cost per meter \$: 138.25 Assumed hours: 1.75
 3. Inspection & Testing cost per meter \$: 158.00 Assumed hours: 2.0

Type 2: *Single-supply, medians, freeway landscaping, slope areas etc.*

- **Sample:** *Median strip located at the corner of Newport Coast Drive and San Joaquin Hills Corridor. Newport Coast, CA.*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 703 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 3: *Dual-supply, agricultural sites also served by potable water meters.*

- **Sample:** *Agriculture field located east side of Portola Parkway, corner of Jeffrey Road. Irvine, CA.*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 8 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 158.00 Assumed hours: 2.0
 2. Testing only cost per meter \$: 158.00 Assumed hours: 2.0
 3. Inspection & Testing cost per meter \$: 177.75 Assumed hours: 2.25

Type 4: *Dual-supply, recycled and potable water meters typically serving park landscape and recreational facilities, guard shack landscape and interior, club houses, etc.*

- **Sample:** *Mason Regional Park on University Drive and Campus Drive. & Guard houses located on both entrances to the Shady Canyon Community. Irvine, CA.*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 1724 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 5: *Dual-supply, multi-family homeowners association landscape where structures are served by master meters for domestic water and protected with RPPA backflow devices.*

- **Sample:** *Toscana Apartments. Multifamily units located at the corner of Jamboree Road and Michelson Drive. Irvine, CA.*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 1000 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 6: *Dual-supply, homeowners association landscape where structures served by potable waters do not have RPPA backflow protection.*

- **Sample:** *Woodbridge Pine Apartments located at the corner of Alton and Barranca Parkway. Irvine, CA.*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 1000 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 7: *Dual-supply, golf courses where structures and facilities are served by potable water meters.*

- **Sample:** *Pelican Hills Golf Course. Located at the corner of Pacific Coast Highway and Newport Coast Drive. Newport Coast, CA.*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 7 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 8: *Dual-supply, cemeteries where structures and facilities are served by potable water meters.*

- **Sample:** *Ascension Cemetery. Located on the corner of Trabuco Canyon Road and Paseo Tranquilo. Lake Forest, CA.*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 2 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 9: *Dual-supply, industrial uses (eg., cement batch mixing, cooling towers) where non-dual plumbed structures and facilities are served by potable water meters.*

- **Sample:** *Roberston's Ready Concrete Mix. Construction Circle. Irvine, CA.*
- **Method of testing:** *One-way shut down test or Two way shut-down of Pressure differential gage test.*
- **Quantities:** *Approximately 29 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 10: *Dual-supply, landscape around commercial buildings and parking lot areas.*

- **Sample:** *Irvine Ranch Water District Headquarters parking lot irrigation system. Located at the corner of Sand Canyon Avenue & Waterworks Way. Irvine, CA*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 125 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 11: *Dual-plumbed, front and back yard landscape at single family homes (eg., "Full Lot Irrigation"), under the control of the homeowner.*

- **Sample:** *Dual Plumbed Custom Homes located in Shady Canyon, Crystal Cove, Pelican Crest, and Pelican Hills Communities*
- **Method of testing:** *One-way shut down test.*
- **Quantities:** *Approximately 607 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 138.25 Assumed hours: 1.75
 2. Testing only cost per meter \$: 138.25 Assumed hours: 1.75
 3. Inspection & Testing cost per meter \$: 158.00 Assumed hours: 2.0

Type 12: *Dual-plumbed, non-residential ("commercial") structures where toilets, trap primers, urinals, or cooling towers are served.*

- **Sample:** *Irvine Ranch Water District Headquarters Building located at the corner of Sand Canyon Avenue and Waterworks Way. Irvine, CA.*
- **Method of testing:** *Two-way shut down test or Pressure differential gage test.*
- **Quantities:** *Approximately 62 irrigation meters.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

Type 13: *Dual-plumbed, industrial structures (e.g., carpet dye applications, plating, manufacturing, etc.)*

- **Sample:** *Royalty Carpets. Irvine, CA (Not active).*
- **Method of testing:** *Two-way shut down test or Pressure differential gage test.*
- **Quantities:** *1 recycled water meter.*
- **Cost Proposal:**
 1. Inspection only cost per meter \$: 217.25 Assumed hours: 2.75
 2. Testing only cost per meter \$: 217.25 Assumed hours: 2.75
 3. Inspection & Testing cost per meter \$: 237.00 Assumed hours: 3.0

September 14, 2015

Prepared by: K. Welch *kw*

Submitted by: F. Sanchez / P. Weghorst *FW*

Approved by: Paul Cook *PC*

ACTION CALENDAR

WATER RECYCLING FUNDING PROGRAM APPLICATION

SUMMARY:

The State Water Resources Control Board (SWRCB) is accepting applications for Proposition 1 grant funding and Clean Water State Revolving Fund (SRF) loans through the Water Recycling Funding Program (WRFP). The goal of the WRFP is to increase the use of recycled water. Staff has prepared an application for the Irvine Lake Pipeline (ILP) Conversion Project which will convert the use of 3,156 acre-feet (AF) annually of imported water to recycled water. Staff recommends that the Board adopt a resolution authorizing staff to submit an application to the SWRCB under the WRFP for the ILP Conversion Project and authorize the General Manager to execute a related agreement to receive grant funding and provide matching funds.

BACKGROUND:

The SWRCB is accepting applications for grant funding or SRF loans through the WRFP for the planning, design and construction of water recycling projects that offset or augment state fresh water supplies. One of the funding sources for WRFP is Prop 1, also known as the Water Quality, Supply and Infrastructure Improvement Act of 2014, which provides grant and low interest financing for water recycling projects. Specifically, Prop 1 provides \$625 million toward recycled water projects, with approximately \$131 million to be appropriated in 2015 and the remainder to be appropriated over the next four years. The Prop 1 funds will be split evenly between loans and grants, with loan repayments being returned back into the program to fund other projects. The low interest loans are at one half of the State of California's most recent general obligation bond rate. The WRFP requires at least a 50 percent local cost share match. Grants for water recycling projects are limited to 35 percent of actual eligible construction costs up to a maximum of \$15 million. The remaining 15 percent can be financed through a Prop 1 loan. The local cost share can be financed through the SRF's low interest loan.

Irvine Lake Pipeline Conversion Project:

The preliminary design report for the ILP Conversion Project is currently being completed which will be followed by final design activities. The project will convert a portion of the ILP from imported untreated water to recycled water to conserve up to 3,156 AF. The project includes constructing a new 2.4 million gallon buried concrete reservoir, modifications at the Rattlesnake Reservoir Complex and a new distribution pipeline. The estimated total project cost is \$30.8 million, of which staff estimates up to \$8.6 million could be eligible for funding by the Prop 1 grant, \$6.8 million by the Prop 1 loan, and the remaining \$15.4 million for the SRF loan.

As part of the application process, a resolution must be adopted by the applicant's governing body that designates an authorized representative to submit an application for grant funding and enter into an agreement with the SWRCB. In compliance with the SWRCB's requirements, a resolution has been prepared authorizing staff to submit an application to SWRCB for the WRFP

and authorizing the General Manager to execute an agreement to receive grant funding and provide matching funds. “The Resolution for the Water Recycling Funding Program” is attached as Exhibit “A”.

FISCAL IMPACTS:

Funding of the District’s proposed cost share for this project is included in the FY 2015-16 Capital Budget.

ENVIRONMENTAL COMPLIANCE:

The project is subject to the California Environmental Quality Act (CEQA). An Initial Study/Mitigated Negative Declaration is being prepared in conformance with CEQA, California Code of Regulations Title 14, Chapter 3, Article 6, Section 15070.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on September 8, 2015.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A RELATED AGREEMENT TO RECEIVE GRANT FUNDING AND PROVIDE MATCHING FUNDS; AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2015 –

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT AUTHORIZING THE
GENERAL MANAGER TO FILE A FUNDING APPLICATION
FOR DESIGN AND CONSTRUCTION OF THE
IRVINE LAKE PIPELINE CONVERSION PROJECT WITH
THE STATE WATER RESOURCES CONTROL BOARD

LIST OF EXHIBITS:

Exhibit “A” – Resolution for the Water Recycling Funding Program

EXHIBIT “A”

RESOLUTION NO. 2015 -

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT AUTHORIZING THE
GENERAL MANAGER TO FILE A FUNDING APPLICATION
FOR DESIGN AND CONSTRUCTION OF THE
IRVINE LAKE PIPELINE CONVERSION PROJECT WITH
THE STATE WATER RESOURCES CONTROL BOARD

WHEREAS the State Water Resources Control Board is accepting applications for funding for the planning, design and construction of recycling projects that offset or augment state fresh water supplies under its Water Recycling Funding Program (WRFPP).

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

The General Manager of the Irvine Ranch Water District (the “Authorized Representative”) or designee is hereby authorized and directed to sign and file, for and on behalf of the Irvine Ranch Water District, a Financial Assistance Application for a financing agreement from the State Water Resources Control Board for the planning, design, and construction of the Irvine Lake Pipeline Conversion Project (the “Project”).

This Authorized Representative, or designee, is designated to provide the assurances, certifications, and commitments required for the financial assistance application, including executing a financial assistance agreement from the State Water Resources Control Board and any amendments or changes thereto.

The Authorized Representative, or his/her designee, is designated to represent the Entity in carrying out the Entity’s responsibilities under the financing agreement, including certifying disbursement requests on behalf of the Entity and compliance with applicable state and federal laws.

ADOPTED, SIGNED AND APPROVED this 14th day of September, 2015.

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 & GIANNONE
Legal Counsel—IRWD

By: _____