
ACTION - Continued

7. DRAFT TERMS FOR PROPOSED AGREEMENT WITH THE IRVINE COMPANY FOR USE OF RECYCLED WATER – TETTEMER/WEGHORST

Recommendation: That the Committee provide input on draft conceptual terms for an agreement between IRWD and the Irvine Company relative to conversion of the northern portion of the Irvine Lake Pipeline to recycled water and authorize staff and legal counsel to work with the Irvine Company to prepare the agreement for consideration by the Board.

8. DISCOVERY SCIENCE FOUNDATION EDUCATION PROGRAM – VEEH/BEEMAN/WEGHORST

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Discovery Science Foundation in the amount of \$531,555 for the three-year period covering FY 2016-2017, FY 2017-2018 and FY 2018-2019, for the elementary, middle and high school education programs.

9. 2016 LEGISLATIVE UPDATE – COMPTON/COOK

Recommendation: That Board adopt a “SUPPORT” position on AB 2488 (Dababneh); an “OPPOSE” position on AB 2583 (Frazier); an “OPPOSE” position on SB 885 (Wolk); a “SEEK AMENDMENTS” position on SB 814 (Hill); a “SUPPORT” position on SB 974; an “OPPOSE UNLESS AMENDED” position on SB 1317 (Wolk); and a “SUPPORT IN CONCEPT” position U.S. Army Corps of Engineers and Bureau of Reclamation Atmospheric River Research and Reservoir Operations Funding.

OTHER BUSINESS

10. A. Directors' Comments
- B. 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 above-named Committee in connection with a matter subject to discussion or consideration at an open meeting of the Committee 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 Committee 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 Committee Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available at the entrance of the meeting room at the District Office.

The Irvine Ranch Water District Committee 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 an alternative format upon written request to the District Secretary at least seventy-two (72) hours prior to the scheduled meeting.

April 6, 2016

Prepared by: F. Sanchez

Submitted by: P. Weghorst

Approved by: Paul Cook 

WATER RESOURCES POLICY AND COMMUNICATIONS COMMITTEE

WATER SUPPLY RELIABILITY STUDY VARIANCE NO. 2

SUMMARY:

HDR Engineering, Inc. was retained by IRWD to update the District's 2008 Water Supply Reliability Study. The update will include an evaluation of impacts from various supply and system interruption scenarios as well as development of enhanced modeling tools. Variance No. 1 to the Agreement was approved in October 2015 to align the study with the ongoing Orange County Reliability Study being conducted by the Municipal Water District of Orange County to present additional workshops and for enhanced involvement of technical experts. Additional work is required to incorporate new information available from the California Department of Water Resources (DWR) and to consider additional future water supply projects that may be implemented by Metropolitan Water District of Southern California. A budget increase is needed to facilitate the additional work. Staff recommends that the Board authorize a budget increase to the FY 2015-16 Capital Budget in the amount of \$95,400 for project 11808 (6013) and approve Variance No. 2 with HDR in the amount of \$171,500.

BACKGROUND:

CDM prepared a Water Supply Reliability Study for IRWD in 2008 to assist with defining potable water supply and system reliability under different scenarios. The study included analysis of how import supply shortages, climate change, facility outages and earthquake-related emergencies could affect demands, supplies, and major conveyance facilities in IRWD.

Since 2008, IRWD has implemented new projects that affect the need for the development of additional supplies that were identified in the 2008 study. There have also been significant changes in the potential reliability of supplies from both the State Water Project and the Colorado River. To facilitate the preparation of an update to the Water Supply Reliability Study, the Board approved a Professional Services Agreement with HDR on December 15, 2014. HDR's scope of work includes the following:

- Evaluation of the impacts of various water supply and system interruption scenarios;
- Development of enhanced software tools to assist with demand predictions and scenario evaluations;
- Evaluation of uncertainties and benefits associated with the proposed California Water Fix;
- Identification of impacts associated with potential Sacramento-San Joaquin River Delta levee failures;
- Consideration of the potential for long-term drought on the Colorado River and associated impacts;
- Assessment of the impacts of potential failure of the Edmonston Pumping Plant;
- Analysis of potential reductions in flows available for recharge in the Orange County Groundwater Basin; and

- Development of a Reliability Study Model that will predict scenario impacts within IRWD's potable water system.

Variance No. 1:

In October 2015 the Board approved an increase in the Capital Budget in the amount of \$72,000 for Variance No.1 to the District's agreement with HDR. This variance provided for additional work that was not included in HDR's original scope of work and included the following tasks:

- Additional project management to align IRWD's Water Reliability Study with information from the Orange County Reliability Study;
- A workshop to discuss IRWD's demand forecast adjustment tool developed by HDR;
- A workshop to conceptualize how the Orange County Groundwater Basin will be simulated in IRWD's reliability study model;
- Enhanced involvement of HDR's technical experts on regional water supply issues; and
- Inclusion of one additional scenario (a total of 11 scenarios) to be evaluated in the study.

Variance No. 2:

Since October 2015, new information has become available from DWR related to the State Water Project as well as from Metropolitan associated with its 2015 Integrated Resource Plan update. In particular, Metropolitan has identified additional future water supply projects that may be implemented by Metropolitan and its member agencies, which are grouped based upon the stage of development and likelihood of implementation. Additional work is necessary by HDR to complete the Water Supply Reliability Study taking into consideration the new information and potential projects. To facilitate this additional work, HDR has prepared Variance No. 2 and an associated scope of work that is attached as Exhibit "A". The scope of work and related costs were negotiated by staff and are considered fair and reasonable. The revised scope of work and variance extend the project schedule by five months to June 2016. The additional work to be performed by HDR is summarized as follows:

Additional Project Management:

Variance No. 2 provides for additional project management associated with modifications to IRWD's Reliability Study Model and study report necessitated by new information from DWR and Metropolitan's proposed projects. It accommodates weekly conference calls requested by staff and coordination through the completion of the project.

Characterizing Supply Sources:

At staff's request, HDR will conduct several iterations of IRWD's Reliability Study Model in response to multiple revisions that have occurred to results from the Orange County Reliability Study. Each revision requires significant time to obtain and reformat data to align with the baseline scenario in IRWD's Reliability Study Model. The revisions are based on updates to information available from the preparation of Metropolitan's Integrated Resources Plan.

Scenario Planning and Response Strategies:

Based on input from the Board, a workshop was held to prioritize and select the scenarios for modeling based upon the highest probability of occurrence. Staff requested that HDR incorporate IRWD's water banking project into the Reliability Study Model as a supply source, rather than as a response strategy, and to incorporate the Delta Fix into a secondary baseline using Metropolitan's assumptions for regulatory relief prior to the completion of the Delta Fix. Incorporation of Metropolitan future potential water supply projects into IRWD's Reliability Study Model will be included as part of this task, as will identification and evaluation of regional and local response strategies.

Analysis and Modeling:

At staff's request, HDR is including additional supply and demand nodes to the model which increases its complexity. These changes require additional quality control, meetings with staff and revisions to the baseline model runs. This task also includes the addition of one scenario, for a total of 12, to be modeled and evaluated in the study.

Recommendations and Report:

Two additional Board workshops are included to present the refined scenarios and the study findings. HDR will also update the draft report to reflect new information, refined scenarios, consideration of Metropolitan's projects, and findings based upon the expanded scope.

To facilitate the work, an increase in the FY 2015-16 Capital Budget for the study is needed. Staff recommends that the Board authorize a budget increase for the study in the amount of \$95,400 and approve Variance No. 2 to the Agreement with HDR.

FISCAL IMPACTS:

Project 11808 (6013) is included in the FY 2015-16 Capital Budget. A budget increase for the study in the amount of \$95,400 is needed as presented below. Contingency funds in the amount of \$74,400 are available to address a portion of the cost of the additional work. Variance No. 2 with HDR in the amount of \$171,500 to complete the update to the Water Reliability Study requires Board approval.

Project No.	Current Budget	Addition	Total Budget
11808 (6013)	\$569,400	\$95,400	\$664,800

ENVIRONMENTAL COMPLIANCE:

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

RECOMMENDATION:

That the Board authorize a budget increase to the FY 2015-16 Capital Budget in the amount of \$95,400 for project 11808 (6013) and approve Variance No. 2 with HDR Engineering, Inc. in the amount of \$171,500.

LIST OF EXHIBITS:

Exhibit "A" – IRWD Professional Services Variance No. 2 with Scope of Work for HDR Water Reliability Study

EXHIBIT "A"
IRVINE RANCH WATER DISTRICT
PROFESSIONAL SERVICES VARIANCE

Project Title: Water Reliability Study

Project No.: 11808 (6013)

Date: March 29, 2016

Purchase Order No.: 5222695

Variance No.: 2

Originator: ☐ IRWD ☒ ENGINEER/CONSULTANT ☐ Other (Explain) _____

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

Schedule and Cost Variance to extend final report deadline to June 2016 and modify scope to include revised baseline and model scenarios, additional workshops, meetings and coordination with IRWD staff and local agencies. See Attachment.

Engineering & Management Cost Impact:

Classification	Man hours	Billing Rate	Labor	Direct Costs	Sub-consultant	Total
See attached Scope of Work and Fee Estimate			\$132,510	\$3,220	\$35,700	\$171,500
Total						\$171,500

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
6	Preliminary Recommendations (Board Workshops)	August 2015	4 months – Variance No. 1 +7 months – Variance No. 2	Complete by June 2016
8	Final Report Deliverables	August 2015	5 months - Variance No. 1 +7 months – Variance No. 2	Complete by July 2016

Required Approval Determination:

Total Original Contract	\$ <u>376,800</u>	☐ Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances \$	<u>59,993</u>	
This Variance \$	<u>171,500</u>	☐ Executive Director: Cumulative total of Variances less than or equal to \$75,000.
Total Sum of Variances	\$ <u>231,493</u>	
New Contract Amount	\$ <u>608,293</u>	☐ General Manager: Cumulative total of Variances less than or equal to \$100,000.
Percentage of Total Variances to Original Contract	<u>61</u> %	☒ Board: Cumulative total of Variances greater than \$100,000.

ENGINEER/CONSULTANT: HDR Engineering, Inc.

IRVINE RANCH WATER DISTRICT

Jennifer Duffy, PE

Project Engineer/Manager

Date

Department Director

Date

Paul Skager, PE

Engineer's/Consultant's Management

3/29/2016

Date

General Manager/Board

Date

**IRVINE RANCH WATER DISTRICT
PROFESSIONAL SERVICES VARIANCE REGISTER**

Project Title: Water Reliability Study

Project No.: 11808 (6013) Project Manager: Fiona Sanchez

[illegible]

Variance No. 2 includes tasks that were or will be undertaken at the request of IRWD staff to enhance the content of the Water Reliability Study and model. The proposed schedule extension allows for further coordination and incorporation of regional information from MWDOC and MWD, and weekly project coordination meetings. The revised schedule includes a final draft Report submittal in June 2016, and two additional presentations to the Board one in May and one in June 2016. The scope of work for tasks associated with Variance No. 2 is included below:

Task 1 Project Management

The project management task will be extended through July 2016 (approximately 24 weeks), accommodating weekly PM conference calls and staff coordination through the completion of the project.

Task 3 Characterize Supply Sources

Subtask 3.3 required coordination with Regional Agencies to ascertain supply data. As the baseline model was developed as part of Task 5, the decision was made to align the model with the Orange County Reliability Study assumptions and incorporate new information regarding MWD's 2015 Integrated Resource Plan (IRP). This required a significant additional level of effort associated with Regional Agency coordination to obtain and reformat the data required to define the trace information for imported water and the Orange County Groundwater Basin. This effort was expended in the December 2015 – January 2016 time frame to develop a preliminary baseline model.

Task 4 Scenario Planning and Water Shortage Response Strategies

Subtask 4.3 called for the development of supply and system disruption scenarios based on the findings of the Scenario Planning Workshop in Task 1. This effort was completed in the fall of 2015. Based on Board input, the team is focusing on the scenarios with the highest probability, and refining those for modeling. Therefore, adjustments to the baseline and scenarios are warranted, as described in the new subtasks listed below.

4.4 Meeting with IRWD and HDR/DCSE team to modify baseline and scenarios based on discovery from initial baseline runs, and to incorporate actions from Metropolitan. (This meeting occurred on 3/23/16.)

4.5 Refine the Baseline Model

- a. HDR will work with IRWD staff to develop rules for modeling use of IRWD's GW bank when water shortages occur.
- b. HDR will incorporate the proposed CA Delta Fix as a secondary baseline, using MWD's assumption of regulatory relief in 2020 and full relief by 2035. This differs from the Orange County Reliability Study approach; therefore HDR will investigate if MWD trace data is available for this scenario and how it might be incorporated into the model, or if an average must be used for all 93 trials. If available, HDR will derive and format the data for modeling this baseline in Task 5.

4.6 Based on new information from Orange County Reliability Study and MWD's IRP regarding MWD Tier 1 and Tier 2 actions, revise and reprioritize model scenarios and develop data needed for model input.

- a. Identify modeling parameters associated with each baseline and revised scenarios for incorporation in Task 5 modeling runs.
- b. Assess relative likelihood of occurrences of scenarios based on expert presentations at August 2015 Scenario Workshop.
- c. Identify gaps and evaluate additional mitigation strategies, regional (other than MWD) and local and prioritize.

Task 5 System Analysis (Modeling)

During the development of the model, IRWD staff requested that additional supply and demand nodes be added to the model making the model more detailed and complex. IRWD staff provided much of the data required for these additional nodes; however additional quality control was required to diagnose anomalies evident in baseline test run results. Variance No. 1 allowed for one additional scenario to be run – for a total of 11. Based on revised scenarios, another additional scenario is envisioned, for a total of 12. Adjustments to the level of effort for the following tasks is required:

5.1 Conduct quality review and revise schematic data entry for test runs of model. (Completed in December 2015)

5.4 Refine Baseline Model and add additional Scenario for a total of 12 Scenarios to be run.

- a. Revise Baseline Model Runs to adjust for new information from Orange County Reliability Study and IRWD/ (December and January 2016)
- b. Attend Meetings with IRWD Staff to discuss Baseline results (1/27/16) and Scenario Revisions (3/23/16).
- c. Revise and run Baseline Model based on adjustments developed in Task 4.6.
 - Revise IDP well to be non-exempt from the BPP, to reflect current agreement with OCWD.
 - Include IRWD's banking program as a 5th tier in supply sources instead of mitigation strategy.
- d. Run one additional scenario, for a total of 12 scenarios (including baselines).

Task 6 Preliminary Recommendations

Assist IRWD staff in preparing for and presenting at two additional Board workshops.

Task 8 Deliverables

Revise 90% report and findings developed to date to incorporate scenario revisions and findings.

HDR Engineering IRWD Water Reliability Study - Variance No. 2 Estimated Level of Effort and Fee												
TASK		LEVEL OF EFFORT, HOURS						FEE, DOLLARS				
NO.	DESCRIPTION	PM Jennifer D	EXPERT Bob J	EXPERT Blaine D	PE Amy O	ADMIN Marlys	TOTAL LABOR	LABOR	DIRECT COSTS	SUBS (DCSE)	TOTAL	CLIENT TOTAL
	Client Billing Rates	\$284	\$294	\$293	\$152	\$100	\$188					
1	Project Management and Meetings											
1.1	Project Workplan and Coordination	24				24	48	8,736	178	3,960	12,874	
1.2	Data Request and Review						0	0	0		0	
1.3	Project Meetings	24			8		32	7,552	500		8,052	
1.4	Project Workshops (2 - 4 hr)						0	0	0		0	
1.5	Project Schedule	2					2	528	7		535	
1.6	QA/QC						0	0	0		0	
	Subtotal 1	50	0	0	8	24	82	16,816	685	3,960	21,461	21,500
2	Develop Model to Adjust Demand Projections											
2.1	Develop Add on Tool for Demand Projections						0	0	0		0	
	Subtotal 2	0	0	0	0	0	0	0	0	0	0	0
3	Characterize Supply Sources											
3.1	Characterize Existing Supply Sources						0	0	0		0	
3.2	Characterize Future Supply Sources						0	0	0		0	
3.3	Coordinate with Regional Agencies	40			140		180	31,840	666		32,506	
3.4	Prepare TM						0	0	0		0	
	Subtotal 3	40	0	0	140	0	180	31,840	666	0	32,506	32,500
4	Supply and Sys Constraint Scenarios and Mitigation Strategies											
4.1	Review past reliability assessments and risk factors						0	0	0		0	
4.2	Update Risk Factors based on Expertise						0	0	0		0	
4.3	Develop Scenarios and Prepare TM						0	0	0		0	
4.4	Scenario Planning Meeting - 3/23/16	4			6		10	1,968	37		2,005	
4.5	Refine Baseline Model	24			40		64	12,416	237		12,653	
4.6	Prioritize Scenarios for Modeling and Develop Model	40	4	4	100		148	28,107	548		28,655	
	Subtotal 4	68	4	4	146	0	222	42,491	821	0	43,313	43,300
5	Water Supply and System Req Analysis											
5.1	Create Schematic						0	0	0	6,600	6,600	
5.2	Develop Demand Factors for input to Task 2						0	0	0		0	
5.3	Formulate Disruption Scenarios						0	0	0		0	
5.4	Conduct Scenario Runs						0	0	0		0	
	Revise Baseline Runs (3)	4			16		20	3,488	74	14,400	17,962	
	Meetings to discuss Baseline and Scenarios (1/27/16 and 3/23/16)						0	0	0	4,620	4,620	
	Additional Scenario Run for total of 12	4			8		12	2,272	44	4,800	7,116	
5.5	Evaluate Results						0	0	0		0	
5.6	Summarize Findings						0	0	0		0	
	Subtotal 5	8	0	0	24	0	32	5,760	118	30,420	36,298	36,300
6	Preliminary Recommendations											
6.1	Additional Presentations to Board	40			16		56	12,992	500	1,320	14,812	
	Subtotal 6	40	0	0	16	0	56	12,992	500	1,320	14,812	14,800
7	Final Recommendations											
7.1	Finalize Report						0	0	0		0	
7.2	Prepare Ex Summary						0	0	0		0	
	Subtotal 7	0	0	0	0	0	0	0	0	0	0	0
8	Deliverables											
8.1	Prepare 75% Draft Report						0	0	0		0	
8.2	Prepare 90% Draft Report	32			80	20	132	22,608	488		23,096	
8.3	Prepare Final Draft Report						0	0	0		0	
	Subtotal 8	32	0	0	80	20	132	22,608	488	0	23,096	23,100
TOTAL, hours		238	4	4	414	44	704					
TOTAL, dollars								132,607	3,279	36,700	171,486	171,500

April 6, 2016

Prepared by: K. Welch

Submitted by: F. Sanchez/P. Weghorst

Approved by: Paul Cook 

WATER RESOURCES POLICY AND COMMUNICATIONS COMMITTEE

SECOND AMENDED WATER SUPPLY ASSESSMENT FOR SANTIAGO HILLS II AND VERIFICATION FOR TRACTS 16199 AND 17995

SUMMARY:

In March 2016, staff received a request from the City of Orange to complete an amended Water Supply Assessment (WSA) as required under SB 610 for the Santiago Hills II project and a Verification of Sufficient Supply (WSV) for the Santiago Hills II Tracts 16199 and 17995. Staff has completed a Second Amended WSA for the project and the WSV for the tracts and recommends Board approval of the documents.

BACKGROUND:

The City of Orange's proposed Santiago Hills II project is located near the corner of Chapman Avenue and Jamboree Road in the City of Orange. In March 2016, staff received a request from the City to prepare an amended WSA for the project and a WSV for associated tracts. A location map of the project is attached as Exhibit "A".

Water Supply Assessment:

On January 26, 2004, the Board approved a WSA for the Santiago Hills Phase II and East Orange Planning Areas 1, 2 and 3. Subsequently, in March 2004, the Board approved an Amended WSA at the City's request to reflect revisions in the development phasing. The demands for the Santiago Hills Phase II and East Orange Planning Areas 1, 2 and 3 were incorporated into the District's demand forecasting and were included in IRWD's 2010 Urban Water Management Plan. The overall project included 4,096 dwelling units, a hotel, a golf course and an elementary school. At the time of the WSA and WSV, IRWD did not plan to serve recycled water to this area.

Reduced Project:

Since 2004, the planned development has been reduced and the City of Orange has requested a revised and updated WSA and WSV. The revised project will be limited to development within Santiago Hills Phase II, and the number of dwelling units has been reduced by 2,916 to 1,180. A WSA has been completed in response to the City's request for the revised project and is provided as Exhibit "B". It is based on information from IRWD's Water Resources Master Plan. Estimates show a net decrease of 2,841 acre-feet per year (AFY) in potable water demands for the project and an increase of 358 AFY of non-potable demand. There are now projected non-potable demands for this project due to the expected expansion of IRWD's recycled water system in the area.

The WSA concludes that 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.

Verification of Sufficient Water Supply:

On January 14, 2004, the Board approved a WSV for Tracts 16199 and 16201 in Santiago Hills II and Tract 16514 in East Orange. As a result of the reduced proposed development, the City of Orange revised the tract map for Tract 16199 and created a new tract map for Tract 17995. As required under SB 221, staff has prepared a WSV for Tracts 16199 and 17995 as provided in Exhibit "C". This new WSV now supersedes the previous WSV.

The WSV for the requested tract maps is based on the WSA containing IRWD's determination that a sufficient water supply is available. The information in the WSV, together with the Second Amended WSA completed by IRWD in March 2016, reflects the District's confirmation that the project water demands, together with demands from other developments that have previously received WSVs or will-serves, 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.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

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

RECOMMENDATION:

That the Board approve the Second Amended Water Supply Assessment for the Santiago Hills II project and the Verification of Sufficient Water Supply for Tracts 16199 and 17995.

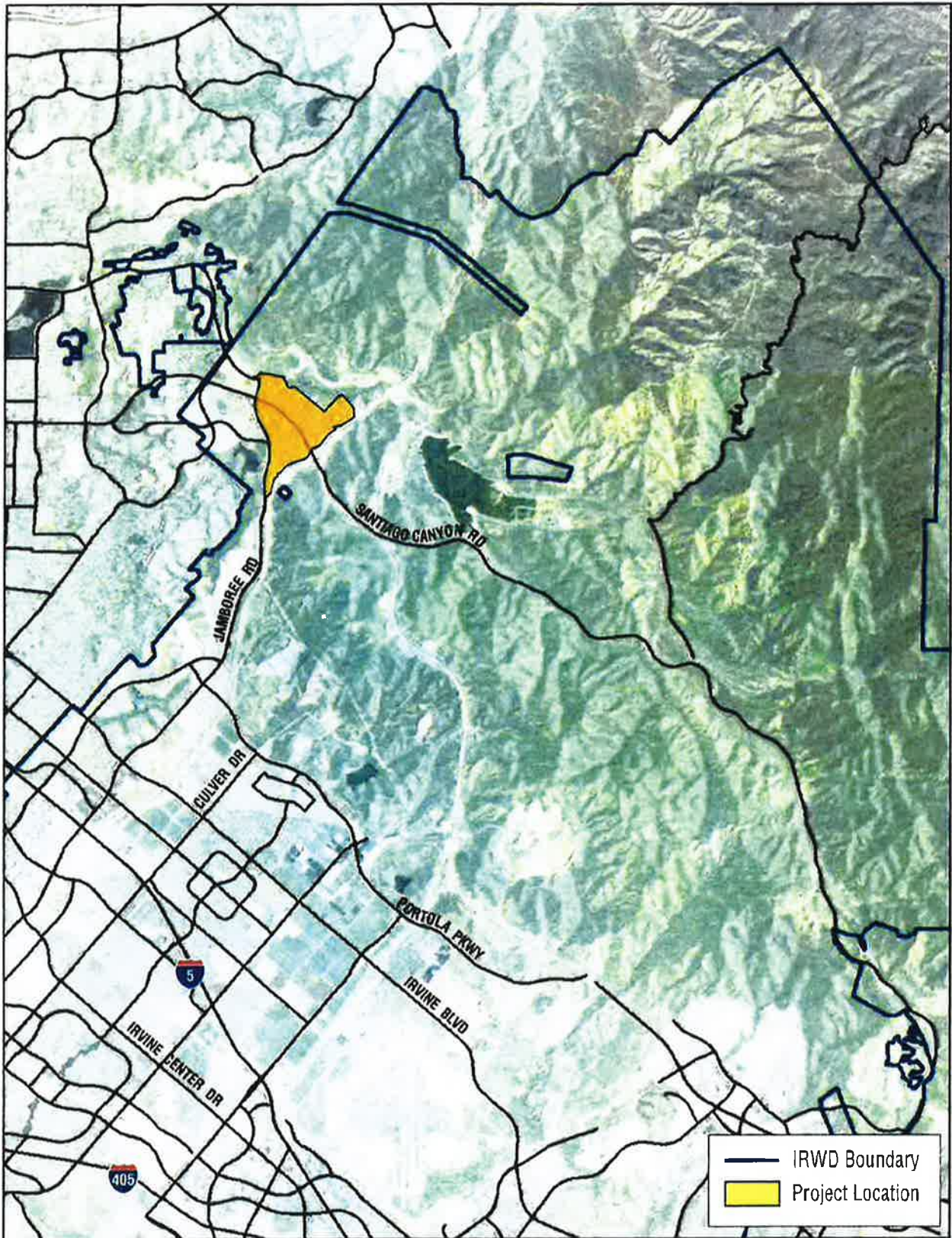
LIST OF EXHIBITS:

Exhibit "A" – Location Map

Exhibit "B" – Second Amended Water Supply Assessment for Santiago Hills II project

Exhibit "C" – Verification of Sufficient Water Supply for Tracts 16199 and 17995

EXHIBIT "A"



Michael Baker
INTERNATIONAL

0 4,000 8,000
Feet
2/15/16 JN 147817-21302 MAS

SANTIAGO HILLS II SAMP UPDATE
Site Vicinity Map

EXHIBIT "B"

SECOND AMENDED IRVINE RANCH WATER DISTRICT ASSESSMENT OF WATER SUPPLY Water Code §10910 et seq.

To: (Lead Agency)

City of Orange
300 E. Chapman Avenue
Orange, CA 92866-1591

(Applicant)
The Irvine Company
550 Newport Center Drive
Newport Beach, CA 92658-6370

Project Information

Project Title: Santiago Hills II (Exhibit A)

- ☒ Residential: No. of dwelling units: 1,180
- ☐ Shopping center or business: No. of employees _____ Sq. ft. of floor space _____
- ☐ Commercial office: No. of employees _____ Sq. ft. of floor space _____
- ☐ Hotel or motel: No. of rooms _____
- ☐ Industrial, manufacturing or processing: No. of employees _____ No. of acres _____
- Sq. ft. of floor space _____
- ☒ Mixed use (check and complete all above that apply) (see Exhibit B)
- ☐ Other: _____

Assessment of Availability of Water Supply

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

- ☐ The projected water demand for the Project ☐ was ☐ was not included in IRWD's most recently adopted urban water management plan.
- ☐ A sufficient water supply is available for the Project.
The total water supplies available to IRWD during normal, single-dry and multiple-dry years within a 20-year projection will meet the projected water demand of the Project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.
- ☐ A sufficient water supply is not available for the Project. [Plan for acquiring and developing sufficient supply attached. Water Code § 10911(a)]

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

Signature

Date

Title

Water Supply Assessment Information

Purpose of Assessment

Irvine Ranch Water District ("IRWD") has been identified by the City as a public water system that will supply water service (both potable and nonpotable) to the project identified on the cover page of this assessment (the "Project"). As the public water system, IRWD is required by Section 10910 *et seq.* of the Water Code to provide the City with an assessment of water supply availability ("assessment") for defined types of projects. The Project has been found by the City to be a project requiring an assessment. The City is required to include this assessment in the environmental document for the Project, and, based on the record, make a determination whether projected water supplies are sufficient for the Project and existing and planned uses.

Water Code Section 10910 (the "Assessment Law") contains the requirements for the information to be set forth in the assessment.

Prior Water Supply Assessments

IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area. Because of IRWD's aggregation of demands and supplies, each assessment completed by IRWD is expected to be generally similar to the most recent assessment, with changes as needed to take into account changes, if any, in demands and supplies, and any updated and corrected information obtained by IRWD. Previously assessed projects' water demands will be included in the baseline. A newly assessed project's water demand will have been included in previous water supply assessments for other projects (as part of IRWD's "full build-out" demand) to the extent of any land use planning or other water demand information for the project that was available to IRWD.

The Project's water demand was included (as part of IRWD's "full build-out" demand) in previous water supply assessments performed by IRWD. 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. This Second Amended Assessment supersedes the Amended Assessment dated March 8, 2004, to adjust water demand figures as shown in Figures 1 through 8 based on reduced land use densities of the proposed Project development as requested by letter of the City of Orange dated April 1, 2016.

Supporting Documentation

IRWD prepares two planning documents to guide water supply decision-making. IRWD's principal planning document is IRWD's "Water Resources Master Plan" ("WRMP"). The WRMP is a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs. IRWD also prepares an Urban Water Management Plan ("UWMP"), a document required by statute. The UWMP is based on the WRMP, but contains defined elements as listed in the statute (Water Code Section 10631, *et seq.*), and, as a result, is more limited than the WRMP in the treatment of supply and demand issues. Therefore, IRWD primarily relies on its most recent WRMP. The UWMP is required to be updated in years ending with "five" and "zero," and IRWD's most recent update of that document was adopted June 13, 2011. IRWD's next update of that document is anticipated in June 2016.

In addition to the WRMP and the 2010 UWMP mentioned above, other supporting documentation referenced herein is found in Section 6 of this assessment.

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

Assessment Methodology

Water use factors; dry-year increases. IRWD employs water use factors to enable it to assign water demands to the various land use types and aggregate the demands. The water use factors are based on average water use and incorporate the effect of IRWD's tiered-rate conservation pricing and its other water conservation programs. The factors are derived from historical usage (billing data) and a detailed review of water use factors within the IRWD service areas conducted as a part of the WRMP. System losses at a rate of approximately 5% are built into the water use factors. Water demands also reflect normal hydrologic conditions (precipitation). Lower levels of precipitation and higher temperatures will result in higher water demands, due primarily to the need for additional water for irrigation. To reflect this, base (normal) WRMP water demands have been increased 7% in the assessment during both "single-dry" and "multiple-dry" years. This is consistent with IRWD's 2010 UWMP and historical regional demand variation as documented in the Metropolitan Water District of Southern California's ("MWD's") Integrated Resources Plan (1996) (Volume 1).

Planning horizon. For consistency with IRWD's WRMP, the assessment reviews demands and supplies through the year 2036, 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 2036):

- 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; recycled 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 majority of all of IRWD's potable supply, and recycled water, groundwater and imported water comprise all of IRWD's nonpotable supply. Groundwater production typically remains constant or increases in cycles of dry years, even if overdraft of the basin temporarily increases, as groundwater producers reduce their demand on imported supplies to secure reliability. (See Section 4 herein.) As to imported water, MWD's Draft 2015 Urban Water Management Plan¹ (MWD UWMP) shows that MWD has sufficient supply capabilities to meet expected demands from 2020 through 2040 under a repeat of the 1990-1992 multiple dry-year hydrology and the 1977 single dry-year hydrology. (See Section 2(b) (1) "IMPORTED SUPPLY - ADDITIONAL INFORMATION," below, for a summary of information provided by MWD.) Recycled 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 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 year conditions through the year 2036. (Figures 1, 2 and 3.)
- Meeting both single- and multiple-dry-year annual demands for *full build-out* will require the completion of *under-development* supplies. (Figures 2 and 3.)
- Adequate *currently available* potable water supply capacity is available to meet *peak-flow* (maximum day) demands for all demand projections through the year 2036. (Figure 4.)
- With respect to nonpotable water, *currently available* supplies are adequate to meet projected annual demands for both the *baseline* and *with-project* demand projections under both dry-year conditions through the year 2036. (Figures 5, 6, 7 and 8). IRWD has proceeded with the implementation of future nonpotable supplies, as shown in the Figures, to improve local reliability during dry-year conditions.

The foregoing Figures provide an overview of IRWD potable and nonpotable water supply capabilities. More detailed information on the anticipated development and use of supplies, which incorporates source costs and reliability issues, is provided in the WRMP.

Margins of safety. The Figures and other information described in this assessment show that IRWD's assessment of supply availability contains several margins of safety or buffers:

- "Reserve" water supplies (excess of supplies over demands) will be available to serve as a buffer against inaccuracies in demand projections, future changes in land use, or alterations in supply availability.
- 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

¹ MWD expects to adopt its Draft 2015 UWMP in April, 2016.

available from these sources, based on legal entitlements, historical uses and information provided by MWD. In addition to MWD's existing regional supply assessments, this assessment has considered MWD information concerning recent events. See "**Recent Actions on Delta Pumping**," below.

- Information provided by MWD, as the imported water supplier, concerning the adequacy of its regional supplies, summarized herein, demonstrates MWD's inclusion of reserves in its regional supply assessments. In addition to MWD's existing regional supply assessments, this assessment has considered MWD information concerning recent events. See "**Recent Actions on Delta Pumping**," below.

- Although groundwater supply amounts shown in this assessment assume production levels within applicable basin production percentages described herein, production of groundwater can exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies.

Recent Actions on Delta Pumping. The Sacramento/San Joaquin Delta (Delta) is a vulnerable component in both the State and Federal systems to convey water from northern portions of California to areas south of the Delta. Issues associated with the Delta have generally been known for years; however, most recently, the continuing decline in the number of endangered Delta smelt resulted in the filing of litigation challenging permits for the operation of the Delta pumping facilities. On August 31, 2007, a Federal court ordered interim protective measures for the endangered Delta smelt, including operational limits on Delta pumping, which 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 (BDCP) process are defining long-term solutions for the Delta. In addition, State and federal agencies and water user entities are currently engaged in the development of the BDCP/California WaterFix, which is aimed at making physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, south of Delta SWP water supplies and water quality (MWD UWMP). 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 address uncertainties in expected SWP supplies, in October 2007, MWD prepared 2007 IRP Implementation Report, in which MWD estimated that it could see as much as up to a 22% reduction on average of its SWP supplies based on the court order. To comprehensively address the impacts of the SWP cut back on MWD's water supply development targets, in December 2007, MWD brought to its Board a strategy and work plan to update the long-term Integrated Resources Plan (IRP). As part of its ongoing long term planning, in its 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 2010 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. MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remained unchanged in the 2010 IRP Update. 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.

In January 2016, MWD adopted its 2015 IRP Update. In the 2015 IRP Update, MWD continued its adaptive management strategy and integrated future supply actions to improve the viability of potential contingency resources as needed, and to position the region to effectively implement these resources in a timely manner. The 2015 IRP finds additional action is needed in investments in conservation, local supplies, the California WaterFix, and stabilizing Colorado River supplies. Among the supply actions, MWD will continue to work collaboratively with state and federal agencies on the WaterFix, maximize its storage and transfer approach, and continue to develop and protect local supplies and conservation.

IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD: In the MWD UWMP, MWD states it has supply capability that would be sufficient to meet expected demands from 2020 to 2040 under single dry year and multiple dry year conditions.²

Based on the prior MWD 2007 IRP Implementation Report, as a result of the 2007 federal court order, MWD estimated that it could receive reduction of SWP supplies of up to 22% on average until a long term solution was implemented. For purposes of ensuring a conservative analysis, IRWD made an evaluation of the effect of the 22% estimated reduction of MWD's SWP supplies on its overall imported supplies. IRWD estimates that 22% reduction of SWP supplies conservatively translates to approximately 16% reduction in all of MWD's imported supplies over the years 2015 through 2035. For this purpose it is assumed that MWD's total supplies consist only of imported SWP and Colorado deliveries. Based on this estimate, this assessment uses a 16% reduction in MWD supplies available to IRWD for the years 2015 through 2036, 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.

Per the MWD UWMP, MWD performs water shortage planning in its Water Surplus and Drought Management (WSDM) Plan (1988) which guides MWD's planning and operations during both shortage and surplus conditions. Furthermore, MWD developed the Water Supply Allocation Plan (WSAP) (February 2009, updated December 2014) which provides standardized methodology for allocation of MWD's supplies during times of shortage. The WSDM Plan distinguishes between shortages, severe shortages and extreme shortages. These terms have specific meanings relating to MWD's ability to deliver water and the actions it takes. In June 2008, MWD's Board adopted a Water Supply Condition Framework to communicate the urgency of the region's water supply situation and the need for further water conservation to reduce regional demands, MWD uses the WSDM Plan and Framework to determine if a WSAP is recommended.

² MWD's UWMP utilized DWR's 2015 SWP Delivery Capability Report to estimate its SWP supplies for 2015 through 2040. These estimates incorporate the effect of regulatory requirements in accordance with biological opinions and also reflect potential impacts of climate change on SWP operations. Tables A.3-7 (MWD's UWMP) reflect a reduction of approximately 12% in MWD's expected average year SWP entitlement supplies. This amount is a smaller percentage reduction than MWD's 2007 estimate of 22% that was used by IRWD for purposes of this analysis. For purposes of a conservative analysis, IRWD uses the 22% reduction cited by MWD in its October 2007 IRP Implementation Report as the basis of IRWD's analysis.

As an alternative means of analyzing the effect of reduced MWD supplies on IRWD, Figures 1a, 2a, and 3a show IRWD's 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 WSAP, 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. 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 WSAP at a level 3 Regional Shortage Level and an effective 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.

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.³ 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.⁴ 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

³ 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 "2014-2015 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.

⁴ 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.

It can be noted that IRWD's above approach is conservative, in that IRWD evaluates the effect of the 16% reduction through 2036 and shows the effect of current allocation scenarios in all of the five-year increments but MWD reports that it has made significant progress in other water resource categories such as transfers, groundwater storage and developing other local resources, and supplies will be available from these resources over the long-term.

Climate Change. The California Department of Water Resources ("DWR") released a report "Progress on Incorporating Climate Change into Management of California's Water Resources" (July 2006), considering the impacts of climate change on the State's water supply. DWR emphasizes that "the report represents an example of an impacts assessment based on four scenarios defining an expected range of potential climate change impacts." DWR's major goal is to extend the analysis for long-term water resource planning from "assessing impacts" to "assessing risk." The report presents directions for further work in incorporating climate change into the management of California's water resources. Emphasis is placed on associating probability estimates with potential climate change scenarios in order to provide policymakers with both ranges of impacts and the likelihoods associated with those impacts. DWR's report acknowledges "that all results presented in this report are preliminary, incorporate several assumptions, reflect a limited number of climate change scenarios, and do not address the likelihood of each scenario. Therefore, these results are not sufficient by themselves to make policy decisions."

In MWD's 2015 IRP Update, MWD recognizes there is a significant uncertainty in the negative impact of climate change on water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a long term plan that provides resource development to offset the risk. Some risks and uncertainty will be addressed by following the findings of MWD's 2015 IRP Update. For longer term risks, MWD established a Robust Decision Making (RDM) approach that can show how vulnerable the region's reliability is to the longer-term risks.

Per MWD's UWMP, MWD continues to incorporate current climate change science into its planning efforts. MWD's 2015 IRP Update incorporates evaluating a wider range of water management strategies and seeking robust and adaptive action plans that respond to uncertain conditions as they evolve over time, and that ultimately will perform adequately under a wide range of future conditions. MWD's 2015 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 (MWD UWMP) 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 DWR's investments in improvements on the SWP and the long term Delta plan in its UWMP (pages 3-19 to 3-22). IRWD has also addressed supply interruption planning in its WRMP and 2010 UWMP.

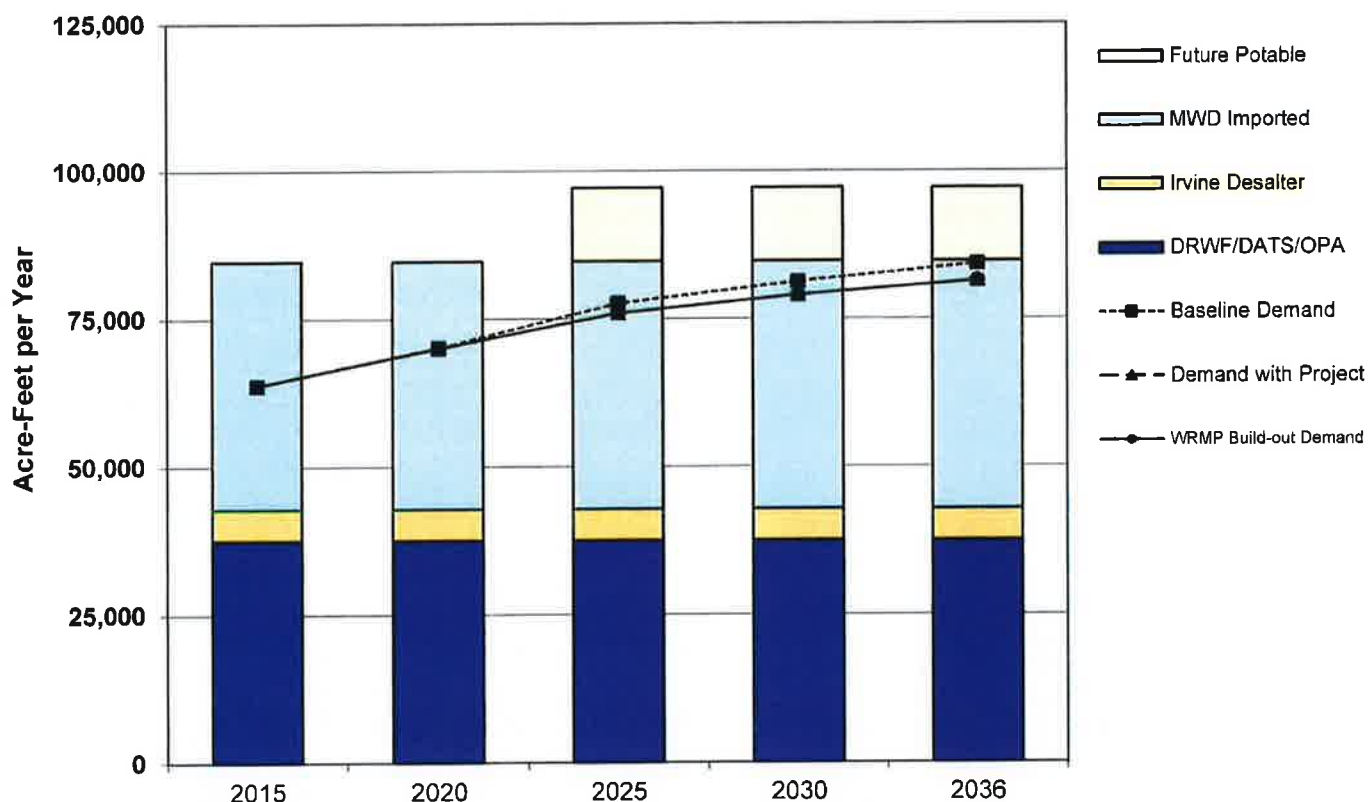
Recent Actions Related to Drought Conditions. In response to the historically dry conditions throughout the state of California, on April 1, 2015, Governor Brown issued an Executive Order directing the State Water Resources Control Board (SWRCB) to impose restrictions to achieve an aggregate statewide 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 required that IRWD achieve a 16% reduction in potable water use from the 2013 levels. On November 13, 2015, Governor Brown issued an Executive Order directing the SWRCB to extend the 2015 Emergency Regulation through October 31, 2016 if drought conditions continued. On February 2, 2016, the SWRCB adopted an extended and modified Emergency Regulation. As a result of the modification, IRWD's mandated reduction was changed from 16% to 9% effective March 1, 2016. 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. IRWD has and will continue to 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" (see above), 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 Assessment

1. Supply and demand comparison

Comparisons of IRWD's average annual and peak (maximum day) demands and supplies, under *baseline* (existing and committed demand, without the Project), *with-project* (baseline plus Project), and *full build-out* development projections, are shown in the following Figures 1-4 (potable water), Figures 5-8 (nonpotable water) and Figures 1a, 2a, and 3a (short term MWD allocation potable water). See also the "Recent Actions on Delta Pumping" above.

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



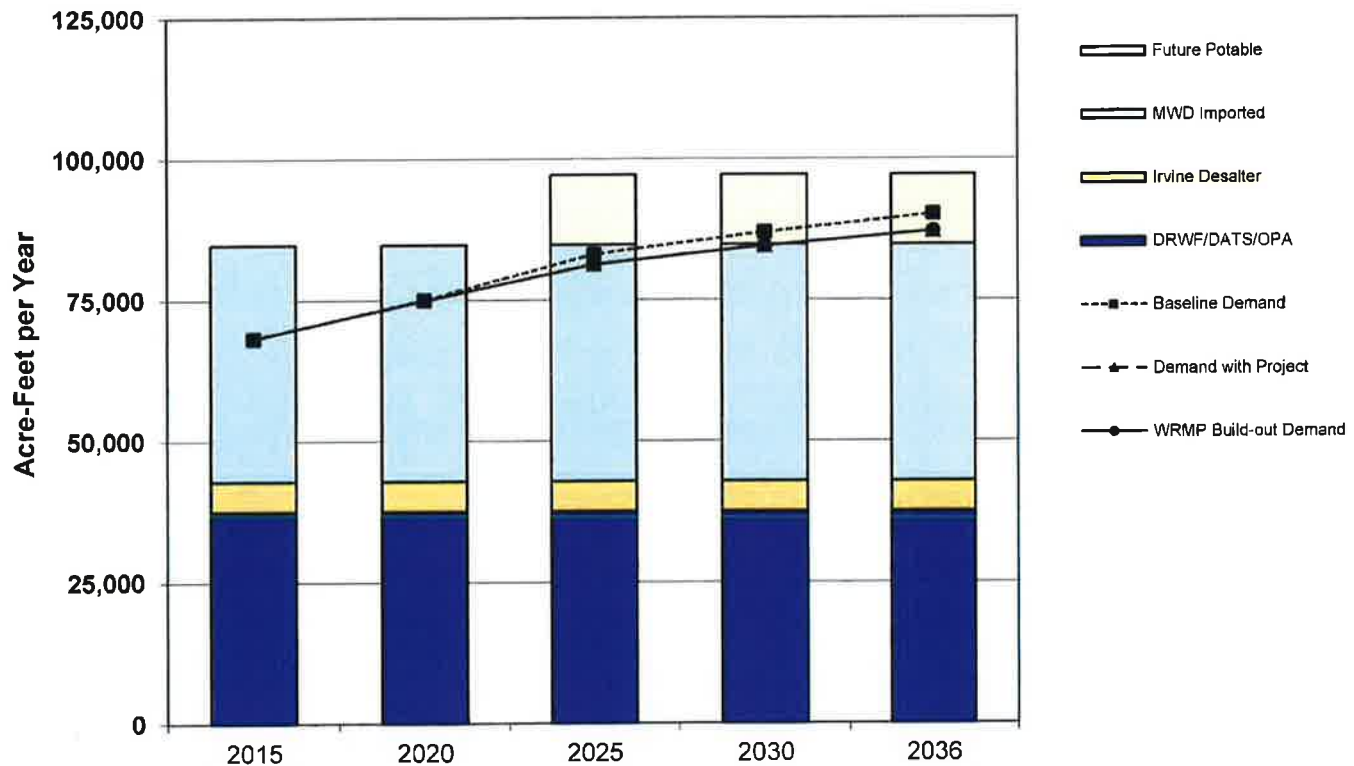
(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portion)	-	4,000	4,000	4,000	4,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	91,100	95,100	107,452	107,452	107,452
Baseline Demand	63,753	70,137	77,635	81,261	84,276
Demand with Project	63,753	70,057	75,968	79,007	81,435
WRMP Build-out Demand	63,753	70,057	75,968	79,007	81,434
Reserve Supply with Project	27,347	25,043	31,484	28,445	26,017

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.

Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

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



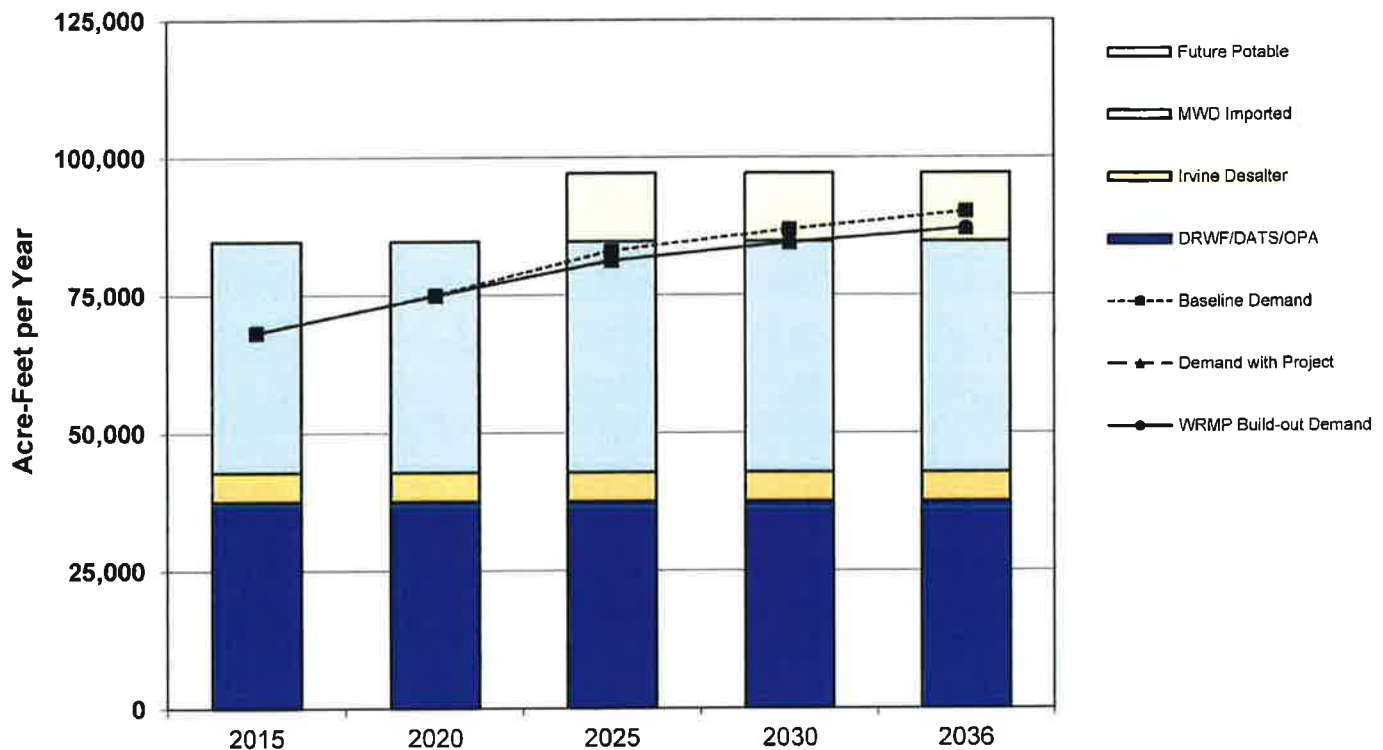
(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	91,100	92,100	104,452	104,452	104,452
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	22,884	17,139	23,167	19,914	17,317

Notes: Supplies identical to Normal-Year based on Metropolitan's 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).

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

Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

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



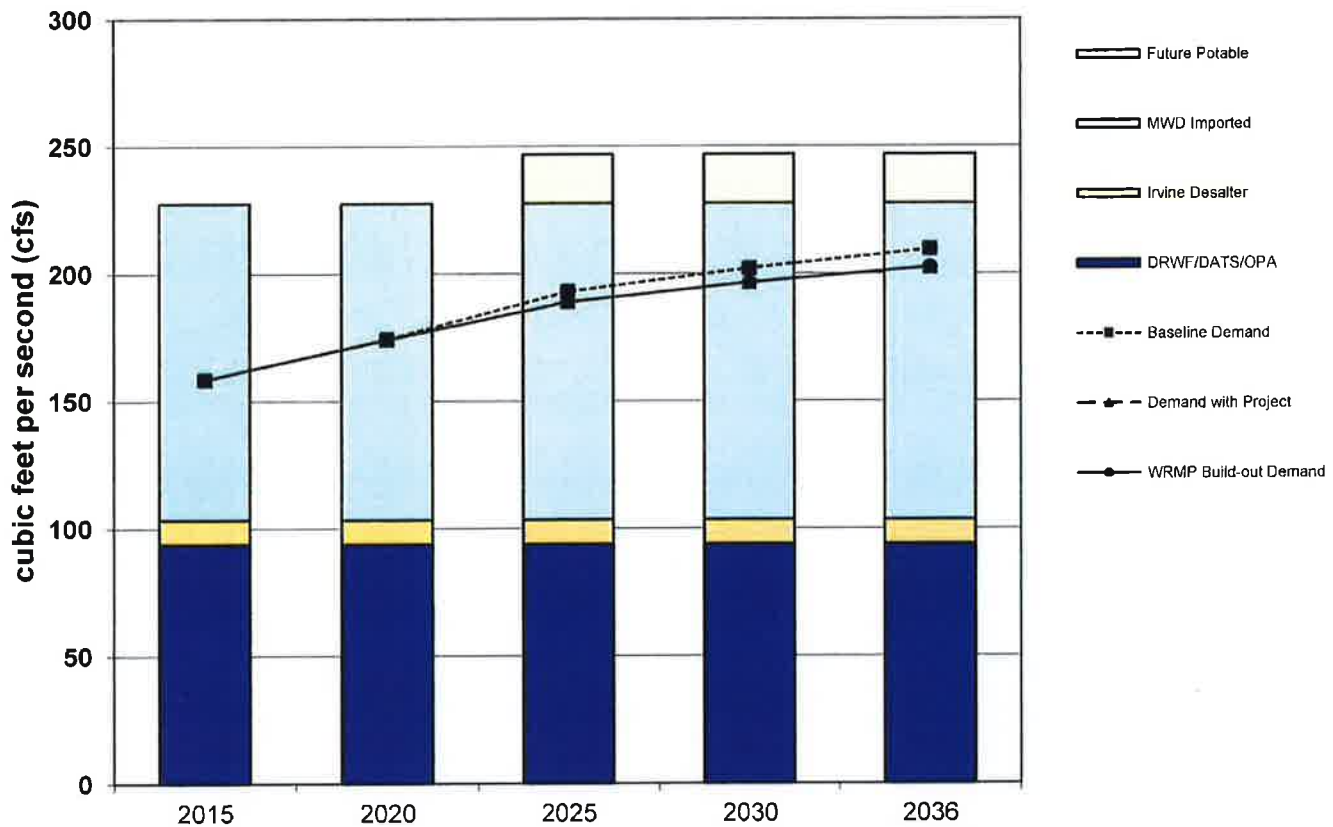
(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, B)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portic	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	91,100	92,100	104,452	104,452	104,452
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	22,884	17,139	23,167	19,914	17,317

Notes: Supplies identical to Normal-Year based on Metropolitan's 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).

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

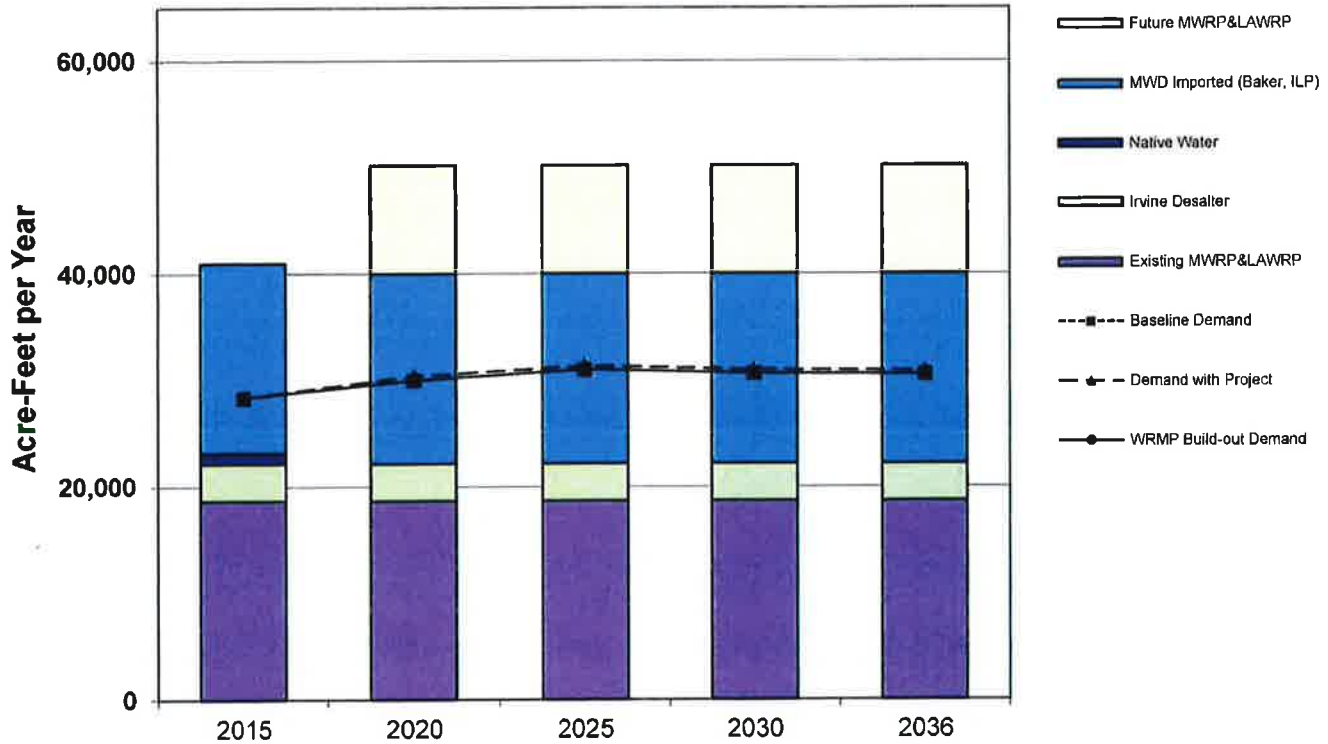
Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

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



(in cfs)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	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
Baker Water Treatment Plant	-	10.5	10.5	10.5	10.5
Supplies Under Development					
Future Potable	-	-	19.2	19.2	19.2
Maximum Supply Capability	238.4	248.9	268.1	268.1	268.1
Baseline Demand	158.5	174.4	193.0	202.0	209.5
Demand with Project	158.5	174.2	188.9	196.4	202.5
WRMP Build-out Demand	158.5	174.2	188.9	196.4	202.5
Reserve Supply with Project	79.9	74.7	79.2	71.7	65.6

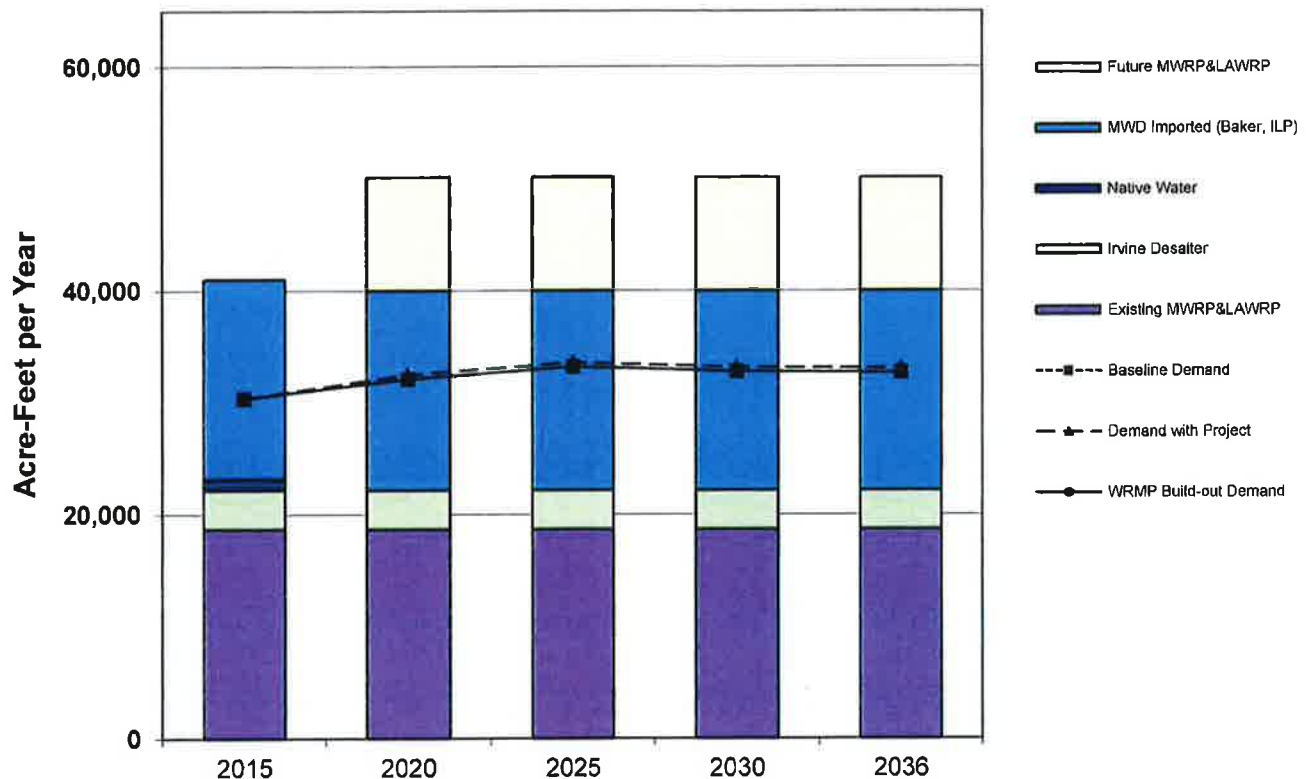
Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2015	2020	2025	2030	2036
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	-	-	-	-
Maximum Supply Capability	40,997	50,097	50,097	50,097	50,097
Baseline Demand	28,381	30,013	31,010	30,625	30,540
Demand with Project	28,381	30,371	31,368	30,983	30,898
WRMP Build-out Demand	28,381	30,013	31,010	30,625	30,540
Reserve Supply with Project	12,616	20,084	19,087	19,472	19,557

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.

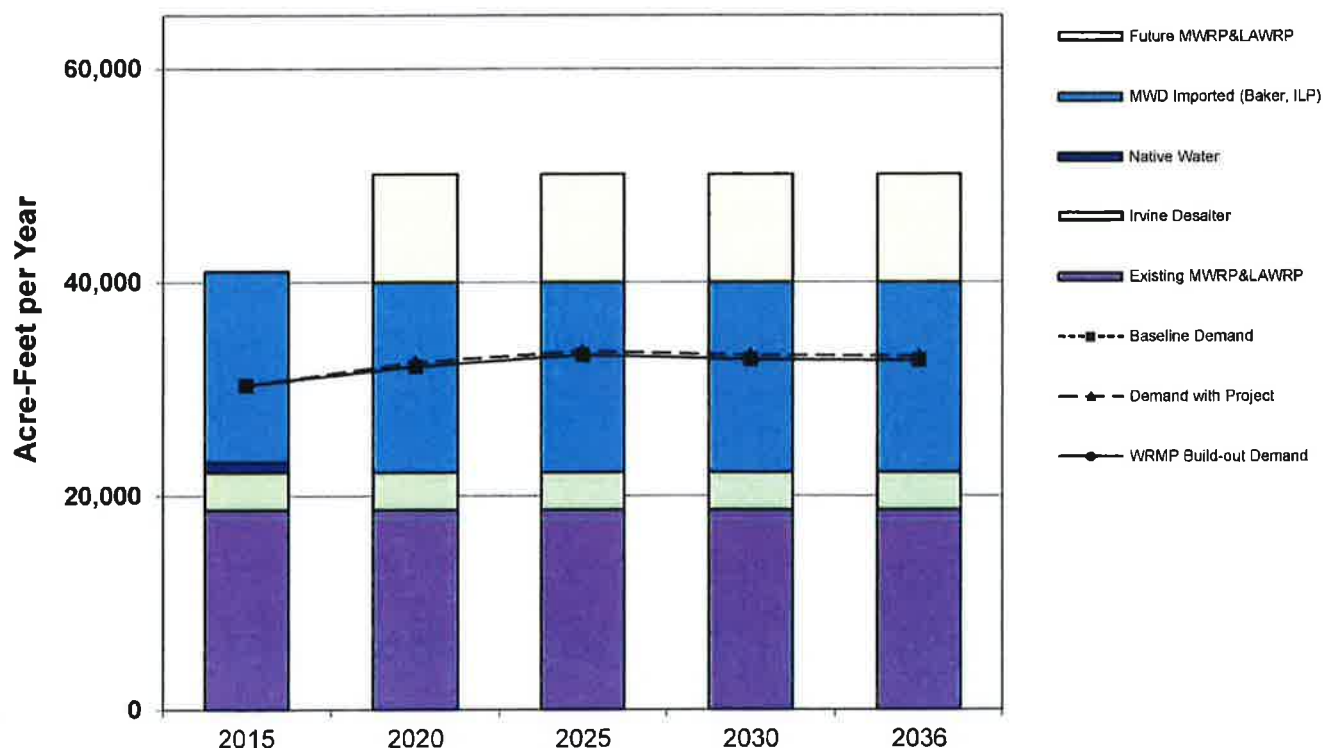
Figure 6
IRWD Single Dry-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2015	2020	2025	2030	2036
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	-	-	-	-
Maximum Supply Capability	40,997	50,097	50,097	50,097	50,097
Baseline Demand	30,368	32,114	33,181	32,769	32,677
Demand with Project	30,368	32,497	33,564	33,152	33,061
WRMP Build-out Demand	30,368	32,114	33,181	32,769	32,677
Reserve Supply with Project	10,629	17,600	16,533	16,945	17,036

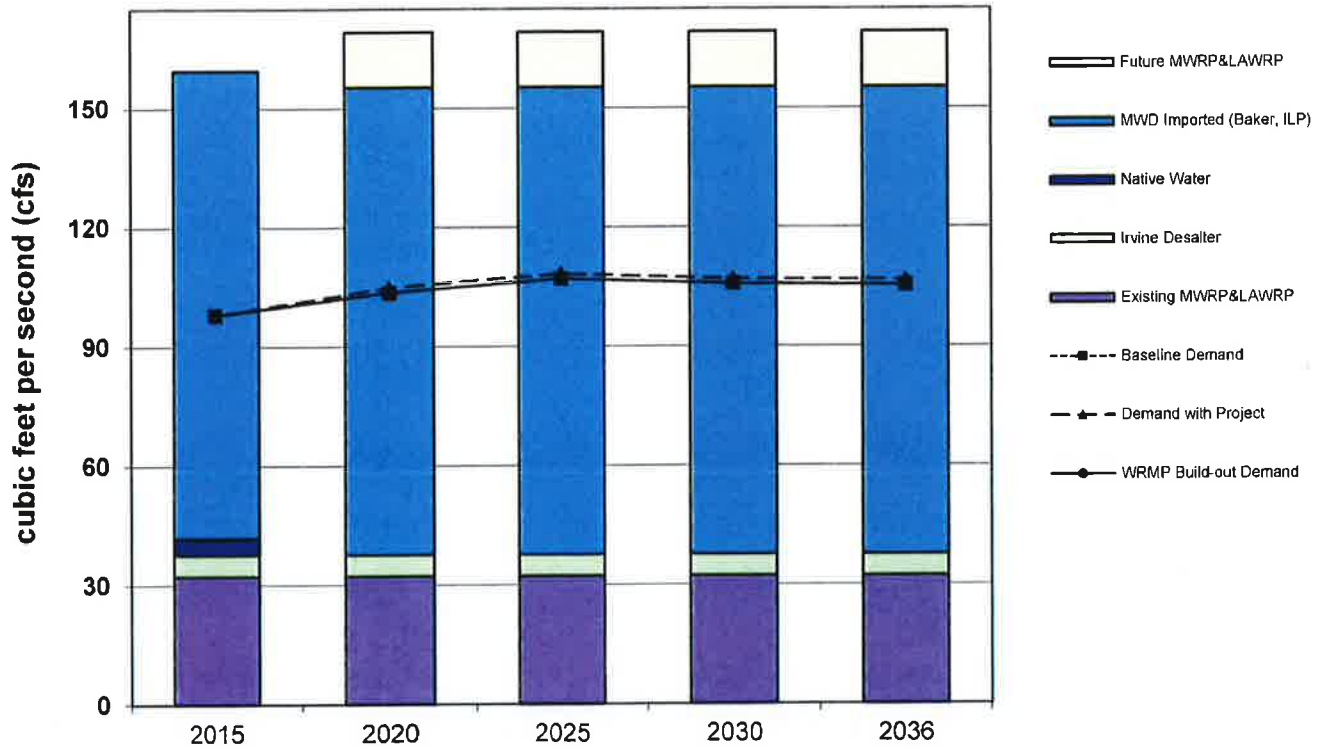
Note: Downward trend reflects reduction in agricultural use over time.
Native water will be treated to potable through the Baker Water Treatment Plant after 2016.
MWD Imported Supplies are shown at 16% reduction off of average connected capacity.

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



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.

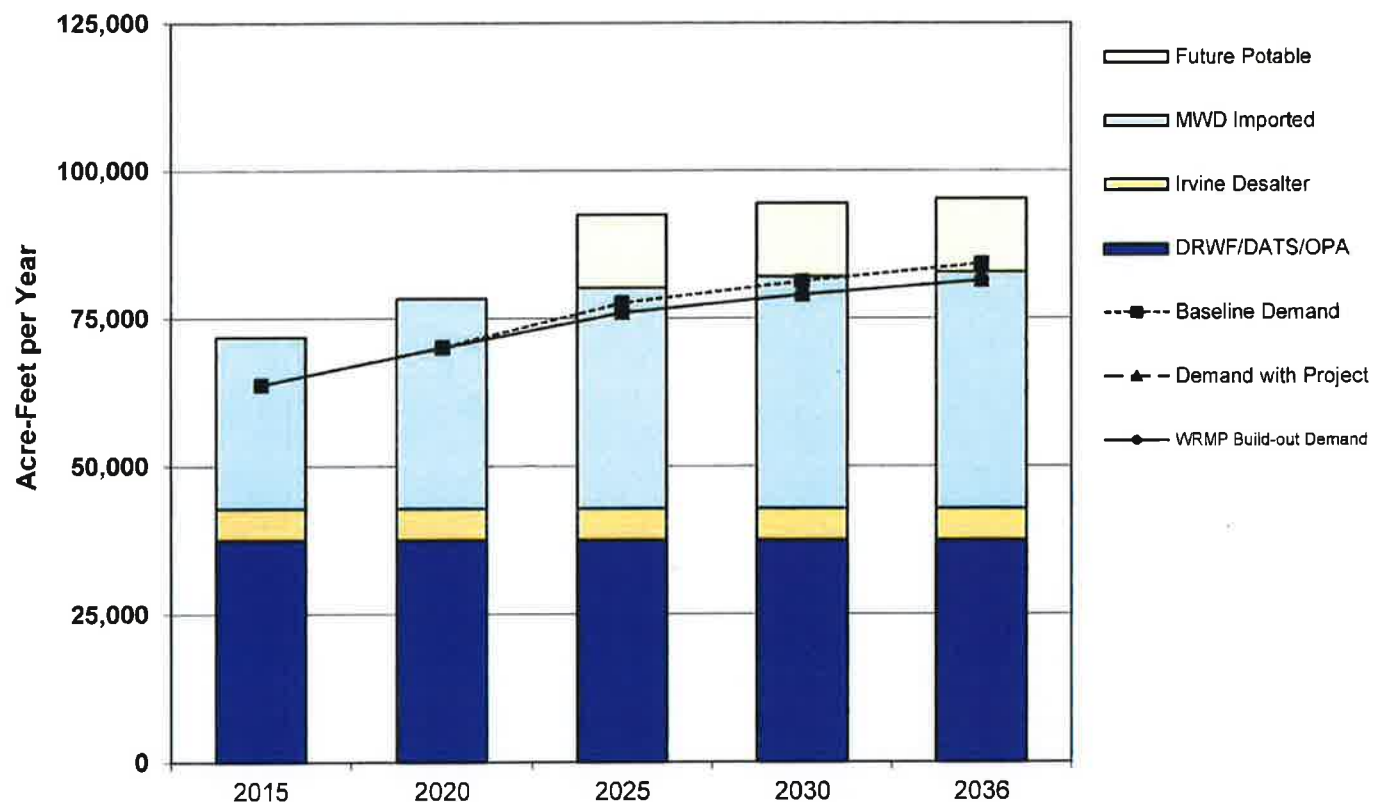
Figure 8
IRWD Maximum-Dry Supply & Demand - Nonpotable Water



(in cfs)	2015	2020	2025	2030	2036
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	-	-	-	-
Maximum Supply Capability	159.5	169.2	169.2	169.2	169.2
Baseline Demand	98.0	103.6	107.1	105.8	105.5
Demand with Project	98.0	104.9	108.3	107.0	106.7
WRMP Build-out Demand	98.0	103.6	107.1	105.8	105.5
Reserve Supply with Project	61.5	65.6	62.2	63.5	63.8

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.

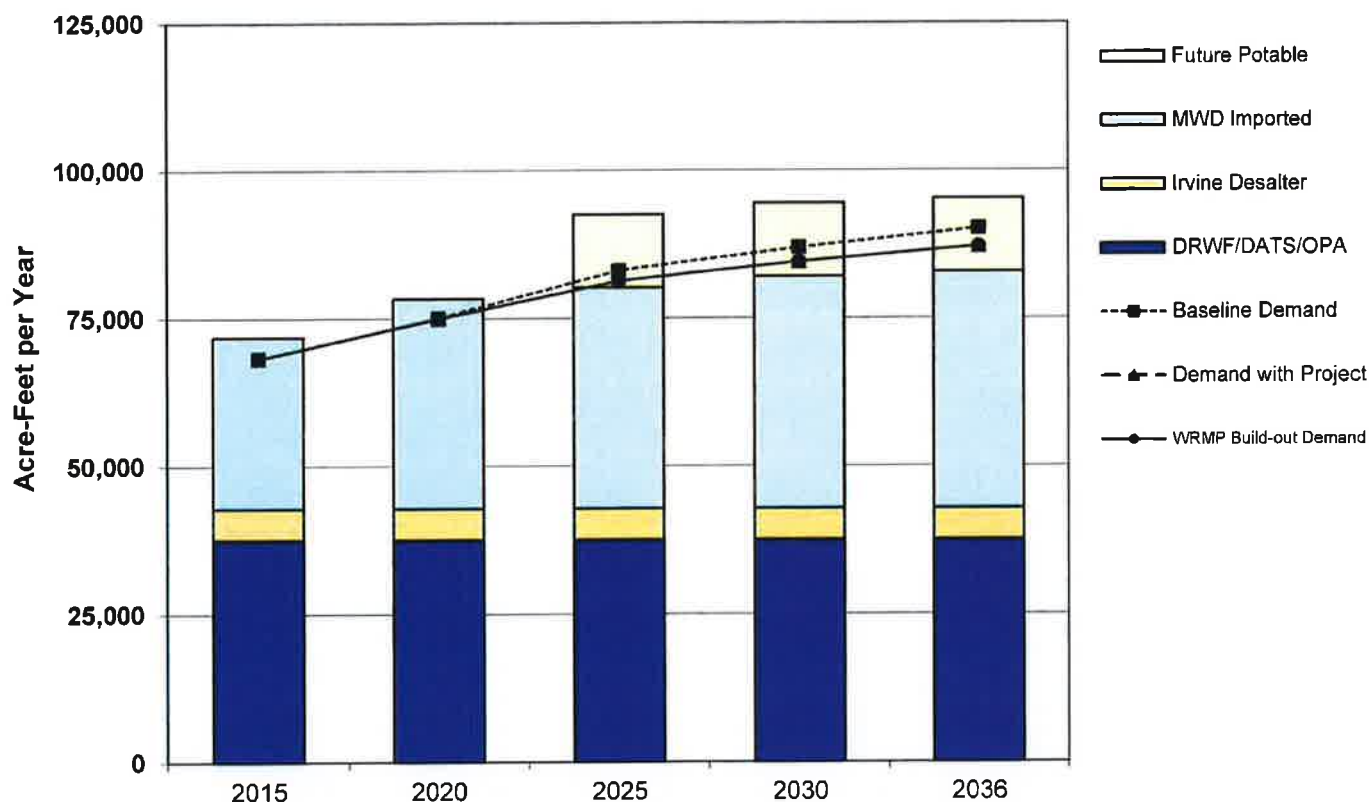
Figure 1a
IRWD Normal-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*



(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	63,753	70,137	77,635	81,261	84,276
Demand with Project	63,753	70,057	75,968	79,007	81,435
WRMP Build-out Demand	63,753	70,057	75,968	79,007	81,434
Reserve Supply with Project	14,417	15,614	23,866	22,730	21,090

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

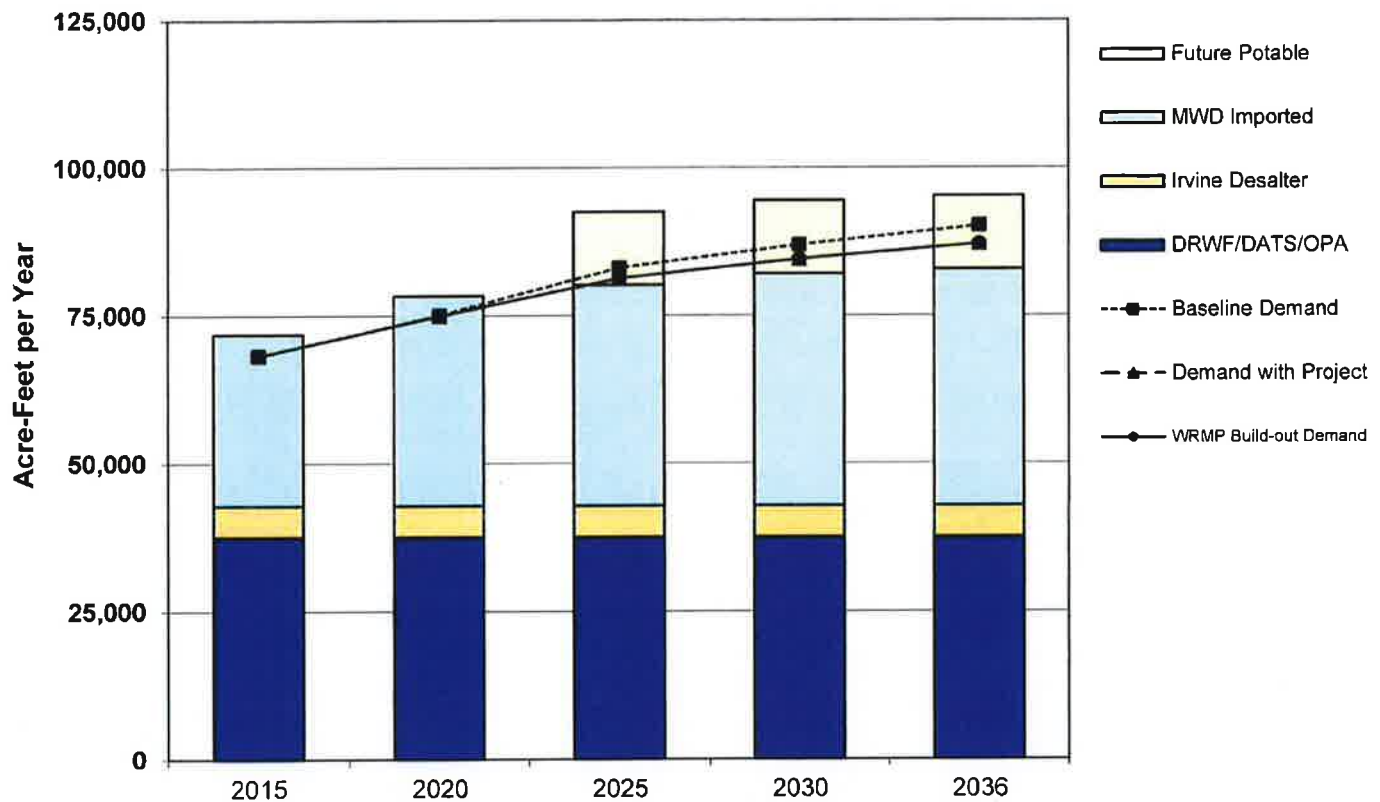
Figure 2a
IRWD Single Dry-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*



(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	9,955	10,710	18,548	17,199	15,389

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

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



(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	9,955	10,710	18,548	17,199	15,389

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

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 updated in the following table:

	Max Day (cfs)	(1.8)	Avg. Annual (AFY)	Annual by Category (AFY)
Current Supplies				
Potable - Imported				
East Orange County Feeder No. 2	41.4	23.0	16,652	1
Allen-McColloch Pipeline*	64.7	35.9	26,024	1
Orange County Feeder	18.0	10.0	7,240	1
	124.1	69	49,916	
Potable - Treated Surface				
Baker Treatment Plant (includes imported and native)	10.5		6,858	
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
Total Potable Current Supplies	248.9			105,944
Nonpotable - Recycled Water				
		0.9		
MWRP (28 mgd)	37.3	26,969.6	26,970	4
LAWRP (5.5 mgd)	8.3	5.5	5,975	4
Future MWRP & LAWRP	6.7	4,816.0	4,820	5
Nonpotable - Imported				
Baker Aqueduct	52.7	16.9	12,221	6
Irvine Lake Pipeline	65.0		9,000	7
	117.7		21,221	
Nonpotable - Groundwater				
Irvine Desalter-Nonpotable	5.4		3,514	8
Nonpotable Native				
Irvine Lake	4.2		3,048	9
Total Nonpotable Current Supplies	179.4			65,548
Total Combined Current Supplies	428.3			171,493
Supplies Under Development				
Potable Supplies				
Future Groundwater Production Facilities	19.2		12,352	
Total Under Development	19.2		12,352	
Total Supplies				
Potable Supplies	268.1			118,297
Nonpotable Supplies	179.4			65,548
Total Supplies (Current and Under Development)	447.5			183,845

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 4, page 23).

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 28.0 mgd treatment capacity (26,970 AFY RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 AFY)

5 Future estimated MWRP & LAWRP recycled water production.

6 Baker Aqueduct capacity has been allocated to Baker Water Treatment Plant (WTP) participants and IRWD will own 46.50 cfs in Baker Aqueduct after completion of 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 9, page 26).

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) 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.^{5 6}

•POTABLE SUPPLY - IMPORTED⁷

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"),⁸ 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

⁵ 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.

⁶ In the following discussion, contractual and other legal entitlements are characterized as either potable or nonpotable, according to the characterization of the source of supply. Some of the nonpotable supplies surplus to nonpotable demand could potentially be rendered potable by the addition of treatment facilities; however, except where otherwise noted, IRWD has no current plans to do so.

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

⁸ 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).

Baker Water Treatment Plant (currently available)

IRWD is currently constructing the Baker Water Treatment Plant (Baker WTP) in partnership with El Toro Water District, Moulton-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.⁹

•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 through 2035 in its Final Draft Long-Term Facilities Plan (January, 2006), last updated November 19, 2014. The Long-Term Facilities Plan is updated approximately every five years.

(ii) *Irvine Ranch Water District v. Orange County Water District*, OCSC No. 795827. A portion of IRWD is outside the jurisdictional boundary of OCWD. IRWD is eligible to annex the Santa Ana River Watershed portion of this territory to OCWD, under OCWD's current annexation policy (Resolution No. 86-2-15, adopted on February 19, 1986 and reaffirmed on June 2, 1999), and anticipates doing so. However, this September 29, 1998, Superior Court ruling indicates that IRWD is entitled to deliver groundwater from the Basin to the IRWD service area irrespective of whether such area is also within OCWD.

***Dyer Road Wellfield (DWRF) / Deep Aquifer Treatment System (DATS)
(currently available)***

(iii) Agreement For Water Production and Transmission Facilities, dated March 18, 1981, as amended May 2, 1984, September 19, 1990 and November 3, 1999

⁹ The Baker WTP shall be supplied nonpotable imported water through the existing Baker Pipeline. IRWD's existing Baker Pipeline capacity (see 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.

(the "DRWF Agreement"). The DRWF Agreement, among IRWD, OCWD and Santa Ana, concerns the development of IRWD's Dyer Road Wellfield ("DRWF"), within the Basin. The DRWF consists of 16 wells pumping from the non-colored water zone of the Basin and 2 wells (with colored-water treatment facilities) pumping from the deep, colored-water zone of the Basin (the colored-water portion of the DRWF is sometimes referred to as the Deep Aquifer Treatment System or "DATS".) Under the DRWF Agreement, an "equivalent" basin production percentage (BPP) has been established for the DRWF, currently 28,000 AFY of non-colored water and 8,000 AFY of colored water, provided any amount of the latter 8,000 AFY not produced results in a matching reduction of the 28,000 AFY BPP. Although typically IRWD production from the DRWF does not materially exceed the equivalent BPP, the equivalent BPP is not an extraction limitation; it results in imposition of monetary assessments on the excess production. The DRWF Agreement also establishes monthly pumping amounts for the DRWF. With the addition of the Concentrated Treatment System (CATS), IRWD has increased the yield of DATS.

Irvine Subbasin / Irvine Desalter (currently available)

(iv) First Amended and Restated Agreement, dated March 11, 2002, as amended June 15, 2006, restating May 5, 1988 agreement ("Irvine Subbasin Agreement"). TIC has historically pumped agricultural water from the Irvine Subbasin. (As in the rest of the Basin of which this subbasin is a part, the groundwater rights have not been adjudicated, and OCWD provides governance and management under the Act.) The 1988 agreement between IRWD and TIC provided for the joint use and management of the Irvine Subbasin. The 1988 agreement further provided that the 13,000 AFY annual yield of the Irvine Subbasin would be allocated 1,000 AFY to IRWD and 12,000 AFY to TIC. Under the restated Irvine Subbasin Agreement, the foregoing allocations were superseded as a result of TIC's commencement of the building its Northern Sphere Area project, with the effect that the Subbasin production capability, wells and other facilities, and associated rights have been transferred from TIC to IRWD, and IRWD has assumed the production from the Subbasin. In consideration of the transfer, IRWD is required to count the supplies attributable to the transferred Subbasin production in calculating available supplies for the Northern Sphere Area project and other TIC development and has agreed that they will not be counted toward non-TIC development.

A portion of the existing Subbasin water production facilities produce water which is of potable quality. IRWD could treat some of the water produced from the Subbasin for potable use, by means of the Desalter and other projects. Although, as noted above, the Subbasin has not been adjudicated and is managed by OCWD, TIC reserved water rights from conveyances of its lands as development over the Subbasin has occurred, and under the Irvine Subbasin Agreement TIC has transferred its rights to IRWD.

(v) Second Amended and Restated Agreement Between Orange County Water District and Irvine Ranch Water District Regarding the Irvine Desalter Project, dated June 11, 2001, and other agreements referenced therein. This agreement provides for the extraction and treatment of subpotable groundwater from the Irvine Subbasin, a portion of the Basin. As is the case with the remainder of the Basin, IRWD's entitlement to extract this water is not adjudicated, but the use of

the entitlement is governed by the OCWD Act. (See also, discussion of Irvine Subbasin in the preceding paragraph.) A portion of the product water has been delivered into the IRWD potable system, and the remainder has been delivered into the IRWD nonpotable system.

Orange Park Acres (currently available)

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

Wells 21 and 22 (currently available)

IRWD 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.

Irvine Wells (under development)

(vi) IRWD is pursuing the installation of production facilities in the west Irvine, Tustin Legacy and Tustin Ranch portions of the Basin. These groundwater supplies are considered to be under development; however, four wells have been drilled and have previously produced groundwater, three wells have been drilled but have not been used as production wells to date, a site for an additional well and treatment facility has been acquired by IRWD. The production facilities can be constructed and operated under the Act; no statutory or contractual approval is required to do so. Appropriate environmental review would be conducted for each facility. See discussion of the Act under Potable Supply - Groundwater, paragraph (i), above.

•NONPOTABLE SUPPLY - RECYCLED

Water Recycling Plants (currently available)

Water Code Section 1210. IRWD supplies its own recycled water from wastewater collected by IRWD and delivered to IRWD's Michelson Water Recycling Plant (MWRP) and Los Alisos Water Recycling Plant (LAWRP). MWRP currently has a permitted tertiary capacity of 18 million gallons per day (MGD) and LAWRP currently has a permitted tertiary 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 recycled water, and do not permit stream discharge of recycled 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 (currently available)

IRWD completed construction of the Michelson Water Reclamation Plant Phase 2 Capacity Expansion Project to tertiary capacity of 28 MGD. With this expansion, IRWD increased its tertiary treatment capacity on the existing MWRP site to produce sufficient recycled water to meet the projected demand in the year 2036. Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

•NONPOTABLE SUPPLY - IMPORTED¹⁰

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's original capacities in the Baker Pipeline include 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. These existing Baker Pipeline capacities have been apportioned to the Baker WTP participants based on Baker WTP capacity ownership. IRWD retains 10.5 cfs of the pipeline capacity for potable supply through the Baker WTP and retains 36 cfs in Reach 1U of the Baker Pipeline capacity for nonpotable supply (See also footnote 10, page 27). Water is subject to availability from MWD.

•NONPOTABLE SUPPLY - NATIVE

Irvine Lake (currently available)

(i) Permit For Diversion and Use of Water (Permit No. 19306) issued pursuant to Application No. 27503; License For Diversion and Use of Water (License 2347) resulting from Application No. 4302 and Permit No. 3238; License For Diversion

¹⁰ See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

and Use of Water (License 2348) resulting from Application No. 9005 and Permit No. 5202. The foregoing permit and licenses, jointly held by IRWD (as successor to The Irvine Company (TIC) and Carpenter Irrigation District (CID)) and Serrano Water District (SWD), secure appropriate rights to the flows of Santiago Creek. Under Licenses 2347 and 2348, IRWD and SWD have the right to diversion by storage at Santiago Dam (Irvine Lake) and a submerged dam, of a total of 25,000 AFY. Under Permit No. 19306, IRWD and SWD have the right to diversion by storage of an additional 3,000 AFY by flashboards at Santiago Dam (Irvine Lake). (Rights under Permit No. 19306 may be junior to an OCWD permit to divert up to 35,000 AFY of Santiago Creek flows to spreading pits downstream of Santiago Dam.) The combined total of native water that may be diverted to storage under these licenses and permit is 28,000 AFY. A 1996 amendment to License Nos. 2347, 2348 and 2349 [replaced by Permit No. 19306 in 1984] limits the withdrawal of water from the Lake to 15,483 AFY under the licenses. This limitation specifically references the licenses and doesn't reference water stored pursuant to other legal entitlements. The use and allocation of the native water is governed by the agreements described in the next paragraph.

(ii) Agreement, dated February 6, 1928 ("1928 Agreement"); Agreement, dated May 15, 1956, as amended November 12, 1973 ("1956 Agreement"); Agreement, dated as of December 21, 1970 ("1970 Agreement"); Agreement Between Irvine Ranch Water District and The Irvine Company Relative to Irvine Lake and the Acquisition of Water Rights In and To Santiago Creek, As Well As Additional Storage Capacity in Irvine Lake, dated as of May 31, 1974 ("1974 Agreement"). The 1928 Agreement was entered into among SWD, CID and TIC, providing for the use and allocation of native water in Irvine Lake. Through the 1970 Agreement and the 1974 Agreement, IRWD acquired the interests of CID and TIC, leaving IRWD and SWD as the two co-owners. TIC retains certain reserved rights. The 1928 Agreement divides the stored native water by a formula which allocates to IRWD one-half of the first 1,000 AF, plus increments that generally yield three-fourths of the amount over 1,000 AF.¹¹ The agreements also provide for evaporation and spill losses and carryover water remaining in the Lake at the annual allocation dates. Given the dependence of native water on rainfall, for purposes of this assessment only a small portion of IRWD's share of the 28,000 AFY of native water rights (4,000 AFY in normal years and 1,000 AFY in single and multiple-dry years) is shown in currently available supplies, based on averaging of historical data. However, IRWD's ability to supplement Irvine Lake storage with its imported untreated water supplies, described herein, offsets the uncertainty associated with the native water supply.

•NONPOTABLE SUPPLY - GROUNDWATER

Irvine Subbasin / Irvine Desalter (currently available)

(i) IRWD's entitlement to produce nonpotable water from the Irvine Subbasin is included within the Irvine Subbasin Agreement. See discussion of the Irvine

¹¹ 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.

Subbasin Agreement under Potable Supply - Groundwater; paragraph (iv), above.

(iii) 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 MWD's UWMP, MWD has extended its planning timeframe out through 2040 to ensure that MWD's UWMP may be used as a source document for meeting requirements for sufficient supplies. In addition, the MWD UWMP includes "Justifications for Supply Projections" (Appendix A-3) that details the planning, legal, financial, and regulatory basis for including each source of supply in the plan. The MWD UWMP summarizes MWD's planning initiatives over the past 15 years, which includes the Integrated Resources Plan (IRP), the IRP 2015 Update, the WSDM Plan, Strategic Plan and Rate Structure. The reliability analysis in MWD's 2015 IRP Update showed that MWD can maintain reliable supplies under the conditions that have existed in past dry periods throughout the period through 2040. The MWD UWMP includes tables that show the region can provide reliable supplies under both the single driest year (1977) and multiple dry years (1990-92) through 2040. MWD has also identified buffer supplies, including additional State Water Project groundwater storage and transfers that could serve to supply the additional water needed.

It is anticipated that MWD will revise its regional supply availability analysis periodically, if needed, to supplement the MWD UWMP in years when the MWD UWMP is not being updated.

IRWD is permitted by the statute to rely upon the water supply information provided by the wholesaler concerning a wholesale water supply source, for use in preparing its UWMPs. In turn, the statute provides for the use of UWMP information to support water supply assessments and verifications. In accordance with these provisions, IRWD is entitled to rely upon the conclusions of the MWD UWMP. As referenced above under Summary of Results of Demand-Supply Comparisons - Recent Actions on Delta Pumping, MWD has provided additional information on its imported water supply.

MWD's reserve supplies, together with the fact that IRWD relies on MWD supplies as supplemental supplies that need not be used to the extent IRWD operates currently available and under-development local supplies, build a margin of safety into IRWD's supply availability.

- (2) Adopted capital outlay program to finance delivery of the water supplies.

All necessary delivery facilities currently exist for the use of the *currently available* and *under-development* supplies assessed herein, with the exception of

future groundwater wells, and IRWD sub-regional and developer-dedicated conveyance facilities necessary to complete the local distribution systems for the Project. IRWD's turnout at each MWD connection and IRWD's regional delivery facilities are sufficiently sized to deliver all of the supply to the sub-regional and local distribution systems.

With respect to future groundwater wells (PR 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.) For these facilities, as well as unbuilt IRWD sub-regional conveyance facilities, the sources of funding are previously authorized general obligation bonds, revenue-supported certificates of participation and/or capital funds held by IRWD Improvement Districts. IRWD has maintained a successful program for the issuance of general obligation bonds and certificates of participation on favorable borrowing terms, and IRWD has received AAA public bond ratings. IRWD has approximately \$615.2 million (water) and \$784.8 million (wastewater) of unissued, voter-approved bond authorization. Certificates of participation do not require voter approval. Proceeds of bonds and available capital funds are expected to be sufficient to fund all IRWD facilities for delivery of the supplies under development. Tract-level conveyance facilities are required to be donated to IRWD by the Applicant or its successor(s) at time of development.

See also MWD's UWMP, Appendix A.3 Justifications for Supply Projections with respect to capital outlay programs related to MWD's supplies.

(3) Federal, state and local permits for construction of delivery infrastructure.

Most IRWD delivery facilities are constructed in public right-of-way or future right-of-way. State statute confers on IRWD the right to construct works along, under or across any stream of water, watercourse, street, avenue, highway, railway, canal, ditch or flume (Water Code Section 35603). Although this right cannot be denied, local agencies may require encroachment permits when work is to be performed within a street. If easements are necessary for delivery infrastructure, IRWD requires the developer to provide them. The crossing of watercourses or areas with protected species requires federal and/or state permits as applicable.

See also MWD's UWMP, Appendix A.3 Justifications for Supply Projections with respect to permits related to MWD's supplies.

(4) Regulatory approvals for conveyance or delivery of the supplies.

See response to preceding item (3).

See also MWD's UWMP, Appendix A.3 Justifications for Supply Projections with respect to regulatory approvals related to MWD's supplies.

3. Other users and contractholders (identified supply not previously used).

For each of the water supply sources identified by IRWD, if no water has been received from that source(s), IRWD is required to identify other public water systems or water

service contractholders that receive a water supply from, or have existing water supply entitlements, water rights and water service contracts to, that source(s):

Water has been received from all listed sources. A small quantity of Subbasin water is used by Woodbridge Village Association for the purpose of supplying its North and South Lakes. There are no other public water systems or water service contractholders that receive a water supply from, or have existing water supply entitlements, water rights and water service contracts to, the Irvine Subbasin.

4. Information concerning groundwater included in the supply identified for the Project:

(a) Relevant information in the Urban Water Management Plan (UWMP):

See Irvine Ranch Water District 2010 UWMP, sections 4-D through 4-J.

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

The Orange County Groundwater Basin ("Basin") is described in the Groundwater Management Plan ("GMP") 2015 Update Final Draft, dated June 17, 2015¹². 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 331,000 AFY.

The Department of Water Resources has not identified the Basin as overdrafted in its most current bulletin that characterizes the condition of the Basin, Bulletin 118 (2003). The efforts being undertaken by OCWD to eliminate long-term overdraft in the Basin are described in the OCWD MPR, including in particular, Chapters 4, 5, 6, 14 and 15 of the MPR. In addition to Orange County Water District (OCWD) reports listed in the Assessment Reference List, OCWD has also prepared a Long Term Facilities Plan ("LTFP") which 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 Basin.

Although the water supply assessment statute (Water Code Section 10910(f)) refers to elimination of "long-term overdraft," overdraft includes conditions which may be managed for optimum basin storage, rather than eliminated. OCWD's Act defines annual groundwater overdraft to be the quantity by which production exceeds the natural replenishment of the Basin. Accumulated overdraft is defined in the OCWD Act to be the quantity of water needed in the groundwater basin forebay to prevent landward movement of seawater into the fresh groundwater body. However, seawater intrusion control facilities have been constructed by OCWD since the Act was written, and have been effective in preventing landward movement of seawater. These facilities allow greater

¹² OCWD has also prepared a Long-Term Facilities Plan which was received and filed by its Board in July 2009, and last updated in November 2014.

utilization of the storage capacity of the Basin.

OCWD has invested over \$250 million in seawater intrusion control (injection barriers), recharge facilities, laboratories, and Basin monitoring to effectively manage the Basin. Consequently, although the Basin is defined to be in an "overdraft" condition, it is actually managed to allow utilization of up to 500,000 acre-feet of storage capacity of the basin during dry periods, acting as an underground reservoir and buffer against drought. OCWD has an optimal basin management target of 100,000 acre-feet of accumulated overdraft provides sufficient storage space to accommodate increased supplies from one wet year while also provide enough water in storage to offset decreased supplies during a two- to three year drought. If the Basin is too full, artesian conditions can occur along the coastal area, causing rising water and water logging, an adverse condition. Since the formation of OCWD in 1933, OCWD has made substantial investment in facilities, Basin management and water rights protection, resulting in the elimination and prevention of adverse long-term "mining" overdraft conditions. OCWD continues to develop new replenishment supplies, recharge capacity and basin protection measures to meet projected production from the basin during normal rainfall and drought periods. (OCWD MPR and LTFP)

OCWD's efforts include ongoing replenishment programs and planned capital improvements. It should be noted under OCWD's management of overdraft to maximize its use for annual production and recharge operations, overdraft varies over time as the Basin is managed to keep it in balance over the long term. The Basin is not operated on an annual safe-yield basis. (OCWD MPR, section 3.2 and LTFP, section 6)

(c) Description and analysis of the amount and location of groundwater pumped by IRWD from the Basin for the past five years:

The following table shows the amounts pumped, by groundwater source:

(In AFY)				
Year (ending 6/30)	DRWF/DATS/ OPA/21-22	Irvine Subbasin (IRWD)	Irvine Subbasin (TIC)	LAWD ¹³
2015	40,656	9,840	0	336
2014	42,424	10,995	0	376
2013	38,617	8,629	0	282
2012	37,059	7,059	0	0
2011	34,275	7,055	0	0
2010	37,151	8,695	0	3
2009	38,140	7,614	0	0

¹³ 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.

2008	36,741	4,539	0	16
2007	37,864	5,407	0	6
2006	37,046	2,825	0	268
2005	36,316	2,285	628	357
2004	30,265	1,938	3,079	101
2003	24,040	2,132	4,234	598
2002	25,855	2,533	5,075	744

(d) Description and analysis of the amount and location of groundwater projected to be pumped by IRWD from the Basin:

IRWD has a developed groundwater supply of 35,200 AFY from its Dyer Road Wellfield (including the Deep Aquifer Treatment System), in the main portion of the Basin.

Although TIC's historical production from the Subbasin declined as its use of the Subbasin for agricultural water diminished, OCWD's and other historical production records for the Subbasin show that production has been as high as 13,000 AFY. Plans are also underway to expand IRWD's main Orange County Groundwater Basin supply (characterized as *under-development* supplies herein). (See Section 2 (a) (1) herein). IRWD anticipates the development of additional production facilities within both the main Basin and the Irvine Subbasin. However, such additional facilities have not been included or relied upon in this assessment. Additional groundwater development will provide an additional margin of safety as well as reduce future water supply costs to IRWD.

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

(In AFY)

Year (ending 6/30)	DRWF ¹⁴	Future GW ¹⁵	IDP (Potable)	IDP (Nonpotable)
2020	43,300	0	5,640	3,898
2025	43,300	12,352	5,640	3,898
2035	43,300	12,352	5,640	3,898
2040	43,300	12,352	5,640	3,898

(e) If not included in the 2010 UWMP, analysis of the sufficiency of groundwater projected to be pumped by IRWD from the Basin to meet the projected water demand of the Project:

¹⁴ See Potable Supply - Groundwater, paragraph (iii), above. DRWF non-colored production above 28,000 AFY and colored water production above 8,000 AFY are subject to contractually-imposed assessments. In addition, seasonal production amounts apply. This also includes 1,000 AFY for the OPA well and 6,300 for Wells 21&22.

¹⁵ Under development.

See responses to 4(b) and 4(d).

The OCWD MPR and LTFP examined future Basin conditions and capabilities, water supply and demand, and identified projects to meet increased replenishment needs of the basin. With the implementation of OCWD's preferred projects, the Basin yield in the year 2025 would be up to 500,000 AF. The amount that can be produced will be a function of which projects will be implemented by OCWD and how much increased recharge capacity is created by those projects, total demands by all producers, and the resulting Basin Production Percentage ("BPP") that OCWD sets based on these factors.¹⁶ 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 has completed its replenishment supply project, the Groundwater Replenishment System project ("GWRS"). The OCWD MPR indicates that the GWRS will produce over 100,000 AFY of new replenishment supply from recycled water.

Production of groundwater can exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies. Additional groundwater production is anticipated by OCWD in the Basin in dry years, as producers reduce their use of imported supplies, and the Basin is "mined" in anticipation of the eventual availability of replenishment water. (OCWD MPR, section 14.6.)

See also, Figures 1-8. IRWD assesses sufficiency of supplies on an aggregated basis, as neither groundwater nor other supply sources are allocated to particular projects or customers. Under the Irvine Subbasin Agreement, IRWD is contractually obligated to attribute the Subbasin supply only to TIC development projects for assessment purposes; however, the agreement does not allocate or assign rights in the Subbasin supply to any project.

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.

¹⁶ OCWD has adopted a basin production percentage of 70% for 2015-16. In prior years OCWD has maintained a basin production percentage that is higher than the current percentage, and IRWD anticipates that such reductions may occur from time to time as a temporary measure employed by OCWD to encourage lower pumping levels as OCWD implements other measures to reduce the current accumulated overdraft in the Basin. Any such reductions are not expected to affect any of IRWD's currently available groundwater supplies listed in this assessment, which are subject to a contractually-set equivalent basin production percentage as described, or are exempt from the basin production percentage.

5. ☒ This Water Supply Assessment is being completed for a project included in a prior water supply assessment. Check all of the following that apply:

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

6. References

Water Resources Master Plan, Irvine Ranch Water District, Updated 2007

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

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

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

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

Proposed Framework for Metropolitan Water District's Delta Action Plan, Metropolitan Water District of Southern California, May 8, 2007

2007 IRP Implementation Report, Metropolitan Water District of Southern California, October 7, 2007

Board Letter, Action plan for updating the Integrated Resources Plan, Metropolitan Water District of Southern California, December 11, 2007

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

2015 Integrated Resources Plan Update, Metropolitan Water District of Southern California, January 2016

Draft 2015 Urban Water Management Plan, Metropolitan Water District of Southern California, March 2016

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

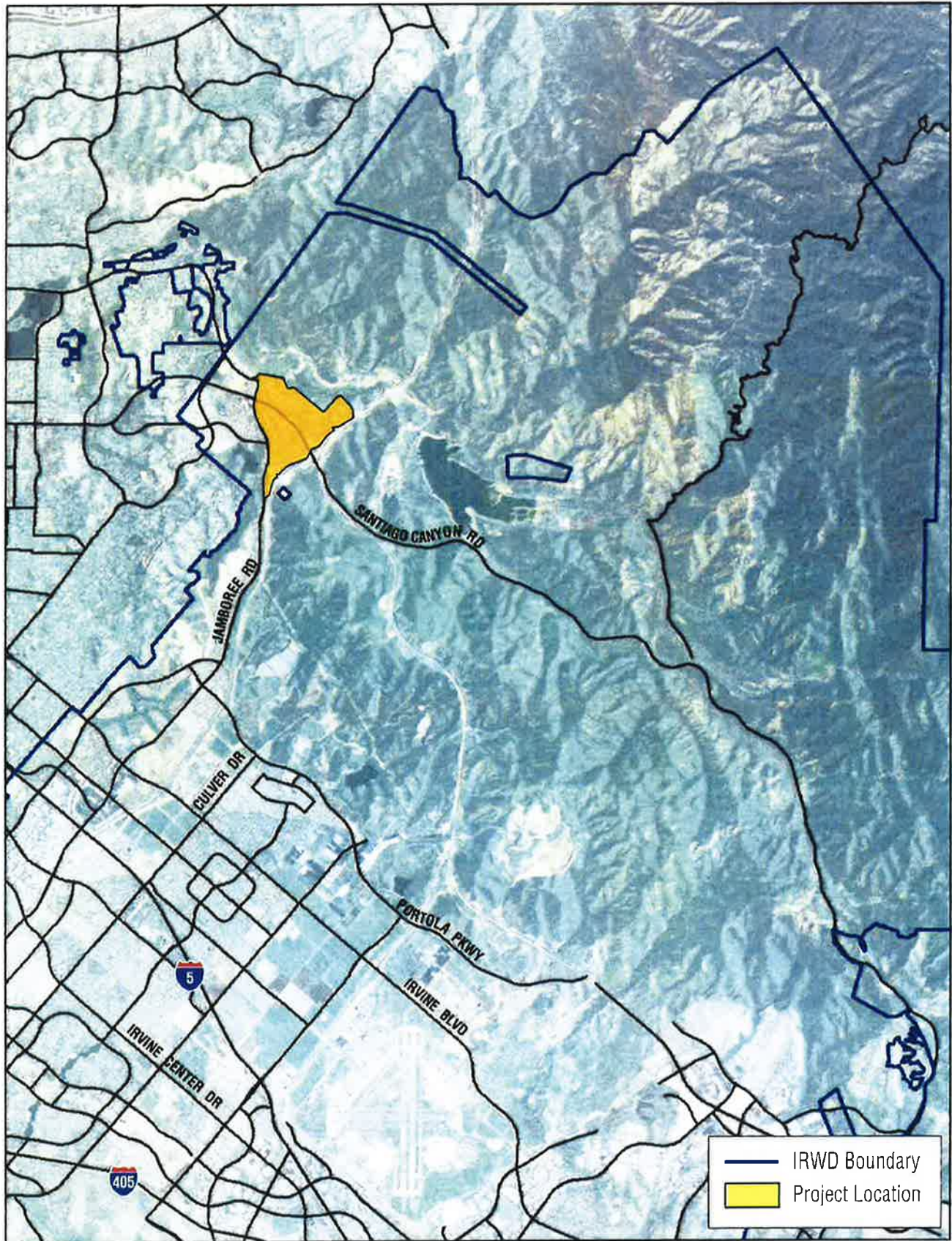
Long-Term Facilities Plan 2014 Update, Orange County Water District, November 2014

2014-2015 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District, February 2016

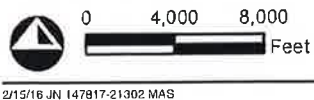
Progress on Incorporating Climate Change into Management of California's Water Resources, California Department of Water Resources, July 2006

Exhibit A

Depiction of Project Area



Michael Baker
INTERNATIONAL



SANTIAGO HILLS II SAMP UPDATE
Site Vicinity Map

Exhibit B

Uses Included in Project



CITY OF ORANGE

DEPARTMENT OF COMMUNITY DEVELOPMENT

www.cityoforange.org

ADMINISTRATION
(714) 744-7240
fax: (714) 744-7222

PLANNING DIVISION
(714) 744-7220
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BUILDING DIVISION
(714) 744-7200
fax: (714) 744-7245

CODE ENFORCEMENT DIVISION
(714) 744-7244
fax: (714) 744-7245

April 1, 2016

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

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

The City of Orange hereby requests a supplemental 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 addendum to a previously-certified Environmental Impact Report (EIR) is required for the project.

Proposed Project Information

Project Title: Santiago Hills II Planned Community

Location of project: The project site is located east of Jamboree Road, west of the SR 241/261 toll road, south of Irvine Regional Park and north of the Orange City limit. Refer to Exhibit.

For projects requiring a supplemental assessment under Water Code §10910 (h):

- ☒ Previous Water Supply Assessment including this project was approved March 8, 2004. This application requests a supplemental Water Supply Assessment, due to the following (check all that apply):
- ☐ Changes in the project that have substantially increased water demand
- ☒ Changes in circumstances or conditions that may have affected IRWD's ability to provide a sufficient water supply for the project
- ☒ New information that has become available which was not known and could not have been known at the date of the prior Water Supply Assessment

(If a supplemental assessment is requested, IRWD may prepare an amended WSA or a supplemental WSA to be used together with the previous WSA, as determined by IRWD.)

Type of Development:

- ☒ Residential: No. of dwelling units: 1,180 units
- ☐ Shopping center or business: No. of employees _____ Sq. ft. of floor space _____

REQUEST RECEIVED:

Date: 4-1-16
By: [Signature]
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 4-1-16
By: [Signature]
Irvine Ranch Water District

EXHIBIT "C"

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

To: (Lead Agency)
City of Orange
300 E. Chapman Avenue
Orange, CA 92866-1591

(Applicant)
The Irvine Company
550 Newport Center Drive
P.O. Box 6370
Newport Beach, CA 92658-6370

Project Information

Project Title: Santiago Hills II Tract Maps 16199 and 17995 (see Exhibit A)
☐ Tentative Map Application No. _____ ☐ Verification requested prior to tentative map application

Number of residential units in Project: 1,180
Non-residential uses in Project (type, no. of employees, sq. ft. of floor space, acreage): (see Exhibit B)
Acreage to be devoted to landscape (excluding individual residence yards): (see Exhibit B)

- ☐ The projected water demand for the Project was included in IRWD's most recently adopted urban water management plan.
- ☒ A water supply assessment that included the Project was adopted by IRWD on _____. A copy is attached hereto and incorporated herein by this reference (see Exhibit C).

Verification of Availability of Sufficient Water Supply

On _____, 2016 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 requirement 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 2036. 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 and the next update of that document is anticipated in July 2016.)

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 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. (MWD Draft 2015 UWMP¹ dated March 2016 (MWD UWMP)).

The Verification Law requires written proof of entitlement for "not currently available" (referred to herein as "under development") supplies. The Assessment includes such information for both currently available and under development supplies. Due to the number of contracts, statutes and other documents comprising IRWD's written proof of entitlement to its water supplies, in lieu of attachment of such items, they are identified by title and summarized in Section 2 of the Assessment. Copies of the summarized items 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."

¹ MWD expects to adopt its Draft 2015 UWMP in April, 2016

Detailed Verification

1. Determination of sufficiency of water supply

(a) Supply and demand comparison

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

(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.

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

Source	1985	1990	1995	2000	2005	2010	2015
Potable - imported	43,320	44,401	28,397	36,777	19,306	15,227	12,790
Potable - groundwater	38	10,215	20,020	20,919	37,160	42,089	46,770
Nonpotable - recycled	12,399	11,589	10,518	14,630	15,296	20,847	22,866
Nonpotable - groundwater	36	816	1,834	2,890	2,285	3,761	4,063
Nonpotable - native	3,587	2,778	5,980	4,949	7,251	814	2,826
Total	71,639	94,699	69,082	96,508	86,602	82,738	89,315

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

(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 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* (MWD UWMP, pages 2-18 through 2-20). 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 *2014-2015 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 an under development supply. IRWD also has a currently available reclaimed water supply from its own existing reclamation program. The reclaimed water supplies are discussed in Section 2 below (see the Assessment, Section 1 – Figures 5, 6, 7 and 8 (supplies denominated “MWRP” and “LAWRP”), Section 2(a), and Section 2(b)(1) - “NONPOTABLE SUPPLY – RECLAIMED”), IRWD has completed construction of the Michelson Water Recycling Plant Phase 2 Capacity Expansion Project by the end of 2015. With this expansion, IRWD increased its capacity to 28 million gallons per day (MDG) to produce sufficient recycled water to meet the projected demand in the year 2036. 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. (MWD UWMP, pages 2-14 through 2-16).

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. (MWD UWMP, Sections 3.1, 3.2, and 3.3) See also MWD UWMP, Appendix A.3 Justifications for Supply Projections with respect to MWD's current and under development supplies.

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 UWMP, 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 Water Treatment Plant (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 UWMP, 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 UWMP, Appendix A.3 Justifications for Supply Projections with respect to permits related to MWD's supplies.

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

See the Assessment, Section 2(b)(4), incorporated herein by reference. In addition, reclamation plant expansion will require approval of amendments to IRWD's permits issued by the Regional Water Quality Control Board. See also MWD UWMP, Appendix A.3 Justifications for Supply Projections with respect to regulatory approvals related to MWD's supplies.

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

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

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

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

5. References

Water Resources Master Plan, Irvine Ranch Water District, Updated 2007

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

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

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

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

Proposed Framework for Metropolitan Water District's Delta Action Plan, Metropolitan Water District of Southern California, May 8, 2007

2007 IRP Implementation Report, Metropolitan Water District of Southern California, October 7, 2007

Board Letter, Action plan for updating the Integrated Resources Plan, Metropolitan Water District of Southern California, December 11, 2007

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

2015 Integrated Resources Plan Update, Metropolitan Water District of Southern California, January 2016

Draft 2015 Urban Water Management Plan, Metropolitan Water District of Southern California, March 2016

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

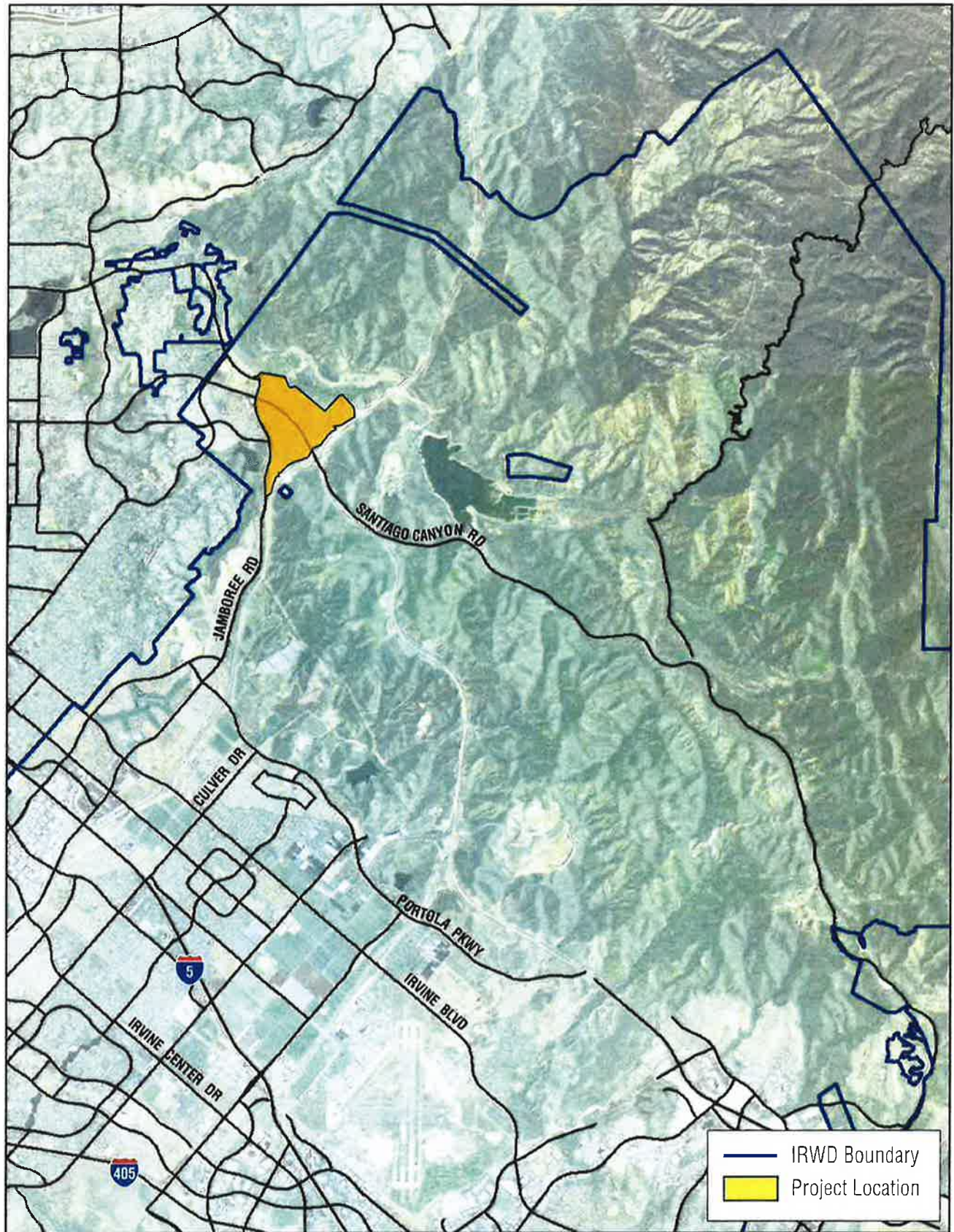
Long-Term Facilities Plan 2014 Update, Orange County Water District, November 2014

2014-2015 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District, February 2016

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



SANTIAGO HILL II - NORTH 17985

	PRODUCT	UNITS	ACRES	DENSITY	
	G-1	60x90	104	23.9	4.2
	G-2	50x90	129	24.2	5.3
	H-1	48x75	172	18.1	9.3
	I-1	SIX COURT	149	17.7	8.4
	I-2	FOUR COURT	110	14.6	7.5
	I-3	55x92	103	15.2	6.8
NORTH TOTAL		717	112.7		

SANTIAGO HILL II - SOUTH 18199

		PRODUCT	UNITS	ACRES	DENSITY
	J-1	50x90	94	23.1	4.1
	J-2	65x60	18	3.5	5.1
	J-3	65x60	42	7.8	5.4
	J-4	55x60	48	9.9	4.8
	J-5	45x75	95	14.5	6.5
	J-6	48x75	52	7.6	6.2
	K	EASTWOOD TOWNS	114	11.4	10.0
SOUTH TOTAL			463	77.8	

GRAND TOTAL		1180	191.5		
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-  PARK-NORTH 4.7 ACRES
-  PARK-SOUTH 4.7 ACRES

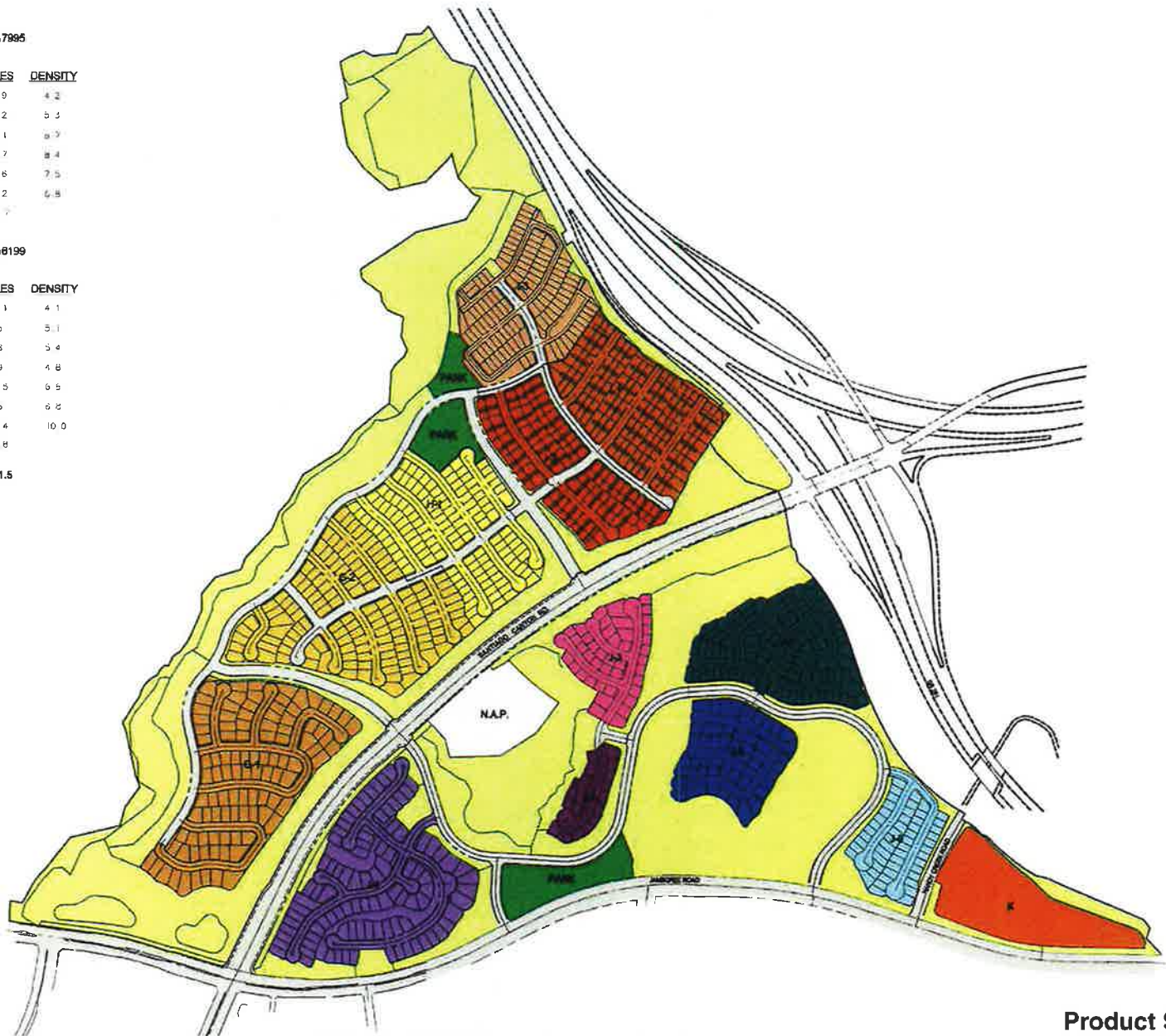


Exhibit B

Non-residential Uses Included in Project



CITY OF ORANGE

DEPARTMENT OF COMMUNITY DEVELOPMENT

www.cityoforange.org

ADMINISTRATION
(714) 744-7240
fax: (714) 744-7222

PLANNING DIVISION
(714) 744-7220
fax: (714) 744-7222

BUILDING DIVISION
(714) 744-7200
fax: (714) 744-7245

CODE ENFORCEMENT DIVISION
(714) 744-7244
fax: (714) 744-7245

April 1, 2016

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 Orange 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: Santiago Hills II Planned Community

Location of project: The project site is located east of Jamboree Road, west of the SR 241/261 toll road, south of Irvine Regional Park and north of the Orange City limit. Refer to Exhibit.

Planning Area(s): Santiago Hills II Planned Community, refer to Exhibit.

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: Amended WSA approved on March 8, 2004.

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 reversion: ☐ tract map expiration ☐ new Water Supply Assessment
required due to project revisions, changed circumstances or new information

- ☐ Tentative Map Application No. * _____ ☒ Tentative Tract Map Nos. 17995, 17987, 17988, 17989, 17990.
☐ 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:
April 1, 2016 (Government Code §66455.3))

Type of development included in the project:

- ☐ Residential: No. of dwelling units: 1,180 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, 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: 9.4 acres. Parks

Total acreage of project: 412

Acreage devoted to landscape:

Greenbelt _____ golf course N/A parks 9.4 acres
Agriculture N/A other landscaped areas 170 acres

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

Fire Service would be provided by the Orange Fire Department and subject to its peak flow requirements. Reclaimed water is proposed for common area landscape irrigation.

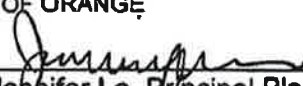
Is the project included in the existing General Plan? Yes If no, describe the existing General Plan Designation _____

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

The City acknowledges that the Water Supply Verification shall not constitute a "will-serve" or in any way entitle the project applicant to service or to any right, priority or allocation in any supply, capacity or facility, and that the issuance of the Water Supply Verification shall not affect IRWD's obligation to provide service to its existing customers or any potential future customers including the project applicant. In order to receive service, the project applicant shall be required to file a completed Application(s) for Service and Agreement with the Irvine Ranch Water District on IRWD's forms,

together with all fees and charges, plans and specifications, bonds and conveyance of necessary easements, and meet all other requirement as specified therein.

CITY OF ORANGE

By: 
Jennifer Le, Principal Planner

REQUEST RECEIVED:

Date: 4-1-16
By: 
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 4-1-16
By: 
Irvine Ranch Water District

Exhibit C
Water Supply Assessment

**SECOND AMENDED
IRVINE RANCH WATER DISTRICT
ASSESSMENT OF WATER SUPPLY
Water Code §10910 et seq.**

To: (Lead Agency)

City of Orange
300 E. Chapman Avenue
Orange, CA 92866-1591

(Applicant)
The Irvine Company
550 Newport Center Drive
Newport Beach, CA 92658-6370

Project Information

Project Title: Santiago Hills II (Exhibit A)

- ☒ Residential: No. of dwelling units: 1,180
- ☐ Shopping center or business: No. of employees _____ Sq. ft. of floor space _____
- ☐ Commercial office: No. of employees _____ Sq. ft. of floor space _____
- ☐ Hotel or motel: No. of rooms _____
- ☐ Industrial, manufacturing or processing: No. of employees _____ No. of acres _____
Sq. ft. of floor space _____
- ☒ Mixed use (check and complete all above that apply) (see Exhibit B)
- ☐ Other: _____

Assessment of Availability of Water Supply

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

- ☐ The projected water demand for the Project ☐ was ☐ was not included in IRWD's most recently adopted urban water management plan.
- ☐ A sufficient water supply is available for the Project.
The total water supplies available to IRWD during normal, single-dry and multiple-dry years within a 20-year projection will meet the projected water demand of the Project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.
- ☐ A sufficient water supply is not available for the Project. [Plan for acquiring and developing sufficient supply attached. Water Code § 10911(a)]

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

Signature Date Title

Water Supply Assessment Information

Purpose of Assessment

Irvine Ranch Water District ("IRWD") has been identified by the City as a public water system that will supply water service (both potable and nonpotable) to the project identified on the cover page of this assessment (the "Project"). As the public water system, IRWD is required by Section 10910 *et seq.* of the Water Code to provide the City with an assessment of water supply availability ("assessment") for defined types of projects. The Project has been found by the City to be a project requiring an assessment. The City is required to include this assessment in the environmental document for the Project, and, based on the record, make a determination whether projected water supplies are sufficient for the Project and existing and planned uses.

Water Code Section 10910 (the "Assessment Law") contains the requirements for the information to be set forth in the assessment.

Prior Water Supply Assessments

IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area. Because of IRWD's aggregation of demands and supplies, each assessment completed by IRWD is expected to be generally similar to the most recent assessment, with changes as needed to take into account changes, if any, in demands and supplies, and any updated and corrected information obtained by IRWD. Previously assessed projects' water demands will be included in the baseline. A newly assessed project's water demand will have been included in previous water supply assessments for other projects (as part of IRWD's "full build-out" demand) to the extent of any land use planning or other water demand information for the project that was available to IRWD.

The Project's water demand was included (as part of IRWD's "full build-out" demand) in previous water supply assessments performed by IRWD. 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. This Second Amended Assessment supersedes the Amended Assessment dated March 8, 2004, to adjust water demand figures as shown in Figures 1 through 8 based on reduced land use densities of the proposed Project development as requested by letter of the City of Orange dated April 1, 2016.

Supporting Documentation

IRWD prepares two planning documents to guide water supply decision-making. IRWD's principal planning document is IRWD's "Water Resources Master Plan" ("WRMP"). The WRMP is a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs. IRWD also prepares an Urban Water Management Plan ("UWMP"), a document required by statute. The UWMP is based on the WRMP, but contains defined elements as listed in the statute (Water Code Section 10631, *et seq.*), and, as a result, is more limited than the WRMP in the treatment of supply and demand issues. Therefore, IRWD primarily relies on its most recent WRMP. The UWMP is required to be updated in years ending with "five" and "zero," and IRWD's most recent update of that document was adopted June 13, 2011. IRWD's next update of that document is anticipated in June 2016.

In addition to the WRMP and the 2010 UWMP mentioned above, other supporting documentation referenced herein is found in Section 6 of this assessment.

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

Assessment Methodology

Water use factors; dry-year increases. IRWD employs water use factors to enable it to assign water demands to the various land use types and aggregate the demands. The water use factors are based on average water use and incorporate the effect of IRWD's tiered-rate conservation pricing and its other water conservation programs. The factors are derived from historical usage (billing data) and a detailed review of water use factors within the IRWD service areas conducted as a part of the WRMP. System losses at a rate of approximately 5% are built into the water use factors. Water demands also reflect normal hydrologic conditions (precipitation). Lower levels of precipitation and higher temperatures will result in higher water demands, due primarily to the need for additional water for irrigation. To reflect this, base (normal) WRMP water demands have been increased 7% in the assessment during both "single-dry" and "multiple-dry" years. This is consistent with IRWD's 2010 UWMP and historical regional demand variation as documented in the Metropolitan Water District of Southern California's ("MWD's") Integrated Resources Plan (1996) (Volume 1).

Planning horizon. For consistency with IRWD's WRMP, the assessment reviews demands and supplies through the year 2036, 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 2036):

- 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; recycled wastewater, and supplemental imported water supplied by MWD through the Municipal Water District of Orange County ("MWD OC"). The supply-demand comparisons in this assessment are broken down among the various sources, and are further separated into potable and nonpotable water sources.

Comparison of demand and supply. The three demand projections noted above (baseline, with-project and full build-out) are compared with supplies in the following ways:

- On a total *annual* quantity basis (stated in acre-feet per year (AFY)).
- On a *peak-flow* (maximum day) basis (stated in cubic feet per second (cfs)).
- Under three climate conditions: base (normal) conditions and single-dry and multiple-dry year conditions. (Note: These conditions are compared for *annual* demands and not for *peak-flow* demands. *Peak-flow* is a measure of a water delivery system's ability to meet the highest day's demand of the fluctuating demands that will be experienced in a year's time. Peak demands occur during the hot, dry season and as a result are not appreciably changed by dry-year conditions; dry-year conditions do affect *annual* demand by increasing the quantity of water needed to supplement normal wet-season precipitation.)

Summary of Results of Demand-Supply Comparisons

Listed below are Figures provided in this assessment, comparing projected potable and nonpotable water supplies and demands under the three development projections:

- Figure 1: Normal Year Supply and Demand – Potable Water
- Figure 2: Single Dry-Year Supply and Demand – Potable Water
- Figure 3: Multiple Dry-Year Supply and Demand – Potable Water
- Figure 4: Maximum-Day Supply and Demand – Potable Water
- Figure 5: Normal Year Supply and Demand – Nonpotable Water
- Figure 6: Single Dry-Year Supply and Demand – Nonpotable Water
- Figure 7: Multiple Dry-Year Supply and Demand – Nonpotable Water
- Figure 8: Maximum-Day Supply and Demand – Nonpotable Water

It can be observed in the Figures that IRWD's *supplies* remain essentially constant between normal, single-dry and multiple-dry years. This result is due to the fact that

groundwater and MWD imported water account for majority of all of IRWD's potable supply, and recycled water, groundwater and imported water comprise all of IRWD's nonpotable supply. Groundwater production typically remains constant or increases in cycles of dry years, even if overdraft of the basin temporarily increases, as groundwater producers reduce their demand on imported supplies to secure reliability. (See Section 4 herein.) As to imported water, MWD's Draft 2015 Urban Water Management Plan¹ (MWD UWMP) shows that MWD has sufficient supply capabilities to meet expected demands from 2020 through 2040 under a repeat of the 1990-1992 multiple dry-year hydrology and the 1977 single dry-year hydrology. (See Section 2(b) (1) "IMPORTED SUPPLY - ADDITIONAL INFORMATION," below, for a summary of information provided by MWD.) Recycled 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 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 year conditions through the year 2036. (Figures 1, 2 and 3.)
- Meeting both single- and multiple-dry-year annual demands for *full build-out* will require the completion of *under-development* supplies. (Figures 2 and 3.)
- Adequate *currently available* potable water supply capacity is available to meet *peak-flow* (maximum day) demands for all demand projections through the year 2036. (Figure 4.)
- With respect to nonpotable water, *currently available* supplies are adequate to meet projected annual demands for both the *baseline* and *with-project* demand projections under both dry-year conditions through the year 2036. (Figures 5, 6, 7 and 8). IRWD has proceeded with the implementation of future nonpotable supplies, as shown in the Figures, to improve local reliability during dry-year conditions.

The foregoing Figures provide an overview of IRWD potable and nonpotable water supply capabilities. More detailed information on the anticipated development and use of supplies, which incorporates source costs and reliability issues, is provided in the WRMP.

Margins of safety. The Figures and other information described in this assessment show that IRWD's assessment of supply availability contains several margins of safety or buffers:

- "Reserve" water supplies (excess of supplies over demands) will be available to serve as a buffer against inaccuracies in demand projections, future changes in land use, or alterations in supply availability.
- 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

¹ MWD expects to adopt its Draft 2015 UWMP in April, 2016.

available from these sources, based on legal entitlements, historical uses and information provided by MWD. In addition to MWD's existing regional supply assessments, this assessment has considered MWD information concerning recent events. See "**Recent Actions on Delta Pumping**," below.

- Information provided by MWD, as the imported water supplier, concerning the adequacy of its regional supplies, summarized herein, demonstrates MWD's inclusion of reserves in its regional supply assessments. In addition to MWD's existing regional supply assessments, this assessment has considered MWD information concerning recent events. See "**Recent Actions on Delta Pumping**," below.

- Although groundwater supply amounts shown in this assessment assume production levels within applicable basin production percentages described herein, production of groundwater can exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies.

Recent Actions on Delta Pumping. The Sacramento/San Joaquin Delta (Delta) is a vulnerable component in both the State and Federal systems to convey water from northern portions of California to areas south of the Delta. Issues associated with the Delta have generally been known for years; however, most recently, the continuing decline in the number of endangered Delta smelt resulted in the filing of litigation challenging permits for the operation of the Delta pumping facilities. On August 31, 2007, a Federal court ordered interim protective measures for the endangered Delta smelt, including operational limits on Delta pumping, which 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 (BDCP) process are defining long-term solutions for the Delta. In addition, State and federal agencies and water user entities are currently engaged in the development of the BDCP/California WaterFix, which is aimed at making physical and operational improvements to the SWP system in the Delta necessary to restore and protect ecosystem health, south of Delta SWP water supplies and water quality (MWD UWMP). 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 address uncertainties in expected SWP supplies, in October 2007, MWD prepared 2007 IRP Implementation Report, in which MWD estimated that it could see as much as up to a 22% reduction on average of its SWP supplies based on the court order. To comprehensively address the impacts of the SWP cut back on MWD's water supply development targets, in December 2007, MWD brought to its Board a strategy and work plan to update the long-term Integrated Resources Plan (IRP). As part of its ongoing long term planning, in its 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 2010 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. MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remained unchanged in the 2010 IRP Update. 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.

In January 2016, MWD adopted its 2015 IRP Update. In the 2015 IRP Update, MWD continued its adaptive management strategy and integrated future supply actions to improve the viability of potential contingency resources as needed, and to position the region to effectively implement these resources in a timely manner. The 2015 IRP finds additional action is needed in investments in conservation, local supplies, the California WaterFix, and stabilizing Colorado River supplies. Among the supply actions, MWD will continue to work collaboratively with state and federal agencies on the WaterFix, maximize its storage and transfer approach, and continue to develop and protect local supplies and conservation.

IRWD's Evaluation of Effect of Reduced MWD Supplies to IRWD: In the MWD UWMP, MWD states it has supply capability that would be sufficient to meet expected demands from 2020 to 2040 under single dry year and multiple dry year conditions.²

Based on the prior MWD 2007 IRP Implementation Report, as a result of the 2007 federal court order, MWD estimated that it could receive reduction of SWP supplies of up to 22% on average until a long term solution was implemented. For purposes of ensuring a conservative analysis, IRWD made an evaluation of the effect of the 22% estimated reduction of MWD's SWP supplies on its overall imported supplies. IRWD estimates that 22% reduction of SWP supplies conservatively translates to approximately 16% reduction in all of MWD's imported supplies over the years 2015 through 2035. For this purpose it is assumed that MWD's total supplies consist only of imported SWP and Colorado deliveries. Based on this estimate, this assessment uses a 16% reduction in MWD supplies available to IRWD for the years 2015 through 2036, 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.

Per the MWD UWMP, MWD performs water shortage planning in its Water Surplus and Drought Management (WSDM) Plan (1988) which guides MWD's planning and operations during both shortage and surplus conditions. Furthermore, MWD developed the Water Supply Allocation Plan (WSAP) (February 2009, updated December 2014) which provides standardized methodology for allocation of MWD's supplies during times of shortage. The WSDM Plan distinguishes between shortages, severe shortages and extreme shortages. These terms have specific meanings relating to MWD's ability to deliver water and the actions it takes. In June 2008, MWD's Board adopted a Water Supply Condition Framework to communicate the urgency of the region's water supply situation and the need for further water conservation to reduce regional demands, MWD uses the WSDM Plan and Framework to determine if a WSAP is recommended.

² MWD's UWMP utilized DWR's 2015 SWP Delivery Capability Report to estimate its SWP supplies for 2015 through 2040. These estimates incorporate the effect of regulatory requirements in accordance with biological opinions and also reflect potential impacts of climate change on SWP operations. Tables A.3-7 (MWD's UWMP) reflect a reduction of approximately 12% in MWD's expected average year SWP entitlement supplies. This amount is a smaller percentage reduction than MWD's 2007 estimate of 22% that was used by IRWD for purposes of this analysis. For purposes of a conservative analysis, IRWD uses the 22% reduction cited by MWD in its October 2007 IRP Implementation Report as the basis of IRWD's analysis.

As an alternative means of analyzing the effect of reduced MWD supplies on IRWD, Figures 1a, 2a, and 3a show IRWD's 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 WSAP, 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. 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 WSAP at a level 3 Regional Shortage Level and an effective 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.

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.³ 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.⁴ 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

³ 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 "2014-2015 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.

⁴ 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.

It can be noted that IRWD's above approach is conservative, in that IRWD evaluates the effect of the 16% reduction through 2036 and shows the effect of current allocation scenarios in all of the five-year increments but MWD reports that it has made significant progress in other water resource categories such as transfers, groundwater storage and developing other local resources, and supplies will be available from these resources over the long-term.

Climate Change. The California Department of Water Resources ("DWR") released a report "Progress on Incorporating Climate Change into Management of California's Water Resources" (July 2006), considering the impacts of climate change on the State's water supply. DWR emphasizes that "the report represents an example of an impacts assessment based on four scenarios defining an expected range of potential climate change impacts." DWR's major goal is to extend the analysis for long-term water resource planning from "assessing impacts" to "assessing risk." The report presents directions for further work in incorporating climate change into the management of California's water resources. Emphasis is placed on associating probability estimates with potential climate change scenarios in order to provide policymakers with both ranges of impacts and the likelihoods associated with those impacts. DWR's report acknowledges "that all results presented in this report are preliminary, incorporate several assumptions, reflect a limited number of climate change scenarios, and do not address the likelihood of each scenario. Therefore, these results are not sufficient by themselves to make policy decisions."

In MWD's 2015 IRP Update, MWD recognizes there is a significant uncertainty in the negative impact of climate change on water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a long term plan that provides resource development to offset the risk. Some risks and uncertainty will be addressed by following the findings of MWD's 2015 IRP Update. For longer term risks, MWD established a Robust Decision Making (RDM) approach that can show how vulnerable the region's reliability is to the longer-term risks.

Per MWD's UWMP, MWD continues to incorporate current climate change science into its planning efforts. MWD's 2015 IRP Update incorporates evaluating a wider range of water management strategies and seeking robust and adaptive action plans that respond to uncertain conditions as they evolve over time, and that ultimately will perform adequately under a wide range of future conditions. MWD's 2015 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 (MWD UWMP) 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 DWR's investments in improvements on the SWP and the long term Delta plan in its UWMP (pages 3-19 to 3-22). IRWD has also addressed supply interruption planning in its WRMP and 2010 UWMP.

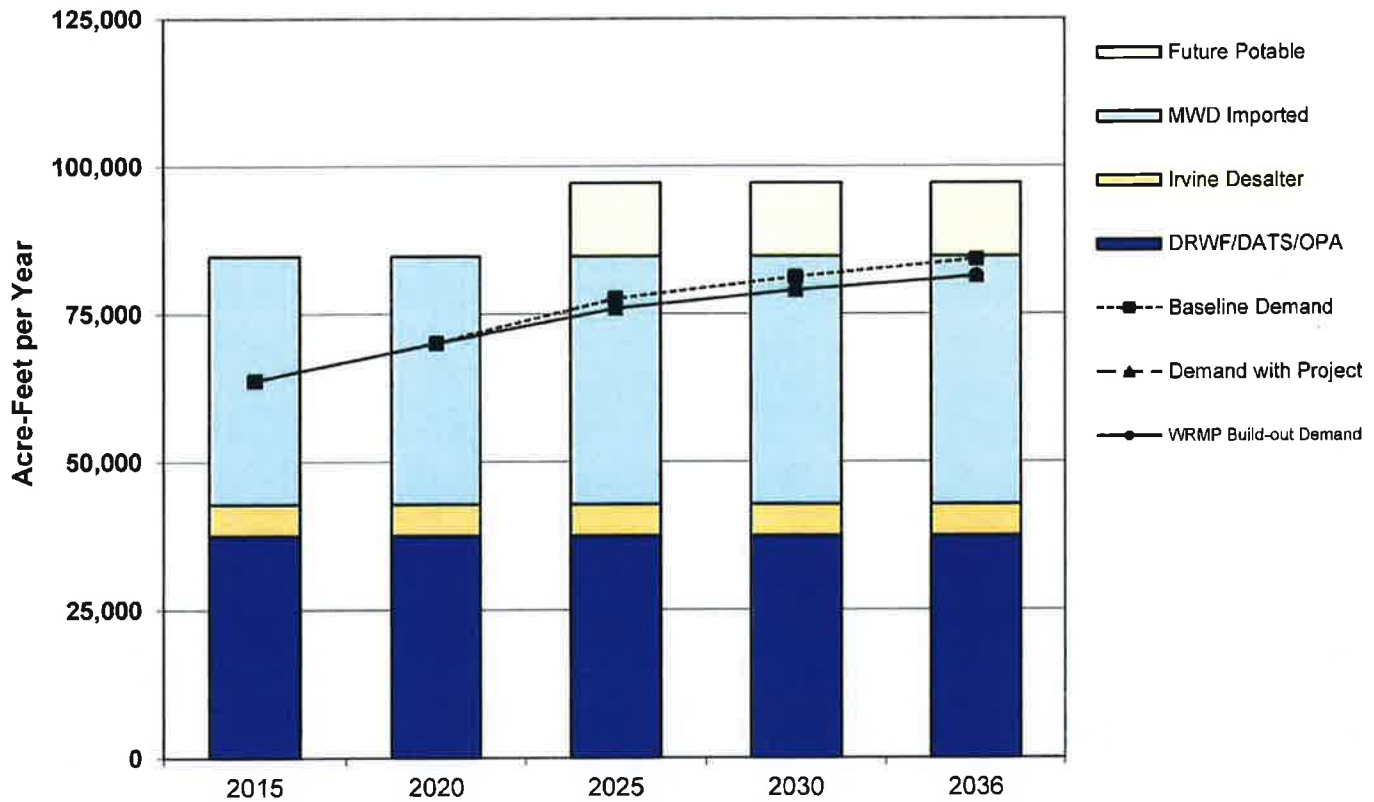
Recent Actions Related to Drought Conditions. In response to the historically dry conditions throughout the state of California, on April 1, 2015, Governor Brown issued an Executive Order directing the State Water Resources Control Board (SWRCB) to impose restrictions to achieve an aggregate statewide 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 required that IRWD achieve a 16% reduction in potable water use from the 2013 levels. On November 13, 2015, Governor Brown issued an Executive Order directing the SWRCB to extend the 2015 Emergency Regulation through October 31, 2016 if drought conditions continued. On February 2, 2016, the SWRCB adopted an extended and modified Emergency Regulation. As a result of the modification, IRWD's mandated reduction was changed from 16% to 9% effective March 1, 2016. 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. IRWD has and will continue to 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" (see above), 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 Assessment

1. Supply and demand comparison

Comparisons of IRWD's average annual and peak (maximum day) demands and supplies, under *baseline* (existing and committed demand, without the Project), *with-project* (baseline plus Project), and *full build-out* development projections, are shown in the following Figures 1-4 (potable water), Figures 5-8 (nonpotable water) and Figures 1a, 2a, and 3a (short term MWD allocation potable water). See also the "Recent Actions on Delta Pumping" above.

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



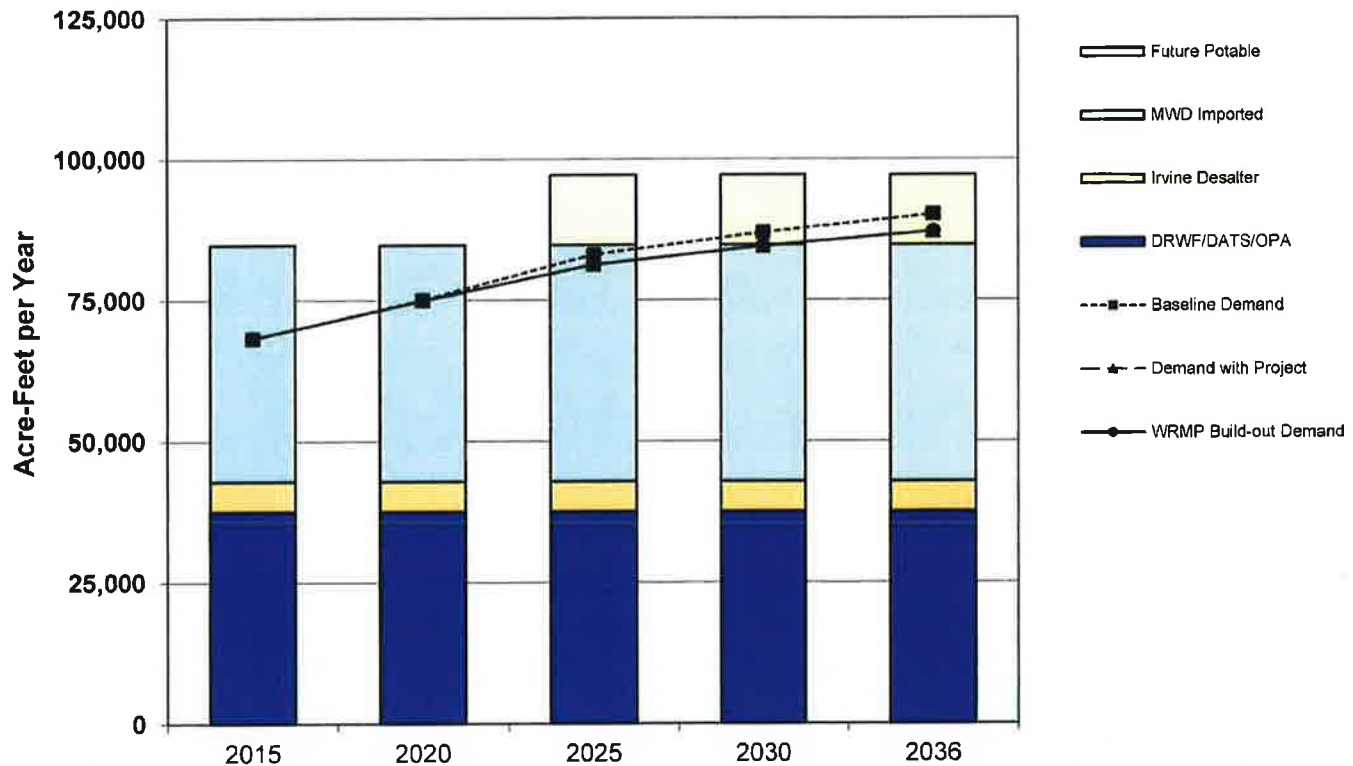
(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portion)	-	4,000	4,000	4,000	4,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	91,100	95,100	107,452	107,452	107,452
Baseline Demand	63,753	70,137	77,635	81,261	84,276
Demand with Project	63,753	70,057	75,968	79,007	81,435
WRMP Build-out Demand	63,753	70,057	75,968	79,007	81,434
Reserve Supply with Project	27,347	25,043	31,484	28,445	26,017

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.

Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

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



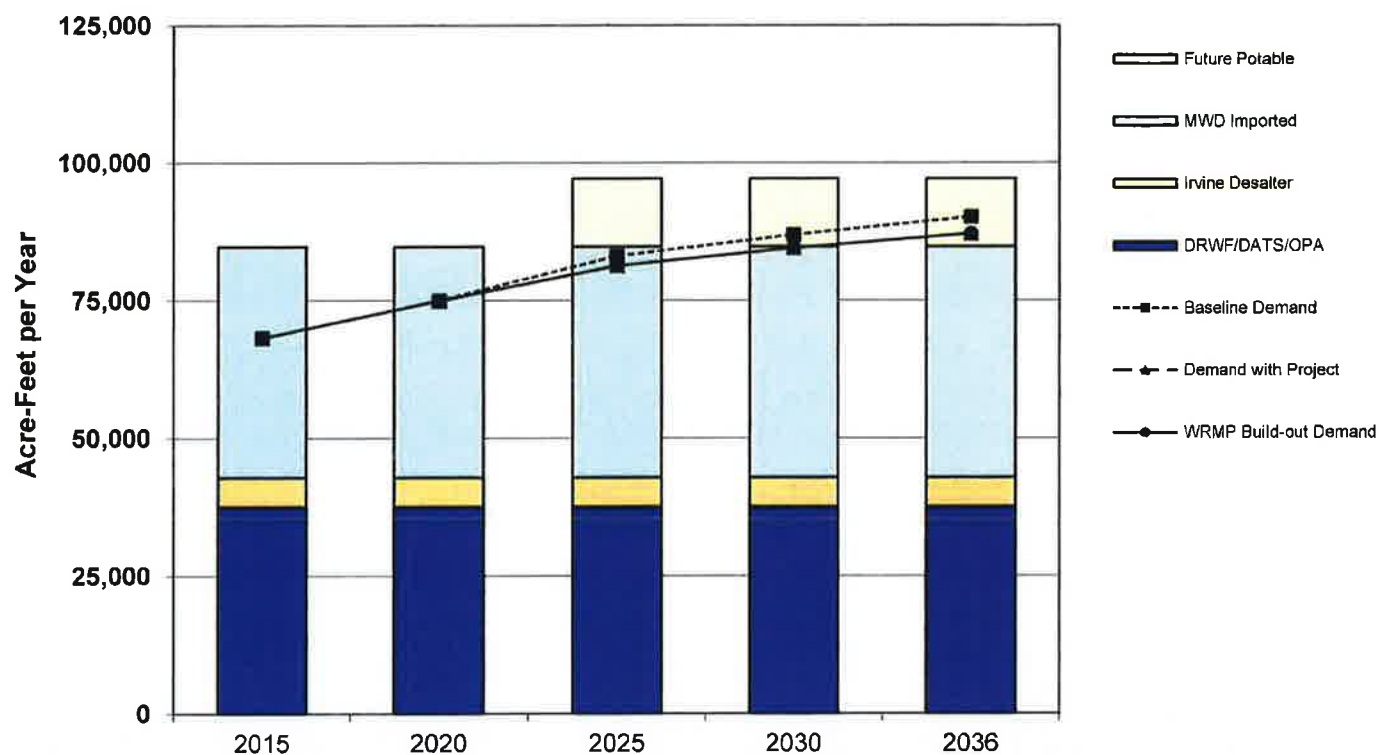
(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	91,100	92,100	104,452	104,452	104,452
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	22,884	17,139	23,167	19,914	17,317

Notes: Supplies identical to Normal-Year based on Metropolitan's 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).

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

Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

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



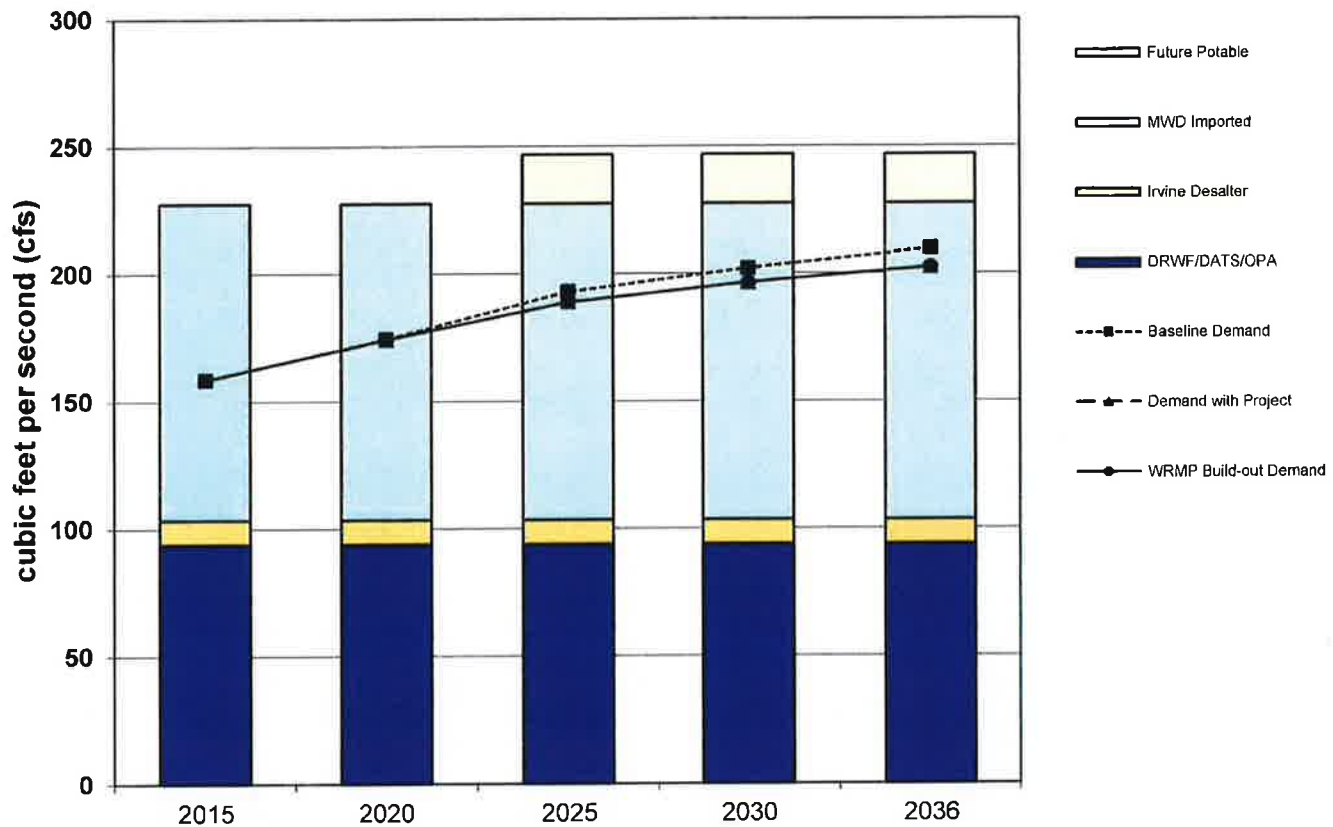
(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, B)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,533	37,533	37,533	37,533	37,533
Irvine Desalter	5,309	5,309	5,309	5,309	5,309
Wells 21 & 22	6,329	6,329	6,329	6,329	6,329
Baker Water Treatment Plant (native portic	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	91,100	92,100	104,452	104,452	104,452
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	22,884	17,139	23,167	19,914	17,317

Notes: Supplies identical to Normal-Year based on Metropolitan's 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).

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

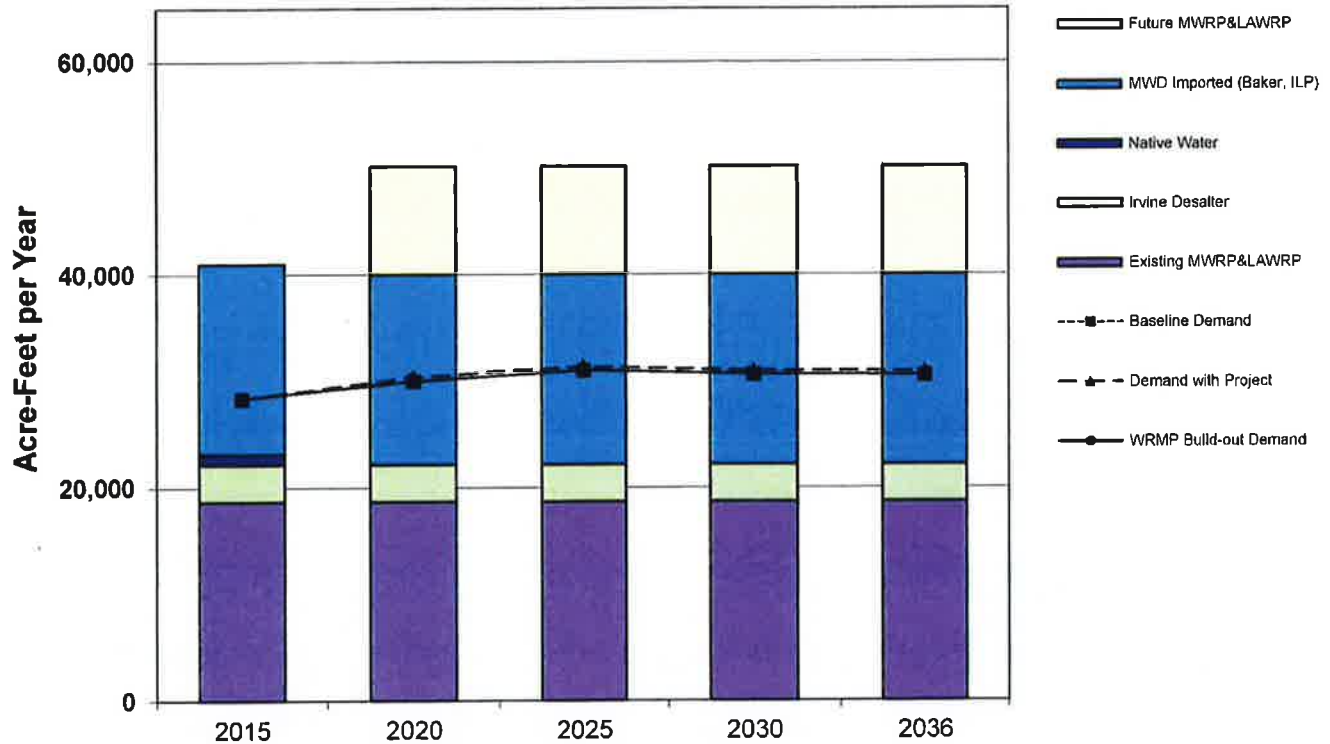
Baker Water Treatment Plant will be supplied untreated imported water and native water from Irvine Lake.

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



(in cfs)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	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
Baker Water Treatment Plant	-	10.5	10.5	10.5	10.5
Supplies Under Development					
Future Potable	-	-	19.2	19.2	19.2
Maximum Supply Capability	238.4	248.9	268.1	268.1	268.1
Baseline Demand	158.5	174.4	193.0	202.0	209.5
Demand with Project	158.5	174.2	188.9	196.4	202.5
WRMP Build-out Demand	158.5	174.2	188.9	196.4	202.5
Reserve Supply with Project	79.9	74.7	79.2	71.7	65.6

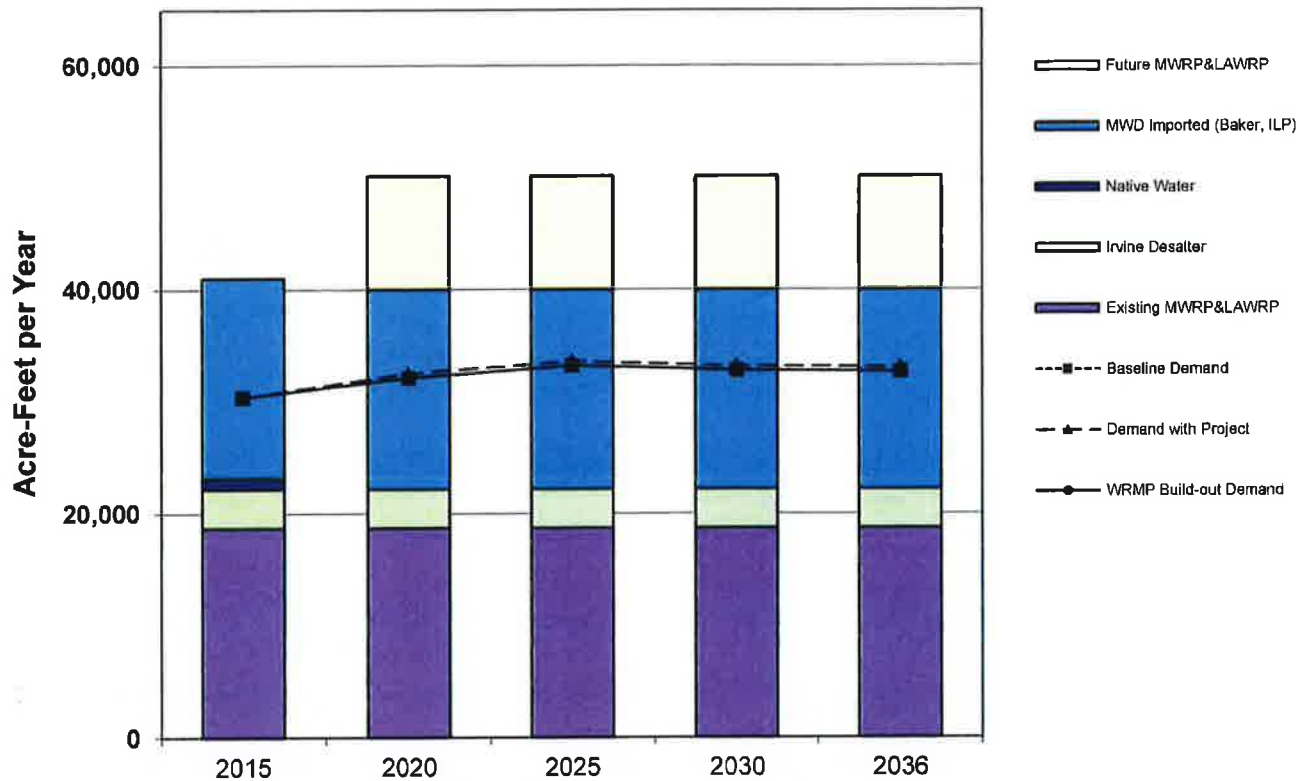
Figure 5
IRWD Normal-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2015	2020	2025	2030	2036
<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	-	-	-	-
Maximum Supply Capability	40,997	50,097	50,097	50,097	50,097
Baseline Demand	28,381	30,013	31,010	30,625	30,540
Demand with Project	28,381	30,371	31,368	30,983	30,898
WRMP Build-out Demand	28,381	30,013	31,010	30,625	30,540
Reserve Supply with Project	12,616	20,084	19,087	19,472	19,557

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.

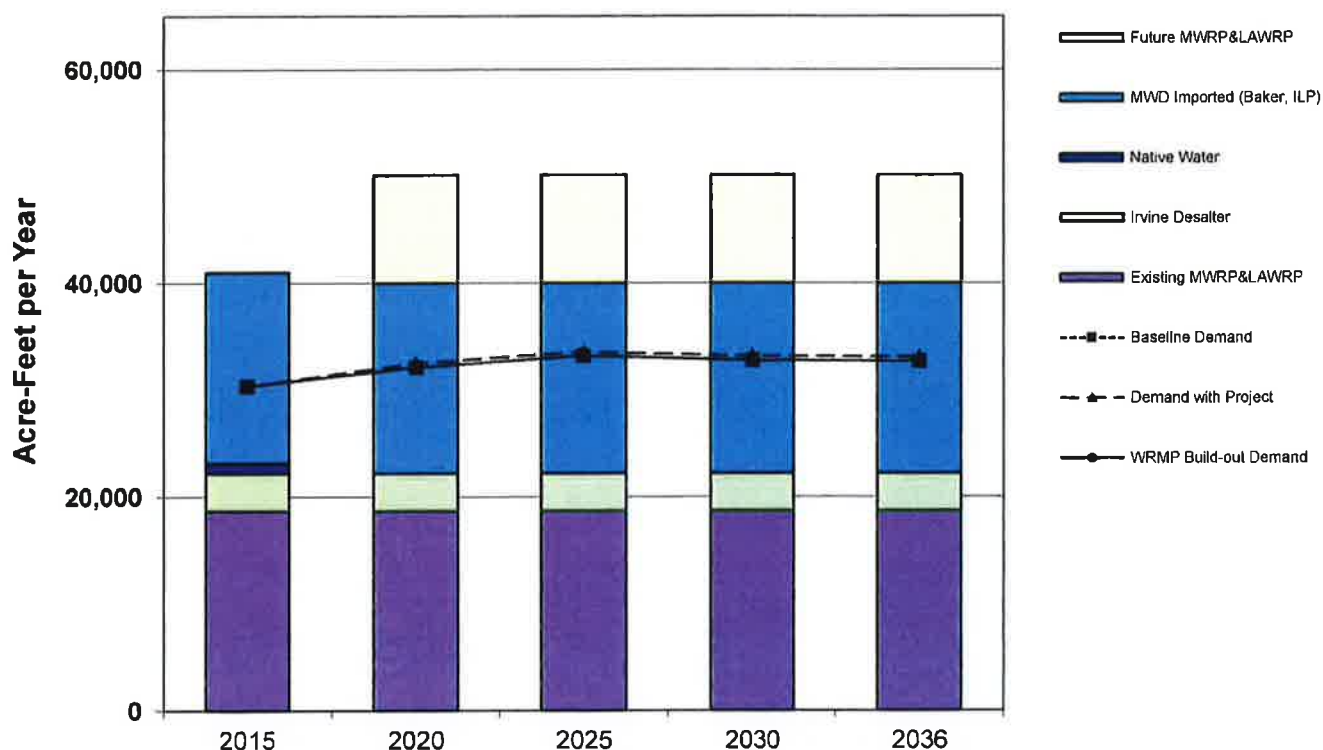
Figure 6
IRWD Single Dry-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2015	2020	2025	2030	2036
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	-	-	-	-
Maximum Supply Capability	40,997	50,097	50,097	50,097	50,097
Baseline Demand	30,368	32,114	33,181	32,769	32,677
Demand with Project	30,368	32,497	33,564	33,152	33,061
WRMP Build-out Demand	30,368	32,114	33,181	32,769	32,677
Reserve Supply with Project	10,629	17,600	16,533	16,945	17,036

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.

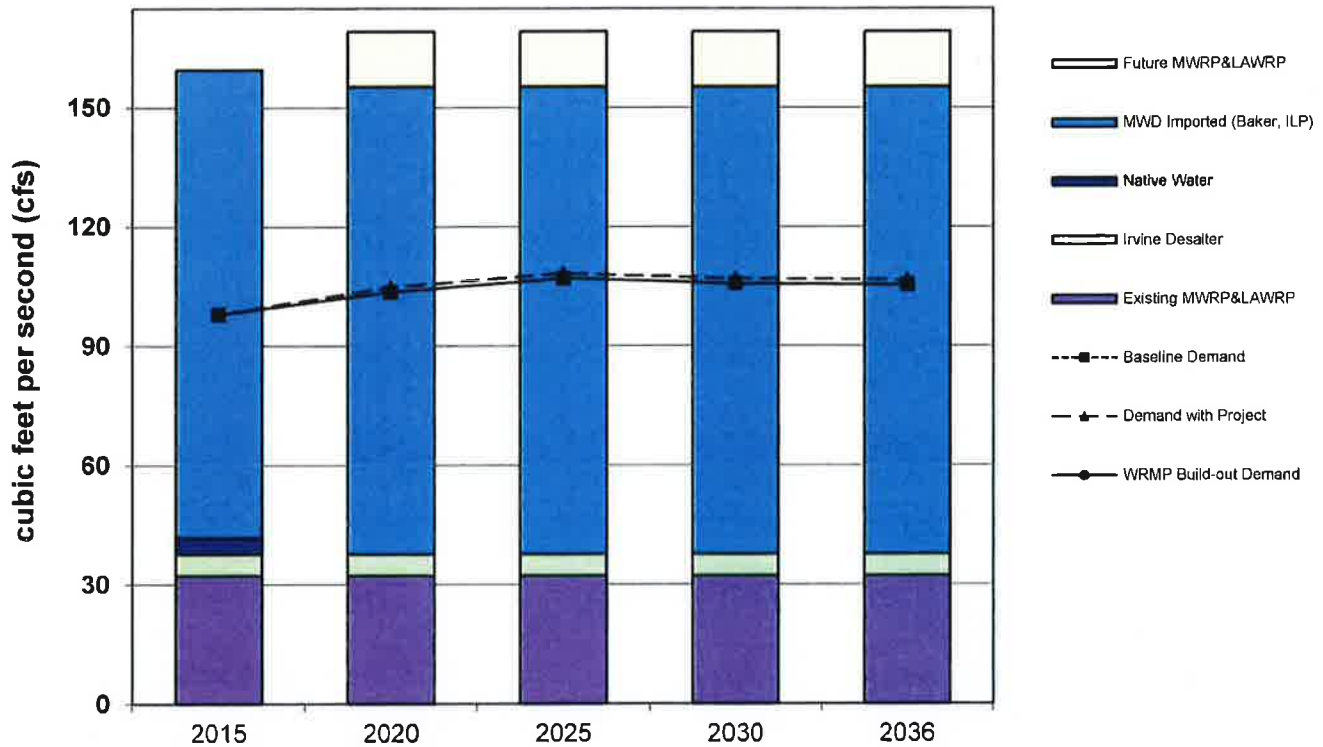
Figure 7
IRWD Multiple Dry-Year Supply & Demand - Nonpotable Water



(in acre-feet per year)	2015	2020	2025	2030	2036
<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	-	-	-	-
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.

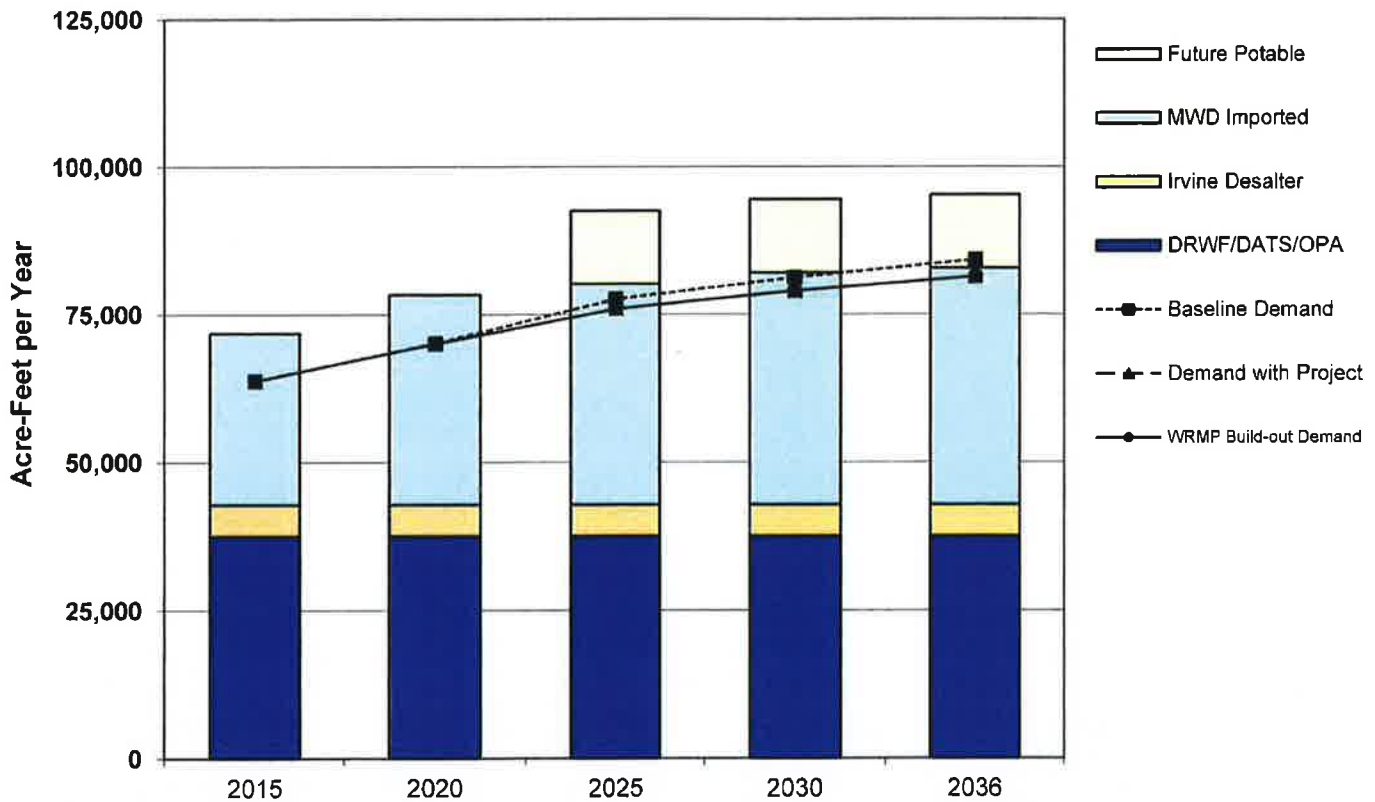
Figure 8
IRWD Maximum-Dry Supply & Demand - Nonpotable Water



(in cfs)	2015	2020	2025	2030	2036
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	-	-	-	-
Maximum Supply Capability	159.5	169.2	169.2	169.2	169.2
Baseline Demand	98.0	103.6	107.1	105.8	105.5
Demand with Project	98.0	104.9	108.3	107.0	106.7
WRMP Build-out Demand	98.0	103.6	107.1	105.8	105.5
Reserve Supply with Project	61.5	65.6	62.2	63.5	63.8

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.

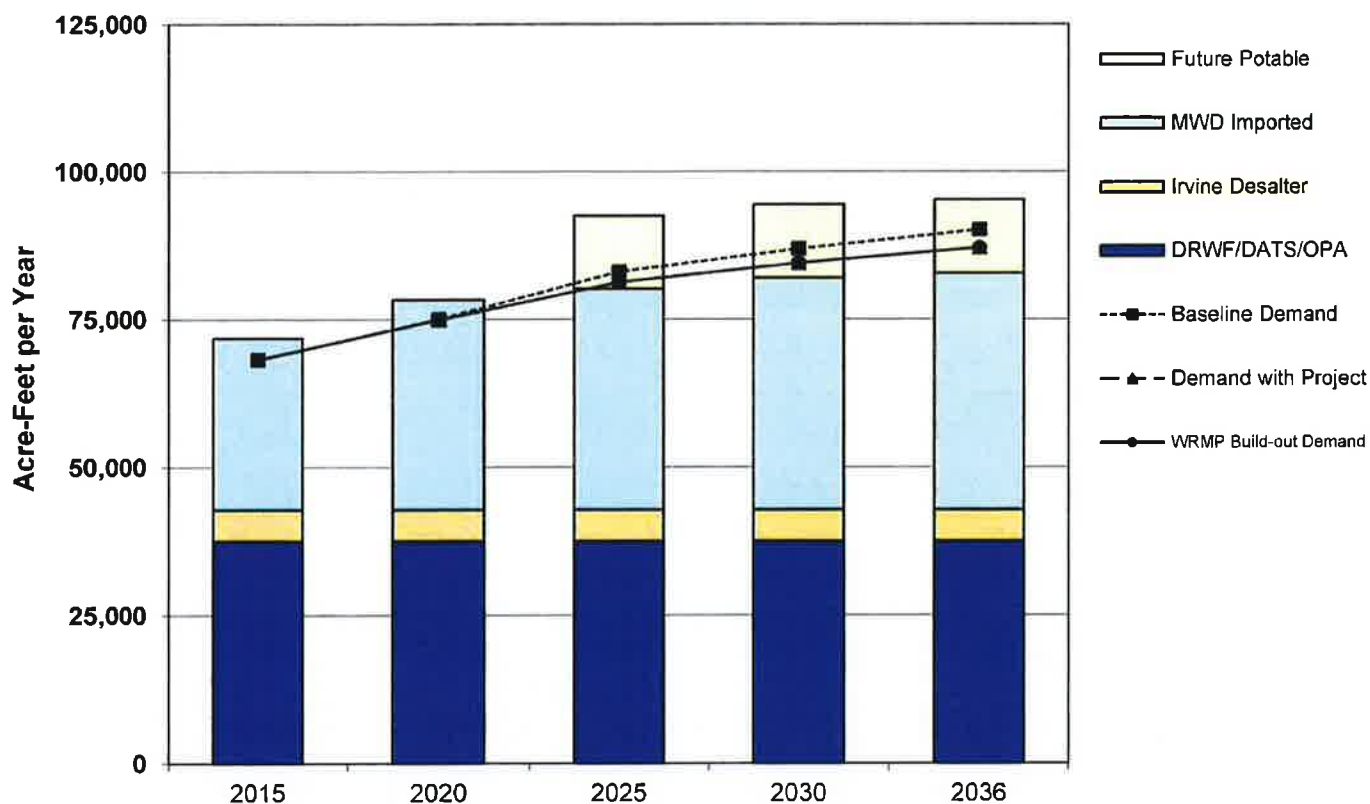
Figure 1a
IRWD Normal-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*



(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	63,753	70,137	77,635	81,261	84,276
Demand with Project	63,753	70,057	75,968	79,007	81,435
WRMP Build-out Demand	63,753	70,057	75,968	79,007	81,434
Reserve Supply with Project	14,417	15,614	23,866	22,730	21,090

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

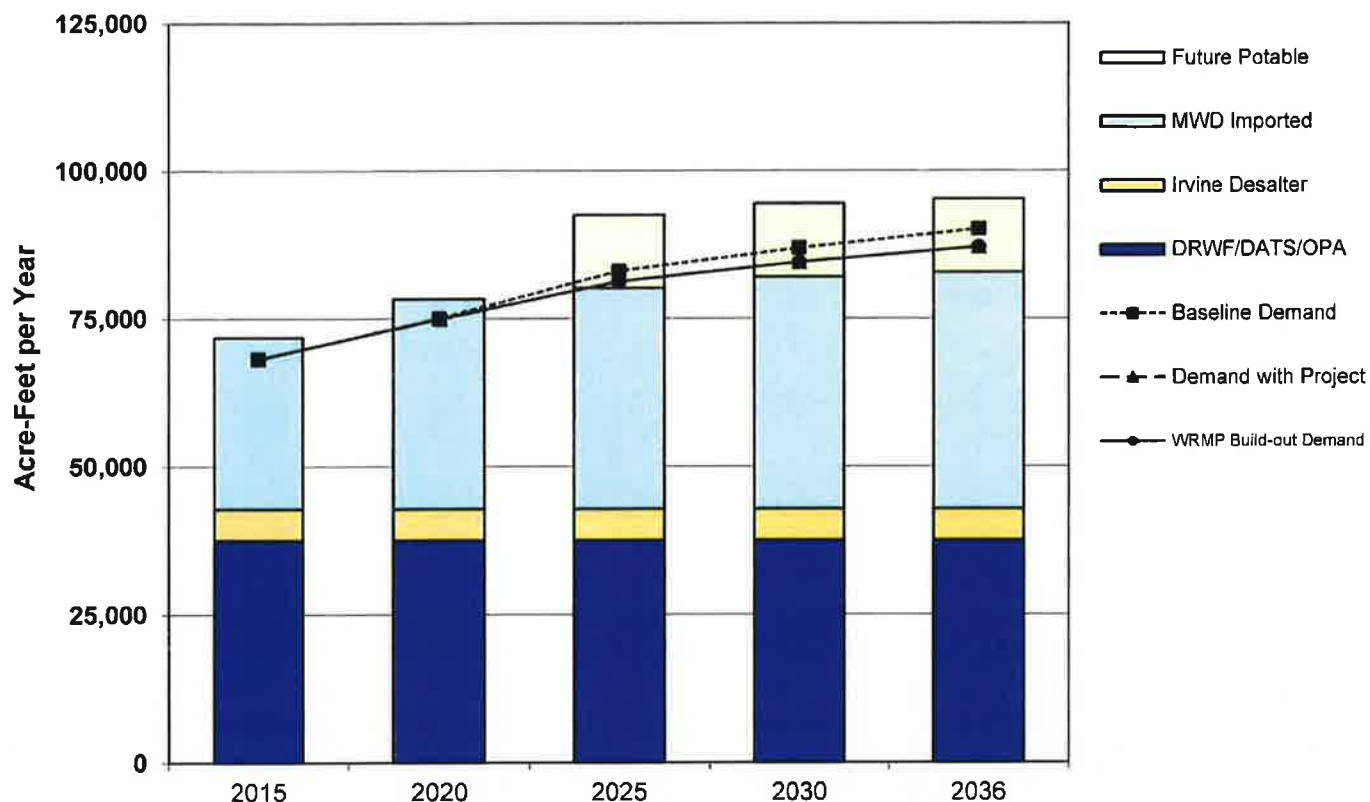
Figure 2a
IRWD Single Dry-Year Supply & Demand - Potable Water
Under Temporary MWD Allocation*



(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	9,955	10,710	18,548	17,199	15,389

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

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



(in acre-feet per year)	2015	2020	2025	2030	2036
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF, Baker)	29,000	35,500	37,311	39,214	40,002
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
Baker Water Treatment Plant (native portion)	-	1,000	1,000	1,000	1,000
Supplies Under Development					
Future Potable	-	-	12,352	12,352	12,352
Maximum Supply Capability	78,170	85,670	99,834	101,737	102,525
Baseline Demand	68,216	75,047	83,069	86,950	90,175
Demand with Project	68,216	74,960	81,285	84,538	87,136
WRMP Build-out Demand	68,216	74,960	81,285	84,538	87,135
Reserve Supply with Project	9,955	10,710	18,548	17,199	15,389

*For illustration purposes, IRWD has shown MWD Imported Supplies as estimated under a short-term allocation, Shortage Stage 3 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 would be limited to available MWD and native water only.

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 updated in the following table:

	Max Day (cfs)	(1.8)	Avg. Annual (AFY)	Annual by Category (AFY)
Current Supplies				
Potable - Imported				
East Orange County Feeder No. 2	41.4	23.0	16,652	1
Allen-McColloch Pipeline*	64.7	35.9	26,024	1
Orange County Feeder	18.0	10.0	7,240	1
	124.1	69	49,916	49,916
Potable - Treated Surface				
Baker Treatment Plant (includes imported and native)	10.5		6,858	6,858
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
Total Potable Current Supplies	248.9			105,944
Nonpotable - Recycled Water				
		0.9		
MWRP (28 mgd)	37.3	26,969.6	26,970	4
LAWRP (5.5 mgd)	8.3	5.5	5,975	4
Future MWRP & LAWRP	6.7	4,816.0	4,820	5
Nonpotable - Imported				
Baker Aqueduct	52.7	16.9	12,221	6
Irvine Lake Pipeline	65.0		9,000	7
	117.7		21,221	21,221
Nonpotable - Groundwater				
Irvine Desalter-Nonpotable	5.4		3,514	8
Nonpotable Native				
Irvine Lake	4.2		3,048	9
Total Nonpotable Current Supplies	179.4			65,548
Total Combined Current Supplies	428.3			171,493
Supplies Under Development				
Potable Supplies				
Future Groundwater Production Facilities	19.2		12,352	12,352
Total Under Development	19.2		12,352	12,352
Total Supplies				
Potable Supplies	268.1			118,297
Nonpotable Supplies	179.4			65,548
Total Supplies (Current and Under Development)	447.5			183,845

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 4, page 23).

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 28.0 mgd treatment capacity (26,970 AFY RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 AFY)

5 Future estimated MWRP & LAWRP recycled water production.

6 Baker Aqueduct capacity has been allocated to Baker Water Treatment Plant (WTP) participants and IRWD will own 46.50 cfs in Baker Aqueduct after completion of 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 9, page 26).

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) 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.^{5 6}

•POTABLE SUPPLY - IMPORTED⁷

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"),⁸ 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

⁵ 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.

⁶ In the following discussion, contractual and other legal entitlements are characterized as either potable or nonpotable, according to the characterization of the source of supply. Some of the nonpotable supplies surplus to nonpotable demand could potentially be rendered potable by the addition of treatment facilities; however, except where otherwise noted, IRWD has no current plans to do so.

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

⁸ 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).

Baker Water Treatment Plant (currently available)

IRWD is currently constructing the Baker Water Treatment Plant (Baker WTP) in partnership with El Toro Water District, Moulton-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.⁹

•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 through 2035 in its Final Draft Long-Term Facilities Plan (January, 2006), last updated November 19, 2014. The Long-Term Facilities Plan is updated approximately every five years.

(ii) *Irvine Ranch Water District v. Orange County Water District*, OCSC No. 795827. A portion of IRWD is outside the jurisdictional boundary of OCWD. IRWD is eligible to annex the Santa Ana River Watershed portion of this territory to OCWD, under OCWD's current annexation policy (Resolution No. 86-2-15, adopted on February 19, 1986 and reaffirmed on June 2, 1999), and anticipates doing so. However, this September 29, 1998, Superior Court ruling indicates that IRWD is entitled to deliver groundwater from the Basin to the IRWD service area irrespective of whether such area is also within OCWD.

***Dyer Road Wellfield (DWRf) / Deep Aquifer Treatment System (DATS)
(currently available)***

(iii) Agreement For Water Production and Transmission Facilities, dated March 18, 1981, as amended May 2, 1984, September 19, 1990 and November 3, 1999

⁹ The Baker WTP shall be supplied nonpotable imported water through the existing Baker Pipeline. IRWD's existing Baker Pipeline capacity (see 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.

(the "DRWF Agreement"). The DRWF Agreement, among IRWD, OCWD and Santa Ana, concerns the development of IRWD's Dyer Road Wellfield ("DRWF"), within the Basin. The DRWF consists of 16 wells pumping from the non-colored water zone of the Basin and 2 wells (with colored-water treatment facilities) pumping from the deep, colored-water zone of the Basin (the colored-water portion of the DRWF is sometimes referred to as the Deep Aquifer Treatment System or "DATS".) Under the DRWF Agreement, an "equivalent" basin production percentage (BPP) has been established for the DRWF, currently 28,000 AFY of non-colored water and 8,000 AFY of colored water, provided any amount of the latter 8,000 AFY not produced results in a matching reduction of the 28,000 AFY BPP. Although typically IRWD production from the DRWF does not materially exceed the equivalent BPP, the equivalent BPP is not an extraction limitation; it results in imposition of monetary assessments on the excess production. The DRWF Agreement also establishes monthly pumping amounts for the DRWF. With the addition of the Concentrated Treatment System (CATS), IRWD has increased the yield of DATS.

Irvine Subbasin / Irvine Desalter (currently available)

(iv) First Amended and Restated Agreement, dated March 11, 2002, as amended June 15, 2006, restating May 5, 1988 agreement ("Irvine Subbasin Agreement"). TIC has historically pumped agricultural water from the Irvine Subbasin. (As in the rest of the Basin of which this subbasin is a part, the groundwater rights have not been adjudicated, and OCWD provides governance and management under the Act.) The 1988 agreement between IRWD and TIC provided for the joint use and management of the Irvine Subbasin. The 1988 agreement further provided that the 13,000 AFY annual yield of the Irvine Subbasin would be allocated 1,000 AFY to IRWD and 12,000 AFY to TIC. Under the restated Irvine Subbasin Agreement, the foregoing allocations were superseded as a result of TIC's commencement of the building its Northern Sphere Area project, with the effect that the Subbasin production capability, wells and other facilities, and associated rights have been transferred from TIC to IRWD, and IRWD has assumed the production from the Subbasin. In consideration of the transfer, IRWD is required to count the supplies attributable to the transferred Subbasin production in calculating available supplies for the Northern Sphere Area project and other TIC development and has agreed that they will not be counted toward non-TIC development.

A portion of the existing Subbasin water production facilities produce water which is of potable quality. IRWD could treat some of the water produced from the Subbasin for potable use, by means of the Desalter and other projects. Although, as noted above, the Subbasin has not been adjudicated and is managed by OCWD, TIC reserved water rights from conveyances of its lands as development over the Subbasin has occurred, and under the Irvine Subbasin Agreement TIC has transferred its rights to IRWD.

(v) Second Amended and Restated Agreement Between Orange County Water District and Irvine Ranch Water District Regarding the Irvine Desalter Project, dated June 11, 2001, and other agreements referenced therein. This agreement provides for the extraction and treatment of subpotable groundwater from the Irvine Subbasin, a portion of the Basin. As is the case with the remainder of the Basin, IRWD's entitlement to extract this water is not adjudicated, but the use of

the entitlement is governed by the OCWD Act. (See also, discussion of Irvine Subbasin in the preceding paragraph.) A portion of the product water has been delivered into the IRWD potable system, and the remainder has been delivered into the IRWD nonpotable system.

Orange Park Acres (currently available)

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

Wells 21 and 22 (currently available)

IRWD 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.

Irvine Wells (under development)

(vi) IRWD is pursuing the installation of production facilities in the west Irvine, Tustin Legacy and Tustin Ranch portions of the Basin. These groundwater supplies are considered to be under development; however, four wells have been drilled and have previously produced groundwater, three wells have been drilled but have not been used as production wells to date, a site for an additional well and treatment facility has been acquired by IRWD. The production facilities can be constructed and operated under the Act; no statutory or contractual approval is required to do so. Appropriate environmental review would be conducted for each facility. See discussion of the Act under Potable Supply - Groundwater, paragraph (i), above.

•NONPOTABLE SUPPLY - RECYCLED

Water Recycling Plants (currently available)

Water Code Section 1210. IRWD supplies its own recycled water from wastewater collected by IRWD and delivered to IRWD's Michelson Water Recycling Plant (MWRP) and Los Alisos Water Recycling Plant (LAWRP). MWRP currently has a permitted tertiary capacity of 18 million gallons per day (MGD) and LAWRP currently has a permitted tertiary 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 recycled water, and do not permit stream discharge of recycled 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 (currently available)

IRWD completed construction of the Michelson Water Reclamation Plant Phase 2 Capacity Expansion Project to tertiary capacity of 28 MGD. With this expansion, IRWD increased its tertiary treatment capacity on the existing MWRP site to produce sufficient recycled water to meet the projected demand in the year 2036. Additional reclamation capacity will augment local nonpotable supplies and improve reliability.

•NONPOTABLE SUPPLY - IMPORTED¹⁰

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's original capacities in the Baker Pipeline include 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. These existing Baker Pipeline capacities have been apportioned to the Baker WTP participants based on Baker WTP capacity ownership. IRWD retains 10.5 cfs of the pipeline capacity for potable supply through the Baker WTP and retains 36 cfs in Reach 1U of the Baker Pipeline capacity for nonpotable supply (See also footnote 10, page 27). Water is subject to availability from MWD.

•NONPOTABLE SUPPLY - NATIVE

Irvine Lake (currently available)

(i) Permit For Diversion and Use of Water (Permit No. 19306) issued pursuant to Application No. 27503; License For Diversion and Use of Water (License 2347) resulting from Application No. 4302 and Permit No. 3238; License For Diversion

¹⁰ See Imported Supply - Additional Information, below, for information concerning the availability of the MWD supply.

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.¹¹ The agreements also provide for evaporation and spill losses and carryover water remaining in the Lake at the annual allocation dates. Given the dependence of native water on rainfall, for purposes of this assessment only a small portion of IRWD's share of the 28,000 AFY of native water rights (4,000 AFY in normal years and 1,000 AFY in single and multiple-dry years) is shown in currently available supplies, based on averaging of historical data. However, IRWD's ability to supplement Irvine Lake storage with its imported untreated water supplies, described herein, offsets the uncertainty associated with the native water supply.

•NONPOTABLE SUPPLY - GROUNDWATER

Irvine Subbasin / Irvine Desalter (currently available)

(i) IRWD's entitlement to produce nonpotable water from the Irvine Subbasin is included within the Irvine Subbasin Agreement. See discussion of the Irvine

¹¹ 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.

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 MWD's UWMP, MWD has extended its planning timeframe out through 2040 to ensure that MWD's UWMP may be used as a source document for meeting requirements for sufficient supplies. In addition, the MWD UWMP includes "Justifications for Supply Projections" (Appendix A-3) that details the planning, legal, financial, and regulatory basis for including each source of supply in the plan. The MWD UWMP summarizes MWD's planning initiatives over the past 15 years, which includes the Integrated Resources Plan (IRP), the IRP 2015 Update, the WSDM Plan, Strategic Plan and Rate Structure. The reliability analysis in MWD's 2015 IRP Update showed that MWD can maintain reliable supplies under the conditions that have existed in past dry periods throughout the period through 2040. The MWD UWMP includes tables that show the region can provide reliable supplies under both the single driest year (1977) and multiple dry years (1990-92) through 2040. MWD has also identified buffer supplies, including additional State Water Project groundwater storage and transfers that could serve to supply the additional water needed.

It is anticipated that MWD will revise its regional supply availability analysis periodically, if needed, to supplement the MWD UWMP in years when the MWD UWMP is not being updated.

IRWD is permitted by the statute to rely upon the water supply information provided by the wholesaler concerning a wholesale water supply source, for use in preparing its UWMPs. In turn, the statute provides for the use of UWMP information to support water supply assessments and verifications. In accordance with these provisions, IRWD is entitled to rely upon the conclusions of the MWD UWMP. As referenced above under Summary of Results of Demand-Supply Comparisons - Recent Actions on Delta Pumping, MWD has provided additional information on its imported water supply.

MWD's reserve supplies, together with the fact that IRWD relies on MWD supplies as supplemental supplies that need not be used to the extent IRWD operates currently available and under-development local supplies, build a margin of safety into IRWD's supply availability.

- (2) Adopted capital outlay program to finance delivery of the water supplies.

All necessary delivery facilities currently exist for the use of the *currently available* and *under-development* supplies assessed herein, with the exception of

future groundwater wells, and IRWD sub-regional and developer-dedicated conveyance facilities necessary to complete the local distribution systems for the Project. IRWD's turnout at each MWD connection and IRWD's regional delivery facilities are sufficiently sized to deliver all of the supply to the sub-regional and local distribution systems.

With respect to future groundwater wells (PR 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.) For these facilities, as well as unbuilt IRWD sub-regional conveyance facilities, the sources of funding are previously authorized general obligation bonds, revenue-supported certificates of participation and/or capital funds held by IRWD Improvement Districts. IRWD has maintained a successful program for the issuance of general obligation bonds and certificates of participation on favorable borrowing terms, and IRWD has received AAA public bond ratings. IRWD has approximately \$615.2 million (water) and \$784.8 million (wastewater) of unissued, voter-approved bond authorization. Certificates of participation do not require voter approval. Proceeds of bonds and available capital funds are expected to be sufficient to fund all IRWD facilities for delivery of the supplies under development. Tract-level conveyance facilities are required to be donated to IRWD by the Applicant or its successor(s) at time of development.

See also MWD's UWMP, Appendix A.3 Justifications for Supply Projections with respect to capital outlay programs related to MWD's supplies.

(3) Federal, state and local permits for construction of delivery infrastructure.

Most IRWD delivery facilities are constructed in public right-of-way or future right-of-way. State statute confers on IRWD the right to construct works along, under or across any stream of water, watercourse, street, avenue, highway, railway, canal, ditch or flume (Water Code Section 35603). Although this right cannot be denied, local agencies may require encroachment permits when work is to be performed within a street. If easements are necessary for delivery infrastructure, IRWD requires the developer to provide them. The crossing of watercourses or areas with protected species requires federal and/or state permits as applicable.

See also MWD's UWMP, Appendix A.3 Justifications for Supply Projections with respect to permits related to MWD's supplies.

(4) Regulatory approvals for conveyance or delivery of the supplies.

See response to preceding item (3).

See also MWD's UWMP, Appendix A.3 Justifications for Supply Projections with respect to regulatory approvals related to MWD's supplies.

3. Other users and contractholders (identified supply not previously used).

For each of the water supply sources identified by IRWD, if no water has been received from that source(s), IRWD is required to identify other public water systems or water

service contractholders that receive a water supply from, or have existing water supply entitlements, water rights and water service contracts to, that source(s):

Water has been received from all listed sources. A small quantity of Subbasin water is used by Woodbridge Village Association for the purpose of supplying its North and South Lakes. There are no other public water systems or water service contractholders that receive a water supply from, or have existing water supply entitlements, water rights and water service contracts to, the Irvine Subbasin.

4. Information concerning groundwater included in the supply identified for the Project:

(a) Relevant information in the Urban Water Management Plan (UWMP):

See Irvine Ranch Water District 2010 UWMP, sections 4-D through 4-J.

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

The Orange County Groundwater Basin ("Basin") is described in the Groundwater Management Plan ("GMP") 2015 Update Final Draft, dated June 17, 2015¹². 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 331,000 AFY.

The Department of Water Resources has not identified the Basin as overdrafted in its most current bulletin that characterizes the condition of the Basin, Bulletin 118 (2003). The efforts being undertaken by OCWD to eliminate long-term overdraft in the Basin are described in the OCWD MPR, including in particular, Chapters 4, 5, 6, 14 and 15 of the MPR. In addition to Orange County Water District (OCWD) reports listed in the Assessment Reference List, OCWD has also prepared a Long Term Facilities Plan ("LTFP") which 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 Basin.

Although the water supply assessment statute (Water Code Section 10910(f)) refers to elimination of "long-term overdraft," overdraft includes conditions which may be managed for optimum basin storage, rather than eliminated. OCWD's Act defines annual groundwater overdraft to be the quantity by which production exceeds the natural replenishment of the Basin. Accumulated overdraft is defined in the OCWD Act to be the quantity of water needed in the groundwater basin forebay to prevent landward movement of seawater into the fresh groundwater body. However, seawater intrusion control facilities have been constructed by OCWD since the Act was written, and have been effective in preventing landward movement of seawater. These facilities allow greater

¹² OCWD has also prepared a Long-Term Facilities Plan which was received and filed by its Board in July 2009, and last updated in November 2014.

utilization of the storage capacity of the Basin.

OCWD has invested over \$250 million in seawater intrusion control (injection barriers), recharge facilities, laboratories, and Basin monitoring to effectively manage the Basin. Consequently, although the Basin is defined to be in an “overdraft” condition, it is actually managed to allow utilization of up to 500,000 acre-feet of storage capacity of the basin during dry periods, acting as an underground reservoir and buffer against drought. OCWD has an optimal basin management target of 100,000 acre-feet of accumulated overdraft provides sufficient storage space to accommodate increased supplies from one wet year while also provide enough water in storage to offset decreased supplies during a two- to three year drought. If the Basin is too full, artesian conditions can occur along the coastal area, causing rising water and water logging, an adverse condition. Since the formation of OCWD in 1933, OCWD has made substantial investment in facilities, Basin management and water rights protection, resulting in the elimination and prevention of adverse long-term “mining” overdraft conditions. OCWD continues to develop new replenishment supplies, recharge capacity and basin protection measures to meet projected production from the basin during normal rainfall and drought periods. (OCWD MPR and LTFP)

OCWD's efforts include ongoing replenishment programs and planned capital improvements. It should be noted under OCWD's management of overdraft to maximize its use for annual production and recharge operations, overdraft varies over time as the Basin is managed to keep it in balance over the long term. The Basin is not operated on an annual safe-yield basis. (OCWD MPR, section 3.2 and LTFP, section 6)

(c) Description and analysis of the amount and location of groundwater pumped by IRWD from the Basin for the past five years:

The following table shows the amounts pumped, by groundwater source:

(In AFY)

Year (ending 6/30)	DRWF/DATS/ OPA/21-22	Irvine Subbasin (IRWD)	Irvine Subbasin (TIC)	LAWD ¹³
2015	40,656	9,840	0	336
2014	42,424	10,995	0	376
2013	38,617	8,629	0	282
2012	37,059	7,059	0	0
2011	34,275	7,055	0	0
2010	37,151	8,695	0	3
2009	38,140	7,614	0	0

¹³ 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.

2008	36,741	4,539	0	16
2007	37,864	5,407	0	6
2006	37,046	2,825	0	268
2005	36,316	2,285	628	357
2004	30,265	1,938	3,079	101
2003	24,040	2,132	4,234	598
2002	25,855	2,533	5,075	744

(d) Description and analysis of the amount and location of groundwater projected to be pumped by IRWD from the Basin:

IRWD has a developed groundwater supply of 35,200 AFY from its Dyer Road Wellfield (including the Deep Aquifer Treatment System), in the main portion of the Basin.

Although TIC's historical production from the Subbasin declined as its use of the Subbasin for agricultural water diminished, OCWD's and other historical production records for the Subbasin show that production has been as high as 13,000 AFY. Plans are also underway to expand IRWD's main Orange County Groundwater Basin supply (characterized as *under-development* supplies herein). (See Section 2 (a) (1) herein). IRWD anticipates the development of additional production facilities within both the main Basin and the Irvine Subbasin. However, such additional facilities have not been included or relied upon in this assessment. Additional groundwater development will provide an additional margin of safety as well as reduce future water supply costs to IRWD.

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

(In AFY)

Year (ending 6/30)	DRWF ¹⁴	Future GW ¹⁵	IDP (Potable)	IDP (Nonpotable)
2020	43,300	0	5,640	3,898
2025	43,300	12,352	5,640	3,898
2035	43,300	12,352	5,640	3,898
2040	43,300	12,352	5,640	3,898

(e) If not included in the 2010 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:

¹⁴ See Potable Supply - Groundwater, paragraph (iii), above. DRWF non-colored production above 28,000 AFY and colored water production above 8,000 AFY are subject to contractually-imposed assessments. In addition, seasonal production amounts apply. This also includes 1,000 AFY for the OPA well and 6,300 for Wells 21&22.

¹⁵ Under development.

See responses to 4(b) and 4(d).

The OCWD MPR and LTFP examined future Basin conditions and capabilities, water supply and demand, and identified projects to meet increased replenishment needs of the basin. With the implementation of OCWD's preferred projects, the Basin yield in the year 2025 would be up to 500,000 AF. The amount that can be produced will be a function of which projects will be implemented by OCWD and how much increased recharge capacity is created by those projects, total demands by all producers, and the resulting Basin Production Percentage ("BPP") that OCWD sets based on these factors.¹⁶ 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 has completed its replenishment supply project, the Groundwater Replenishment System project ("GWRS"). The OCWD MPR indicates that the GWRS will produce over 100,000 AFY of new replenishment supply from recycled water.

Production of groundwater can exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies. Additional groundwater production is anticipated by OCWD in the Basin in dry years, as producers reduce their use of imported supplies, and the Basin is "mined" in anticipation of the eventual availability of replenishment water. (OCWD MPR, section 14.6.)

See also, Figures 1-8. IRWD assesses sufficiency of supplies on an aggregated basis, as neither groundwater nor other supply sources are allocated to particular projects or customers. Under the Irvine Subbasin Agreement, IRWD is contractually obligated to attribute the Subbasin supply only to TIC development projects for assessment purposes; however, the agreement does not allocate or assign rights in the Subbasin supply to any project.

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.

¹⁶ OCWD has adopted a basin production percentage of 70% for 2015-16. In prior years OCWD has maintained a basin production percentage that is higher than the current percentage, and IRWD anticipates that such reductions may occur from time to time as a temporary measure employed by OCWD to encourage lower pumping levels as OCWD implements other measures to reduce the current accumulated overdraft in the Basin. Any such reductions are not expected to affect any of IRWD's currently available groundwater supplies listed in this assessment, which are subject to a contractually-set equivalent basin production percentage as described, or are exempt from the basin production percentage.

5. ☒ This Water Supply Assessment is being completed for a project included in a prior water supply assessment. Check all of the following that apply:

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

6. References

Water Resources Master Plan, Irvine Ranch Water District, Updated 2007

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

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

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

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

Proposed Framework for Metropolitan Water District's Delta Action Plan, Metropolitan Water District of Southern California, May 8, 2007

2007 IRP Implementation Report, Metropolitan Water District of Southern California, October 7, 2007

Board Letter, Action plan for updating the Integrated Resources Plan, Metropolitan Water District of Southern California, December 11, 2007

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

2015 Integrated Resources Plan Update, Metropolitan Water District of Southern California, January 2016

Draft 2015 Urban Water Management Plan, Metropolitan Water District of Southern California, March 2016

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

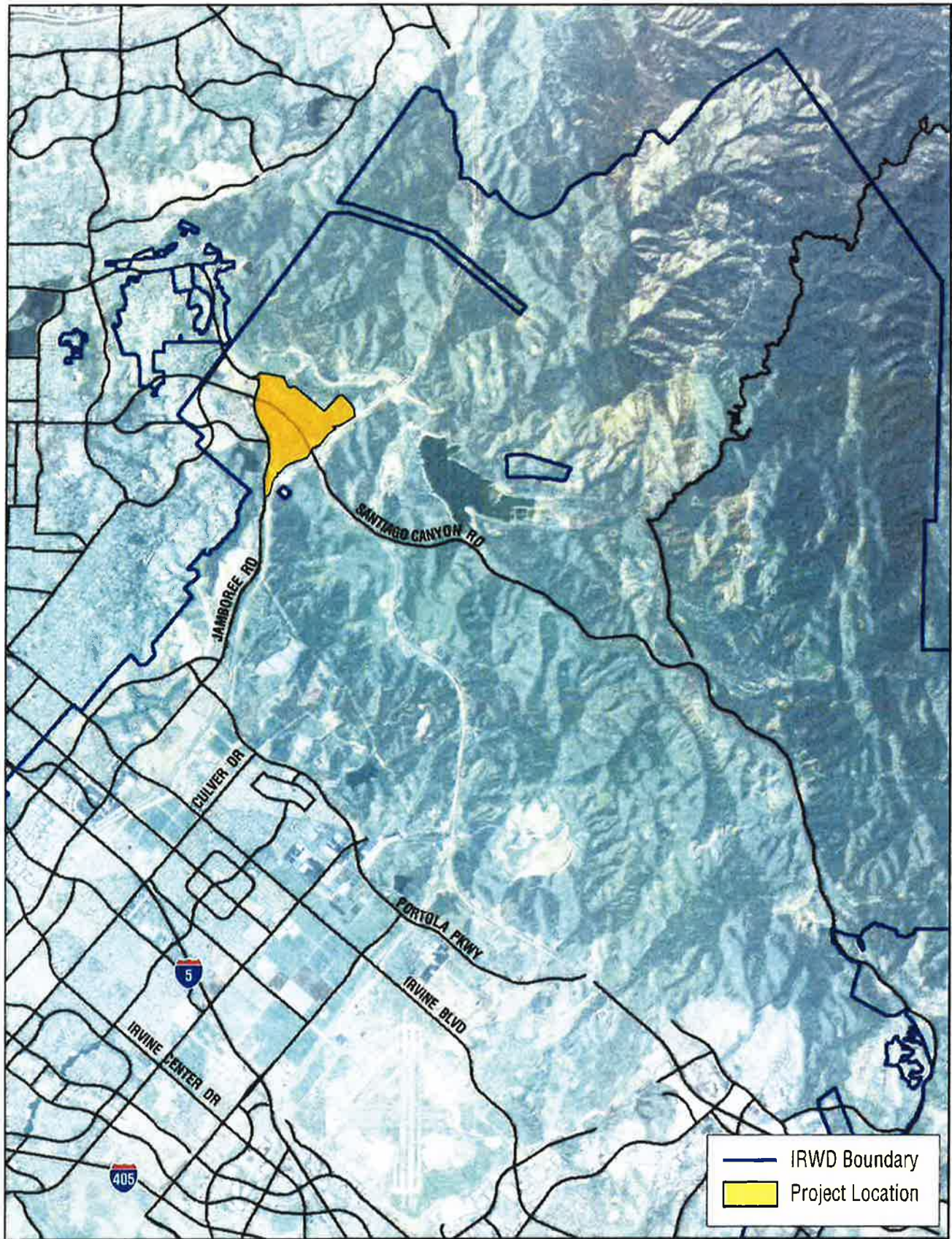
Long-Term Facilities Plan 2014 Update, Orange County Water District, November 2014

2014-2015 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District, Orange County Water District, February 2016

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



Michael Baker
INTERNATIONAL



2/15/16 JN 147817-21302 MAS

SANTIAGO HILLS II SAMP UPDATE
Site Vicinity Map

Exhibit B

Uses Included in Project



CITY OF ORANGE

DEPARTMENT OF COMMUNITY DEVELOPMENT

www.cityoforange.org

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PLANNING DIVISION
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BUILDING DIVISION
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CODE ENFORCEMENT DIVISION
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fax: (714) 744-7245

April 1, 2016

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

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

The City of Orange hereby requests a supplemental 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 addendum to a previously-certified Environmental Impact Report (EIR) is required for the project.

Proposed Project Information

Project Title: Santiago Hills II Planned Community

Location of project: The project site is located east of Jamboree Road, west of the SR 241/261 toll road, south of Irvine Regional Park and north of the Orange City limit. Refer to Exhibit.

For projects requiring a supplemental assessment under Water Code §10910 (h):

- ☒ Previous Water Supply Assessment including this project was approved March 8, 2004. This application requests a supplemental Water Supply Assessment, due to the following (check all that apply):
 - ☐ Changes in the project that have substantially increased water demand
 - ☒ Changes in circumstances or conditions that may have affected IRWD's ability to provide a sufficient water supply for the project
 - ☒ New information that has become available which was not known and could not have been known at the date of the prior Water Supply Assessment

(If a supplemental assessment is requested, IRWD may prepare an amended WSA or a supplemental WSA to be used together with the previous WSA, as determined by IRWD.)

Type of Development:

- ☒ Residential: No. of dwelling units: 1,180 units
- ☐ Shopping center or business: No. of employees _____ Sq. ft. of floor space _____

REQUEST RECEIVED:

Date: 4-1-16
By: [Signature]
Irvine Ranch Water District

REQUEST COMPLETE:

Date: 4-1-16
By: [Signature]
Irvine Ranch Water District

April 6, 2016

Prepared by: M. Tettemer

Submitted by: P. Weghorst

Approved by: Paul Cook 

WATER RESOURCES POLICY AND COMMUNICATIONS COMMITTEE

DRAFT TERMS FOR PROPOSED AGREEMENT WITH THE IRVINE COMPANY FOR USE OF RECYCLED WATER

SUMMARY:

The Irvine Lake Pipeline North Project (ILP North Project) will convert numerous irrigated areas from the use of untreated import water to recycled water. One of the largest customers is the Irvine Company which owns over 500 acres of avocado orchards that will be served with recycled water from the project. Staff has worked with the Irvine Company to develop draft terms for an agreement that will commit it to using recycled water, provide for the evaluation of pressure and flow requirements, assign responsibility for monitoring, maximize the use of recycled water and create a framework to compensate the Irvine Company for additional costs that it may incur as a direct result of the conversion to recycled water. Staff recommends that the Committee provide input on the draft conceptual terms for an agreement between IRWD and the Irvine Company relative to conversion of the northern portion of the Irvine Lake Pipeline to recycled water and authorize staff and legal counsel to work with the Irvine Company to prepare the agreement for consideration by the Board.

BACKGROUND:

IRWD currently serves untreated imported water through the Irvine Lake Pipeline to numerous areas in the North Tustin / Orchard Hills area as shown in Exhibit "A". It is expected that these irrigated areas will be converted to recycled water upon completion of the ILP North Project. Many areas are owned by homeowners' associations which use untreated water for common area landscape irrigation. One of the larger irrigation customers in the area is Orange County Parks (OC Parks). IRWD and OC Parks are discussing serving recycled water to Irvine Regional Park upon completion of the project. The Irvine Company is the single largest irrigation customer in the area which owns over 500 acres of avocado orchards currently irrigated with approximately 1,450 AF per year of untreated import water. Approximately 400 acres of the orchards are considered permanent plantings. The conversion of these orchards to recycled water is the subject of a proposed agreement between IRWD and the Irvine Company.

Overview of ILP North Project:

In 2011, IRWD converted the lower reach of the Irvine Lake Pipeline located downstream of Rattlesnake Reservoir from untreated import water to recycled water. This initial project serves recycled water to the large agricultural area at Portola Parkway and Jeffrey Road as well as the University of California South Coast Research and Extension Center on Irvine Boulevard. IRWD is currently designing the ILP North Project which will convert a significant portion of the northern reach of the pipeline. This new project will result in the conversion of 2,500 AF per year of untreated irrigation demands to recycled water.

The ILP North project will include the construction of approximately two miles of pipeline and a 2.4 million gallon reservoir at an estimated cost of \$29 million. Exhibit "B" shows the project including the location of the new reservoir and piping. Once the project is completed, recycled water will be pumped to the reservoir which will be used to supply water to irrigation customers.

Conversion of Orchards:

The Irvine Company has expressed support for the ILP North Project and the conversion of its avocado orchards to recycled water. In May 2013, the Irvine Company converted a 20-acre avocado orchard from untreated water that it had obtained through the Santiago Aqueduct Commission pipeline to recycled water. To date, the Irvine Company has observed no negative impacts to the aesthetics or productivity of the orchard.

Staff has been working with the Irvine Company to evaluate the potential impacts of converting its 500 acres of avocado orchards to recycled water in the vicinity of the ILP North project. To help understand potential impacts of this conversion, the Irvine Company hired Advanced Irrigation Management to study several areas within the Irvine Company's avocado orchards to determine what, if any, impacts there may be to the health, aesthetics and productivity of the avocado orchards. Advanced Irrigation Management concluded that 1) "Existing soil and topographical variability are existing factors that will most significantly impact current yields and tree health," and 2) the use of recycled water "should be sustainable over the next 20 years".

While Advanced Irrigation Management is confident that recycled water can be used on the orchards, it indicated that some operational changes may be required including leaching practices that may require using more water or the addition of chemicals to address poor soil drainage/soil structure problems. Upon completion of the conversion, the Irvine Company intends to periodically monitor water quality, soils and plant health using the Advanced Irrigation Management study as the baseline condition.

Cost Concerns:

The Irvine Company has expressed concerns regarding increased capital and operational costs that may be incurred as a result of the conversion of its 500 acres of orchards to recycled water. Traditionally, when customers convert to recycled water, a savings based on the lower commodity cost for recycled water is realized. The Irvine Company will not realize any savings due to the special commodity rate that was negotiated in 2002 which resulted in it giving IRWD certain non-potable facilities and the Irvine Company being provided the same commodity rate for both untreated and recycled water. As a result of the proposed conversion, the Irvine Company may incur increased capital and operational costs based on lower water pressures.

Draft Terms for Agreement:

Staff has worked with the Irvine Company to develop terms for an agreement, included as Exhibit "C", which will commit the Irvine Company to the use of recycled water on its 500 acres of orchards. The terms of the agreement will also provide for:

- Establishing pressure and flow requirements;
- Assigning responsibility for water quality and orchard monitoring;
- Resolving issues to allow for the maximum use of recycled water; and
- Compensating the Irvine Company for any additional capital and operational costs.

At the Committee meeting, staff will provide an overview of the draft terms presented in Exhibit “C”.

FISCAL IMPACTS:

The ILP North Project is estimated to cost \$28 million and will result in increased recycled water sales and a corresponding decrease in untreated water purchases of approximately 2,500 AF per year. Staff is working with the State Water Resources Control Board to secure a Proposition 1 grant in the amount of approximately \$9 million for the project. Staff is also working with the Metropolitan Water District of Southern California to obtain a new Local Resources Program agreement which may provide between \$1 million to \$8 million for the project.

The Irvine Company may experience increase in annual operating costs due to additional booster pump usage as a result of the conversion of its 500 acres of avocado orchards in the vicinity of the ILP North Project. The draft terms for the agreement with the Irvine Company call for IRWD to compensate the Irvine Company for any mutually agreed upon increased capital and operational costs that are the direct result of using recycled water on the orchards. The actual costs and how those costs may be mitigated will be the subject of periodic meetings between IRWD and the Irvine Company as described in the draft terms. Staff expects that estimates of the range of additional costs that may be incurred will be available by the time the agreement is reviewed with the Board.

ENVIRONMENTAL COMPLIANCE:

The construction and operation of the ILP North Project is subject to compliance with the California Environmental Quality Act. A Mitigated Negative Declaration for this project was completed by IRWD and approved by IRWD’s Board of Directors on January 11, 2016. A Notice of Determination was filed with the State Clearinghouse on January 15, 2016, (SCH# 2015111011).

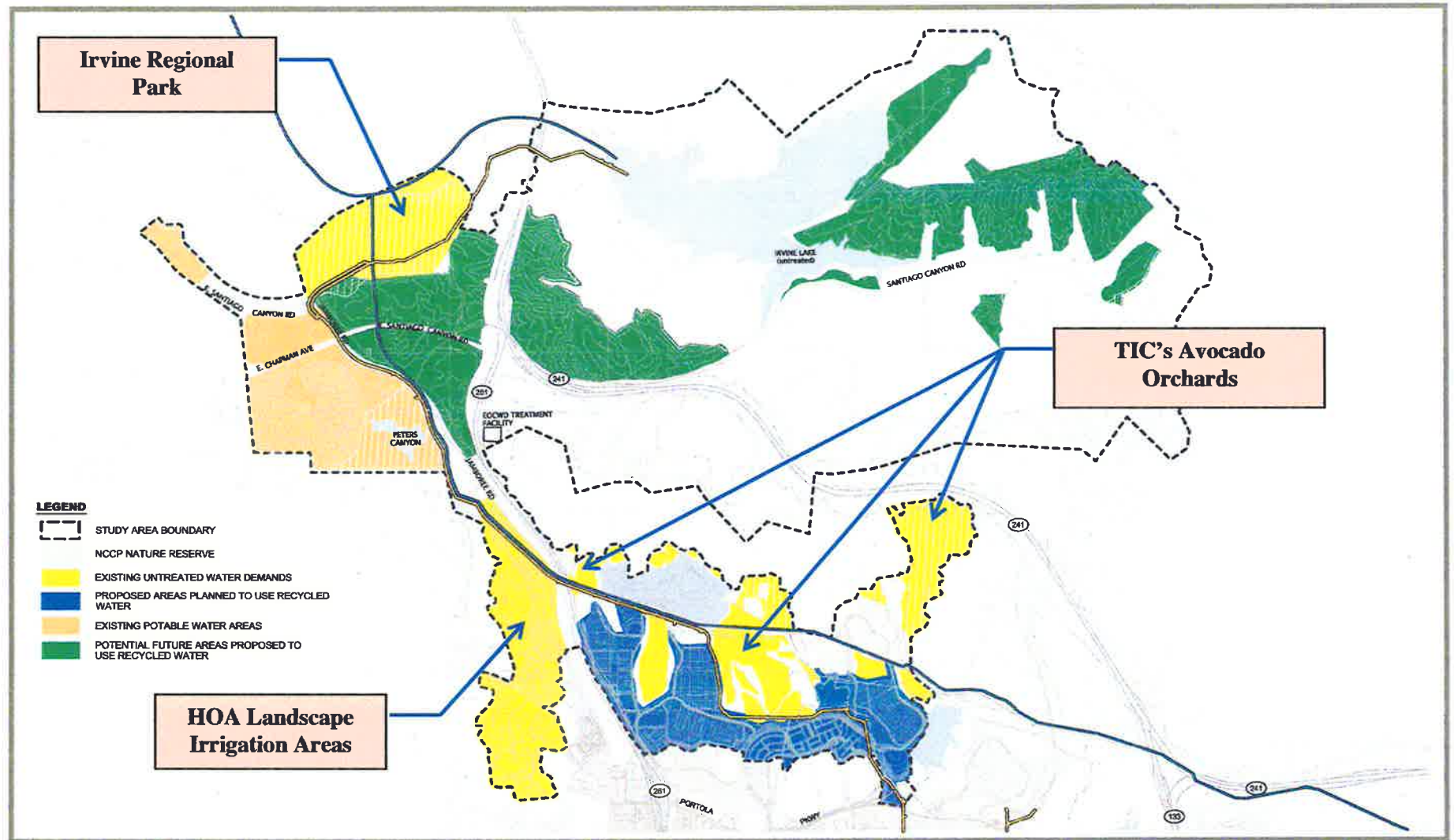
RECOMMENDATION:

That the Committee provide input on draft conceptual terms for an agreement between IRWD and the Irvine Company relative to conversion of the northern portion of the Irvine Lake Pipeline to recycled water and authorize staff and legal counsel to work with the Irvine Company to prepare the agreement for consideration by the Board.

LIST OF EXHIBITS:

- Exhibit “A” – ILP-North Conversion Study Source of Supply by Demand Area
- Exhibit “B” – ILP-North Conversion Project Facilities
- Exhibit “C” – Draft Conceptual Terms with the Irvine Company Regarding Conversion of the Northern Portion of the ILP

Exhibit "A"



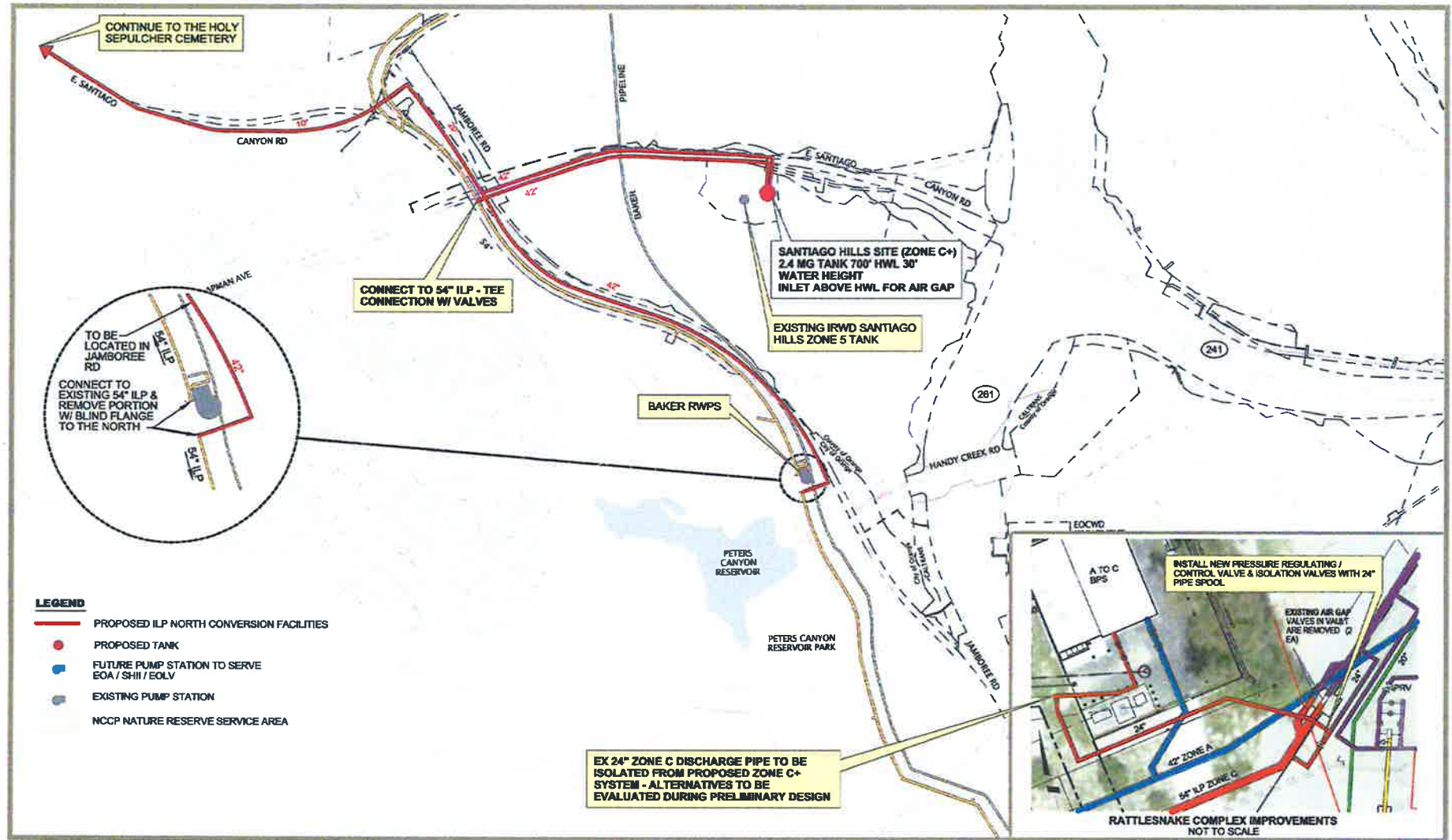
Stantec
 38 TECHNOLOGY DRIVE, SUITE 100
 IRVINE, CA 92618
 949.925.6220 stantec.com



ILP - NORTH CONVERSION STUDY
 SOURCE OF SUPPLY BY DEMAND AREA

FIGURE 3-2

Exhibit "B"



Stantec
 36 TECHNOLOGY DRIVE, SUITE 100
 IRVINE, CA 92618
 949.723.6000 stantec.com

ILP CONVERSION STUDY
 PROPOSED ILP CONVERSION PROJECT
 FIGURE ES-1

EXHIBIT “C”

DRAFT CONCEPTUAL TERMS

Irvine Ranch Water District and the The Irvine Company Regarding Conversion of the Northern Portion of the Irvine Lake Pipeline

April 6, 2016

GENERAL TERMS

Parties:	Irvine Ranch Water District (“IRWD”) and The Irvine Company (“TIC”)
Project Description:	IRWD will design, construct, own, and operate facilities to provide recycled water to existing untreated water customers in North Tustin and Orchard Hills (“Project”). The Project generally includes construction of approximately two-miles of pipeline and a 2.4 million gallon reservoir.
Approximate Effective Date:	February 2018
TIC Orchards:	TIC owns over 500-acres of avocado orchards that currently receive untreated water which will be converted to recycled water. Over 400-acres are considered “permanent plantings.”
Non-Binding Effect	This term sheet is intended to be a non-binding statement of the terms for the proposed Project. It is subject to the negotiation, execution and delivery of an agreement between IRWD and TIC consistent with basic terms and conditions set forth herein (“Project Agreement”).
Representations and Insurances:	IRWD and TIC shall provide usual and customary representations, warranties, insurances and indemnifications.
General Expenses:	Each party shall be responsible for its own fees and expenses arising out of the negotiation and execution of the Project Agreement.
CEQA Compliance:	IRWD shall serve as lead agency for the Project and will prepare the appropriate environmental documentation in conformance with the California Environmental Quality Act (CEQA).

PROJECT TERMS

Project Capital:	IRWD shall fund and oversee the design and construction of the Project which includes facilities upstream of TIC's existing untreated water meters which serve the avocado orchards.
Project Operation and Maintenance:	IRWD shall be responsible for the operation and maintenance of the Project throughout the life of the facilities including any associated future improvements, rehabilitations and replacement work.
Regulatory Compliance:	IRWD shall be responsible for obtaining any regulatory approval for the use of recycled water at the orchards. No approvals are expected. IRWD shall also be responsible for conducting inspections and testing of the TIC's on-site facilities for cross-connections and unapproved uses consistent with regulatory requirements.
Use of Recycled Water:	TIC shall use IRWD provided recycled water for irrigating its avocado orchards as long as the water quality is consistent with its historic water quality as expressed as ranges for various constituents.
Flow and Pressure:	IRWD shall determine the pressure and flow requirements at each TIC meter. TIC may need to change booster pumps to deliver the pressures needed to meet the needs of its orchards.
Monitoring Recycled Water Quality:	IRWD shall monitor the quality of the recycled water consistent with its regulatory requirements.
Monitoring the Orchards:	A study done by Blake Sanden of Advanced Irrigation Management shall serve as a description of the baseline (pre-Project) condition of TIC's avocado orchards. TIC may, at its cost, monitor the orchards and/or soil to assess the impact recycled water is having on the orchards. If TIC observes negative impacts to the orchards and/or soils relative to the baseline that TIC believes are attributable to the use of recycled water, TIC may provide information to IRWD which illustrates TIC's concerns. Both parties agree to work to resolve the issues which would allow for the maximum use of recycled water.

Potential for Additional TIC Costs:	There is the potential for increased costs for TIC as a result of using recycled water provided through the Project. This may include additional capital costs for new booster pumps and/or chemical injection systems. This may also include additional operating costs such as increased power, chemicals, water or measures to treat the site so as to mitigate the effects of recycled water. TIC and IRWD shall collaborate during design of Project to address anticipated TIC capital and operational costs. TIC and IRWD agree to meet as needed after Project is operational to reconcile any additional costs that TIC incurs that are a direct result of using recycled water provided through the Project. IRWD agrees to compensate TIC for any mutually agreed upon capital and operational costs increases that are the direct result of using recycled water provided by Project.
Cost of Water:	TIC will pay IRWD for the use of recycled water through Project facilities in accordance with the negotiated recycled water rates in effect at the time of use.

April 6, 2016

Prepared by: M. Veeh

Submitted by: B. Beeman/P. Weghorst

Approved by: Paul Cook 

WATER RESOURCES POLICY AND COMMUNICATIONS COMMITTEE

DISCOVERY SCIENCE FOUNDATION EDUCATION PROGRAM

SUMMARY:

Irvine Ranch Water District (IRWD) has successfully partnered with Discovery Science Foundation (DSF) to create and implement water education outreach programs for schools throughout IRWD's service area. Over the course of the nine-year partnership, the elementary school assembly program, the middle school water quality and field trip program and additional education outreach efforts have instructed approximately 81,740 students on the importance of water to Southern California, conservation and the environment. Beginning in the Fall 2016, a pilot professional development program for high school teachers will be implemented in addition to the elementary and middle school programs. The pilot program will be evaluated and may be extended for an additional two years at the discretion of IRWD. The total proposed three-year budget for all DSF education programs is \$531,555. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with DSF in the amount of \$531,555 for the three-year period covering FY 2016-2017, FY 2017-2018 and FY 2018-2019, for the elementary, middle and high school education programs.

BACKGROUND:

The goals of the DSF water education programs are to build awareness among IRWD service area students and residents of the District's programs, to instill a firm understanding of the natural scarcity of water in the region and to encourage and empower students and residents to help conserve, protect and preserve water. The water education program also provides a key Best Management Practice under the Memorandum of Understanding with the California Urban Water Conservation Council.

School Programs:

IRWD and DSF first formed a partnership for water education programs in 2007 to instruct elementary school students in IRWD's service area. The agreement was renewed in 2010 for another three-year term and again in 2013 for an additional three-year term that provided for both elementary and middle school programs. Staff has included funding for a continuation of these programs as well as a high school pilot program in next year's budget. A new three-year agreement with DSF is recommended for the three educational components of the partnership as described below:

1. *Elementary School:* Students in kindergarten through fifth grade will participate in grade-specific assemblies that focus on water science and conservation. Using individual student response keypad technology, teachers engage and encourage student participation during presentations. All assemblies, regardless of grade level, stress the importance of conserving limited resources and preventing water pollution. Topics will include the

forms of water, water as a resource, ecosystems, the water cycle, sources of water, water recycling, energy and resources and California's water.

The assembly program continues to be very successful and exceeding student participant goals each year. The educational program is on track to exceed student participation goals in FY 2015-2016. By the end of June, more than 10,000 students will have completed the Assembly Program. So far, 1,421 students have completed or are scheduled to complete the Field Trip Program, with more scheduling efforts underway.

2. *Middle School:* Sixth, seventh and eighth grade students will participate in a two-part in-class series of hands-on water chemistry and environmental resources lessons concluding with a trip to IRWD's San Joaquin Marsh. With an eye toward future careers, students will use chemical test kits to determine aspects of water quality, conduct simulated biological surveys related to water quality issues; deepen their understanding of water as a basic element and an essential resource, and explore current technologies such as water recycling.
3. *High School Pilot Program:* Beginning in FY 2016-2017, staff proposes that DSF administer a new high school pilot water education program that is specifically designed for IRWD service area high schools. The pilot program for high school teachers was developed after extensive discussions with local teachers. It will focus on natural scarcity, sources and usage of water in Orange County and will include interactive lessons associated with water use efficiency, groundwater, recycled water, urban runoff and droughts.

Fifteen high school teachers will participate in the first year of the program. Each teacher will receive instruction via a one-day workshop to be held in Fall 2016. Staff expects that teachers participating in the program will each enroll about 100 of their students for a total potential reach of approximately 1,500 students per year. Based on a thorough evaluation of the pilot program that will occur at the end of the first fiscal year, IRWD will determine whether to extend the program for the following two fiscal years. Exhibit "A" includes a more thorough description of the proposed high school program.

Scope of Work:

For the next three fiscal years, DSF will deliver a suite of water education programs for IRWD as described in the scope of work provided as Exhibit "B". The programs will include:

- Assembly-style programs that will focus on elementary school students;
- A two-part workshop-style program for middle school students to include a field trip program at the San Joaquin Marsh, and;
- A pilot professional development program for high school teachers.

DSF will deliver all aspects of the education programs, including:

- Managing the creation, production, procurement, and storage of take-home grade-specific booklets, workshop supplies, student kits and other materials required for program delivery;
- Promoting the water education programs to the schools within the IRWD service area, including booking program times and scheduling of instructors;
- Compiling and reporting results from each of the programs, including survey responses, kit distribution and other program outcomes, and
- Purchasing and bundling the supplies for the pilot professional development program for high school teachers, ready for implementation in the Fall of 2016.

FISCAL IMPACTS:

The cost of the elementary, middle and high-school programs will be \$531,555 over a three year period of time. Funds to cover one-third of these costs are included in the proposed FY 2016-2017 operating budget. All DSF education programs will be funded from over allocation funding. DSF's proposal is attached as Exhibit "B".

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

That the Board authorize the General Manager to execute a Professional Services Agreement with Discovery Science Foundation in the amount of \$531,555 for the three-year period covering FY 2016-2017, FY 2017-2018 and FY 2018-2019, for the elementary, middle and high school education programs.

LIST OF EXHIBITS:

Exhibit "A" – Discovery Science Foundation Proposal for Pilot Professional Development Program for High School Teachers

Exhibit "B" – Discovery Science Foundation of Orange County Irvine Ranch Water District 3-year Educational Outreach Scope of Work (FY 2016-19)

EXHIBIT "A"

Discovery Science Foundation Pilot Professional Development (PD) Program for High School Teachers

Summary

Discovery Science Foundation (DSF) is a leading provider of supplemental science education in Southern California, with a particular emphasis on partnering with public agencies to provide in-class water education programming. Our expert team has been designing and implementing grade-specific content for over two decades. Each of our programs is aligned with the Next Generation Science Standards, which have been adopted and are awaiting implementation in California schools.

DSF has been teaching science to students and families for nearly 25 years and has formed partnerships with several other water agencies and with over 30 partners across Southern California. Nearly all of these partnerships rely heavily on in-class education programs that weave together grade-specific science content with agency-specific messages that seek to educate the public. In total, DSF provides science programming to approximately 300,000 students in offsite, outreach programs each year, of which about 140,000 of these students are taught in water education programs.

Program Format

DSF is proposing a pilot professional development (PD) program for high school teachers in the Irvine Ranch Water District (IRWD). The educational focus will be specifically on the natural scarcity, sources, and usage of water in Orange County and will include interactive lessons associated with water use efficiency, groundwater, recycled water, and droughts. In addition, DSF will build an educational platform that will consist of water quality testing, water conveyance, and water treatment, along with human impact on our water, including distinguishing between one's positive and negative impacts, such as picking up pet waste and avoiding overwatering (positive impacts) and over-fertilization in the garden and facilitating urban runoff (negative impacts).

Some examples of the water quality tests that the teachers may receive are for nitrates, phosphates, dissolved oxygen, temperature, turbidity, biochemical oxygen demand, and coliform bacteria, in order to test "control" water samples and artificially "tainted" water samples, as well as other water source samples. Teachers will be trained on these and associated concepts during the PD classes and receive instructional materials and supplies to immediately use with their students. Each teacher will receive sets of the chemical test kits, along with materials to teach about macroinvertebrates and how to perform a Pollution Tolerance Index. In addition, teachers will learn and present interactive lessons on the processes of filtration in order to best understand (a) groundwater and percolation, (b) water treatment and reclamation processes, (c) recycled water uses, (d) etc.

Following the professional development sessions, high school teachers will conduct the hands-on water education program with their students using the kit of supplies provided through this program. To augment the in-class content provided, each student of a participating teacher will visit the IRWD San Joaquin Marsh & Wildlife Sanctuary in order to continue the water education program and deepen their understanding of the above-mentioned concepts. Professional development programming will also take place at the Marsh within the "Discovery Room."

Students will arrive as individuals or as a group, and not as a formal field trip unit. As part of the in-class unit, students will receive a series of activities that they will need to complete while at the Marsh. A series of dates and times will be provided for the students to attend, during which times the Marsh will be staffed in order to facilitate further learning. Through coordination between DSF and Cheryl Kelly at IRWD, this proposal anticipates that the Marsh will be staffed by IRWD representatives. DSF will also request support from Cheryl and her team for storage of DSF water test kits and to pull influent and effluent water samples for upcoming visitations.

Follow-up surveys will be conducted by the classroom teachers, facilitated by DSF in order to assess the effectiveness of the entire program. In addition, participating teachers will complete evaluation forms concerning the PD and in-class, kit-based program.

Firstly, we know that when a high school teacher takes his/her students out of the classroom, this affects and disrupts other high school teachers' schedule; in other words, the students will potentially be absent from their English class, math class, Social Sciences class, and so forth. Secondly, most high school teachers teach between 180 to 230 student per day and sometimes teach multiple subjects (for example three periods of Biology, two periods of Health, and one period of PE). In this scenario, the students who would be involved in this program would only be the 100 or so students in the three periods of Biology, so the teacher would need to arrange for a substitute (again another cost to the school or program funder). Finally, high school students can enjoy the Marsh at their own pace without the presence of governing adults. So, we believe that for this age group, this intentional format (rather than a group field trip format) will be more accommodating to the high school student and result in increased learning opportunities.

Further, students visiting will be tracked and their assignments are supplemental. We would design a program component that would allow the classroom teacher to know specifically which students attended the Marsh in order for those students to receive credit for their attendance. This system of credits would be agreed upon and co-designed by the participating teachers.

Key Concepts

High school students are extremely peer-driven, one more reason why we have a strategy for non-field trip visits. Our goal through this program is for participating students to understand the negative and positive impacts that they have on their water resources by having them contemplate not only Southern California's natural scarcity of water, but the dramatic trend we are experiencing with the current drought. Though hands-on learning experiences, as well as introductions to natural resources that may provide real scientific data students can become intellectually and emotionally connected to the subject matter. Also, research shows that girls in particular have an affinity to the environmental sciences: this natural, nurturing component of caring for others, extends to family, friends, pets (animals), and the environment. While we know that young children become the teachers of the parents, this does not always happen with high school students. But high school students are making their own decisions of what they want to become as they "grow up," which includes what behaviors they intend to pursue. Therefore, we believe that providing the students with scientific data in a hands-on manner can be effective in helping them determine to incorporate water-saving and water-efficiency behaviors, such as less water usage outside of the home (i.e., overwatering of plants, loss of water by sprinkler systems, and deletion of high school carwashes as fundraisers).

Materials

Hands-on materials that will be used by the teachers during the professional development classes and the kit materials that will be given to the teachers to use in their classroom will be primarily chemistry-based water quality test kits, along with gloves and safety goggles. In addition, other hands-on materials will include interactives that help teach about how to conduct a Pollution Tolerance Index. Maps and other images will be incorporated into the program. References will be made during the presentations to the teachers regarding IRWD, so the teachers understand where funding originated and the agencies' role in providing safe, clean water for household and community use. The maintenance of the materials will be the responsibility of the teachers.

Branding

IRWD will be recognized as the sponsoring providers of the professional development workshops, both verbally and in all print and electronic materials associated with the professional development workshops. Student materials will also prominently feature IRWD as the sponsor of the program. In addition, IRWD branding at the San Joaquin Marsh will promote the sponsorship of the education program as a whole to all visitors, further emphasizing the contribution towards education.

Evaluation

Follow-up evaluations will be conducted by DSF and facilitated by the classroom teachers in order to assess the effectiveness of the entire program. Evaluations will target student knowledge gain, attendance and participation in the various components of the program, and behavioral decisions made by the students. In addition, we will ascertain if they have shared the information that they have learned with others including their family members and friends. Collective information gathered by the students will help to develop new curriculum.

In addition, participating teachers will complete survey forms concerning the PD and in-class, kit-based program. Surveys will help fine-tune the program and program delivery processes and procedures. The results of these evaluations and surveys will be delivered to IRWD staff following the completion of each school year. These results will be compiled into a succinct report expressing the effectiveness of the program.

Readiness to Proceed

The professional development workshop would be designed specifically for IRWD and work toward booking the programs would commence immediately following the execution of the contract. This timeline would ensure that the programs, including the purchase and bundling of teacher supplies, would be ready for implementation in the fall/winter of 2016.

Pricing Table

All costs listed in the following table are estimated annual costs based on the projected participation levels set forth in the proposal, specifically: 15 teachers participating in a total of one initial professional development workshop, representing approximately 100 students each for a total of 1,500 students impacted by the program within the first year.

Professional Development Instruction	\$2,500
Water Quality Kits/Supplies (15 @ \$1,000.00 ea.)	\$15,000
Curriculum Development (pilot program)	\$5,000
Evaluation	\$5,000
Total	\$27,500

Educational Standards:

DSF's pilot professional development (PD) program for high school teachers will focus on water use efficiency, groundwater, recycled water, and droughts. In order to lay a foundation of information for the students and teachers to best understand these concepts, the program will include hands-on lessons and models that include an introduction of Southern California's natural scarcity of water, along with water quality testing that will segue into how waste water is recycled for immediate use when irrigating parks and freeways and flushing toilets, or pumped into the ground for future use, subsequent to percolation, pumping, and treatment. By aligning the programs closely with the State's Science Standards (as listed below), DSF is able to provide educational curriculum that is highly sought by schools and school districts.

All of the high school science standards are written and mandated by the State of California, such that each high school standard is acceptable to be taught at any or all high school grade levels (9th – 12th grades), in order to accommodate the course pathways as established per school district. Therefore, the teachers and students that we will seek as participants in this multilayered program will be involved in these science courses: Biology, Earth Sciences, Integrated Sciences, Chemistry, and on rare occasion Environmental Sciences/Society and the Environment.

EXHIBIT "B"

Discovery Science Foundation of Orange County Irvine Ranch Water District 3-year Educational Outreach Scope of Work (FY 2016 – 2019)

1. Parties:

Discovery Science Foundation of Orange County, 2500 North Main Street, Santa Ana, CA 92705
Contact: Sean Fitzgerald, Vice President, Sales and Strategic Development sfitzgerald@discoverycube.org and Janet Yamaguchi, Vice President, Education jyamaguchi@discoverycube.org

Irvine Ranch Water District, 15600 Sand Canyon Avenue, Irvine, CA 92618
Contact: Beth Beeman, Director of Public Affairs, beeman@irwd.com and Matthew Veeh, Public Affairs Manager, veeh@irwd.com.

2. Obligations of the parties:

Scope of work

DSF will continue to deliver water education programs for IRWD. It is proposed that during the next three fiscal years (2016 – 2019), DSF will deliver assembly-style programs to K-5th grade students within the IRWD service area. DSF will also deliver a two-part workshop-style program to middle school students within the IRWD-service area, which includes a field trip program to the San Joaquin Marsh. These Marsh-focused water education programs will be delivered by DSF staff. The goals of all of the water education programs are to ensure that IRWD service area students are aware of the work performed by IRWD and that they have a firm understanding of the natural scarcity of water in their region, and to encourage and empower these students to help conserve, protect, and preserve our most precious resource, water.

Beginning in Fiscal Year 2016-2017, DSF will also offer a new one-year pilot program focusing on professional development for high school educators within the IRWD service area. The pilot program will also include a component where high school students visit the San Joaquin Marsh in order to take water quality samples as part of their coursework. This pilot program may be extended for an additional two fiscal years, at the discretion of IRWD.

During the span of this contract, DSF staff will continue to work closely and meet frequently with IRWD staff in order to effectively administer the IRWD/DSF educational programs.

Deliverables

Each fiscal year, DSF will:

- Teach 10,000 K-5th grade students in assembly-style programs at a rate of \$3.65 per student

- Teach 1,800 middle school students in a workshop-style programs at a rate of \$9.30 per student
- Teach 1,800 middle school students in a field trip to San Joaquin Marsh and/or the Michelson Water Recycling facility at a rate of \$12.00 per student. This rate also pays for the buses to transport the students. These 1,800 students are the same students involved in the 2-part workshop-style programs.
- Provide 1,800 conservation kits, which were added to the middle school program at a rate of \$14.70 per kit. The water conservation kits enable the students to immediately put into place the water conservation concepts that they learn during the program. The kits will also encourage multi-generational education as the students become the instructors at home for their family. Each take-home kit would include a 1.5 gallon per minute (gpm) showerhead, 1.5 gpm swivel spray kitchen aerator, two 1.0 gpm bathroom aerators, toilet water saver fill cycle diverter, two toilet leak detection tablets, flow meter bag, water conservation wheel, and accompanying home survey. DSF will order and distribute the kits, along with directions for how to use the kits and for the completion/assessment of the home survey.
- Print and provide take-home, grade-specific booklets to the 10,000 K-5th grade students engaged in the assembly-style programs at a rate of \$2.25 per booklet.
- Promote the water education programs to the schools within the IRWD service area.
- Provide instruction to 15 high school teachers participating in one 2-hour pilot professional development workshop in FY 2016-17; with each teacher representing approximately 100 high-school students (who will visit the San Joaquin Marsh) for a total potential reach of 1,500 students impacted by the program within the first year.
- Develop high-school level educational platform consisting of water quality testing, water conveyance, water treatment, human impacts on water and other issues as needed.
- Facilitate teacher feedback in order to determine program effectiveness. Feedback will help IRWD staff determine whether or not the program should continue beyond its pilot phase.

3. Payment Terms:

Similar to previous years, DSF will invoice IRWD at the end of each month by providing a series of reports detailing the numbers and grade levels of students, names of schools, dates of participation, etc, associated with the deliverables. Monthly, DSF will report on programs provided during the previous month, as well as a yearly update of students and schools that have reserved the program. DSF will also provide monthly updates on the high school pilot program, including any relevant metrics sought by IRWD staff. Once received, IRWD will pay invoices within a 30-day period. In addition, DSF will provide IRWD with an annual report on the home survey results captured through the use and dissemination of the water conservation kits to assess impact made within the household.

4. 2016-2019 Annual DSF Education Program Budget:

Component	Rate	Quantity	Total	20%* Admin	Total
Elem./Middle School Programs					
Assembly Programs	\$3.65/student	10,000	\$36,500	\$7,300	\$43,800
Water Quality Classes	\$9.30/student	1,800	\$16,740	\$3,348	\$20,088
Field Trip (Buses)	\$12.00/student	1,800	\$21,600	\$4,320	\$25,920
Conservation Kits	\$14.70/student	1,800	\$26,460	\$5,292	\$31,752
Assembly Materials	\$2.25/student	10,000	\$22,500	-	\$22,500
Brochures/Expenses	-	-	\$5,625	-	\$5,625
Elem./Middle School Subtotal					\$149,685
High School Program					
Professional Dev. Instruction	\$2,500	-	\$2,500	-	\$2,500
Water Quality Kits	\$1,000/kit	15	\$15,000	-	\$15,000
Curriculum Development	\$5,000	-	\$5,000	-	\$5,000
Evaluation	\$5,000	-	\$5,000	-	\$5,000
High School Subtotal**					\$27,500
Total Annual Budget					\$177,185
Total Three-Year (2016-2019) Budget					\$531,555

*A 20 percent administration fee will be added to the student classes and kits (see budget) as per previous years' contracts. This administration fee covers DSF's supporting staff, such as bookings, marketing and supervisorial.

**Budgeting for 2017-2018 and 2018-2019 fiscal years is optional and at the discretion of IRWD

April 6, 2016

Prepared and

submitted by C. Compton

Approved by: Paul Cook



WATER RESOURCES POLICY AND COMMUNICATIONS COMMITTEE

2016 LEGISLATIVE UPDATE

SUMMARY:

This report provides an update on the 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 consider the following actions/positions:

- *AB 2488 (Dababneh, D-Van Nuys)- Fully Protected Species: Unarmored Threespine Stickleback — “SUPPORT”;*
- *AB 2583 (Frazier, D-Fairfield)- Sacramento-San Joaquin Delta Reform Act of 2009 — “OPPOSE”;*
- *SB 885 (Wolk, D-Vacaville)- Construction Contracts: Indemnity — “OPPOSE”;*
- *SB 814 (Hill, D-San Mateo)- Drought: Excessive Water — “SEEK AMENDMENTS”;*
- *SB 974 (Senate Governance and Finance Committee)- Local Government Omnibus Act of 2016 — “SUPPORT”;*
- *SB 1317 (Wolk, D-Vacaville)- Conditional Use Permit: Groundwater Extraction Facility — “OPPOSE UNLESS AMENDED”;* and
- *U.S. Army Corps of Engineers and Bureau of Reclamation Atmospheric River Research and Reservoir Operations Funding — “SUPPORT IN CONCEPT”.*

BACKGROUND:

The Legislature returned from Spring Recess on March 28, 2016. As expected, many of the spot bills that were introduced this year have been or are in the process of being amended as their authors seek to have the bills referred to and heard in the appropriate policy committee. This year, the last day for policy committees to hear fiscal bills is April 22, while May 6 is the policy committee deadline for non-fiscal bills.

A copy of the 2016 State Legislative Matrix is attached as Exhibit “A”.

State Budget Update:

February's Revenue Numbers:

On March 10, 2016, State Controller Betty Yee released her monthly report on the State's finances. She announced that the State took in \$6.85 billion during the month of February. This amount was 6.8 percent higher than budgeted. The discrepancy between the budget and actual amount was due to the fact that both personal income and corporate taxes came in higher than anticipated. Personal income tax revenues were 11.8 percent above budget and corporate taxes were ten times estimates. For the first eight months of Fiscal Year 2015-16, total General Fund revenues are still ahead of budget estimates by \$293.8 million, or 0.4 percent.

Update on Implementation of 2015 Enacted State Legislation:

SB 272 (2015) — The California Public Records Act: Local Agency Inventories:

SB 272, authored by Senator Bob Hertzberg (D, Van Nuys) added Section 6270.5 to the Government Code. Section 6270.5 requires that each local agency create a catalog of the enterprise systems that it uses, and requires that the local agency make the catalog publicly available upon request and on the agency's website. The catalog must be posted by July 1, 2016.

Section 6270.5 defines an enterprise system as "a software application or computer system that collects, stores, exchanges, and analyzes information that the agency uses that is both of the following:

- A multidepartmental system or a system that contains information collected about the public; and
- A system that serves as an original source of data within an agency.

The section also provides that certain types of systems were not enterprise systems subject to disclosure. These included:

- Information technology security systems;
- Physical access control systems;
- Employee identification management systems;
- Video monitoring and other physical control systems;
- Infrastructure and mechanical control systems;
- Systems related to the 911 dispatch system;
- An information security record of a public agency, if, on the facts of the particular case, disclosure of that record would reveal vulnerabilities to, or otherwise increase the potential for an attack on, an information technology system of a public agency; and
- The specific records that the information technology system collects, stores, exchanges, or analyzes.

Section 6270.5 provides that the catalog must detail certain information related to each enterprise system used by the agency. This information includes the current system vendor, current system product, a brief statement of the system's purpose, a general description of categories or types of data collected or used by the system, how frequently system data is collected, how frequently system data is updated, and the agency department that serves as the system's primary custodian of the system.

Upon the enactment of SB 272, staff began working to comply with the bill's provisions. Staff will discuss with the Committee the efforts that have been undertaken to comply with SB 272. The Committee will also hear from Wallace Walrod of the Orange County Business Council on SB 272's requirements.

A copy of SB 272 (2015) is attached as Exhibit "B".

2016 State Legislation:

AB 2304 (Levine, D-Santa Rosa) — State Water Market Exchange:

As reported to the Board last month, Assembly Water, Parks and Wildlife Chairman Marc Levin (D, Santa Rosa) introduced AB 2304 on behalf of the Environmental Defense Foundation. AB 2304 would establish the California Water Market Exchange in the Natural Resources Agency. The statewide exchange would be responsible for creating a centralized water market platform through which information regarding all transfer and exchanges of water occurring after December 31, 2017, would be recorded, and charged a fee. The bill also expresses legislative intent regarding water transfers and exchanges. It states that it is the Legislature's intent that water transfer and exchanges protect and enhance environmental and community benefits including the following:

- Instream flows and ecosystem water supply;
- Improved water monitoring and data networks;
- Ecosystem restoration projects benefiting aquatic and riparian species;
- Improved drinking water supply and quality projects;
- The development of needed technical, managerial and financial capacity for disadvantaged communities; and
- Acquisition through the market exchange of need water supplies for smaller community water systems.

IRWD has been an active participant on Association of California Water Agencies' Water (ACWA) Transfer Task Force. The District, consistent with Board-adopted policy principles, has advocated for the development of voluntary regional water exchanges to facilitate voluntary water transfer between willing buyers and sellers consistent with existing water rights and priorities. At the end of March, the ACWA Board adopted the task force's recommended policy principles. Staff has also been participating on the ACWA State Legislative Committee's Work Group on Water Transfers, and has met with Chairman Levine's staff on AB 2304. Staff will provide the Committee with an update on these discussions.

AB 2488 (Dababneh, D-Van Nuys) — Fully Protected Species: Unarmored Threespine Stickleback:

The California Endangered Species Act (“CESA”) prohibits the taking of an endangered or threatened species unless the California Department of Fish and Wildlife (“DFW”) has authorized the take, the take is minimized and fully mitigated, and the take is incidental to an otherwise lawful activity. While DFW can issue incidental take permits for endangered or threatened species, the fully protected species statutes prohibit all take of fully protected species, with only a few narrow exceptions. Generally, the fully protected species statutes do not permit DFW to issue a permit for the taking of a fully protected species although there are four exceptions that relate to fully protected fish species. Under these exceptions, DFW may authorize the:

- Taking of a fully protected fish species whose conservation and management is provided for in a natural community conservation plan;
- Taking for scientific research, including efforts to recover fully protected, threatened and endangered species;
- Incidental take of the fully protected unarmored threespine stickleback fish resulting from a habitat restoration project on Bouquet Creek; and
- Incidental take of the fully protected limestone salamander attributable to a highway restoration project in Mariposa County.

AB 2488 (Dababneh, D-Van Nuys) would add a fifth exception to the fully protected fish species exceptions.

If enacted, AB 2488 would permit DFW to authorize the take of the unarmored threespine stickleback during periodic dewatering, inspection, maintenance, or repair of the Metropolitan Water District of Southern California’s (“Metropolitan”) Foothill Feeder. Approximately every five years, Metropolitan shuts down and drains the Foothill Feeder to repair any damage and to reinforce the structure. Several of the drainage areas along the pipeline route may contain unarmored threespine stickleback populations. In the past Metropolitan has worked with the resource agencies to mitigate dewatering activities by collecting any unarmored threespine stickleback that float outside the stream channel and returning them to the stream. A recent California Supreme Court decision held that the live relocation of a fully protected species is a “take.” Consequently, live relocation is no longer permitted during routine maintenance of the Foothill Feeder. AB 2488 will allow DFW to permit the carefully managed incidental take of the unarmored threespine stickleback allowing Metropolitan to maintain the Foothill Feeder. Since the Foothill Feeder is a critical distribution facility for ensuring water reliability for Southern California, staff recommends that the Board adopt a “support” position on AB 2488.

AB 2488 is scheduled to be heard in Assembly Water, Parks and Wildlife on April 12, 2016. A copy of AB 2488, as amended March 31, 2016, is attached as Exhibit “C”.

There are also two other protected species bill this year. AB 1845 (Dahle, R-Redding) would permit DFW to authorize a similar take for the rough sculpin attributable to repairing the Spring Creek Bridge in the County of Shasta. AB 2001 (Mathis, R-Visalia) would authorize DFW to permit the taking of a fully protected species for efforts to recover fully protected, threatened, or endangered species.

AB 2583 (Frazier, D-Fairfield) — Sacramento-San Joaquin Delta Reform Act of 2009:

The Sacramento-San Joaquin Delta Reform Act of 2009 established the Delta Stewardship Council and required the Council to develop, adopt, and commence implementation of a comprehensive management plan for the Delta, known as the Delta Plan. Under the Delta Reform Act, the Delta Plan is required to further the coequal goals of providing a more reliable water supply and protecting, restoring, and enhancing the Delta ecosystem. The Act dealt with how permitting of a new conveyance facility and the Bay Delta Conservation Plan would proceed.

AB 2583 (Frazier, D-Fairfield), as amended on March 17, 2016, seeks to modify the Delta Reform Act substantially. Several of the bill's more noteworthy provisions are that it would:

- Prohibit the construction of new conveyance facilities until each state and federal water contractor that will receive water supplies from the Delta enters into a legally binding financial agreement to pay for all costs associated with the federal Central Valley Project, the State Water Project, and any new Delta water conveyance facility. These costs include costs related to the environmental review, planning, design, construction, mitigation, operation, and maintenance of these facilities. The required agreement would need to include provisions requiring the contractors to reimburse the State for any General Fund or water bond funding used to date;
- Prohibit any issuance of a certification of consistency for a new Delta water conveyance project, and thereby construction, unless specified requirements are met including that:
 - Each region dependent on imported water from the Delta has demonstrated that it has improved regional self-reliance by 50 percent over average regional water supply levels during the period of 2010 to 2015 due to reduced demand for imported supplies from the Delta.
 - Exports match the surplus water supplies available in the Delta by water year type, Bay-Delta water quality objectives, the coequal goals, and projections in in-Delta demands; and
- Prohibit the State Water Resources Control Board from approving a new point of diversion or a change in the point of diversion of the State Water Project and the federal Central Valley Project from the southern Delta to a certain point on the Sacramento River until it has completed its update of a specified water quality control plan.

Metropolitan has conducted a thorough analysis of the bill, as amended, and its impacts. It has asked Southern California water agencies to join with it in opposing AB 2583. Based on its analysis and staff's reading of the bill, AB 2583 would add substantial, new requirements to the Delta Reform Act for the California WaterFix or any other change in conveyance within the Delta. Furthermore, it would delay the start of construction of any Delta fix for a number of years and add significant new financial and regulatory hurdles that the new facility would need to overcome. Staff recommends that the Board adopt an "oppose" position on AB 2583 (Frazier).

A copy of AB 2583, as amended, is attached as Exhibit "D" and a copy of Metropolitan's analysis is attached as Exhibit "E". AB 2583 is scheduled to be heard in Assembly Water, Parks and Wildlife on April 12, 2016.

SB 163 (Hertzberg, D-Van Nuys) — Wastewater Treatment: Recycled Water:

On September 3, 2015, Senator Bob Hertzberg (D, Van Nuys) amended SB 163, which had previously dealt with elections, in order to propose a 100 percent ban on ocean discharge of treated wastewater. Specifically, the bill would declare that the discharge of treated wastewater from ocean outfalls, except in compliance with the bill's provisions, is a waste and unreasonable use of water in light of the cost-effective opportunities to recycle water for further beneficial use. It would require a 50 percent reduction in ocean discharges by January 1, 2026, and a 100 percent reduction by January 1, 2036.

Over the past month, staff has continued to work with the coalition led by the California Association of Sanitation Agencies and WaterReuse California. The coalition submitted a letter detailing the developed alternative to Senator Hertzberg for his consideration. A copy of the letter is attached as Exhibit "F".

Staff will provide an oral update to the Committee on the development of this alternative and ongoing discussions related to SB 163, including anticipated amendments currently being crafted by Senator Hertzberg's office.

SB 814 (Hill, D- San Mateo) — Drought: Excessive Water Use:

As reported to the Board last month, SB 814 (Hill, D-San Mateo) would require each urban retail water supplier to establish a local definition of excessive water use, and would prohibit excessive water use as defined by the urban water supplier during a drought. On March 17, 2016, the bill was amended to require each urban retail water supplier to establish methods by which to identify and restrict excessive water use. The bill authorizes two methods by which an urban retail water supplier may restrict excessive water use and comply with the requirement of the bill.

The first method would allow an urban retail water supplier to identify and restrict excessive water use through the establishment of a rate structure that includes block tiers, water budgets, penalties for prohibited uses, or rate surcharges over and above base rates for excessive water used by residential customers. The second method would allow an urban retail water supply to identify and restrict excessive water use through the establishment of an excessive water use

ordinance, rule, or tariff condition. The ordinance, rule or tariff condition must include a definition of excessive water use and set the fine for violating the ordinance, rule or tariff punishable at at least \$500 per 100 cubic feet of water or 748 gallons used above the excessive water use threshold. The bill limits these requirements to periods during which the Governor has issued a proclamation of a state of emergency based on drought conditions.

SB 814 was passed by the Senate Natural Resources and Water Committee on March 29, 2016. In committee, the author removed the provisions that would have required that certain information about residential customers be made available to requestors under the California Public Records Act. The bill is now in Senate Appropriations.

As previously drafted SB 814 would have impacted IRWD's ability to use its allocation-based tiered rate structure to respond to the drought and water supply shortages. As a result the Board adopt an "oppose unless amended" position on SB 814, and authorize staff to work with IRWD's association and industry partners to obtain amendments to the bill recognizing the use allocation-based tiered rate structures as a method for discouraging excessive water use in times of drought.

While the amendments allow IRWD to continue to use its allocation-based tiered rate structure to respond to drought and water supply shortages, several minor amendments to the revised language would improve the clarity of an urban water supplier's ability to use its rate structure to comply with the bill's requirements and would provide greater flexibility to local agencies. Given the recent amendments, staff recommends that the Board revise its position on SB 814 and adopt a "seek amendments" position on the bill. Staff also recommends that the Board authorize the District to seek further clarifying amendments to preserve flexibility for the District in complying with SB 814, if enacted.

A copy of SB 814, as amended, is attached as Exhibit "G".

SB 885 (Wolk, D-Vacaville) — Construction Contracts: Indemnity:

In 2010, SB 972 (Wolk, D-Vacaville) was enacted. SB 972 was a compromise between design professionals for public works projects and local governments. It provided that any provision of a contract entered into on or after January 1, 2011, for design services, which required the design professional to indemnify or defend a public agency, were unenforceable. The one exception to this rule was for claims that arise out of or relate to the negligence, recklessness, or willful misconduct of the design professional. As introduced, SB 855 moves beyond the 2010 compromise and proposes to limit local agencies' contracting abilities.

When contracting with a design professional, public agencies often place a clause in the agreement requiring the design professional to legally defend the public agency if a claim or lawsuit directly related to the design work is filed against the agency— this is known as a duty to defend. SB 885 proposes to make such provisions largely unenforceable. Under the bill, a design professional would only have to pay for the reasonable defense costs of the public entity in proportion to his or her degree of fault for a claim arising out of the his or her negligence, recklessness, or willful misconduct.

By limiting the duty to defend in this manner, the bill essentially prohibits a public agency from

including a traditional duty to defend in any of contract it enters into with a design professional. In practice, the bill means that a public agency will have to pay for any costs associated with a lawsuit arising from the actions of the design professional and then seek reimbursement for its defense costs from the design professional. Reimbursement could only be sought after the case has been fully litigated, or an arbitrator has rendered a final design, and the public entity has lost. This is because the bill limits the duty to defend to the extent that the court or arbitrator has found that the design professional was at fault. The bill also limits the reimbursement to the reasonable, not actual, costs of the defense.

This type of process not only requires a public entity to front the costs for a private entity, but it also creates conflict within the public-private partnership, effectually eliminating the incentive to work together towards a settlement, rather than the more costly process of litigation. For these reasons, staff recommends that the Board adopt an “oppose” position on SB 885.

SB 885 has been referred to the Senate Judiciary Committee. A copy of SB 885 is attached as Exhibit “H”.

SB 974 (Senate Governance and Finance Committee) — Local Government Omnibus Act of 2016:

Each year, the Senate Governance and Finance Committee authors the Local Government Omnibus Act, which is a bill that proposes minor changes to statutes affecting local agencies’ powers and duties. The bill is a consensus bill meaning that if anyone objects to a change included in the bill, it is removed. This year’s omnibus bill is SB 974. As in the past, the bill proposes relatively minor, noncontroversial changes to the laws affecting local agencies’ powers and duties that do not warrant a separate and expensive bill. This year’s bill includes clarifying, noncontroversial amendments to statutes affecting local agencies’ power and duties related to county recorders, veterans’ records, notaries, general plans, local agency investment requirements, vehicle license fees, Kern County Water Authority, and sewer agency ordinance and resolutions. A copy of the bill, as amended on March 29, 2016, is attached as Exhibit “I”.

Staff submitted the proposed changes related to sewer agency ordinance and resolutions for the committee’s consideration. Under state law today, various provisions of the Health and Safety Code related to sewer agency authorities intermittently refer to “ordinance” and “ordinance or resolution.” The inconsistency may have resulted from prior amendments that did not conform to all references. This results in possible ambiguity as to the form of adoption required. Since both “ordinance” and “ordinance or resolution” are used in these sections, and are internally cross-referenced, it appeared that the intent was to allow the use of ordinances or resolutions. The proposal included in SB 974 seeks to make all references in these sections consistent, referencing ordinance or resolutions, so that there is no confusions as to which is required.

At the request of the Senate Governance and Finance Committee, IRWD wrote a letter in support of SB 974 on March 30, 2016, given the inclusion of IRWD’s sewer agency proposal and the April 6 hearing on the bill. A copy of the letter is attached as Exhibit “J”. Staff recommends that the Board ratify the “support” position communicated in that letter.

SB 1317 (Wolk, D-Vacaville) — Conditional Use Permit: Groundwater Extraction Facility:

SB 1317, authored by Senator Lois Wolk, would require a city or county overlying a high or medium priority basin to establish a process for the issuance of conditional use permits for the development of a groundwater extraction facility. The purpose of the conditional use permit process must be aimed at preventing a new groundwater extraction facility from contributing to or creating an undesirable result, as defined in the Sustainable Groundwater Management Act, within the groundwater basin.

Both the Orange County groundwater basin and the Kern County sub-basin of the San Joaquin Valley Groundwater Basin are classified a high or medium priority basin. If SB 1317 were enacted, the cities and counties in these basins would be required to issue conditional use permits for the development of groundwater extraction facilities. The conditional use permits could impact IRWD's groundwater production and water banking activities. Staff recommends that the Board adopt an "oppose unless amended" position on SB 1317 and authorize the District to seek amendments to protect water banking projects and sustainable groundwater management within Orange County. Staff would coordinate with the Orange County Water Districts on amendments protecting groundwater management in Orange County. A copy of SB 1317 is attached as Exhibit "K".

The California Water Conservation, Flood Control and Stormwater Management Act of 2016:

The California League of Cities, the California Association of Counties and the Association of California Water Agencies have decided to no longer pursue a constitutional amendment to address tiered water rate structures, stormwater funding, and voluntary low-income rate subsidization. After receiving the title and summary for "The California Water Conservation, Flood Control and Stormwater Management Act of 2016," also known as the Article X proposal, the coalition polled likely voter to gauge voter response to the proposal. The poll results indicated a negative response to the title and summary. As a result, the coalition decided it would no longer pursue the proposal this year. Staff will provide an oral update on any new developments related to any new or ongoing efforts to address tiered water rates this year.

2016 Federal Legislation:

U.S. Army Corps of Engineers and Bureau of Reclamation Atmospheric River Research and Reservoir Operations Funding:

The U.S. Army Corps of Engineers currently uses long-term averages of winter storms and spring runoff to management dams and reservoir levels for flood control. Recent advances have found that up to half of California's total annual precipitation, and almost all of its floods, are caused by atmospheric river rain events. This means that the risk of flooding is dependent upon the atmospheric river storms that flow over California. Atmospheric rivers show promise of being predictable enough several days before landfall to potentially use the predictions in flood control and water management models. With this new information, it is becoming clearer that traditional dam operations to mitigate flood risks, which are based on long-term averages of precipitation, are no longer appropriate. Despite the advancements in atmospheric river forecasting, more research is needed so that atmospheric river forecasts can be tailored for water managers and incorporated into dam management.

An effort is underway to continue funding this research within the federal government. The National Water Research Association and Sonoma County Water Agency have been advocating for continued funding of the U.S. Army Corps of Engineers' Water Operations Technical Support Program, which has been conducting atmospheric river forecasting research. They have asked Congress and water agencies to support \$5.5 million in funding in the Fiscal Year 2017 budget for the U.S. Army Corps of Engineers' Water Operations Technical Support Program. More information on this request is attached as Exhibit "L".

Staff recommends that the Board adopt a "support in concept" position on federal programs and funding for atmospheric river research aimed at improving the U.S. Army Corps of Engineers's and Bureau of Reclamation's reservoir operations.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

That Board adopt a "SUPPORT" position on AB 2488 (Dababneh); an "OPPOSE" position on AB 2583 (Frazier); an "OPPOSE" position on SB 885 (Wolk); a "SEEK AMENDMENTS" position on SB 814 (Hill); a "SUPPORT" position on SB 974; an "OPPOSE UNLESS AMENDED" position on SB 1317 (Wolk); and a "SUPPORT IN CONCEPT" position U.S. Army Corps of Engineers and Bureau of Reclamation Atmospheric River Research and Reservoir Operations Funding.

LIST OF EXHIBITS:

Exhibit "A" – IRWD Legislative Matrix
Exhibit "B" – SB 272 (2015), as chaptered
Exhibit "C" – AB 2488 (Dababneh), as amended
Exhibit "D" – AB 2583 (Frazier), as amended
Exhibit "E" – Metropolitan's Analysis of AB 2583 (Frazier)
Exhibit "F" – SB 163 (Hertzberg) Coalition Letter
Exhibit "G" – SB 814 (Hill), as amended
Exhibit "H" – SB 885 (Wolk), as introduced
Exhibit "I" – SB 974 (Senate Governance and Fiancé Committee), as amend
Exhibit "J" – IRWD Letter on SB 974
Exhibit "K" – SB 1317 (Wolk), as introduced
Exhibit "J" – Information on Sonoma County Water Agency's Fiscal Year 2017 U.S. Army Corps of Engineers' Water Operations Technical Support Program Funding Request

EXHIBIT "A"
IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 12</u> 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.
<u>AB 45</u> Mullin (D)	Household Hazardous Waste		Requires the Department of Resources Recycling to adopt model ordinance for a comprehensive program for the collection of household hazardous waste. Authorizes a local jurisdiction proposing to enact an ordinance for the collection and diversion of such waste to adopt a Department model. Requires a determination as to whether a nonprofit organization has been created and funded to make grants to local entities for purposes related to the disposal of such waste.	02/04/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<u>AB 259</u> 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.
<u>AB 291</u> 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.
<u>AB 453</u> Bigelow (R)	Groundwater: Semitropic Water Storage District		Authorizes, until a groundwater sustainability plan is adopted, a local agency that has adopted a groundwater management plan to impose fees on the extraction of groundwater from a groundwater basin to fund costs of groundwater management and to collect groundwater extraction information, as long as a groundwater management plan	03/28/2016 - From SENATE Committee on RULES with author's amendments.;03/28/2016 - In SENATE. Read second time and amended. Re-referred to Committee on RULES.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			adopted before a specified date, is in effect. Authorizes the Semitropic Water Storage District to impose fees and collect groundwater extraction information.	
<u>AB 501</u> 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, metadata, and other supporting materials created or gathered in the course of that research. Relates to ineligibility. Relates to researcher State funding eligibility requirements. Provides conditions for Delta research grants. Relates to the provision of consistent procedural and technical requirements.	02/04/2016 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>AB 577</u> 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.	09/11/2015 - Re-referred to SENATE Committee on RULES.
<u>AB 590</u> 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.
<u>AB 615</u> Rendon (D)	Office of Sustainable Water Solutions: Assistance		Amends existing law that establishes the Office of Sustainable Water Solutions to promote permanent and sustainable drinking water and wastewater treatment solutions to ensure the effective and efficient provision of safe, clean, affordable, and reliable drinking water and wastewater treatment services and authorizes the office to provide	06/18/2015 - To SENATE Committee on ENVIRONMENTAL QUALITY.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			technical assistance to disadvantaged communities and small drinking water systems and wastewater systems. Specifies the technical assistance that may be provided.	
<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 degree 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 935</u> Salas (D)	Water Projects		Requires, upon appropriation by the Legislature, the Department of Water Resources to provide funding for certain projects, provided that certain conditions are met.	09/10/2015 - In SENATE. From third reading. To Inactive File.
<u>AB 937</u> 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.
<u>AB 938</u> Rodriguez (D)	Sustainable Groundwater Management Act: Basins		Amends the Sustainable Groundwater Management Act. Authorizes a watermaster or local agency administering an adjudicated basin to elect that the basin be subject to the provisions of the Act. Authorizes a court with jurisdiction over the basin to issue and order to set a hearing to determine if the basin shall be subject to the Act. Requires	03/09/2016 - From SENATE Committee on NATURAL RESOURCES AND WATER with author's amendments.;03/09/2016 - In SENATE. Read second time and amended. Re-

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			written notice to the Department of Water Resources that the basin is subject to the Act. Requires the notice to be posted on the Department's Web site.	referred to Committee on NATURAL RESOURCES AND WATER.
<u>AB 954</u> 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.
<u>AB 1030</u> 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.
<u>AB 1144</u> 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.
<u>AB 1173</u> Williams (D)	Water Equipment: Backflow Prevention Devices Testing		Requires, if a local health officer does not maintain a program for certificate of backflow prevention device testers, the testing and maintenance of such device be performed by a person who has received a California-specific certification for such devices from one of the specified entities or a similar certification provider deemed acceptable by the State Water Resources Control Board.	07/14/2015 - In SENATE Committee on ENVIRONMENTAL QUALITY: Not heard.
<u>AB 1201</u>	Delta: Predation by	Support	Requires the State Department of Fish and Wildlife to develop a	08/27/2015 - In SENATE Committee on

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
Salas (D)	Nonnative Species		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.	APPROPRIATIONS: Held in committee.
<u>AB 1242</u> Gray (D)	Water Quality and Storage		Provides provisions of law requiring a specified increase in statewide water storage capacity, and updating water strategies and implementation plans. Requires the Water Resources Control Board, in formulating 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 on impacts of groundwater use and beneficial uses of water.	09/02/2015 - In SENATE. Read second time. To third reading.;09/02/2015 - Re-referred to SENATE Committee on RULES.
<u>AB 1463</u> Gatto (D)	Onsite Treated Water		Requires the State Water Resources Control Board, in consultation with the Department of Public Health, the Building Standards Commission, and stakeholders, to establish water quality standards and distribution, monitoring, and reporting requirements for onsite water recycling systems prior to authorizing the use of onsite treated water in internal plumbing of residential and commercial buildings. Requires onsite treated water to be considered the same as recycled water that is produced on site.	09/04/2015 - From SENATE Committee on ENVIRONMENTAL QUALITY with author's amendments.;09/04/2015 - In SENATE. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL QUALITY.
<u>AB 1550</u> Gomez (D)	Greenhouse Gases: Investment Plan: Communities		Relates to greenhouse gases and investments in communities, Requires the Greenhouse Investment Fund plan to allocate a minimum percentage of the available moneys in the Greenhouse Gas Reduction Fund to projects located within disadvantaged communities and a separate and an additional percentage to projects that benefit low-income households, with a fair share of the moneys targeting households with incomes below a percentage of the federal poverty level.	03/28/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 1586</u> Mathis (R)	Environmental Quality Act: Temperance Flat Reservoir		Prohibits the court, in an action or proceeding alleging a violation of the California Environmental Quality Act, from staying or enjoining the construction or operation of the Temperance Flat Reservoir unless the court makes certain findings.	03/28/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<u>AB 1587</u> Mathis (R)	Groundwater:		Prohibits, during a period for which the Governor has issued a proclamation of a state of emergency based on drought and flood conditions, the State Water Resources Control Board from requiring a permit to recharge groundwater if the water may be diverted and used without injury to a lawful user of water, and the water may be diverted and used without unreasonable effect on other beneficial uses. Prohibits a city or county restricting the otherwise permissible amount of groundwater that may be extracted.	03/15/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/15/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<u>AB 1588</u> Mathis (R)	Water and Wastewater Loan and Grant Program		Requires the State Water Resources Control Board to establish a program to provide funding to counties to award low-interest loans and grants to eligible applicants for specified purposes relating to drinking water and wastewater treatment. Authorizes a county to apply for such funds. Creates the Water and Wastewater Loan and Grant Fund and provides the moneys in this fund are available to the Board to administer and implement the program. Transfers funds from the General Fund to the loan and grant fund.	03/29/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Do pass to Committee on APPROPRIATIONS.
<u>AB 1589</u> Mathis (R)	Environmental Quality Act: Exemption:Drought Mitigation		Exempts from the requirements of the California Environmental Quality Act, for the duration of a state of emergency proclaimed by the Governor due to drought conditions, certain projects that are undertaken, carried out, or approved by a public agency to mitigate those drought conditions.	03/14/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/14/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<u>AB 1590</u>	State Water Resources		Requires that additional members be appointed to the State Water	03/10/2016 - From ASSEMBLY

IRWD 2016 LEGISLATIVE MATRIX

Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
Mathis (R)	Control Board: Appointments		Resources Control Board by the Legislature. Requires that vacancies be immediately filled by the appointing power.	Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/10/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
AB 1647 Waldron (R)	Environmental Quality: Water Storage Facilities		Exempts from the Environmental Quality Act a project to expand the storage capacity of an existing surface water storage facility, or to replace an existing surface water storage facility, that is owned and operated by a public entity if that public entity adopts, by resolution, findings and declarations that the project meets specified criteria.	02/04/2016 - To ASSEMBLY Committee on NATURAL RESOURCES.
AB 1649 Salas (D)	Water Quality, Supply, and Infrastructure Improvement		Requires the California Water Commission to prioritize the funding of those local joint powers authorities surface storage projects and to move expediently to dispense project funds. Makes findings and declarations of the Legislature, including, but not limited to, that, of the water storage projects available, the Temperance Flat Dam and Sites Reservoir will meet statewide goals and provide those specified public benefits to the greatest extent.	03/17/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;03/17/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS
AB 1694 Lackey (R)	Grant Program for School Drinking Water		Requires the State Water Resources Control Board to establish a grant program for grants to public elementary and secondary schools to improve access to, and the quality of drinking water. Specifies various types of projects for which the grants could be awarded. Provides the priority for such grants. Requires the establishment of grant application procedures. Appropriates funds therefor. Provides such funds would supplement not supplant other state funds apportioned to these local agencies.	03/31/2016 - Re-referred to ASSEMBLY Committees on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS and EDUCATION.
AB 1704 Dodd (D)	Water Rights		Requires the registrant to provide a copy of the registrant's registration form to the Department of Fish and Wildlife and agree to general conditions. Requires the State Water Resources Control	03/30/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			Board to consult with the Department of Fish and Wildlife in establishing these general conditions and make compliance with certain Fish and Game Code requirements applicable to the diversion of water one of those conditions. Requires general conditions for small irrigation use. Imposes certain fees.	
<u>AB 1713</u> Eggman (D)	Sacramento-San Joaquin Delta: Peripheral Canal	Oppose	Prohibits the construction of a peripheral canal in the Sacramento-San Joaquin Delta unless expressly authorized by an initiative voted on by the voters of California, and requires the Legislative Analyst's Office to complete a prescribed economic feasibility analysis prior to a vote authorizing the construction of a peripheral canal.	02/18/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 1738</u> McCarty (D)	Building Standards: Dark Graywater		Defines dark graywater as a specified wastewater that comes from kitchen sinks and dishwashers. Requires the Department of Housing and Community Development, at the next triennial building standards rulemaking cycle, to develop and submit for approval building standards for the construction, installation, and alteration of dark graywater systems for indoor and outdoor uses.	03/29/2016 - From ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS: Do pass to Committee on APPROPRIATIONS.
<u>AB 1749</u> Mathis (R)	Environmental Quality Act: Exemption: Recycled Water		Amends the California Environmental Quality Act which exempts projects that provide for the expansion of recycled water pipeline and directly related infrastructure within existing rights of way, and directly related groundwater replenishment, if the project does not affect wetlands or sensitive habitat where construction impacts are mitigated and undertaken to mitigate drought conditions for which a state of emergency was proclaimed. Extends the date connected to such exemption.	03/28/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<u>AB 1755</u> Dodd (D)	Open and Transparent Water Data Act		Enacts the Open and Transparent Water Data Act. Requires the Department of Water Resources to establish a public benefit corporation that would create and manage a statewide water information accounting system to improve the ability of the State to meet the growing demand for water supply reliability and healthy ecosystems that would integrate existing water data information from	03/01/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/01/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			multiple databases and a related clearinghouse. Requires the development of related protocols. Creates a related fund.	WATER, PARKS AND WILDLIFE.
<u>AB 1773</u> Oberholte (R)	Local Government Renewable Energy Program		Amends existing law that authorizes a local governmental entity to receive a bill credit to a designated benefiting account, for electricity exported to the electrical grid by an eligible renewable generating facility. Includes as a local governmental entity for this purpose a joint powers authority.	03/28/2016 - From ASSEMBLY Committee on UTILITIES AND COMMERCE with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on UTILITIES AND COMMERCE.
<u>AB 1815</u> Alejo (D)	Global Warming Solutions Act of 2006		Requires the Environmental Protection Agency to establish a comprehensive technical assistance program, upon the appropriation of moneys from the Greenhouse Gas Reduction Fund, for eligible applicants assisting eligible communities. Requires the Agency to provide technical assistance to communities based on a specified priority. Requires the Department of Finance to include in a specified investment plan an allocation to the Agency for that technical assistance program.	03/28/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/28/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<u>AB 1842</u> Levine (D)	Water: Pollution: Fines		Imposes a civil penalty for each gallon or pound of polluting material discharged. Requires that the civil penalty be reduced for every gallon or pound of the illegally discharged material that is recovered and properly disposed of by the responsible party.	03/29/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Do pass to Committee on APPROPRIATIONS.
<u>AB 1866</u> Wilk (R)	High-Speed Rail Bond Proceeds: Water Projects		Provides that no further bonds shall be sold for high-speed rail purposes pursuant to the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, except as specifically provided with respect to an existing appropriation for high-speed rail purposes for early improvement projects. Requires redirection of the unspent proceeds received from outstanding bonds issued for other high-speed rail purposes to fund capital expenditures for water projects.	02/25/2016 - To ASSEMBLY Committees on TRANSPORTATION and WATER, PARKS AND WILDLIFE.
<u>AB 1871</u> Waldron (R)	Coastal Resources: Development: Water Supply Projects		Limits the growth-inducing impacts the Coastal Commission may consider in its review of a coastal development permit for a water supply project.	03/18/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
				amendments.;03/18/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<u>AB 1882</u> Williams (D)	Oil and Gas: Groundwater Monitoring		Requires the Division of Oil, Gas, and Geothermal Resources to provide an opportunity and the information necessary for the State Water Resources Control Board and the appropriate regional water quality control board to review, comment on, and propose additional requirements for Class II underground injection well projects.	02/25/2016 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 1925</u> Chang (R)	Desalination Statewide Goal		Establishes goals to desalinate specified totals of acre-feet of drinking water per year by separate future years.	03/29/2016 - In ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Not heard.
<u>AB 1928</u> Campos (D)	Water Efficiency Landscape Irrigation Equipment		Postpones the date by which the Resources Conservation and Development Commission is to adopt the performance standards and labeling requirements for landscape irrigation equipment prohibit the sale of that equipment unless it meets the performance standards and labeling requirements.	03/29/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE: Do pass to Committee on APPROPRIATIONS.
<u>AB 1986</u> Wilk (R)	Water Resources: Permit to Appropriate: Application		Requires if the State Water Resources Control Board has not rendered a final determination on an application for a permit to appropriate water within 20 years from the date the application was filed, to issue another notice of application and mail the notice of application.	02/25/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 1989</u> Jones (R)	Water and Greenhouse Gas Emissions Reduction		Requires the State Water Resources Control Board to develop and implement a grant and low-interest loan program for water projects that result in the net reduction of water-related greenhouse gas emissions.	03/30/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<u>AB 2022</u> Gordon (D)	Advanced Purified Demonstration Water	Support	Authorizes the operator of an advanced purified demonstration water facility to cause the advanced purified demonstration water to be bottled and distributed as samples for educational purposes and to promote water recycling. Prohibits the advanced purified	03/31/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			demonstration water in each bottle from exceeding a specified amount. Prohibits the water from being distributed unless it meets or is superior to all federal and state drinking water standards. Requires a recycling program for distributed bottles.	
<u>AB 2040</u> Melendez (R)	Outdoor Water Efficiency Act of 2016: Tax Credits		Allows, under the Personal Income Tax Law, a credit for a percentage of the amount paid or incurred by a qualified taxpayer for water-efficiency improvements on qualified real property in the State. Requires the qualified taxpayer to obtain and retain a certification of such improvements from the appropriate regional or local water agency after completion of the improvements and to provide a copy of this certification to the Franchise Tax Board upon request.	02/29/2016 - To ASSEMBLY Committee on REVENUE AND TAXATION.
<u>AB 2076</u> Garcia (D)	Water Recycling: Beer and Wine		Requires the State Water Resources Control Board to adopt uniform water recycling criteria for the use of recycled water in the manufacture of beer and wine.	02/29/2016 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 2099</u> Stone (D)	Safe Drinking Water Benefit		Requires the State Department of Social Services to convene a workgroup to develop recommendations for delivering a water benefit to supplement that purchase of drinking water for low-income households with inadequate access to safe drinking water. Requires a plan for identification of eligible households and the delivery of the benefit to those households. Requires the submission of a report with the recommendations to specified entities.	03/31/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 2139</u> Williams (D)	Ocean Protection Council: Ocean Acidification		Requires the Ocean Protection Council to facilitate research and compile data on the causes and effects of ocean acidification and, to adopt recommendations for further legislative and executive actions to address ocean acidification.	03/31/2016 - Withdrawn from ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.;03/31/2016 - Re-referred to ASSEMBLY Committee on RULES.
<u>AB 2257</u> Maienschein	Local Agency Meeting: Agenda: Online Posting		Amends the Ralph M. Brown Act, which enables the legislative body of a local agency to call both regular and special meetings. Requires	03/03/2016 - To ASSEMBLY Committee on LOCAL

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
(R)			an online posting of an agenda by a local agency to have a prominent direct link to the current agenda itself.	GOVERNMENT.
<u>AB 2292</u> Gordon (D)	Communities Environmental Health Screening		Relates to communities environmental health screening. Requires the Office of Environmental Health Hazard Assessments' next update of the tool to include population density as a population characteristic.	03/03/2016 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 2304</u> Levine (D)	State Water Market Exchange	Seek Amendments	Establishes the State Water Market Exchange which requires the market exchange to create a centralized water market platform on its Internet Web site that provides ready access to information about water available for transfer or exchange. Requires the submission of certain data and information to the market exchange and the payment of an administrative fee to the exchange. Requires the development of specified procedures by the exchange.	03/03/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 2389</u> Ridley-Thomas S (D)	Special Districts: District- Based Elections		Authorizes a governing body of a special district, to require, by resolution, that the election of the members of its governing body be elected using district-based elections without being required to submit the resolution to the voters for approval.	03/30/2016 - From ASSEMBLY Committee on ELECTIONS AND REDISTRICTING: Do pass as amended to Committee on LOCAL GOVERNMENT.
<u>AB 2438</u> Waldron (R)	Environmental Quality Act		Relates to the Environmental Quality Act (CEQA). Exempts from CEQA a project for the construction and installation of a new pipeline or the maintenance, repair, restoration, reconditioning, relocation, replacement, removal, or demolition of an existing pipeline for the distribution of recycled water within a public street, highway, or right-of-way. Requires a public hearing.	03/08/2016 - To ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 2444</u> Garcia E (D)	Water, Climate, Coastal Protection and Outdoor Access		Enacts the California Water Quality, Coastal Protection, and Outdoor Access Improvement Act of 2016 which would authorize the issuance of bonds in an unspecified amount pursuant to the State General Obligation Bond Law to finance a water, climate, and coastal protection and outdoor access for all program.	03/17/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;03/17/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
				amended. Re-referred to Committee on WATER, PARKS
AB 2446 Gordon (D)	State Water Resources Control Board: Judicial Review		Updates provisions regarding an aggrieved party to petition the superior court for a writ of mandate for review of a decision or order issued by the State Water Resources Control Board. Provides that a decision or order under the Safe Drinking Water Act by the Board is not subject to court review if no aggrieved party petitions for such writ within a specified time period after a service of a copy of the order or decision issued by the Board.	03/28/2016 - Re-referred to ASSEMBLY Committee on JUDICIARY.
AB 2456 Cooley (D)	Public Employee Retirement Benefits: Prefunding		Requires the Board of Administration of the Public Employee's Retirement System to develop, establish, and administer the State Employer's Pension Prefunding Trust Program in order to encourage State and local public employers that provide a defined benefit pension plan to their employees to effectively manage their pension contributions.	03/17/2016 - To ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY.;03/17/2016 - From ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amen
AB 2468 Hadley (R)	Public Employees' Retirement System		Authorizes a public agency that has contracted with the board of administration of PERS to offer an alternative formula from that required by the California Public Employees Pension Reform Act to be applicable to certain miscellaneous, nonsafety employees.	03/08/2016 - To ASSEMBLY Committee on PUBLIC EMPLOYEES, RETIREMENT AND SOCIAL SECURITY.
AB 2480 Bloom (D)	Source Watersheds: Financing		Requires the State Water Resources Control Board to develop investment plans that prioritize actions for restoration and conservation to improve watershed function in the watershed that flow into the Shasta Reservoir and the Oroville Reservoir.	03/17/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.;03/17/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS

IRWD 2016 LEGISLATIVE MATRIX

Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 2550</u> Patterson (R)	Instream Flow Curtailments and Compensation		Requires the State Water Resources Control Board to financially compensate a person who is unable to divert the full amount of water authorized under his or her permit or license due to a board-issued instream flow curtailment, and a person who is required to file a statement of diversion and use is unable to divert the same amount of water in the succeeding year due to a board-issued instream flow curtailment.	03/08/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 2551</u> Gallagher (R)	Surface Storage and Design Build Contracts		Relates to general obligation bonds to finance a water quality, supply, and infrastructure improvement program. Authorizes surface storage projects that receive Proposition 1 funding to use the design-build method of project delivery.	03/08/2016 - To ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.
<u>AB 2578</u> Bigelow (R)	Environmental Quality Act: Exemptions: Water Service		Exempts from the requirements of the California Environmental Quality Act, a project within a public street or highway or other public right-of-way for the maintenance, repair, restoration, reconditioning, relocation, replacement, removal or demolition of an existing water distribution pipeline to address water leakage. Exempts activities undertaken by a local agency in response to a drought to acquire water supplies, extend service, or provide water for drinking and sanitation.	03/18/2016 - From ASSEMBLY Committee on NATURAL RESOURCES with author's amendments.;03/18/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES.
<u>AB 2583</u> Frazier (D)	Sacramento-San Joaquin Delta Reform Act of 2009		Relates to the Sacramento-San Joaquin Delta Reform Act of 2009, the Delta Stewardship Council, the Delta Plan and the California Water Fix. Provides that the new Delta water conveyance infrastructure is interdependent parts of a system. Amends the point of diversion to a point on the Sacramento River. Prohibits construction of a new Delta conveyance facility until contracts are signed by contractors who will receive the water that commit them to pay costs and to mitigate facility property taxes.	03/17/2016 - From ASSEMBLY Committee on WATER, PARKS AND WILDLIFE with author's amendments.;03/17/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on WATER, PARKS AND WILDLIFE.
<u>AB 2594</u> Gordon (D)	Stormwater Resources: Use of Captured Water		Authorizes a public entity that captures stormwater, in accordance with a stormwater resource plan, before the water reaches a natural channel to use the captured stormwater.	03/31/2016 - Re-referred to ASSEMBLY Committee on WATER, PARKS AND WILDLIFE.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>AB 2601</u> Eggman (D)	Building Standard: Residential Property: Graywater		Requires the Department of Housing and Community Development to adopt and submit to Building Standards Commission for approval amendments to the building standards adopted pursuant to these provisions that require that all new single-family and duplex residential dwelling units include specified components to allow the separate discharge of graywater for direct irrigation.	03/10/2016 - To ASSEMBLY Committee on HOUSING AND COMMUNITY DEVELOPMENT.
<u>AB 2617</u> Mayes (R)	Water Efficiency Measures		Requires the Energy Commission to develop and solicit comments on a proposed report, in consultation with certain subject matter experts to issue a final report that contains the projected benefits of recommended voluntary water efficiency measures and an analysis of any unintended adverse environmental impacts.	03/29/2016 - Re-referred to ASSEMBLY Committee on NATURAL RESOURCES.
<u>AB 2801</u> Gallagher (R)	Civil Procedure: Validation Actions		Amends existing law that authorizes a public agency to bring an action in court to determine the validity of certain matters within a specified time period of the existence of the matter. Deletes the prohibition on a contest of any thing or matter under these provisions being made other than within the specified time and manner, except by the public agency or its officer or agent.	03/14/2016 - To ASSEMBLY Committee on JUDICIARY.
<u>AB 2890</u> Env Safety & Toxic Material Cmt	Drinking Water and Wastewater Operator Certification		Requires the State Water Resources Control Board to appoint an advisory committee to examine and certify people to operate water treatment plants and water distribution systems, and to review all proposed regulations and make recommendations to the Board. Relates to water treatment operator-in-training. Revises procedures for the suspension or revocation of a valid operator license. Authorizes certificate reciprocity. Provides certificate application fraud civil liability.	03/28/2016 - To ASSEMBLY Committee on ENVIRONMENTAL SAFETY AND TOXIC MATERIALS.
<u>AB 2910</u> Local Government Cmt	Local Government: Organization: Omnibus Bill		Revises provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 to remove references to a public agency's current service area and instead include references to the public agency's jurisdictional boundaries. Permits the use of electronic mail, if available to the recipient, or hand delivery, if a	03/28/2016 - To ASSEMBLY Committee on LOCAL GOVERNMENT.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			public notice is required to be mailed. Provides that a purpose of a local agency formation commission is to ensure government services efficiency. Relates to commission membership.	
<u>ACA 8</u> Bloom (D)	Local Government Financing: Water Facilities: Voters		Proposes an amendment to the Constitution to create an exception to a limit for a rate imposed by a city, county, city and county, or special district to service bonded indebtedness incurred to fund the construction, reconstruction, rehabilitation, or replacement of wastewater treatment facilities and related infrastructure, potable water producing facilities and related infrastructure, nonpotable water producing facilities and related infrastructure, and stormwater treatment facilities and infrastructure.	02/18/2016 - INTRODUCED.
<u>SB 7</u> Wolk (D)	Housing: Water Meters: Multi-unit Structures		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.	09/08/2015 - In ASSEMBLY. Read third time. Failed to pass ASSEMBLY.;09/08/2015 - In ASSEMBLY. Motion to reconsider.
<u>SB 20</u> 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.
<u>SB 32</u> Pavley (D)	Global Warming 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. Revises current provisions of existing law regarding the implementation of the next update of a greenhouse gas scoping plan	09/10/2015 - Re-referred to ASSEMBLY Committee on NATURAL RESOURCES.;09/10/2015 - From ASSEMBLY Committee on NATURAL RESOURCES with author's

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			under existing law. Requires reports regarding reaching these limits.	amendments.;09/10/2015 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on NATURAL RESOURCES
<u>SB 122</u> 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.
<u>SB 163</u> Hertzberg (D)	Wastewater Treatment: Recycled Water	Oppose	Declares the discharge of treated wastewater from ocean outfalls is a waste and unreasonable use of water in light of certain conditions. Requires such facility to achieve a specified percentage of reuse of the actual annual flow for beneficial purposes. Prohibits such discharge except as backup discharge. Provides procedures for related exemption requests. Requires a prescribed plan to meet these provisions.	09/08/2015 - Re-referred to ASSEMBLY Committee on RULES.
<u>SB 223</u> 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.
<u>SB 248</u> 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.	08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Not heard.

IRWD 2016 LEGISLATIVE MATRIX

Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			Requires updating related regulations. Requires notification and clearance of chemical injection.	
<u>SB 286</u> 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 the gigawatthours. Requires such customers to be responsible for their share of the costs of specified programs.	03/01/2016 - From ASSEMBLY Committee on APPROPRIATIONS with author's amendments.;03/01/2016 - In ASSEMBLY. Read second time and amended. Re-referred to Committee on APPROPRIATIONS.
<u>SB 471</u> Pavley (D)	Water, Energy, Reduction of Greenhouse Gas Emissions		Includes reduction of greenhouse emissions associated with water treatment 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.	08/27/2015 - In ASSEMBLY. Joint Rule 62(a) suspended.;08/27/2015 - In ASSEMBLY Committee on APPROPRIATIONS: Held in committee.
<u>SB 551</u> 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 in 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.
<u>SB 552</u> 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	07/09/2015 - Re-referred to ASSEMBLY Committee on RULES.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			increase for certain customers.	
<u>SB 554</u> Wolk (D)	Delta Levee Maintenance		Relates to the maintenance or improvement of project or nonproject levees in the Sacramento-San Joaquin Delta. Declares legislative intent to reimburse up to a certain percent of costs incurred in any year for the maintenance or improvement of levees in excess of a specified sum per mile of levee and authorizes a specified board to advance funds in an amount that does not exceed a certain percent of the estimated state share to an eligible local agency.	01/27/2016 - In SENATE. Read third time. Passed SENATE. *****To ASSEMBLY.
<u>SB 814</u> Hill (D)	Drought: Excessive Water Use: Urban Retail Water Supply	Oppose Unless Amended	Requires each urban retail water supplier to establish a method to identify and restrict excessive water use. Authorizes the establishment of a rate structure that penalizes such excessive water users. Authorizes an excessive water use ordinance, rule, or tariff condition. Makes a violation thereof an infraction with specified monetary penalties.	03/31/2016 - Withdrawn from SENATE Committee on JUDICIARY.;03/31/2016 - Re-referred to SENATE Committee on APPROPRIATIONS.
<u>SB 885</u> Wolk (D)	Construction Contracts: Indemnity		Specifies, for construction contracts, that a design professional only the has the duty to defend claims that arise out of, or pertain or relate to, negligence, recklessness, or willful misconduct of the design professional. Provides that a design professional would not have a duty to defend claims against any other person or entity arising from a construction project, except that person or entity's reasonable defense costs arising out of the design professional's degree of fault.	01/28/2016 - To SENATE Committee on JUDICIARY.
<u>SB 919</u> Hertzberg (D)	Water Supply: Creation or Augmentation of Local Water		Requires the Public Utilities Commission to address the oversupply of renewable energy resources through a tariff or other economic incentive for electricity purchased by customers operating facilities that create or augment local water supplies to reduce the cost of electricity to those facilities.	03/07/2016 - From SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS with author's amendments.;03/07/2016 - In SENATE. Read second time and amended. Re-referred to Committee on ENERGY, UTILITIES AND COMMUNICATIONS.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
SB 974 Governance and Finance Cmt	Local Government: Omnibus		Amends existing law regarding local government to include a county recorder storing survey records, fees for copies of military discharges, notary public commissioning, local financial reporting, city financial condition reporting, investment of local sinking fund moneys, public hearings under the Subdivision Map Act, local safety land use elements, the redevelopment and reuse of Fort Ord, sewage services and facilities fees, use of design-build, vehicle license fees, and income tax collection.	03/29/2016 - From SENATE Committee on GOVERNANCE AND FINANCE with author's amendments.;03/29/2016 - In SENATE. Read second time and amended. Re-referred to Committee on GOVERNANCE AND FINANCE.
SB 995 Pavley (D)	Well Standards		Requires the Department of Water Resources to update well standards for certain types of wells based on existing knowledge. Establishes an advisory panel to identify critical gaps in existing knowledge about the best practices for well construction, alteration, maintenance, and destruction for these wells.	03/29/2016 - From SENATE Committee on NATURAL RESOURCES AND WATER: Do pass to Committee on ENVIRONMENTAL QUALITY.
SB 1026 Nielsen (R)	Lake or Streambed Alteration Agreements		Relates to lake or streambed alteration agreement. Limits the diversions and obstructions governed by alteration agreement requirements to the diversions and obstructions that alter the bed, channel, or bank of a river, stream or lake. Exempts routine maintenance and repair of facilities for instream agricultural diversions.	02/25/2016 - To SENATE Committee on NATURAL RESOURCES AND WATER.
SB 1043 Allen (D)	Renewable Gas: Biogas and Biomethane		Requires the State Air Resources Board to consider and adopt policies to significantly increase the sustainable production and use of renewable gas. Requires the Board, to ensure the production and use of renewable gas provides direct environmental benefits and identify barriers to the rapid development and use of renewable gas and potential sources of funding. Revises the definition of biogas and biomethane for pipeline integrity and safety purposes.	03/30/2016 - From SENATE Committee on ENERGY, UTILITIES AND COMMUNICATIONS with author's amendments.;03/30/2016 - In SENATE. Read second time and amended. Re-referred to Committee on ENERGY, UTILITIES AND COMMUNICATIONS.
SB 1173 Hertzberg (D)	Plumbing Fixtures: CalConserve Water Use Efficiency		Requires for commercial property the replacement of any noncompliant fixture or fitting in specified additions, alterations, and improvements to such property and the replacement of any noncompliant plumbing fixture or fitting in all such property in	03/30/2016 - From SENATE Committee on TRANSPORTATION AND HOUSING with author's amendments.;03/30/2016 - In SENATE.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			accordance with a specified schedule based on floor space. Provides related definitions. Authorizes county offices of education and school district boards to receive moneys from the CalConserve Water Use Efficiency Fund for efficiency projects.	Read second time and amended. Re-referred to Committee on TRANSPORTATION AND HOUSING.
<u>SB 1213</u> Wieckowski (D)	Renewable Energy: Biosolids: Matching Grants		Requires the Energy Resources Conservation Commission to develop and implement the Biosolids to Clean Energy Grant Program to provide matching funds to local wastewater agencies for biosolids to clean energy capital projects. Appropriates a specified amount of funds annually to the Commission for purposes of the program. Appropriates a specified amount of funds for the design and construction of a regional biosolids to clean energy project located in the San Francisco Bay.	03/29/2016 - From SENATE Committee on ENERGY, UTILITIES & COMMUNICATION: Do pass as amended to Committee on ENVIRONMENTAL QUALITY.
<u>SB 1233</u> McGuire (D)	Joint Powers Authority: Water Bill Savings Act		Enacts the Water Bill Savings Act. Authorizes a joint powers authority to provide funding for a customer of a local agency or its publicly owned utility to acquire, install, or repair water efficiency improvement on the customer's property served by the local agency or its publicly owned utility. Makes technical changes.	03/28/2016 - From SENATE Committee on GOVERNANCE AND FINANCE with author's amendments.;03/28/2016 - In SENATE. Read second time and amended. Re-referred to Committee on GOVERNANCE AND FINANCE.
<u>SB 1260</u> Allen (D)	Stormwater Resources Planning: Project Funding		Requires the State Water Resources Control Board to include as part of its guidance for purposes of guidance under the Stormwater Resources Planning Act, a list of potential funding sources available to a public agency to fund projects identified in a public agency's stormwater resources.	03/30/2016 - Withdrawn from SENATE Committee on ENVIRONMENTAL QUALITY.;03/30/2016 - Re-referred to SENATE Committee on RULES.
<u>SB 1262</u> Pavley (D)	Water Supply Planning		Requires a city or county that determines a project is subject to the California Environmental Quality Act to identify any water system whose service area includes the project site and any water system adjacent to the project site. Provides that hauled water or groundwater from a probationary basin are not sources of water for the purposes of a water supply assessment. Revises the definition of sufficient water supply to include specified factors.	03/29/2016 - From SENATE Committee on NATURAL RESOURCES AND WATER: Do pass to Committee on GOVERNANCE AND FINANCE.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 1263</u> Wieckowski (D)	Public Water System: Permits		Relates to public water systems permits. Prohibit an application for a permit for a new public water system from being deemed complete unless the applicant has submitted a preliminary technical report to the state board. Allows the state board to impose technical, financial, or managerial requirements on the permit.	03/03/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<u>SB 1317</u> Wolk (D)	Conditional Use Permit		Requires a city or county overlying a basin designated as a high- or medium- priority basin to establish a process for the issuance of conditional use permits for the development of a groundwater extraction facility in order to prevent a new groundwater extraction facility from contributing to or creating an undesirable result.	03/03/2016 - To SENATE Committees on NATURAL RESOURCES AND WATER and GOVERNANCE AND FINANCE.
<u>SB 1318</u> Wolk (D)	Local Government: Drinking Water Infrastructure		Prohibits a local agency formation commission from authorizing a city or a district to extend drinking water infrastructure or services or wastewater infrastructure or services until it has entered into an enforceable agreement to extend the same services to all disadvantaged communities within its sphere of influence or adjacent to its jurisdictional boundaries, unless specified conditions are met. Prohibits certain actions in areas that lack safe drinking water or wastewater infrastructure.	03/28/2016 - From SENATE Committee on GOVERNANCE AND FINANCE with author's amendments.;03/28/2016 - In SENATE. Read second time and amended. Re-referred to Committee on GOVERNANCE AND FINANCE.
<u>SB 1340</u> Wolk (D)	Water Conservation in Landscaping Act		Adds to the model water efficient landscape ordinance a permit requirement for the installation, expansion, or replacement of specified automatic irrigation systems for a landscape project. Allows the governing body of a local agency to adopt an ordinance prescribing fees for filing an application for the permit, subject to the restrictions.	03/03/2016 - To SENATE Committee on NATURAL RESOURCES AND WATER.
<u>SB 1383</u> Lara (D)	Short-Lived Climate Pollutants		Requires the State Air Resources Board to approve and implement that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by forty percent, hydro-fluorocarbon gases by forty percent, and anthropogenic black carbon by fifty percent below 2013 levels by 2030.	03/10/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
<u>SB 1415</u> Bates (R)	Environmental Quality Act and Water Projects		Exempts from the requirements of California Environmental Quality Act (CEQA) drought-oriented projects, proposed by one or more public agencies, or a combination of public agencies and private organizations, that have the purpose of mitigating drought conditions for which a state of emergency has been declared by the Governor.	03/10/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<u>SB 1425</u> Pavley (D)	Water Energy Nexus Registry		Requires the State Air Resources Board to develop a registry of greenhouse gas emission resulting from the water-energy nexus using the best available data including specified actions of a former registry as they relate to the water-energy nexus.	03/31/2016 - Re-referred to SENATE Committee on ENVIRONMENTAL QUALITY.
<u>SB 1440</u> Cannella (R)	Water Supply and Infrastructure Improvement		Requires a lead agency, in certifying the environmental impact report and in granting approvals for certain water storage projects funded, in whole or in part, by Proposition I, to comply with specified procedures. Authorizes the lead agency to concurrently prepare the record of proceedings for the project. Requires the Judicial Council to adopt a rule of court to establish procedures applicable to actions or proceedings seeking judicial review.	03/10/2016 - To SENATE Committees on ENVIRONMENTAL QUALITY and JUDICIARY.
<u>SB 1456</u> Galgiani (D)	Safe Drinking Water State Revolving Fund Law		Amends an existing law which establishes the Safe Drinking Water State Revolving Fund. Authorizes certain costs to be funded by loans or other repayable financing, grants, principal forgiveness, or a combination of grants and loans or other financial assistance, regardless of whether a public water system is a community public water system or a not-for-profit noncommunity public water system.	03/10/2016 - To SENATE Committee on ENVIRONMENTAL QUALITY.
<u>HR 2689</u> Walters (R)	Eligible Water Resources Projects	Support	Clarifies the scope of eligible water resources projects under the Water Resources Development Act of 1986 and the Water Resources Reform and Development Act of 2014.	06/10/2015 - In HOUSE Committee on TRANSPORTATION & INFRASTRUCTURE: Referred to Subcommittee on WATER RESOURCES AND ENVIRONMENT.
<u>HR 4615</u> Huffman (D)	Water Department Gross Income Exclusion	Support	Amends the Internal Revenue Code of 1986 to exclude from gross income amounts received from a water department for water conservation efficiency measures and water runoff management	02/25/2016 - INTRODUCED.;02/25/2016 - To HOUSE Committee on WAYS AND

IRWD 2016 LEGISLATIVE MATRIX
Updated 04/4/2016

Bill No. Author	Title	IRWD Position	Summary/Effects	Status
			improvements.	MEANS.
<u>S 2533</u> Feinstein (D)	Water Supplies for California and Drought Resiliency		Provides short-term water supplies to drought-stricken California, provides for long-term investments in drought resiliency throughout the Western United States.	02/10/2016 - INTRODUCED.;02/10/2016 - In SENATE. Read second time.;02/10/2016 - To SENATE Committee on ENERGY AND NATURAL RESOURCES.

EXHIBIT "B"

Senate Bill No. 272

CHAPTER 795

An act to add Section 6270.5 to the Government Code, relating to public records.

[Approved by Governor October 11, 2015. Filed with
Secretary of State October 11, 2015.]

LEGISLATIVE COUNSEL'S DIGEST

SB 272, Hertzberg. The California Public Records Act: local agencies: inventory.

Existing law, the California Public Records Act, requires state and local agencies to make their records available for public inspection, unless an exemption from disclosure applies. The act declares that access to information concerning the conduct of the people's business is a fundamental and necessary right of every person in this state.

This bill would require each local agency, except a local educational agency, in implementing the California Public Records Act, to create a catalog of enterprise systems, as defined, 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. The bill would require the catalog to disclose a list of the enterprise systems utilized by the agency, and, among other things, the current system vendor and product, unless, on the facts of the particular case, the public interest served by not disclosing that information clearly outweighs the public interest served by disclosure, in which case the local agency may instead provide a system name, brief title, or identifier of the system. Because the bill would require local agencies to perform additional duties, it would impose a state-mandated local program.

The California Constitution requires local agencies, for the purpose of ensuring public access to the meetings of public bodies and the writings of public officials and agencies, to comply with a statutory enactment that amends or enacts laws relating to public records or open meetings and contains findings demonstrating that the enactment furthers this purpose.

This bill would make legislative findings to that effect.

Existing constitutional provisions require a statute that limits the right of public access to meetings or writings of public officials to be adopted with findings demonstrating the interest to be protected by that limitation and the need to protect that interest.

This bill would declare that it includes limitations on access, that the interest to be protected is the security of enterprise systems in public agencies, and that the need to protect that interest is that enterprise systems

can contain information that, if released to the public, could result in negative consequences.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

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

SECTION 1. The Legislature finds and declares all of the following:

(a) New information technology has dramatically changed the way people search for and expect to find information in California.

(b) This technology has unlocked great potential for government to better serve the people it represents. A recent study estimated that digitizing government data could generate one trillion dollars in economic value worldwide through cost savings and improved operational performance.

(c) California plays a vitally important role in moving our nation forward in the world of technology. Just as the state's thriving tech industry surges ahead in setting new standards for society, so too must California.

(d) As several nations, states, and cities have begun to embrace policies of online access to public sector data, they have enjoyed the benefits of increased operational efficiency and better collaboration. Here in California, cities across the state are turning internally gathered and maintained data into usable information for the public to access and leverage for the benefit of their communities.

(e) In moving government to a more effective digital future, standards should be adopted to ensure that data collection and publication are standardized, including uniform definitions for machine-readable data. Online portals should also be developed to assist with public access to collected data.

(f) With a public sector committed to success in the digital age, the residents and businesses of California will stand to benefit from the greater collaboration and integration, improved accountability, and increased productivity that will result.

(g) In making California government more accessible to the people of the state, paragraph (7) of subdivision (b) of Section 3 of Article I of the California Constitution requires local governments to comply with the California Public Records Act and with any subsequent statutory enactment amending that act and furthering that purpose.

SEC. 2. Section 6270.5 is added to the Government Code, to read:

6270.5. (a) In implementing this chapter, each local agency, except a local educational agency, shall create a catalog of enterprise systems. The catalog shall be made publicly available upon request in the office of the person or officer designated by the agency's legislative body. The catalog shall be posted in a prominent location on the local agency's Internet Web

site, if the agency has an Internet Web site. The catalog shall disclose a list of the enterprise systems utilized by the agency and, for each system, shall also disclose all of the following:

- (1) Current system vendor.
- (2) Current system product.
- (3) A brief statement of the system's purpose.
- (4) A general description of categories or types of data.
- (5) The department that serves as the system's primary custodian.
- (6) How frequently system data is collected.
- (7) How frequently system data is updated.

(b) This section shall not be interpreted to limit a person's right to inspect public records pursuant to this chapter.

(c) For purposes of this section:

(1) "Enterprise system" means a software application or computer system that collects, stores, exchanges, and analyzes information that the agency uses that is both of the following:

(A) A multidepartmental system or a system that contains information collected about the public.

(B) A system of record.

(2) "System of record" means a system that serves as an original source of data within an agency.

(3) An enterprise system shall not include any of the following:

(A) Information technology security systems, including firewalls and other cybersecurity systems.

(B) Physical access control systems, employee identification management systems, video monitoring, and other physical control systems.

(C) Infrastructure and mechanical control systems, including those that control or manage street lights, electrical, natural gas, or water or sewer functions.

(D) Systems related to 911 dispatch and operation or emergency services.

(E) Systems that would be restricted from disclosure pursuant to Section 6254.19.

(F) The specific records that the information technology system collects, stores, exchanges, or analyzes.

(d) Nothing in this section shall be construed to permit public access to records held by an agency to which access is otherwise restricted by statute or to alter the process for requesting public records, as set forth in this chapter.

(e) If, on the facts of the particular case, the public interest served by not disclosing the information described in paragraph (1) or (2) of subdivision (a) clearly outweighs the public interest served by disclosure of the record, the local agency may instead provide a system name, brief title, or identifier of the system.

(f) The local agency shall complete and post the catalog required by this section by July 1, 2016, and thereafter shall update the catalog annually.

SEC. 3. The Legislature finds and declares that Section 2 of this act, which adds Section 6270.5 to the Government Code, furthers, within the

meaning of paragraph (7) of subdivision (b) of Section 3 of Article I of the California Constitution, the purposes of that constitutional section as it relates to the right of public access to the meetings of local public bodies or the writings of local public officials and local agencies. Pursuant to paragraph (7) of subdivision (b) of Section 3 of Article I of the California Constitution, the Legislature makes the following findings:

Because increased information about what data is collected by local agencies could be leveraged by the public to more efficiently access and better use that information, the act furthers the purpose of Section 3 of Article I of the California Constitution.

SEC. 4. The Legislature finds and declares that Section 2 of this act limits the public's right of access to public documents within the meaning of paragraph (2) of subdivision (b) of Section 3 of Article I of the California Constitution. Pursuant to that constitutional provision, the Legislature makes the following findings to demonstrate the interest and the need for protecting that interest:

(a) The interest protected by this limitation is the security of enterprise systems in public agencies.

(b) The need for protecting that interest is that enterprise systems can contain information that, if released to the public, could result in negative consequences.

SEC. 5. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district under this act would result from a legislative mandate that is within the scope of paragraph (7) of subdivision (b) of Section 3 of Article I of the California Constitution.

EXHIBIT "C"

AMENDED IN ASSEMBLY MARCH 31, 2016

AMENDED IN ASSEMBLY MARCH 17, 2016

CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

ASSEMBLY BILL

No. 2488

Introduced by Assembly Member Dababneh

February 19, 2016

An act to amend Section 5515 of, and to add Section 2081.10 to, the Fish and Game Code, relating to fish.

LEGISLATIVE COUNSEL'S DIGEST

AB 2488, as amended, Dababneh. Protected species: unarmored threespine ~~stickleback~~; *stickleback*: taking or possession.

Existing law prohibits the taking or possession of a fully protected fish, except as provided, and designates the unarmored threespine stickleback as a fully protected fish. The California Endangered Species Act prohibits the taking of an endangered or threatened species, except as specified. The Department of Fish and Wildlife may authorize the take of listed species if the take is incidental to an otherwise lawful activity and the impacts are minimized and fully mitigated.

This bill would permit the department to authorize, under the California Endangered Species Act, the take of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) attributable to the periodic dewatering, inspection, maintenance, or repair of the Metropolitan Water District of Southern California's Foothill Feeder water supply facility from Castaic Dam to the Joseph Jensen Treatment Plant in the County of Los Angeles, as specified, if certain conditions are satisfied.

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. The Legislature finds and declares all of the
2 following:

3 (a) The Foothill Feeder below Castaic Dam in the County of
4 Los Angeles is the primary conduit for water from the State Water
5 Project for the Southern California region served by the
6 Metropolitan Water District of Southern California. The
7 Metropolitan Water District of Southern California is a public
8 agency comprised of 26 member public agencies – 14 cities, 11
9 municipal water districts, and one county water authority – and
10 provides water to more than 19 million people in the Counties of
11 Los Angeles, Orange, Riverside, San Bernardino, San Diego, and
12 Ventura.

13 (b) Water supplies from the State Water Project are a critical
14 part of Southern California's water supply portfolio, and any
15 interruption of that supply must be minimized to ensure delivery
16 of clean and reliable water supplies for municipal and industrial
17 uses, including health and human safety, and to water agencies
18 and cities that rely upon water supply deliveries from the
19 Metropolitan Water District of Southern California.

20 (c) Periodic dewatering, inspection, maintenance, modification,
21 or repair, including emergency repairs, require that all or a portion
22 of the Foothill Feeder be dewatered into the Santa Clara River and
23 certain of its tributaries where unarmored threespine stickleback
24 (*Gasterosteus aculeatus williamsoni*) may be present during these
25 activities. Thus, the incidental take of unarmored threespine
26 stickleback must be permitted for the periodic dewatering,
27 inspection, maintenance, modification, or repair of the Foothill
28 Feeder to protect Southern California water supplies.

29 SEC. 2. Section 2081.10 is added to the Fish and Game Code,
30 to read:

31 2081.10. (a) The department may authorize, under this chapter,
32 the incidental take of unarmored threespine stickleback
33 (*Gasterosteus aculeatus williamsoni*) attributable to the periodic
34 dewatering, inspection, maintenance, modification, or repair of
35 the Metropolitan Water District of Southern California's Foothill

1 Feeder water supply facility from Castaic Dam to the Joseph Jensen
2 Treatment Plant in the County of Los Angeles, contingent upon
3 the fulfillment of the following conditions:

4 (1) The department has determined that the requirements of
5 subdivisions (b) and (c) of Section 2081 are satisfied for the take
6 of the unarmored threespine stickleback.

7 (2) The department ensures that all further measures necessary
8 to contribute to conservation as defined in subdivision (d) of
9 Section 2805 are incorporated into the project.

10 (3) The take authorization provides for the development and
11 implementation, in cooperation with the department, of an adaptive
12 management process for monitoring the effectiveness of, and
13 adjusting as necessary, the measures to minimize and fully mitigate
14 the impacts of the authorized take. The adjusted measures are
15 subject to Section 2052.1.

16 (b) The take authorization shall cover any incidental take of
17 unarmored threespine stickleback attributable to the periodic
18 dewatering, inspection, maintenance, modification, or repair of
19 the Foothill Feeder that may occur in the following locations:

20 (1) _____.

21 (2) _____.

22 (1) *Within the Santa Clara River, from the Bouquet Canyon*
23 *Road Bridge to a point located 4,000 feet downstream of where*
24 *Commerce Center Drive, as of January 1, 2016, dead ends adjacent*
25 *to the Santa Clara River.*

26 (2) *From the confluence with the Santa Clara River upstream*
27 *to the following locations:*

28 (A) *In Charlie Canyon to a point 1,000 feet upstream of the*
29 *Foothill Feeder facility dewatering structure.*

30 (B) *In San Francisquito Creek to the Copper Hill Drive bridge.*

31 (C) *In Placerita Creek to the Hacienda Lane crossing.*

32 (D) *In Bouquet Creek to the Newhall Ranch Road Bridge.*

33 (c) *The take authorization shall also cover any incidental take*
34 *of unarmored threespine stickleback that may occur in the course*
35 *of implementing mitigation or conservation actions required in*
36 *the permit issued pursuant to subdivision (a) as may be modified*
37 *through an adaptive management plan adopted pursuant to*
38 *paragraph (3) of subdivision (a).*

39 (e)

1 (d) This section shall not be construed to exempt from any other
2 law the periodic dewatering, inspection, maintenance, modification,
3 or repair of the Foothill Feeder.

4 SEC. 3. Section 5515 of the Fish and Game Code is amended
5 to read:

6 5515. (a) (1) Except as provided in this section, Section
7 2081.6, Section 2081.7, Section 2081.10, or Section 2835, a fully
8 protected fish shall not be taken or possessed at any time. No
9 provision of this code or any other law shall be construed to
10 authorize the issuance of a permit or license to take a fully
11 protected fish, and no permit or license previously issued shall
12 have force or effect for that purpose. However, the department
13 may authorize the taking of a fully protected fish for necessary
14 scientific research, including efforts to recover fully protected,
15 threatened, or endangered species. Before authorizing the take of
16 a fully protected fish, the department shall make an effort to notify
17 all affected and interested parties to solicit information and
18 comments on the proposed authorization. The notification shall
19 be published in the California Regulatory Notice Register and be
20 made available to each person who has notified the department,
21 in writing, of his or her interest in fully protected species and who
22 has provided an email address, if available, or postal address to
23 the department. Affected and interested parties shall have 30 days
24 after notification is published in the California Regulatory Notice
25 Register to provide relevant information and comments on the
26 proposed authorization.

27 (2) As used in this subdivision, "scientific research" does not
28 include an action taken as part of specified mitigation for a project,
29 as defined in Section 21065 of the Public Resources Code.

30 (3) A legally imported fully protected fish may be possessed
31 under a permit issued by the department.

32 (b) The following are fully protected fish:

33 (1) Colorado River squawfish (*Ptychocheilus lucius*).

34 (2) Thicktail chub (*Gila crassicauda*).

35 (3) Mohave chub (*Gila mohavensis*).

36 (4) Lost River sucker (*Catostomus luxatus*).

37 (5) Modoc sucker (*Catostomus microps*).

38 (6) Shortnose sucker (*Chasmistes brevirostris*).

39 (7) Humpback sucker (*Xyrauchen texanus*).

40 (8) Owens River pupfish (*Cyprinoden radiosus*).

- 1 (9) Unarmored threespine stickleback (*Gasterosteus aculeatus*
- 2 *williamsoni*).
- 3 (10) Rough sculpin (*Cottus asperimus*).

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EXHIBIT "D"

AMENDED IN ASSEMBLY MARCH 17, 2016

CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

ASSEMBLY BILL

No. 2583

Introduced by Assembly Member Frazier

February 19, 2016

An act to amend ~~Section 85057.5 of, Sections 85057.5, 85086, 85088, 85089, 85320, and 85321 of, to amend the heading of Chapter 2 (commencing with Section 85320) of Part 4 of Division 35 of, and to add Section 85053.5 to, and to repeal Section 85085 of, the Water Code, relating to the Sacramento-San Joaquin Delta.~~

LEGISLATIVE COUNSEL'S DIGEST

AB 2583, as amended, Frazier. Sacramento-San Joaquin Delta Reform Act of 2009.

Existing law, the Sacramento-San Joaquin Delta Reform Act of 2009, establishes the Delta Stewardship Council and requires the council to develop, adopt, and commence implementation of a comprehensive management plan for the Delta, known as the Delta Plan. *The Delta Plan is required to further the coequal goals of providing a more reliable water supply and protecting, restoring, and enhancing the Delta ecosystem. The act requires the council to consider the Bay Delta Conservation Plan (BDCP) for inclusion in the Delta Plan and requires the incorporation of the BDCP into the Delta Plan if the BDCP meets certain requirements.*

This bill would add a definition of the California Water Fix to the act. *This bill would eliminate certain provisions applicable to the BDCP and would revise other provisions to instead refer to a new Delta water conveyance project for the purpose of exporting water. This bill would require new Delta water conveyance infrastructure to be considered*

as interdependent parts of a system and to be operated in a way that maximizes benefits for each of the coequal goals.

The act requires a state or local public agency that proposes to undertake a covered action that will occur within the boundaries of the Delta or the Suisun Marsh to prepare, and submit to the council, a specified written certification of consistency with the Delta Plan prior to taking those actions. The act defines the term “covered action” to mean a plan, program, or project, as prescribed.

~~This bill would delete certain exclusions relating to the Bay Delta Conservation Plan BDCP from the definition of a covered action. This bill would prohibit any certification of consistency for a new Delta water conveyance project unless specified requirements are met.~~

~~The act requires the Department of Water Resources to coordinate with the Department of Fish and Wildlife, the State Water Resources Control Board, the California regional water quality control boards, and the State Lands Commission efforts to cooperate with the United States Bureau of Reclamation to construct and implement the Two-Gates Fish Protection Demonstration Project by December 1, 2010, to evaluate the effectiveness of the Three Mile Slough Barrier project, to expeditiously move ahead with certain near term actions, and to assist in implementing early action ecosystem restoration projects.~~

~~This bill would eliminate these requirements:~~

~~Under the act, until the State Water Resources Control Board issues an order approving a change in the point of diversion of the State Water Project and the federal Central Valley Project from the southern Delta to a certain point on the Sacramento River the Department of Water Resources is prohibited from commencing construction of any diversion, conveyance, or other facility necessary to divert and convey water pursuant to the change in point of diversion.~~

~~This bill would apply the above prohibition to a new point of diversion as well as a change in the point of diversion. This bill would prohibit the board from granting final approval of the requested change in or new point of diversion until the board has completed its update of a specified water quality control plan.~~

~~The act prohibits construction of a new Delta conveyance facility from being initiated until the persons or entities that contract to receive water from the State Water Project and the federal Central Valley Project or a joint powers authority representing those entities have made arrangements or entered into contracts to pay for certain costs required for the construction, operation, and maintenance of the facility~~

and full mitigation of property tax or assessments levied for land use in the construction, location, mitigation, or operation of the facility.

This bill would instead prohibit the construction until legally binding financial agreements or contracts are signed by each of the state and federal water contractors that will receive water supplies that commit them to pay for the costs required for the federal Central Valley Project, State Water Project, and any new Delta water conveyance facility, as specified, and full mitigation of property tax or assessments levied for land use in the construction, location, mitigation, operation, or maintenance of the facility.

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 85053.5 is added to the Water Code, to
- 2 read:
- 3 85053.5. "California Water Fix" or "Water Fix" means a
- 4 project, within the meaning of Section 21065 of the Public
- 5 Resources Code and subdivision (a) of Section 85057.5, to
- 6 construct new State Water Project conveyance facilities in the
- 7 Delta.
- 8 SEC. 2. Section 85057.5 of the Water Code is amended to read:
- 9 85057.5. (a) "Covered action" means a plan, program, or
- 10 project as defined pursuant to Section 21065 of the Public
- 11 Resources Code that meets all of the following conditions:
- 12 (1) Will occur, in whole or in part, within the boundaries of the
- 13 Delta or Suisun Marsh.
- 14 (2) Will be carried out, approved, or funded by the state or a
- 15 local public agency.
- 16 (3) Is covered by one or more provisions of the Delta Plan.
- 17 (4) Will have a significant impact on achievement of one or
- 18 both of the coequal goals or the implementation of
- 19 government-sponsored flood control programs to reduce risks to
- 20 people, property, and state interests in the Delta.
- 21 (b) "Covered action" does not include any of the following:
- 22 (1) A regulatory action of a state agency.
- 23 (2) Routine maintenance and operation of the State Water
- 24 Project or the federal Central Valley Project.

1 (3) Regional transportation plans prepared pursuant to Section
2 65080 of the Government Code.

3 (4) A plan, program, project, or activity within the secondary
4 zone of the Delta that the applicable metropolitan planning
5 organization pursuant to Section 65080 of the Government Code
6 has determined is consistent with either a sustainable communities
7 strategy or an alternative planning strategy that the State Air
8 Resources Board has determined would, if implemented, achieve
9 the greenhouse gas emission reduction targets established by that
10 board pursuant to subparagraph (A) of paragraph (2) of subdivision
11 (b) of Section 65080 of the Government Code. For purposes of
12 this paragraph, "consistent with" means consistent with the use
13 designation, density, building intensity, transportation plan, and
14 applicable policies specified for the area in the sustainable
15 communities strategy or the alternative planning strategy, as
16 applicable, and any infrastructure necessary to support the plan,
17 program, project, or activity.

18 (5) Routine maintenance and operation of a facility located, in
19 whole or in part, in the Delta, that is owned or operated by a local
20 public agency.

21 (6) A plan, program, project, or activity that occurs, in whole
22 or in part, in the Delta, if both of the following conditions are met:

23 (A) The plan, program, project, or activity is undertaken by a
24 local public agency that is located, in whole or in part, in the Delta.

25 (B) Either a notice of determination is filed, pursuant to Section
26 21152 of the Public Resources Code, for the plan, program, project,
27 or activity by, or the plan, program, project, or activity is fully
28 permitted by, September 30, 2009.

29 (7) A project within the secondary zone, as defined pursuant to
30 Section 29731 of the Public Resources Code as of January 1, 2009,
31 for which a notice of approval or determination pursuant to Section
32 21152 of the Public Resources Code has been filed before the date
33 on which the Delta Plan becomes effective.

34 (8) Leases approved by a special district if all of the following
35 apply:

36 (A) The uses proposed by the lease are authorized by the
37 applicable general plan and zoning ordinances of the city where
38 the special district is located.

39 (B) The uses proposed by the lease are approved by the city
40 where the special district is located and the city complies with

1 Chapter 3 (commencing with Section 85225) of Part 3, if
2 applicable, prior to approval of the lease by the special district.

3 (C) The special district complies with the California
4 Environmental Quality Act (Division 13 (commencing with Section
5 21000) of the Public Resources Code) prior to approving the lease.

6 (9) (A) Routine dredging activities that are necessary for
7 maintenance of facilities operated by a special district.

8 (B) For purposes of this paragraph, "routine dredging activities"
9 are limited to the following:

10 (i) Dredging to maintain the Stockton Deep Water Ship Channel
11 at a depth of 40 feet in the sediment trap at the confluence of the
12 San Joaquin River, between river mile 39.3 to river mile 40.2, and
13 to maintain the remaining Stockton Deep Water Ship Channel at
14 a depth of 35 feet plus two feet of overdredge from river mile 35
15 to river mile 43.

16 (ii) Dredging designed to maintain the Sacramento Deep Water
17 Ship Channel at a depth of 30 feet plus two feet of overdredge
18 from river mile 0.0 to river mile 30, and at a depth of 35 feet from
19 river mile 35 to river mile 43.

20 (C) Except as provided by this subdivision, it is the intent of
21 the Legislature that this exemption shall not be interpreted or
22 treated as changing or modifying current substantive and procedural
23 regulations applicable to the decision to approve dredging
24 operations.

25 (c) For purposes of this section, "special district" means the
26 Port of Stockton or the Port of West Sacramento.

27 (d) This section shall not be interpreted to authorize the
28 abrogation of a vested right whether created by statute or by
29 common law.

30 ~~SEC. 3. Section 85085 of the Water Code is repealed.~~

31 *SEC. 3. Section 85086 of the Water Code is amended to read:*

32 85086. (a) The board shall establish an effective system of
33 Delta watershed diversion data collection and public reporting by
34 December 31, 2010.

35 (b) It is the intent of the Legislature to establish an accelerated
36 process to determine instream flow needs of the Delta for the
37 purposes of facilitating the planning decisions that are required to
38 achieve the objectives of the Delta Plan.

39 (c) (1) For the purpose of informing planning decisions for the
40 Delta Plan and the Bay Delta Conservation Plan, the board shall,

1 pursuant to its public trust obligations, develop new flow criteria
2 for the Delta ecosystem necessary to protect public trust resources.
3 In carrying out this section, the board shall review existing water
4 quality objectives and use the best available scientific information.
5 The flow criteria for the Delta ecosystem shall include the volume,
6 quality, and timing of water necessary for the Delta ecosystem
7 under different conditions. The flow criteria shall be developed in
8 a public process by the board within nine months of the enactment
9 of this division. The public process shall be in the form of an
10 informational proceeding conducted pursuant to Article 3
11 (commencing with Section 649) of Chapter 1.5 of Division 3 of
12 Title 23 of the California Code of Regulations, and shall provide
13 an opportunity for all interested persons to participate. The flow
14 criteria shall not be considered predecisional with regard to any
15 subsequent board consideration of a permit, including any permit
16 in connection with a ~~final BDCP~~ *new Delta water conveyance*
17 *project for the purpose of exporting water.*

18 (2) Any order approving a change in the point of diversion of
19 the State Water Project or the federal Central Valley Project from
20 the southern Delta to a point on the Sacramento River shall include
21 appropriate Delta flow criteria and shall be informed by the analysis
22 conducted pursuant to this section. The flow criteria shall be subject
23 to modification over time based on a science-based adaptive
24 management program that integrates scientific and monitoring
25 results, including the contribution of habitat and other conservation
26 measures, into ongoing Delta water management.

27 (3) Nothing in this section amends or otherwise affects the
28 application of the board's authority under Part 2 (commencing
29 with Section 1200) of Division 2 to include terms and conditions
30 in permits that in its judgment will best develop, conserve, and
31 utilize in the public interest the water sought to be appropriated.

32 (d) The board shall enter into an agreement with the State Water
33 Project contractors and the federal Central Valley Project
34 contractors, who rely on water exported from the Sacramento River
35 watershed, or a joint powers authority comprised of those
36 contractors, for reimbursement of the costs of the analysis
37 conducted pursuant to this section.

38 (e) The board shall submit its flow criteria determinations
39 pursuant to this section to the council for its information within
40 30 days of completing the determinations.

1 *SEC. 4. Section 85088 of the Water Code is amended to read:*

2 85088. Until the board issues an order approving a change in
3 ~~the~~ *or a new* point of diversion of the State Water Project and the
4 federal Central Valley Project from the southern Delta to a point
5 on the Sacramento River as specified in subdivision (c) of Section
6 85086, the department shall not commence construction of any
7 diversion, conveyance, or other facility necessary to divert and
8 convey water pursuant to the change in *or new* point of diversion.
9 *In order to ensure protection of fish and wildlife and in-Delta*
10 *beneficial uses of the Bay-Delta estuary's waters, final approval*
11 *by the board of a change or new point of diversion described in*
12 *this section shall not be granted until the board has completed its*
13 *update of the 2006 water quality control plan for the Bay-Delta*
14 *estuary that was initiated with a notice of preparation in 2009.*

15 *SEC. 5. Section 85089 of the Water Code is amended to read:*

16 85089. Construction of a new Delta conveyance facility shall
17 not be initiated until the persons or entities that contract to receive
18 water from the State Water Project and the federal Central Valley
19 Project or a joint powers authority representing those entities have
20 ~~made arrangements or~~ *entered into legally binding financial*
21 ~~agreements or contracts signed by each of the state and federal~~
22 ~~water contractors that will receive water supplies that commit~~
23 ~~them to pay for all costs, including reimbursement to the state for~~
24 ~~any General Fund or water bond funding used to date, that are~~
25 ~~associated with both of the following:~~

26 (a) The costs of the environmental review, planning, design,
27 construction, and mitigation, including mitigation required pursuant
28 to Division 13 (commencing with Section ~~21000~~ 21000) of the
29 Public Resources ~~Code~~; *Code*, required for the construction,
30 operation, and maintenance of *the federal Central Valley Project,*
31 *the State Water Project, and any new Delta water conveyance*
32 *facility.*

33 (b) Full mitigation of property tax or assessments levied by local
34 governments or special districts for land used in the construction,
35 location, mitigation, *maintenance,* or operation of *a new Delta*
36 ~~conveyance facilities.~~ *facility.*

37 *SEC. 6. The heading of Chapter 2 (commencing with Section*
38 ~~85320) of Part 4 of Division 35 of the Water Code is amended to~~
39 ~~read:~~

1 CHAPTER 2. ~~BAY DELTA CONSERVATION PLAN~~ DELTA WATER
2 CONVEYANCE
3

4 SEC. 7. *Section 85320 of the Water Code is amended to read:*

5 ~~85320. (a) The Bay Delta Conservation Plan (BDCP) shall be~~
6 ~~considered for inclusion in the Delta Plan in accordance with this~~
7 ~~chapter.~~

8 ~~(b) The BDCP shall not be incorporated into the Delta Plan and~~
9 ~~the public benefits associated with the BDCP shall not be eligible~~
10 ~~for state funding, unless the BDCP does all of the following:~~

11 ~~(1) Complies with Chapter 10 (commencing with Section 2800)~~
12 ~~of Division 3 of the Fish and Game Code.~~

13 85320. (a) *New Delta water conveyance infrastructure shall*
14 *be considered as interdependent parts of a system and operated*
15 *in a way that maximizes benefits for each of the coequal goals. A*
16 *certification of consistency pursuant to Section 85225 shall not*
17 *be made for a new Delta water conveyance project for the purpose*
18 *of exporting water unless all of the following requirements are*
19 *met:*

20 (1) *The costs of the design, construction, and operation of the*
21 *water conveyance project and the associated mitigation and*
22 *maintenance costs are not eligible for state funding. This includes*
23 *implementation of existing habitat restoration requirements of the*
24 *Department of Fish and Wildlife Longfin Smelt Incidental Take*
25 *Permit for the State Water Project Delta operations and the United*
26 *States Fish and Wildlife Service and National Oceanic and*
27 *Atmospheric Administration National Marine Fisheries Service*
28 *biological opinion for the current coordinated operations of the*
29 *State Water Project and federal Central Valley Project. These*
30 *costs shall be the responsibility of the water agencies that benefit*
31 *from the conveyance project.*

32 (2) *The restrictions on the use of state bond funding for the*
33 *acquisition of water pursuant to Section 79709 are met.*

34 (3) *A legally binding finance agreement is signed by all*
35 *beneficiary state and federal water contractors committing them*
36 *to pay all water conveyance project construction, mitigation,*
37 *operation, maintenance, monitoring, and adaptive management*
38 *costs, including reimbursement of local agency property taxes and*
39 *assessments pursuant to subdivision (b) of Section 85089.*

1 (4) *An enforceable mitigation implementation plan and*
2 *monitoring and an enforceable monitoring and adaptive*
3 *management plan are completed and contain mechanisms, such*
4 *as establishing an endowment fund, to ensure adequate and*
5 *ongoing funding necessary to mitigate the impacts to communities*
6 *and agricultural production in the project area and to carry out*
7 *the plans that are finalized and approved by the Department of*
8 *Fish and Wildlife. The Delta Independent Science Board shall*
9 *perform oversight regarding implementation of these plans for the*
10 *purposes of ensuring that implementation of all mitigation*
11 *measures required pursuant to Division 13 (commencing with*
12 *Section 21000) of the Public Resources Code is roughly*
13 *proportional in time and extent to the impact on all resources*
14 *analyzed in the environmental impact report and to assess the*
15 *effectiveness and adequacy of mitigation performance, funding,*
16 *and habitat protection measures. The Delta Independent Science*
17 *Board shall annually submit its findings and recommendations to*
18 *the department, the council, and the Department of Fish and*
19 *Wildlife.*

20 (5) *The council determines that the proposed changes in Delta*
21 *water conveyance are consistent with Section 85021 because each*
22 *region that will import water from the Delta using the new Delta*
23 *water conveyance demonstrates that it has improved its regional*
24 *self-reliance for water by 50 percent over average regional water*
25 *supply levels during the period of 2010 to 2015, inclusive, due to*
26 *reduced import demand from the Delta through investment in water*
27 *use efficiency, water recycling, advanced water technologies, local*
28 *and regional water supply projects, and improved regional*
29 *coordination of local and regional water supply efforts to the*
30 *maximum extent possible.*

31 (6) *Water exported from the Delta will match more closely the*
32 *surplus water supplies available to be exported based on water*
33 *year type, compliance with water quality objectives of the water*
34 *quality control plan for the Bay-Delta estuary, the coequal goals,*
35 *and the Delta water supply protections of Chapter 1 (commencing*
36 *with Section 12220) of Part 4.5 of Division 6.*

37 (7) *Conveyance infrastructure and operations enhance Delta*
38 *inflows and outflows by reducing diversions in dry periods*
39 *consistent with the beneficial use needs of the Delta ecosystem*

1 *and water users and provide net benefits to the ecosystem beyond*
2 *protecting the ecosystem from further degradation.*

3 *(8) The water conveyance project complies with real-time*
4 *operational requirements in accordance with Section 85321.*

5 ~~(2) Complies with~~

6 *(9) The requirements of Division 13 (commencing with Section*
7 *21000) of the Public Resources Code, Code are met, including a*
8 *comprehensive review and analysis of all of the following:*

9 *(A) A reasonable range of flow criteria, rates of diversion, and*
10 ~~*other operational criteria required to satisfy the criteria for approval*~~
11 ~~*of a natural community conservation plan as provided in*~~
12 ~~*subdivision (a) of Section 2820 of the Fish and Game Code, and*~~
13 *other operational requirements and flows necessary for recovering*
14 *the Delta ecosystem and restoring fisheries fisheries, in compliance*
15 *with all of the following, under a reasonable range of hydrologic*
16 *conditions, which will identify the remaining water available for*
17 *export and other beneficial uses: uses:*

18 *(i) Section 85031.*

19 *(ii) The federal Central Valley Project Improvement Act (Public*
20 *Law 102-575).*

21 *(iii) The federal Water Supply, Reliability, and Environmental*
22 *Improvement Act (Public Law 108-361).*

23 *(iv) The Department of Fish and Wildlife Longfin Smelt*
24 *Incidental Take Permit for State Water Project Delta operations.*

25 *(v) The United States Fish and Wildlife Service and National*
26 *Oceanic and Atmospheric Administration National Marine*
27 *Fisheries Service biological opinion for the current coordinated*
28 *operations of the State Water Project and federal Central Valley*
29 *Project.*

30 *(B) A reasonable range of Delta conveyance alternatives,*
31 *including through-Delta, dual conveyance, and isolated conveyance*
32 *alternatives and including further capacity and design options of*
33 *a lined canal, an unlined canal, and pipelines.*

34 *(C) The potential effects of climate change, possible sea level*
35 *rise up to 55 inches, and possible changes in total precipitation*
36 *and runoff patterns on the conveyance alternatives and habitat*
37 *restoration activities considered in the environmental impact report.*

38 *(D) The potential effects on migratory fish and aquatic resources.*

39 *(E) The potential effects on Sacramento River and San Joaquin*
40 *River flood management.*

1 (F) The resilience and recovery of Delta conveyance alternatives
2 in the event of catastrophic loss caused by earthquake or flood or
3 other natural disaster.

4 (G) The potential effects of each Delta conveyance alternative
5 on Delta water quality.

6 (e)

7 (b) The department shall consult with the council and the Delta
8 Independent Science Board during the development of ~~the BDCP~~.
9 *projects to construct new Delta water conveyance facilities for the*
10 *purpose of exporting water.* The council shall be a responsible
11 agency in the development of the environmental impact report.
12 The Delta Independent Science Board shall review the draft
13 environmental impact report and submit its comments to the
14 ~~council department, the council,~~ and the Department of Fish and
15 ~~Game. Wildlife.~~

16 (d) ~~If the Department of Fish and Game approves the BDCP as~~
17 ~~a natural community conservation plan pursuant to Chapter 10~~
18 ~~(commencing with Section 2800) of Division 3 of the Fish and~~
19 ~~Game Code, the council shall have at least one public hearing~~
20 ~~concerning the incorporation of the BDCP into the Delta Plan.~~

21 (e) ~~If the Department of Fish and Game approves the BDCP as~~
22 ~~a natural community conservation plan pursuant to Chapter 10~~
23 ~~(commencing with Section 2800) of Division 3 of the Fish and~~
24 ~~Game Code and determines that the BDCP meets the requirements~~
25 ~~of this section, and the BDCP has been approved as a habitat~~
26 ~~conservation plan pursuant to the federal Endangered Species Act~~
27 ~~(16 U.S.C. Section 1531 et seq.), the council shall incorporate the~~
28 ~~BDCP into the Delta Plan. The Department of Fish and Game's~~
29 ~~determination that the BDCP has met the requirements of this~~
30 ~~section may be appealed to the council.~~

31 (f)

32 (c) The department, in coordination with the Department of Fish
33 and ~~Game, Wildlife,~~ or any successor agencies *or joint powers*
34 *authority charged with BDCP implementation, implementation of*
35 *a new Delta water conveyance project,* shall report to the council
36 ~~on the implementation of the BDCP~~ *implementation, funding, and*
37 *schedule* at least once a year, including the status *and effectiveness*
38 ~~of mitigation measures, monitoring programs~~ *programs,* and
39 adaptive management.

40 (g)

1 (d) The council may make recommendations to ~~BDCP~~ for the
2 purpose of the Delta Habitat Conservation and Conveyance
3 Program and to the department, other Delta water conveyance
4 implementing ~~agencies~~ agencies, and joint power authorities
5 regarding the implementation of the ~~BDCP~~. ~~BDCP~~ implementing
6 a new Delta water conveyance project. Implementing agencies
7 shall consult with the council on these recommendations. These
8 recommendations shall not change the terms and conditions of the
9 permits issued by state and federal regulatory agencies.

10 SEC. 8. Section 85321 of the Water Code is amended to read:
11 85321. ~~The BDCP~~ A new Delta water conveyance project for
12 the purpose of exporting water shall include a transparent, ~~real-time~~
13 real-time, annual, and long-term operational decisionmaking
14 process in which fishery agencies ensure that applicable biological
15 performance measures are achieved in a timely manner with respect
16 to water system operations.

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EXHIBIT "E"

Analysis on AB 2583 (Frazier)

As Amended March 17, 2016

General overview: AB 2583 adds requirements to the Delta Reform Act for California WaterFix, a physical solution to advance the coequal goals for the Delta. At a minimum, AB 2583 would delay the start of construction for at least several years and add significant new financial and regulatory burdens to the operations of new Delta conveyance.

A summary of four major new requirements embedded in AB 2583 are outlined below:

1. AB 2583 would give any state or federal water contractor that “will receive water” (presumably from new Delta conveyance) a veto over construction of the California WaterFix by requiring every one of them to enter a legally binding agreement to pay all costs associated with both new conveyance and the existing CVP and SWP facilities, including reimbursing the state for any bonds or General Funds used to date for either project.
2. It would require the SWRCB to complete its update to the Bay-Delta Water Quality Control Plan before it could grant a change in point of diversion permit, which is a prerequisite to beginning construction.
3. It eliminates current requirements for BDCP incorporation into the Delta Plan, which was a prerequisite to receiving state funding for public benefits, and replaces the requirements with onerous new prerequisites that must be met before construction could begin, and which would radically alter permitting and regulation of operations, including:
 - a. New conveyance must operate to maximize both coequal goals.
 - b. New conveyance cannot receive any public funding under any circumstances, even if it ends up including measures that would produce public benefits, e.g., by providing ecosystem benefits beyond those required to mitigate project impacts.
 - c. Acquisition of water must meet Prop. 1 bond funding requirements (i.e., any acquired water must be permanently dedicated to instream beneficial uses, which is an attempt to render it unavailable for rediversion even after it has served its in-stream purpose).
 - d. An MMRP and Adaptive Management Plan are adopted along with financial assurances that both will be implemented.
 - e. The Independent Science Board is given implementation oversight of the MMRP and Adaptive Management Plan to ensure rough proportionality of impacts and mitigation at all times.
 - f. Each region that receives water has improved self-reliance by 50% over supply levels during 2010-2015 due to reduced demand from Delta supplies.
 - g. Exports “match more closely” “surplus water supplies available” by water year type, Bay-Delta water quality objectives, the coequal goals and projections of in-

- Delta demands (i.e., the CVP and SWP may only export whatever water remains after all other ecological and in-Delta diverter needs are met).
- h. Conveyance infrastructure (not just new conveyance) enhance Delta inflows and outflows "consistent with Delta ecosystem needs and needs of Delta water users," and provide net benefits to the ecosystem, which goes beyond ESA Section 7, CESA 2081, or any other regulatory requirements.
 - i. The EIR is revised to include an analysis of a reasonable range of flow criteria, rates of diversion and other operational requirements needed to recover the Delta ecosystem and restoring fisheries in compliance with area of origin and Delta Protection Act requirements, the CVPIA, PL 108-361 (Water Supply, Reliability, and Environmental Improvement Act), the Longfin Smelt CESA permit, and the current OCAP BiOps.
4. It adds a requirement for the California WaterFix to include a transparent real-time, annual, and long-term operational decision-making process in which fishery agencies ensure that applicable biological performance measures are achieved.

In addition to the above, other major provisions of the bill include:

First, it would amend Water Code Section 85088 to require the SWRCB to complete its update to the 2006 Water Quality Control Plan for the Bay-Delta (commonly referred to as the "Bay-Delta Plan"). That update was initiated in 2009, and Phase 1 isn't even complete for the San Joaquin River. The Delta Reform Act did not require this timing provision. Instead, it requires the SWRCB to adopt flow criteria for any change in point of diversion for new conveyance like the California WaterFix, a process that has already begun, and which will finish years before the SWRCB revises its Bay-Delta Plan.

Second, it would amend Section 85089 to impose more onerous requirements on the water contractors financing the California WaterFix. Currently, Section 85089 prohibits construction of new Delta conveyance until the water contractors "have made arrangements or entered into contracts" to pay for (1) the costs of environmental review, planning, design, construction and mitigation of any new Delta conveyance facility, and (2) full mitigation of property tax or assessments levied by local governments or special districts for land used in the construction, location, mitigation, or operation of new Delta conveyance facilities.

As amended, AB 2583 would require all water contractors "that will receive water supplies" [*presumably from new conveyance facilities, but this is not specified*] to enter "legally binding financial agreements or contracts signed by each of the state and federal water contractors that will receive water supplies that commit them to pay for all costs, including reimbursement to the state for any General Fund or water bond funding used to date, that are associated with"

the costs to plan, study, design, build, and mitigation new conveyance and full mitigation of property taxes and assessments.

Broadening the requirement to all water contractors, not just those prepared to fund California WaterFix, would require unanimous support from *all* state and federal contractors before construction could begin. This would give any holdout water contractor veto authority over the California WaterFix, something never contemplated in the Delta Reform Act, and something that likely would have blocked the DRA from ever being adopted had it been proposed in 2009.

It also restricts the more general language to “make arrangement or enter contracts” to “legally binding financial agreements or contracts,” which would rule out MOUs or other approaches to making arrangements to pay the required costs.

AB 2583 would also amend Section 85089(a) to require the legally binding contracts to obligate all state and federal water contractors not only to pay the costs of new conveyance, it would require all water contractors “that will receive water supplies” to pay all costs, including reimbursing the state for any General Fund or water bond funding used to date “associated with” the construction, operation, and maintenance *of the federal Central Valley Project and the State Water Project*.

This would represent a major shift in the Delta Reform Act. State water contractors already pay all costs “associated with” construction, operation and maintenance of the SWP. But I am not sure whether the CVP contractors are required to pay all costs “associated with” the CVP. This new requirement has nothing to do with new conveyance or furthering the coequal goals.

Third, it guts and amends Section 85320. That section currently applies to the BDCP and sets forth the prerequisites for incorporation into the Delta Plan, which is a prerequisite for public funding of BDCP’s public benefits. The California WaterFix is not an HCP/NCCP, so the Delta Stewardship Council is not required to incorporate it into the Delta Plan, nor is there any specific legal bar to receiving public funding for any public benefits.

The laundry list of additional requirements in the numbered list above speaks for itself. These prerequisites for construction would renege on a host of compromises in the Delta Reform Act and render the project financially infeasible and thwarts achievement of the coequal goals.

Fourth, AB 2583 would add a new requirement to the California WaterFix that mandates a transparent, real-time operational decision-making process that would put the fishery agencies in charge of ensuring timely achievement of “applicable biological performance measures.” This requirement does not make sense outside the context of an HCP/NCCP.

EXHIBIT "F"

March 14, 2016

Submitted via Electronic Mail to Michael.Bedard@sen.ca.gov

The Honorable Bob Hertzberg
California State Senate
State Capitol, Room 4038
Sacramento, CA 95814

Subject: SB 163 (Hertzberg): CASA Feedback and Alternative Proposal

Dear Senator Hertzberg:

The California Association of Sanitation Agencies (CASA) appreciates the opportunity to work with you on SB 163 pertaining to recycled water and ocean discharge. Consistent with our previous discussions with you and your staff, CASA has been reaching out to our membership and representatives from the water and wastewater community to solicit feedback and input on potential alternatives to the existing language in the bill.

As noted in our previous comments (attached), CASA and the wastewater community as a whole are highly supportive of developing recycled water projects and increasing recycled water production and use in the future, and we truly appreciate your interest in finding ways to promote this vital renewable resource. Unfortunately, for the reasons set forth in our previous letter, the statewide ocean discharge prohibition currently contemplated by SB 163 is simply not feasible, practical, or cost effective.

As suggested at our last meeting, CASA has been actively working with our fellow associations and others in the recycled water community on possible alternative approaches related to the legislation. Several members of this group have had conversations with you or your staff regarding SB 163, and many have provided written feedback directly to your office. Based on our discussions, and input from several CASA members who would be impacted by the proposed recycled water mandate, we have developed an alternative to the approach currently outlined in the bill.

We feel the approach outlined below will make meaningful strides toward increasing recycled water production and use, including areas where wastewater is currently being discharged to the ocean, identifying barriers to implementation, and creating a roadmap for achieving the types of gains contemplated by SB 163. Importantly, it would accomplish these underlying goals without the monumental financial and logistical burdens that would be placed on water and wastewater agencies as a result of the mandate approach.

The concept is to convene a task force on "Water for the 21st Century" that would develop a roadmap for new water. The task force would be statewide in its scope, focusing on both ocean dischargers and inland dischargers, examining both potable and non-potable reuse, and identifying water-recycling issues relevant to inland and coastal areas as well as agricultural and urban interests. The task force would ultimately produce an action plan designed to increase recycled water production in California, meet the statewide water recycling goals and overcome any barriers preventing increases in recycled water production and beneficial use from being realized. This could also include a final task force report to the legislature that contains analysis and recommendations tied to the specific task force charges identified below.

Each of the items identified below is a critical component of developing recycled water supplies in the coming decades:

- 1) Overall ways to improve the feasibility of recycled water production and use, including indirect potable reuse (IPR) and direct potable reuse (DPR). This would include an examination of relevant regulations, programs and issues pertaining to communication and public acceptance. It would also include a look at a variety of end uses and distribution mechanisms, including irrigated agriculture, purple pipes, groundwater injection, and others;
- 2) Specific ways in which to better incorporate IPR and DPR into existing recycled water planning processes, in anticipation of the expansion of IPR in California and the pending DPR expert panel report and potential future regulations authorizing such reuse;
- 3) A look at several issues attendant to recycled water production and use, including environmental restoration opportunities, energy consumption and/or savings opportunities, and recycled water infrastructure's role in larger infrastructure planning approaches;
- 4) An analysis of the proximity of wastewater agencies to specific croplands and the opportunities to increase recycled water use with and without additional treatment for irrigated agriculture;
- 5) Analysis of existing and anticipated recycled water funding needs and opportunities, including an examination of alternative methods of financing recycled water projects, such as incorporating elements of private financing;
- 6) Examination of the estimated total cost to achieve statewide water recycling goals and how those funds will be procured;
- 7) Potential obstacles to increasing recycled water production, including but not limited to (1) the availability and variety of potential markets in various regions, (2) proximity of groundwater basins and reservoirs suitable for replenishment that can be used for indirect potable reuse, (3) authority to purvey recycled water by the wastewater agency, (4) pre-existing levels of treatment at a facility and existing recycled water distribution infrastructure, (5) susceptibility of the local community to development of purple pipes and other distribution infrastructure (e.g. new construction or established communities), (6) the need for continued discharge for brine disposal if advanced treatment is implemented for reuse, and (7) the current and projected future impacts of water conservation on recycled water supplies and ways to address these impacts;
- 8) The impact of water conservation on wastewater (and recycled water) production rates and potential;
- 9) The varying roles and responsibilities of water and wastewater agencies in recycled water production and distribution;
- 10) Potential water rights issues associated with recycled water production, distribution, and related issues, including but not limited to considerations in adjudicated basins and impacts on downstream users due decreased discharges;
- 11) How to integrate existing efforts to identify and promote opportunities for increased recycled water production and use, including but not limited to Urban Water Management Plans and recycled water master plans prepared by local agencies;
- 12) Elements that might be needed in an individual agency analysis of opportunities for expanded recycled water production, distribution and use, including but not limited to an identification of all land acquisition and facilities necessary to provide for treatment, transport, and reuse of treated wastewater, an analysis of the costs associated with those acquisitions and facilities, a financing plan identifying possible methods of funding such actions, a schedule for the completion of those actions, and any other supporting data and other documentation;

- 13) How to account for prior investments in recycled water infrastructure and existing recycled water production capacity's role in achieving goals;
- 14) Any issues identified in the "2002 Recycled Water Task Force" final report but not fully implemented or addressed;
- 15) The need for support for the widespread use of recycled water by the business and agricultural communities, as well as by the public at large (including for paying for the costs of the necessary infrastructure);
- 16) How on-site water treatment systems interact with the production and distribution of recycled water and what role it will play in achieving recycled water goals.

Many of the findings and declarations that would support convening such a task force are already identified in SB 163. These findings shape the role of the task force and the context in which the group would complete its action plan. These include (but are not necessarily limited to) the following statements:

- 1) Continuous severe drought conditions present urgent challenges across the state, including, but not limited to, water shortages in communities and for agricultural production, increased risk of wildfires, degraded habitat for fish and wildlife, and threat of saltwater contamination in large fresh water supplies;
- 2) Water reuse can be one of the most efficient and cost-effective ways to improve the drought resilience of California communities;
- 3) Existing discharge of treated wastewater from ocean outfalls presents significant opportunities to recycle additional water for further beneficial use;
- 4) Increasing the amount of recycled water produced by wastewater facilities with ocean outfalls could dramatically accelerate the adoption of water recycling in the state, and thus increase water supply available for beneficial use;
- 5) Increased water recycling, including at facilities currently utilizing ocean outfalls, can reduce California's dependence on diversions from surface rivers and streams that are subject to variable climate and regulatory conditions, and could potentially provide additional benefits;
- 6) The expansion of groundwater IPR, the establishment of statewide surface water augmentation regulations and the development of statewide regulations for DPR are critical to maximizing recycling and achieving California's goals;
- 7) Current information regarding the actual production and usage of recycled water in the state is insufficient to determine whether we are meeting the goals set forth by the State Water Board;
- 8) There is currently an insufficient understanding of the barriers to increasing recycled water production in the state and the potential for additional reuse in particular watersheds or regions;
- 9) Recent commitments to fund recycled water projects through Proposition 1 and low interest State Revolving Fund (SRF) loans are anticipated to result in 150,000 acre-feet per year of new recycled water supply in the coming years;
- 10) Many local agencies have already made substantial investments in recycled water production and distribution facilities;
- 11) The State Water Resources Control Board has established goals of recycling 1,500,000 acre-feet of wastewater by 2020 and 2,500,000 acre-feet of wastewater by 2030;
- 12) Many regulatory processes related to recycled water, including those that could increase or modify opportunities for a variety of production types and end uses, are currently under development.

Finally, we propose that the task force be jointly chaired by a member of the State Water Resources Control Board and the Director of the Resources Agency to demonstrate the

importance of recommendations that might ultimately be developed. The task force should include a broad cross section of stakeholders such as recycled water producers, recycled water suppliers, end users, nongovernmental organizations, local government, the business community, including developers, and relevant state agencies.

Funds to support the task force and offset any costs associated with assembling the task force and developing a report, action plan, and recommendations could come from Proposition 1 recycled water allocations (Chapter 9), and more specifically the identified portion of those funds that is specifically dedicated to research.

We appreciate your support for increasing recycled water production and use in the coming decades, and would like to work with you to develop this task force proposal into language that alleviates our concerns and results in legislation the water and wastewater community can collectively support. To the extent that any revisions to the bill more closely reflect this task force approach as opposed to the proposed mandate, we could commit to continuing to work with your office on this legislation. We would also appreciate the opportunity to discuss this proposal with you in person over the next few weeks.

Thank you for your consideration of our concerns, and we look forward to working with you.

Sincerely,



California Association of Sanitation Agencies



Irvine Ranch Water District (IRWD)



Association of California Water Agencies (ACWA)



WaterReuse California



California Municipal Utilities Association (CMUA)



San Francisco Public Utilities Commission (SFPUC)



Inland Empire Utilities Agency (IEUA)

Las Virgenes - Triunfo Joint Powers Authority



Las Virgenes-Triunfo Joint Powers Authority



City of San Diego, Public Utilities Department

EXHIBIT "G"

AMENDED IN SENATE MARCH 30, 2016

AMENDED IN SENATE MARCH 17, 2016

SENATE BILL

No. 814

Introduced by Senator Hill

January 4, 2016

~~An act to amend Section 6254.16 of the Government Code, and to add Chapter 3.3 (commencing with Section 365) to Division 1 of the Water Code, relating to water.~~

LEGISLATIVE COUNSEL'S DIGEST

SB 814, as amended, Hill. Drought: excessive water use: urban retail water suppliers.

The California Constitution declares the policy that the water resources of the state be put to beneficial use to the fullest extent of which they are capable, that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use of the waters in the interest of the people and for the public welfare. Existing law requires the Department of Water Resources and the State Water Resources Control Board to take all appropriate proceedings or actions to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this state. Existing law authorizes any public entity, as defined, that supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity to, by ordinance or resolution, adopt and enforce a water conservation program to reduce the quantity of water used for the purpose of conserving the water supplies of the public entity. Existing law provides that a violation of a requirement of a water conservation program is a misdemeanor punishable by imprisonment

in a county jail for not more than 30 days, or by a fine not exceeding \$1,000, or both.

This bill would declare that excessive water use during a state of emergency based on drought conditions by a residential customer, as specified, is prohibited. This bill would require each urban retail water supplier to establish a method to identify and restrict excessive water use. This bill would authorize as a method to identify and restrict excessive water use the establishment of a rate structure that includes block tiers, water budgets, penalties for prohibited uses, or rate surcharges over and above base rates for excessive water use by residential customers. This bill would authorize as a method to identify and restrict excessive water use the establishment of an excessive water use ordinance, rule, or tariff condition that includes a definition of excessive water use, as prescribed, and would make a violation of this excessive water use ordinance, rule, or tariff condition an infraction punishable by a fine of at least \$500 per 100 cubic feet of water or per 748 gallons used above the excessive water use threshold established by the urban retail water supplier in a billing cycle. By creating a new infraction, this bill would impose a state-mandated local program.

This bill would provide that these provisions apply only during a period for which the Governor has issued a proclamation of a state of emergency based on drought conditions.

~~The California Public Records Act requires that public records, as defined, be open to inspection at all times during the hours of a state or local agency and that every person has a right to inspect any public record, with specified exceptions. Existing law prohibits the act from being construed to require the disclosure of certain information concerning utility customers of local agencies, except that disclosure of the name, utility usage data, and the home address of the utility customer who is the subject of the request and who the local agency has determined has used utility services in a manner inconsistent with applicable local utility usage policies is required to be made available.~~

~~This bill would revise this exception to require, upon request, the disclosure of the name and utility usage data of a utility customer who a local agency determines has used utility services in a manner inconsistent with applicable local utility usage policies, with the home address of the customer being disclosed only with the customer's consent. By increasing the duties of local officials, the bill would impose a state-mandated local program.~~

~~The California Constitution requires local agencies, for the purpose of ensuring public access to the meetings of public bodies and the writings of public officials and agencies, to comply with a statutory enactment that amends or enacts laws relating to public records or open meetings if that enactment contains findings demonstrating that the enactment furthers the constitutional requirements relating to this purpose.~~

~~This bill would make legislative findings to that effect.~~

~~The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.~~

~~This bill would provide that no reimbursement is required by this act for a specified reason.~~

~~The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.~~

~~This bill would provide that no reimbursement is required by this act for a specified reason.~~

Vote: majority. Appropriation: no. Fiscal committee: yes.

State-mandated local program: yes.

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

- 1 ~~SECTION 1. Section 6254.16 of the Government Code is~~
- 2 ~~amended to read:~~
- 3 ~~6254.16. Nothing in this chapter shall be construed to require~~
- 4 ~~the disclosure of the name, credit history, utility usage data, home~~
- 5 ~~address, or telephone number of utility customers of local agencies,~~
- 6 ~~except that disclosure of name, utility usage data, and the home~~
- 7 ~~address of utility customers of local agencies shall be made~~
- 8 ~~available upon request as follows:~~
- 9 ~~(a) To an agent or authorized family member of the person to~~
- 10 ~~whom the information pertains:~~
- 11 ~~(b) To an officer or employee of another governmental agency~~
- 12 ~~when necessary for the performance of its official duties.~~
- 13 ~~(c) Upon court order or the request of a law enforcement agency~~
- 14 ~~relative to an ongoing investigation.~~
- 15 ~~(d) Upon determination by the local agency that a utility~~
- 16 ~~customer has used utility services in a manner inconsistent with~~

1 applicable local utility usage policies, if the home address of the
2 customer is not disclosed without the customer's consent.

3 ~~(c) Upon determination by the local agency that the utility~~
4 ~~customer who is the subject of the request is an elected or appointed~~
5 ~~official with authority to determine the utility usage policies of the~~
6 ~~local agency, provided that the home address of an appointed~~
7 ~~official shall not be disclosed without his or her consent.~~

8 ~~(f) Upon determination by the local agency that the public~~
9 ~~interest in disclosure of the information clearly outweighs the~~
10 ~~public interest in nondisclosure.~~

11 SEC. 2.

12 SECTION 1. Chapter 3.3 (commencing with Section 365) is
13 added to Division 1 of the Water Code, to read:

14
15 CHAPTER 3.3. EXCESSIVE RESIDENTIAL WATER USE DURING
16 DROUGHT
17

18 365. (a) The Legislature finds and declares that this chapter
19 furthers important state policies of encouraging water conservation
20 and protecting water resources in the interest of the people and for
21 the public welfare.

22 (b) For the purposes of this chapter, "urban retail water supplier"
23 has the same meaning as provided in Section 10608.12.

24 366. (a) Excessive water use during a state of emergency based
25 on drought conditions by a residential customer in a single-family
26 residence or by a customer in a multiunit housing complex in which
27 each unit is individually metered or submetered by the water
28 supplier is prohibited.

29 (b) Each urban retail water supplier shall establish a method to
30 identify and restrict excessive water use, through one of the
31 following options:

32 (1) Establishing a rate structure that includes block tiers, water
33 budgets, penalties for prohibited uses, or rate surcharges over and
34 above base rates for excessive water use by a residential water
35 customer.

36 (2) (A) Establishing an excessive water use ordinance, rule, or
37 tariff condition, or amending an existing ordinance, rule, or tariff
38 condition, that includes a definition of excessive water use by
39 single-family residential customers and customers in multiunit
40 housing complexes in which each unit is individually metered or

1 submetered and may include a process to issue written warnings
2 to a customer and perform a site audit of customer water usage
3 prior to deeming the customer in violation. Excessive water use
4 shall be measured in terms of either gallons or hundreds of cubic
5 feet of water used during the urban retail water supplier's regular
6 billing cycle. In establishing the definition of excessive use, the
7 water supplier may consider factors that include, but are not limited
8 to, all of the following:

- 9 (i) Average daily use.
- 10 (ii) Full-time occupancy of households.
- 11 (iii) Amount of landscaped land on a property.
- 12 (iv) Rate of evapotranspiration.
- 13 (v) Seasonal weather changes.

14 (B) A violation of an excessive use ordinance, rule, or tariff
15 condition established pursuant to subparagraph (A) is an infraction
16 punishable by a fine of up to five hundred dollars (\$500) per
17 hundred cubic feet of water, or per 748 gallons, used above the
18 excessive water use threshold established by the urban retail water
19 supplier in a billing cycle. Any fine imposed pursuant to this
20 subparagraph shall be added to the customer's water bill and is
21 due and payable with that water bill. Each urban retail water
22 supplier shall have a process for nonpayment of the fine, which
23 shall be consistent with the water supplier's existing process for
24 nonpayment of a water bill.

25 (C) A violation of an excessive water use ordinance, rule, or
26 tariff condition where a demonstrable water leak at the residence
27 occurred and a repair to eliminate that leak is underway shall be
28 considered as a basis for granting an appeal and shall be considered
29 for waiver of the charges consistent with the urban retail water
30 supplier's excessive water use ordinance and existing policies for
31 leak adjustments. Other reasonable justifications for excessive
32 water use shall be considered by the urban retail water supplier
33 consistent with clause (i) of subparagraph (D).

34 (D) (i) An urban retail water supplier shall establish a process
35 for the appeal of a fine imposed pursuant to subparagraph (B)
36 whereby the customer may contest the imposition of the fine for
37 excessive water use.

38 (ii) As part of the appeal process, the customer shall be provided
39 with an opportunity to provide evidence of a bona fide reason for
40 the excessive water use, including evidence of a water leak in

1 accordance with subparagraph (C), a medical reason, or any other
2 reasonable justification for the water use, as determined by the
3 urban retail water supplier.

4 367. This chapter applies only during a period for which the
5 Governor has issued a proclamation of a state of emergency under
6 the California Emergency Services Act (Chapter 7 (commencing
7 with Section 8550) of Division 1 of Title 2 of the Government
8 Code) based on drought conditions.

9 ~~SEC. 3. The Legislature finds and declares that Section 1 of~~
10 ~~this act, which amends Section 6254.16 of the Government Code,~~
11 ~~further, within the meaning of paragraph (7) of subdivision (b)~~
12 ~~of Section 3 of Article I of the California Constitution, the purposes~~
13 ~~of that constitutional section as it relates to the right of public~~
14 ~~access to the meetings of local public bodies or the writings of~~
15 ~~local public officials and local agencies. Pursuant to paragraph (7)~~
16 ~~of subdivision (b) of Section 3 of Article I of the California~~
17 ~~Constitution, the Legislature makes the following findings:~~

18 ~~The Legislature finds that it is in the public's interest to be made~~
19 ~~aware of excessive water use during a drought in order to help~~
20 ~~promote water conservation and to protect water resources in the~~
21 ~~interest of the people and for the public welfare.~~

22 ~~SEC. 4. No reimbursement is required by this act pursuant to~~
23 ~~Section 6 of Article XIII B of the California Constitution because~~
24 ~~the costs that may be incurred by a local agency or school district~~
25 ~~under this act would result from a legislative mandate that is within~~
26 ~~the scope of paragraph (7) of subdivision (b) of Section 3 of Article~~
27 ~~I of the California Constitution or because the costs that may be~~
28 ~~incurred by a local agency or school district will be incurred~~
29 ~~because this act creates a new crime or infraction, eliminates a~~
30 ~~crime or infraction, or changes the penalty for a crime or infraction,~~
31 ~~within the meaning of Section 17556 of the Government Code, or~~
32 ~~changes the definition of a crime within the meaning of Section 6~~
33 ~~of Article XIII B of the California Constitution.~~

34 *SEC. 2. No reimbursement is required by this act pursuant to*
35 *Section 6 of Article XIII B of the California Constitution because*
36 *the only costs that may be incurred by a local agency or school*
37 *district will be incurred because this act creates a new crime or*
38 *infraction, eliminates a crime or infraction, or changes the penalty*
39 *for a crime or infraction, within the meaning of Section 17556 of*
40 *the Government Code, or changes the definition of a crime within*

- 1 *the meaning of Section 6 of Article XIII B of the California*
- 2 *Constitution.*

O

EXHIBIT "H"

SENATE BILL

No. 885

Introduced by Senator Wolk

January 19, 2016

An act to amend Section 2782 of the Civil Code, relating to contracts.

LEGISLATIVE COUNSEL'S DIGEST

SB 885, as introduced, Wolk. Construction contracts: indemnity.

Existing law makes specified provisions in construction contracts void and unenforceable, including provisions that purport to indemnify the promisee against liability for damages for death or bodily injury to persons, injury to property, or any other loss arising from the sole negligence or willful misconduct of the promisee or the promisee's agents who are directly responsible to the promisee, or for defects in design furnished by those persons.

This bill would specify, for construction contracts entered into on or after January 1, 2017, that a design professional, as defined, only has the duty to defend claims that arise out of, or pertain or relate to, negligence, recklessness, or willful misconduct of the design professional. Under the bill, a design professional would not have a duty to defend claims against any other person or entity arising from a construction project, except that person or entity's reasonable defense costs arising out of the design professional's degree of fault, as specified. The bill would prohibit waiver of these provisions and would provide that any clause in a contract that requires a design professional to defend claims against other persons or entities is void and unenforceable. The bill would provide Legislative findings and declarations in support of these provisions.

Vote: majority. 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 all of the
2 following:

3 (a) Errors and omissions insurance for design professionals does
4 not provide coverage for the defense of claims against other persons
5 and other entities involved in construction projects.

6 (b) Requiring design professionals to defend claims against
7 other persons or other entities involved in construction projects
8 when insurance coverage is not available is unfair and contrary to
9 sound public policy.

10 (c) It is sound public policy for all persons and entities in
11 projects to defend themselves against claims of negligence or error.

12 (d) It is the intent of the Legislature in enacting this act to
13 prohibit indemnity agreements that require design professionals
14 to defend claims made against other persons or other entities
15 involved in construction projects.

16 SEC. 2. Section 2782 of the Civil Code is amended to read:

17 2782. (a) Except as provided in Sections 2782.1, 2782.2,
18 2782.5, and 2782.6, provisions, clauses, covenants, or agreements
19 contained in, collateral to, or affecting any construction contract
20 and that purport to indemnify the promisee against liability for
21 damages for death or bodily injury to persons, injury to property,
22 or any other loss, damage or expense arising from the sole
23 negligence or willful misconduct of the promisee or the promisee's
24 agents, servants, or independent contractors who are directly
25 responsible to the promisee, or for defects in design furnished by
26 those persons, are against public policy and are void and
27 unenforceable; provided, however, that this section shall not affect
28 the validity of any insurance contract, workers' compensation, or
29 agreement issued by an admitted insurer as defined by the
30 Insurance Code.

31 (b) (1) Except as provided in Sections 2782.1, 2782.2, and
32 2782.5, provisions, clauses, covenants, or agreements contained
33 in, collateral to, or affecting any construction contract with a public
34 agency entered into before January 1, 2013, that purport to impose
35 on the contractor, or relieve the public agency from, liability for
36 the active negligence of the public agency are void and
37 unenforceable.

1 (2) Except as provided in Sections 2782.1, 2782.2, and 2782.5,
2 provisions, clauses, covenants, or agreements contained in,
3 collateral to, or affecting any construction contract with a public
4 agency entered into on or after January 1, 2013, that purport to
5 impose on any contractor, subcontractor, or supplier of goods or
6 services, or relieve the public agency from, liability for the active
7 negligence of the public agency are void and unenforceable.

8 (c) (1) Except as provided in subdivision (d) and Sections
9 2782.1, 2782.2, and 2782.5, provisions, clauses, covenants, or
10 agreements contained in, collateral to, or affecting any construction
11 contract entered into on or after January 1, 2013, with the owner
12 of privately owned real property to be improved and as to which
13 the owner is not acting as a contractor or supplier of materials or
14 equipment to the work, that purport to impose on any contractor,
15 subcontractor, or supplier of goods or services, or relieve the owner
16 from, liability are unenforceable to the extent of the active
17 negligence of the owner, including that of its employees.

18 (2) For purposes of this subdivision, an owner of privately
19 owned real property to be improved includes the owner of any
20 interest therein, other than a mortgage or other interest that is held
21 solely as security for performance of an obligation.

22 (3) This subdivision shall not apply to a homeowner performing
23 a home improvement project on his or her own single family
24 dwelling.

25 (d) For all construction contracts, and amendments thereto,
26 entered into after January 1, 2009, for residential construction, as
27 used in Title 7 (commencing with Section 895) of Part 2 of
28 Division 2, all provisions, clauses, covenants, and agreements
29 contained in, collateral to, or affecting any construction contract,
30 and amendments thereto, that purport to insure or indemnify,
31 including the cost to defend, the builder, as defined in Section 911,
32 or the general contractor or contractor not affiliated with the
33 builder, as described in subdivision (b) of Section 911, by a
34 subcontractor against liability for claims of construction defects
35 are unenforceable to the extent the claims arise out of, pertain to,
36 or relate to the negligence of the builder or contractor or the
37 builder's or contractor's other agents, other servants, or other
38 independent contractors who are directly responsible to the builder,
39 or for defects in design furnished by those persons, or to the extent
40 the claims do not arise out of, pertain to, or relate to the scope of

1 work in the written agreement between the parties. This section
2 shall not be waived or modified by contractual agreement, act, or
3 omission of the parties. Contractual provisions, clauses, covenants,
4 or agreements not expressly prohibited herein are reserved to the
5 agreement of the parties. Nothing in this subdivision shall prevent
6 any party from exercising its rights under subdivision (a) of Section
7 910. This subdivision shall not affect the obligations of an
8 insurance carrier under the holding of *Presley Homes, Inc. v.*
9 *American States Insurance Company* (2001) 90 Cal.App.4th 571.
10 Nor shall this subdivision affect the obligations of a builder or
11 subcontractor pursuant to Title 7 (commencing with Section 895)
12 of Part 2 of Division 2.

13 (e) Subdivision (d) does not prohibit a subcontractor and builder
14 or general contractor from mutually agreeing to the timing or
15 immediacy of the defense and provisions for reimbursement of
16 defense fees and costs, so long as that agreement does not waive
17 or modify the provisions of subdivision (d) subject, however, to
18 paragraphs (1) and (2). A subcontractor shall owe no defense or
19 indemnity obligation to a builder or general contractor for a
20 construction defect claim unless and until the builder or general
21 contractor provides a written tender of the claim, or portion thereof,
22 to the subcontractor which includes all of the information provided
23 to the builder or general contractor by the claimant or claimants,
24 including, but not limited to, information provided pursuant to
25 subdivision (a) of Section 910, relating to claims caused by that
26 subcontractor's scope of work. This written tender shall have the
27 same force and effect as a notice of commencement of a legal
28 proceeding. If a builder or general contractor tenders a claim for
29 construction defects, or a portion thereof, to a subcontractor in the
30 manner specified by this provision, the subcontractor shall elect
31 to perform either of the following, the performance of which shall
32 be deemed to satisfy the subcontractor's defense obligation to the
33 builder or general contractor:

34 (1) Defend the claim with counsel of its choice, and the
35 subcontractor shall maintain control of the defense for any claim
36 or portion of claim to which the defense obligation applies. If a
37 subcontractor elects to defend under this paragraph, the
38 subcontractor shall provide written notice of the election to the
39 builder or general contractor within a reasonable time period
40 following receipt of the written tender, and in no event later than

1 90 days following that receipt. Consistent with subdivision (d),
2 the defense by the subcontractor shall be a complete defense of
3 the builder or general contractor of all claims or portions thereof
4 to the extent alleged to be caused by the subcontractor, including
5 any vicarious liability claims against the builder or general
6 contractor resulting from the subcontractor's scope of work, but
7 not including claims resulting from the scope of work, actions, or
8 omissions of the builder, general contractor, or any other party.
9 Any vicarious liability imposed upon a builder or general contractor
10 for claims caused by the subcontractor electing to defend under
11 this paragraph shall be directly enforceable against the
12 subcontractor by the builder, general contractor, or claimant.

13 (2) Pay, within 30 days of receipt of an invoice from the builder
14 or general contractor, no more than a reasonable allocated share
15 of the builder's or general contractor's defense fees and costs, on
16 an ongoing basis during the pendency of the claim, subject to
17 reallocation consistent with subdivision (d), and including any
18 amounts reallocated upon final resolution of the claim, either by
19 settlement or judgment. The builder or general contractor shall
20 allocate a share to itself to the extent a claim or claims are alleged
21 to be caused by its work, actions, or omissions, and a share to each
22 subcontractor to the extent a claim or claims are alleged to be
23 caused by the subcontractor's work, actions, or omissions,
24 regardless of whether the builder or general contractor actually
25 tenders the claim to any particular subcontractor, and regardless
26 of whether that subcontractor is participating in the defense. Any
27 amounts not collected from any particular subcontractor may not
28 be collected from any other subcontractor.

29 (f) Notwithstanding any other provision of law, if a
30 subcontractor fails to timely and adequately perform its obligations
31 under paragraph (1) of subdivision (e), the builder or general
32 contractor shall have the right to pursue a claim against the
33 subcontractor for any resulting compensatory damages,
34 consequential damages, and reasonable attorney's fees. If a
35 subcontractor fails to timely perform its obligations under
36 paragraph (2) of subdivision (e), the builder or general contractor
37 shall have the right to pursue a claim against the subcontractor for
38 any resulting compensatory and consequential damages, as well
39 as for interest on defense and indemnity costs, from the date
40 incurred, at the rate set forth in subdivision (g) of Section 3260,

1 and for the builder's or general contractor's reasonable attorney's
2 fees incurred to recover these amounts. The builder or general
3 contractor shall bear the burden of proof to establish both the
4 subcontractor's failure to perform under either paragraph (1) or
5 (2) of subdivision (e) and any resulting damages. If, upon request
6 by a subcontractor, a builder or general contractor does not
7 reallocate defense fees to subcontractors within 30 days following
8 final resolution of the claim as described above, the subcontractor
9 shall have the right to pursue a claim against the builder or general
10 contractor for any resulting compensatory and consequential
11 damages, as well as for interest on the fees, from the date of final
12 resolution of the claim, at the rate set forth in subdivision (g) of
13 Section 3260, and the subcontractor's reasonable attorney's fees
14 incurred in connection therewith. The subcontractor shall bear the
15 burden of proof to establish both the failure to reallocate the fees
16 and any resulting damages. Nothing in this section shall prohibit
17 the parties from mutually agreeing to reasonable contractual
18 provisions for damages if any party fails to elect for or perform
19 its obligations as stated in this section.

20 (g) A builder, general contractor, or subcontractor shall have
21 the right to seek equitable indemnity for any claim governed by
22 this section.

23 (h) Nothing in this section limits, restricts, or prohibits the right
24 of a builder, general contractor, or subcontractor to seek equitable
25 indemnity against any supplier, design professional, or product
26 manufacturer.

27 (i) As used in this section, "construction defect" means a
28 violation of the standards set forth in Sections 896 and 897.

29 (j) *(1) Commencing with contracts entered into on or after*
30 *January 1, 2017, a design professional, as defined in paragraph*
31 *(2) of subdivision (c) of Section 2782.8, shall only have the duty*
32 *to defend claims that arise out of, pertain to, or relate to, the*
33 *negligence, recklessness, or willful misconduct of the design*
34 *professional. A design professional shall have no duty to defend*
35 *claims against other persons or entities. A design professional*
36 *shall be obligated to reimburse reasonable defense costs incurred*
37 *by other persons or entities, limited to the design professional's*
38 *degree of fault, as determined by a court or arbitration.*

39 *(2) The provisions of this subdivision shall not be waived or*
40 *modified by contract. Contract provisions in violation of this*

- 1 *subdivision are void and unenforceable. The duty of a design*
- 2 *professional to defend is limited as provided in this subdivision.*

O

EXHIBIT "I"

AMENDED IN SENATE MARCH 29, 2016

SENATE BILL

No. 974

Introduced by Committee on Governance and Finance (Senators Hertzberg (Chair), Beall, Hernandez, Lara, Moorlach, Nguyen, and Pavley)

February 8, 2016

An act to amend Section ~~65302~~ 8770 of the Business and Professions Code, to amend Sections 6107, 8205, 8206, 8213, 8213.5, 8311, 40805, 53601, 65091, 65302, and 67661 of the Government Code, to amend ~~Section~~ Sections 5471, 5473, 5474, 5474.8, and 13822 of the Health and Safety Code, to amend Section 22161 of the Public Contract Code, to amend ~~Section 11005.3~~ Sections 11005, 11005.3, 19201, and 19202 of the Revenue and Taxation Code, and to amend Section 2105 of the Streets and Highways Code, and to amend Section 7.6 of, and to repeal Sections 7.3 and 8 of, the Kern County Water Agency Act (Chapter 1003 of the Statutes of 1961), relating to local government.

LEGISLATIVE COUNSEL'S DIGEST

SB 974, as amended, Committee on Governance and Finance. Local government: omnibus.

(1) *The Professional Land Surveyors' Act, among other things, requires a county recorder to store and index records of survey, and to maintain both original maps and a printed set for public reference. That act specifically requires the county recorder to securely fasten a filed record of survey into a suitable book.*

This bill would also authorize a county recorder to store records of survey in any other manner that will assure the maps are kept together.

(2) *Existing law prohibits a public entity from demanding a fee or compensation for, among other things, a certified copy of specified*

military records, and of public records to be used in a claim related to veterans' benefits, as specified. Existing law provides that a certified copy of these records may be made available only to the person who is the subject of the record, a family member or legal representative of that person, a county office that provides veterans' benefits services, or a federal official upon written request.

This bill would provide that a certified copy of these records may also be made available to a state or city office that provides veterans' benefits services upon written request of that office.

By expending the duty of local officials to provide copies of military records, this bill would impose a state-mandated local program.

(3) Existing law authorizes the Secretary of State to appoint and commission notaries public, as provided. Existing law requires every person appointed a notary public, no later than 30 days after the beginning of the term prescribed in the commission, to file an official bond and an oath of office in the office of the county clerk of the county within which the person maintains a principal place of business.

This bill would require a person taking the oath of office before the county clerk to serve as a notary public to present identification documents meeting certain requirements specified in statute as satisfactory evidence of identity.

Existing law requires specified communications between the Secretary of State and notaries public to be made by certified mail. Existing law also specifies that, wherever any notice or communication required by laws to be mailed by registered mail to or by the state, the mailing of the notice by certified mail is deemed a sufficient compliance with that requirement.

This bill would authorize the use of any other means of physical delivery that provides a receipt for these communications.

(4) Existing law requires the officer of a local agency who has charge of financial records to furnish the Controller with a report of all the financial transactions of the local agency during the preceding fiscal year, as provided. Existing law requires the report to be furnished within 7 months after the close of each fiscal year.

Existing law designates the city clerk as the accounting officer of the city and requires him or her to maintain records reflecting the financial condition of the city. Existing law requires the city clerk to publish the report to the Controller once in a newspaper of general circulation, or cause copies of the statement to be posted in 3 public places designated by city ordinance if there is no newspaper of general circulation, within

120 days after the close of the fiscal year for which the report is compiled.

This bill would instead require the city clerk to publish or post the report consistent with the timelines established in statute for furnishing the report to the Controller.

(5) Existing law authorizes the legislative body of a local agency having money in a sinking fund or money in its treasury not required for immediate needs to invest any portion of the money that it deems wise or expedient in specified securities and financial instruments. Existing law requires that certain of these instruments be rated at least "A" or "AA," as applicable, by a nationally recognized statistical rating organization (NRSRO).

This bill would specify that these instruments must be in a ratings category of at least "A" or "AA," as applicable, or its equivalent.

(+)

(6) The Planning and Zoning Law ~~requires~~ and the Subdivision Map Act require local governments to hold public hearings regarding various land use actions contemplated by those governments. If public notice of the hearing is required, existing law requires that the notice be given in specified ways, including mailing at least 10 days before the hearing to each local agency expected to provide water, sewage, streets, roads, schools, or other essential facilities or services to the project, whose ability to provide those facilities and services may be significantly affected, and to all owners of real property within 300 feet of the real property that is the subject of the hearing, as provided. Existing law requires that notice mailed to affected local agencies also be published in at least one newspaper of general circulation and posted in at least 3 public places, as provided.

This bill would instead require publication and posting of the notice that is required to be sent to the owners of real property within 300 feet of the real property that is the subject of the hearing.

By revising the duties of local government officials with respect to the mailing of specified notices of hearings on land use actions, this bill would impose a state-mandated local program.

The Planning and Zoning Law also requires the legislative body of a city or county to adopt a comprehensive, long-term general plan that includes various elements, including, among others, a safety element for the protection of the community from unreasonable risks associated with the effects of various geologic hazards, flooding, wildland and urban fires, and climate adaptation and resilience strategies. That law

requires that the safety element be reviewed and updated, in the case of flooding and fire hazards, upon the next revision of the housing element after specified dates or, in the case of climate adaptation and resilience strategies, upon either the next revision of a local hazard mitigation plan after a specified date or on or before January 1, 2022, as applicable. That law also requires, after the initial revision of the safety element to address flooding, fires, and climate adaptation and resilience strategies, that for each subsequent revision the planning agency review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety element.

This bill would instead require a planning agency to review and revise the safety element to identify new information, as described above, only after to address flooding and fires.

(7) The Fort Ord Reuse Authority Act establishes the Fort Ord Reuse Authority to prepare, adopt, finance, and implement a plan for the use and development of the territory previously occupied by the Fort Ord military base in Monterey County. The act requires the authority to be governed by a 13-member board, as specified, and authorizes a representative designated by the Member of Congress from the 17th Congressional District, a representative designated by the Senator from the 15th Senate District, and a representative designated by the Assembly Member from the 27th Assembly District to serve as ex officio nonvoting members of the board.

This bill would instead authorize a representative designated by each of the Member of Congress, the Senator, and the Assembly Member that has the majority portion of Fort Ord in his or her district to serve as ex officio nonvoting members of the board.

(8) Existing law authorizes specified local entities, including cities, counties, special districts, and other authorized public corporations, to collect fees, tolls, rates, rentals, or other charges for water, sanitation, storm drainage, or sewerage system services and facilities and to fix fees or charges for the privilege of connecting to its sanitation or sewerage facilities and improvements constructed by the entity, as provided. Under existing law, a local entity may collect these charges on the property tax roll at the same time and in the same manner as its general property taxes. Under existing law, an entity may undertake these actions by enactment of an ordinance approved by a $\frac{2}{3}$ vote of the members of the legislative body of the entity.

This bill would instead specify that the entity may undertake these actions by ordinance or resolution.

(2)

(9) The Fire Protection District Law of 1987 establishes a procedure for the formation of fire protection districts, as specified. That law provides that a district may be formed by adoption of a resolution of application by the legislative body of any county or city which contains territory proposed to be included in the district.

This bill would make a technical change to these provisions.

(3)

(10) Existing law, until January 1, 2025, authorizes the Department of General Services, the Department of Corrections and Rehabilitation, and certain local agencies to use the design-build procurement process for specified public works. Existing law defines “best value” design-build procurement by local-agencies purposes to mean a value determined by evaluation of objective criteria that may include, but are not limited to, price, features, functions, life-cycle costs, experience, and past performance.

This bill would modify that definition to have the objective criteria evaluation, instead relate to those specific criteria

(4)

(11) The Vehicle License Fee Law establishes, in lieu of any ad valorem property tax upon vehicles, an annual license fee for any vehicle subject to registration in this state. Under existing law, the Controller was, ~~until July~~ until July 1, 2011, required to allocate vehicle license fee revenues in the Motor Vehicle License Fee Account in a specified order to, among others, each city that was incorporated before August 5, 2004. Existing law required the Controller to allocate these revenues in accordance with a specified formula based on, among other factors, the actual population, as defined, of the city. In the case of a city that incorporated on or after January 1, 1987, and before August 5, 2004, existing law also requires the Controller to determine the population of the city as provided based on, among other factors, the actual population, as defined, of the city.

This bill would make technical changes to these provisions.

(12) *Under existing law, if an amount due under the Personal Income Tax Law or the Corporation Tax Law, or any amount that the Franchise Tax Board may collect as though it were a tax, is not paid, the board may file in the Office of the County Clerk of Sacramento County, or any other county, a certificate containing specified information about*

the amount owed and the taxpayer. Existing law requires the county clerk to immediately enter a judgment against the taxpayer in the amount set forth in the certificate.

This bill would instead require the Clerk of the Court to receive the certificate and enter the judgment.

(5)

(13) Existing law appropriates moneys in the Highway Users Tax Account for specified transportation purposes and provides for apportionment by the Controller of certain moneys, including revenues derived from taxes imposed by the Use Fuel Tax Law on the use of fuel, to cities and counties.

This bill would additionally specify that apportionment according to the above-described formula includes revenues derived from taxes imposed on the use of liquefied petroleum and natural gas pursuant to the Use Fuel Tax Law.

(14) *The Kern County Water Agency Act creates the Kern County Water Agency, consisting of all the territory lying within the exterior boundaries of the County of Kern, and specifies its powers. The act authorizes the board of directors of the agency to employ the county counsel as the attorney for the agency and the county surveyor to supervise the engineering work of the agency, as prescribed. The act requires all other officers of the county to perform the same duties for the agency as performed for the county.*

This bill would repeal these provisions relating to county employees.

The act prohibits, unless previously approved by the county board of supervisors, the levying of a tax or assessment, or the creation of a zone of benefit. The act also prohibits, unless previously approved in the form of a budget by the county board of supervisors, an expenditure of funds.

This bill would repeal these provisions requiring county board of supervisor approval.

(15) *The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.*

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.

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

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

1 SECTION 1. (a) This act shall be known, and may be cited,
2 as the Local Government Omnibus Act of 2016.

3 (b) The Legislature finds and declares that Californians want
4 their governments to be run efficiently and economically and that
5 public officials should avoid waste and duplication whenever
6 possible. The Legislature further finds and declares that it desires
7 to control its own costs by reducing the number of separate bills.
8 Therefore, it is the intent of the Legislature in enacting this act to
9 combine several minor, noncontroversial statutory changes relating
10 to the common theme, purpose, and subject of local government
11 into a single measure.

12 *SEC. 2. Section 8770 of the Business and Professions Code is*
13 *amended to read:*

14 8770. The record of survey filed with the county recorder of
15 any county shall be securely fastened by ~~him~~ the county recorder
16 into a suitable book provided for that ~~purpose~~. *purpose, or stored*
17 *in any other manner that will assure that the maps will be kept*
18 *together.*

19 ~~He~~

20 *The county recorder* shall keep proper indexes of such record
21 of survey by the name of grant, tract, subdivision or United States
22 subdivision.

23 The original map shall be stored for safekeeping in a reproducible
24 condition. It shall be proper procedure for the recorder to maintain
25 for public reference a set of counter maps that are prints of the
26 original maps, and the original maps to be produced for comparison
27 upon demand.

28 *SEC. 3. Section 6107 of the Government Code is amended to*
29 *read:*

30 6107. (a) A public entity, including the state, a county, city,
31 or other political subdivision, or any officer or employee thereof,
32 including notaries public, shall not demand or receive any fee or
33 compensation for doing any of the following:

34 (1) Recording, indexing, or issuing certified copies of any
35 discharge, certificate of service, certificate of satisfactory service,

1 notice of separation, or report of separation of any member of the
2 Armed Forces of the United States.

3 (2) Furnishing a certified copy of, or searching for, any public
4 record that is to be used in an application or claim for a pension,
5 allotment, allowance, compensation, insurance (including automatic
6 insurance), or any other benefits under any act of Congress for
7 service in the Armed Forces of the United States or under any law
8 of this state relating to veterans' benefits.

9 (3) Furnishing a certified copy of, or searching for, any public
10 record that is required by the Veterans Administration to be used
11 in determining the eligibility of any person to participate in benefits
12 made available by the Veterans Administration.

13 (4) Rendering any other service in connection with an
14 application or claim referred to in paragraph (2) or (3).

15 (b) A certified copy of any record referred to in subdivision (a)
16 may be made available only to one of the following:

17 (1) The person who is the subject of the record upon presentation
18 of proper photo identification.

19 (2) A family member or legal representative of the person who
20 is the subject of the record upon presentation of proper photo
21 identification and certification of their relationship to the subject
22 of the record.

23 (3) A ~~county~~ state, county, or city office that provides veterans'
24 benefits services upon written request of that office.

25 (4) A United States official upon written request of that official.
26 A public officer or employee is liable on his or her official bond
27 for failure or refusal to render the services.

28 (c) (1) If the county recorder receives a written, faxed, or
29 digitized image of a request for a certified copy of any discharge,
30 certificate of service, certificate of satisfactory service, notice of
31 separation, or report of separation of any member of the Armed
32 Forces of the United States referred to in paragraph (1) of
33 subdivision (a) that is accompanied by a notarized statement sworn
34 under penalty of perjury, or a faxed copy or digitized image of a
35 notarized statement sworn under penalty of perjury, that the
36 requester meets one of the descriptions in subdivision (b), the
37 county recorder may furnish a certified copy to the requester
38 pursuant to this section.

39 (2) A faxed or digitized image of the notarized statement
40 accompanying a faxed or digitized image of a request received

1 pursuant to this subdivision for a certified copy of any discharge,
2 certificate of service, certificate of satisfactory service, notice of
3 separation, or report of separation of any member of the Armed
4 Forces of the United States shall be legible. If the notary's seal is
5 not photographically reproducible, or does not show the name of
6 the notary, the county of the notary's principal place of business,
7 the notary's telephone number, the notary's registration number,
8 and the notary's commission expiration date typed or printed in a
9 manner that is photographically reproducible below, or immediately
10 adjacent to, the notary's signature in the acknowledgment, the
11 county recorder shall not provide the certified copy. If a request
12 for a certified copy of any discharge, certificate of service,
13 certificate of satisfactory service, notice of separation, or report
14 of separation of any member of the Armed Forces of the United
15 States is made in person, the official shall take a statement sworn
16 under penalty of perjury that the requester is signing his or her
17 own legal name and is an authorized person pursuant to subdivision
18 (b), and that official may then furnish a certified copy to the
19 applicant.

20 (3) For purposes of this subdivision, "digitized image" of a
21 request means an image of an original paper request for a certified
22 copy of any discharge, certificate of service, certificate of
23 satisfactory service, notice of separation, or report of separation
24 of any member of the Armed Forces of the United States.

25 *SEC. 4. Section 8205 of the Government Code is amended to*
26 *read:*

27 8205. (a) It is the duty of a notary public, when requested:

28 (1) To demand acceptance and payment of foreign and inland
29 bills of exchange, or promissory notes, to protest them for
30 nonacceptance and nonpayment, and, with regard only to the
31 nonacceptance or nonpayment of bills and notes, to exercise any
32 other powers and duties that by the law of nations and according
33 to commercial usages, or by the laws of any other state,
34 government, or country, may be performed by a notary. This
35 paragraph applies only to a notary public employed by a financial
36 institution, during the course and scope of the notary's employment
37 with the financial institution.

38 (2) To take the acknowledgment or proof of advance health care
39 directives, powers of attorney, mortgages, deeds, grants, transfers,
40 and other instruments of writing executed by any person, and to

1 give a certificate of that proof or acknowledgment, endorsed on
2 or attached to the instrument. The certificate shall be signed by
3 the notary public in the notary public's own handwriting. A notary
4 public may not accept any acknowledgment or proof of any
5 instrument that is incomplete.

6 (3) To take depositions and affidavits, and administer oaths and
7 affirmations, in all matters incident to the duties of the office, or
8 to be used before any court, judge, officer, or board. Any
9 deposition, affidavit, oath, or affirmation shall be signed by the
10 notary public in the notary public's own handwriting.

11 (4) To certify copies of powers of attorney under Section 4307
12 of the Probate Code. The certification shall be signed by the notary
13 public in the notary public's own handwriting.

14 (b) It shall further be the duty of a notary public, upon written
15 request:

16 (1) To furnish to the Secretary of State certified copies of the
17 notary's journal.

18 (2) To respond within 30 days of receiving written requests sent
19 by certified mail *or any other means of physical delivery that*
20 *provides a receipt* from the Secretary of State's office for
21 information relating to official acts performed by the notary.

22 SEC. 5. Section 8206 of the Government Code is amended to
23 read:

24 8206. (a) (1) A notary public shall keep one active sequential
25 journal at a time, of all official acts performed as a notary public.
26 The journal shall be kept in a locked and secured area, under the
27 direct and exclusive control of the notary. Failure to secure the
28 journal shall be cause for the Secretary of State to take
29 administrative action against the commission held by the notary
30 public pursuant to Section 8214.1.

31 (2) The journal shall be in addition to, and apart from, any copies
32 of notarized documents that may be in the possession of the notary
33 public and shall include all of the following:

34 (A) Date, time, and type of each official act.

35 (B) Character of every instrument sworn to, affirmed,
36 acknowledged, or proved before the notary.

37 (C) The signature of each person whose signature is being
38 notarized.

39 (D) A statement as to whether the identity of a person making
40 an acknowledgment or taking an oath or affirmation was based on

1 satisfactory evidence. If identity was established by satisfactory
2 evidence pursuant to Section 1185 of the Civil Code, the journal
3 shall contain the signature of the credible witness swearing or
4 affirming to the identity of the individual or the type of identifying
5 document, the governmental agency issuing the document, the
6 serial or identifying number of the document, and the date of issue
7 or expiration of the document.

8 (E) If the identity of the person making the acknowledgment or
9 taking the oath or affirmation was established by the oaths or
10 affirmations of two credible witnesses whose identities are proven
11 to the notary public by presentation of any document satisfying
12 the requirements of paragraph (3) or (4) of subdivision (b) of
13 Section 1185 of the Civil Code, the notary public shall record in
14 the journal the type of documents identifying the witnesses, the
15 identifying numbers on the documents identifying the witnesses,
16 and the dates of issuance or expiration of the documents identifying
17 the witnesses.

18 (F) The fee charged for the notarial service.

19 (G) If the document to be notarized is a deed, quitclaim deed,
20 deed of trust, or other document affecting real property, or a power
21 of attorney document, the notary public shall require the party
22 signing the document to place his or her right thumbprint in the
23 journal. If the right thumbprint is not available, then the notary
24 shall have the party use his or her left thumb, or any available
25 finger and shall so indicate in the journal. If the party signing the
26 document is physically unable to provide a thumbprint or
27 fingerprint, the notary shall so indicate in the journal and shall also
28 provide an explanation of that physical condition. This paragraph
29 shall not apply to a trustee's deed resulting from a decree of
30 foreclosure or a nonjudicial foreclosure pursuant to Section 2924
31 of the Civil Code, nor to a deed of reconveyance.

32 (b) If a sequential journal of official acts performed by a notary
33 public is stolen, lost, misplaced, destroyed, damaged, or otherwise
34 rendered unusable as a record of notarial acts and information, the
35 notary public shall immediately notify the Secretary of State by
36 certified or registered ~~mail~~ *mail or any other means of physical*
37 *delivery that provides a receipt*. The notification shall include the
38 period of the journal entries, the notary public commission number,
39 and the expiration date of the commission, and when applicable,

1 a photocopy of any police report that specifies the theft of the
2 sequential journal of official acts.

3 (c) Upon written request of any member of the public, which
4 request shall include the name of the parties, the type of document,
5 and the month and year in which notarized, the notary shall supply
6 a photostatic copy of the line item representing the requested
7 transaction at a cost of not more than thirty cents (\$0.30) per page.

8 (d) The journal of notarial acts of a notary public is the exclusive
9 property of that notary public, and shall not be surrendered to an
10 employer upon termination of employment, whether or not the
11 employer paid for the journal, or at any other time. The notary
12 public shall not surrender the journal to any other person, except
13 the county clerk, pursuant to Section 8209, or immediately, or if
14 the journal is not present then as soon as possible, upon request to
15 a peace officer investigating a criminal offense who has reasonable
16 suspicion to believe the journal contains evidence of a criminal
17 offense, as defined in Sections 830.1, 830.2, and 830.3 of the Penal
18 Code, acting in his or her official capacity and within his or her
19 authority. If the peace officer seizes the notary journal, he or she
20 must have probable cause as required by the laws of this state and
21 the United States. A peace officer or law enforcement agency that
22 seizes a notary journal shall notify the Secretary of State by
23 facsimile within 24 hours, or as soon as possible thereafter, of the
24 name of the notary public whose journal has been seized. The
25 notary public shall obtain a receipt for the journal, and shall notify
26 the Secretary of State by certified mail *any other means of physical*
27 *delivery that provides a receipt* within 10 days that the journal was
28 relinquished to a peace officer. The notification shall include the
29 period of the journal entries, the commission number of the notary
30 public, the expiration date of the commission, and a photocopy of
31 the receipt. The notary public shall obtain a new sequential journal.
32 If the journal relinquished to a peace officer is returned to the
33 notary public and a new journal has been obtained, the notary
34 public shall make no new entries in the returned journal. A notary
35 public who is an employee shall permit inspection and copying of
36 journal transactions by a duly designated auditor or agent of the
37 notary public's employer, provided that the inspection and copying
38 is done in the presence of the notary public and the transactions
39 are directly associated with the business purposes of the employer.
40 The notary public, upon the request of the employer, shall regularly

1 provide copies of all transactions that are directly associated with
2 the business purposes of the employer, but shall not be required
3 to provide copies of any transaction that is unrelated to the
4 employer's business. Confidentiality and safekeeping of any copies
5 of the journal provided to the employer shall be the responsibility
6 of that employer.

7 (e) The notary public shall provide the journal for examination
8 and copying in the presence of the notary public upon receipt of
9 a subpoena duces tecum or a court order, and shall certify those
10 copies if requested.

11 (f) Any applicable requirements of, or exceptions to, state and
12 federal law shall apply to a peace officer engaged in the search or
13 seizure of a sequential journal.

14 *SEC. 6. Section 8213 of the Government Code is amended to*
15 *read:*

16 8213. (a) No later than 30 days after the beginning of the term
17 prescribed in the commission, every person appointed a notary
18 public shall file an official bond and an oath of office in the office
19 of the county clerk of the county within which the person maintains
20 a principal place of business as shown in the application submitted
21 to the Secretary of State, and the commission shall not take effect
22 unless this is done within the 30-day period. A person appointed
23 to be a notary public shall take and subscribe the oath of office
24 either in the office of that county clerk or before another notary
25 public in that county. *If the oath of office is taken and subscribed*
26 *before the county clerk, the person appointed to be a notary public*
27 *shall present an identification document meeting the requirements*
28 *of subparagraph (A) or (B) of paragraph (3), or of subparagraph*
29 *(A) or (E) or paragraph (4), of subdivision (b) of Section 1185 of*
30 *the Civil Code to the county clerk as satisfactory evidence of*
31 *identity.* If the oath of office is taken and subscribed before a notary
32 public, the oath and bond may be filed with the county clerk by
33 ~~certified-mail~~ *mail or any other means of physical delivery that*
34 *provides a receipt.* Upon the filing of the oath and bond, the county
35 clerk shall immediately transmit to the Secretary of State a
36 certificate setting forth the fact of the filing and containing a copy
37 of the official oath, personally signed by the notary public in the
38 form set forth in the commission and shall immediately deliver
39 the bond to the county recorder for recording. The county clerk
40 shall retain the oath of office for one year following the expiration

1 of the term of the commission for which the oath was taken, after
2 which the oath may be destroyed or otherwise disposed of. The
3 copy of the oath, personally signed by the notary public, on file
4 with the Secretary of State may at any time be read in evidence
5 with like effect as the original oath, without further proof.

6 (b) If a notary public transfers the principal place of business
7 from one county to another, the notary public may file a new oath
8 of office and bond, or a duplicate of the original bond with the
9 county clerk to which the principal place of business was
10 transferred. If the notary public elects to make a new filing, the
11 notary public shall, within 30 days of the filing, obtain an official
12 seal which shall include the name of the county to which the notary
13 public has transferred. In a case where the notary public elects to
14 make a new filing, the same filing and recording fees are applicable
15 as in the case of the original filing and recording of the bond.

16 (c) If a notary public submits an application for a name change
17 to the Secretary of State, the notary public shall, within 30 days
18 from the date an amended commission is issued, file a new oath
19 of office and an amendment to the bond with the county clerk in
20 which the principal place of business is located. The amended
21 commission with the name change shall not take effect unless the
22 filing is completed within the 30-day period. The amended
23 commission with the name change takes effect the date the oath
24 and amendment to the bond is filed with the county clerk. If the
25 principal place of business address was changed in the application
26 for name change, either a new or duplicate of the original bond
27 shall be filed with the county clerk with the amendment to the
28 bond. The notary public shall, within 30 days of the filing, obtain
29 an official seal that includes the name of the notary public and the
30 name of the county to which the notary public has transferred, if
31 applicable.

32 (d) The recording fee specified in Section 27361 of the
33 Government Code shall be paid by the person appointed a notary
34 public. The fee may be paid to the county clerk who shall transmit
35 it to the county recorder.

36 (e) The county recorder shall record the bond and shall thereafter
37 mail, unless specified to the contrary, it to the person named in the
38 instrument and, if no person is named, to the party leaving it for
39 recording.

1 *SEC. 7. Section 8213.5 of the Government Code is amended*
2 *to read:*

3 8213.5. A notary public shall notify the Secretary of State by
4 certified mail *or any other means of physical delivery that provides*
5 *a receipt* within 30 days as to any change in the location or address
6 of the principal place of business or residence. A notary public
7 shall not use a commercial mail receiving agency or post office
8 box as his or her principal place of business or residence, unless
9 the notary public also provides the Secretary of State with a
10 physical street address as the principal place of residence. Willful
11 failure to notify the Secretary of State of a change of address shall
12 be punishable as an infraction by a fine of not more than five
13 hundred dollars (\$500).

14 *SEC. 8. Section 8311 of the Government Code is amended to*
15 *read:*

16 8311. Wherever any notice or other communication is required
17 by any law to be mailed by registered mail to or by the state, or
18 any officer or agency thereof, the mailing of such notice or other
19 communication by certified mail *or any other means of physical*
20 *delivery that provides a receipt* shall be deemed to be a sufficient
21 compliance with the requirements of such law.

22 *SEC. 9. Section 40805 of the Government Code is amended to*
23 *read:*

24 40805. The report shall be published or posted ~~not later than~~
25 ~~120 days~~ *consistent with the timelines established in Section 53891*
26 after the close of the fiscal year for which the report is compiled.

27 *SEC. 10. Section 53601 of the Government Code is amended*
28 *to read:*

29 53601. This section shall apply to a local agency that is a city,
30 a district, or other local agency that does not pool money in
31 deposits or investments with other local agencies, other than local
32 agencies that have the same governing body. However, Section
33 53635 shall apply to all local agencies that pool money in deposits
34 or investments with other local agencies that have separate
35 governing bodies. The legislative body of a local agency having
36 moneys in a sinking fund or moneys in its treasury not required
37 for the immediate needs of the local agency may invest any portion
38 of the moneys that it deems wise or expedient in those investments
39 set forth below. A local agency purchasing or obtaining any
40 securities prescribed in this section, in a negotiable, bearer,

1 registered, or nonregistered format, shall require delivery of the
2 securities to the local agency, including those purchased for the
3 agency by financial advisers, consultants, or managers using the
4 agency's funds, by book entry, physical delivery, or by third-party
5 custodial agreement. The transfer of securities to the counterparty
6 bank's customer book entry account may be used for book entry
7 delivery.

8 For purposes of this section, "counterparty" means the other
9 party to the transaction. A counterparty bank's trust department
10 or separate safekeeping department may be used for the physical
11 delivery of the security if the security is held in the name of the
12 local agency. Where this section specifies a percentage limitation
13 for a particular category of investment, that percentage is applicable
14 only at the date of purchase. Where this section does not specify
15 a limitation on the term or remaining maturity at the time of the
16 investment, no investment shall be made in any security, other
17 than a security underlying a repurchase or reverse repurchase
18 agreement or securities lending agreement authorized by this
19 section, that at the time of the investment has a term remaining to
20 maturity in excess of five years, unless the legislative body has
21 granted express authority to make that investment either
22 specifically or as a part of an investment program approved by the
23 legislative body no less than three months prior to the investment:

24 (a) Bonds issued by the local agency, including bonds payable
25 solely out of the revenues from a revenue-producing property
26 owned, controlled, or operated by the local agency or by a
27 department, board, agency, or authority of the local agency.

28 (b) United States Treasury notes, bonds, bills, or certificates of
29 indebtedness, or those for which the faith and credit of the United
30 States are pledged for the payment of principal and interest.

31 (c) Registered state warrants or treasury notes or bonds of this
32 state, including bonds payable solely out of the revenues from a
33 revenue-producing property owned, controlled, or operated by the
34 state or by a department, board, agency, or authority of the state.

35 (d) Registered treasury notes or bonds of any of the other 49
36 states in addition to California, including bonds payable solely out
37 of the revenues from a revenue-producing property owned,
38 controlled, or operated by a state or by a department, board, agency,
39 or authority of any of the other 49 states, in addition to California.

1 (e) Bonds, notes, warrants, or other evidences of indebtedness
2 of a local agency within this state, including bonds payable solely
3 out of the revenues from a revenue-producing property owned,
4 controlled, or operated by the local agency, or by a department,
5 board, agency, or authority of the local agency.

6 (f) Federal agency or United States government-sponsored
7 enterprise obligations, participations, or other instruments,
8 including those issued by or fully guaranteed as to principal and
9 interest by federal agencies or United States government-sponsored
10 enterprises.

11 (g) Bankers' acceptances otherwise known as bills of exchange
12 or time drafts that are drawn on and accepted by a commercial
13 bank. Purchases of bankers' acceptances shall not exceed 180
14 days' maturity or 40 percent of the agency's moneys that may be
15 invested pursuant to this section. However, no more than 30 percent
16 of the agency's moneys may be invested in the bankers'
17 acceptances of any one commercial bank pursuant to this section.

18 This subdivision does not preclude a municipal utility district
19 from investing moneys in its treasury in a manner authorized by
20 the Municipal Utility District Act (Division 6 (commencing with
21 Section 11501) of the Public Utilities Code).

22 (h) Commercial paper of "prime" quality of the highest ranking
23 or of the highest letter and number rating as provided for by a
24 nationally recognized statistical rating organization (NRSRO).
25 The entity that issues the commercial paper shall meet all of the
26 following conditions in either paragraph (1) or (2):

27 (1) The entity meets the following criteria:

28 (A) Is organized and operating in the United States as a general
29 corporation.

30 (B) Has total assets in excess of five hundred million dollars
31 (\$500,000,000).

32 (C) Has debt other than commercial paper, if any, that is rated
33 *in a rating category of "A" or its equivalent* or higher by an
34 NRSRO.

35 (2) The entity meets the following criteria:

36 (A) Is organized within the United States as a special purpose
37 corporation, trust, or limited liability company.

38 (B) Has programwide credit enhancements including, but not
39 limited to, overcollateralization, letters of credit, or a surety bond.

1 (C) Has commercial paper that is rated "A-1" or higher, or the
2 equivalent, by an NRSRO.

3 Eligible commercial paper shall have a maximum maturity of
4 270 days or less. Local agencies, other than counties or a city and
5 county, may invest no more than 25 percent of their moneys in
6 eligible commercial paper. Local agencies, other than counties or
7 a city and county, may purchase no more than 10 percent of the
8 outstanding commercial paper of any single issuer. Counties or a
9 city and county may invest in commercial paper pursuant to the
10 concentration limits in subdivision (a) of Section 53635.

11 (i) Negotiable certificates of deposit issued by a nationally or
12 state-chartered bank, a savings association or a federal association
13 (as defined by Section 5102 of the Financial Code), a state or
14 federal credit union, or by a federally licensed or state-licensed
15 branch of a foreign bank. Purchases of negotiable certificates of
16 deposit shall not exceed 30 percent of the agency's moneys that
17 may be invested pursuant to this section. For purposes of this
18 section, negotiable certificates of deposit do not come within
19 Article 2 (commencing with Section 53630), except that the amount
20 so invested shall be subject to the limitations of Section 53638.
21 The legislative body of a local agency and the treasurer or other
22 official of the local agency having legal custody of the moneys
23 are prohibited from investing local agency funds, or funds in the
24 custody of the local agency, in negotiable certificates of deposit
25 issued by a state or federal credit union if a member of the
26 legislative body of the local agency, or a person with investment
27 decisionmaking authority in the administrative office manager's
28 office, budget office, auditor-controller's office, or treasurer's
29 office of the local agency also serves on the board of directors, or
30 any committee appointed by the board of directors, or the credit
31 committee or the supervisory committee of the state or federal
32 credit union issuing the negotiable certificates of deposit.

33 (j) (1) Investments in repurchase agreements or reverse
34 repurchase agreements or securities lending agreements of
35 securities authorized by this section, as long as the agreements are
36 subject to this subdivision, including the delivery requirements
37 specified in this section.

38 (2) Investments in repurchase agreements may be made, on an
39 investment authorized in this section, when the term of the
40 agreement does not exceed one year. The market value of securities

1 that underlie a repurchase agreement shall be valued at 102 percent
2 or greater of the funds borrowed against those securities and the
3 value shall be adjusted no less than quarterly. Since the market
4 value of the underlying securities is subject to daily market
5 fluctuations, the investments in repurchase agreements shall be in
6 compliance if the value of the underlying securities is brought back
7 up to 102 percent no later than the next business day.

8 (3) Reverse repurchase agreements or securities lending
9 agreements may be utilized only when all of the following
10 conditions are met:

11 (A) The security to be sold using a reverse repurchase agreement
12 or securities lending agreement has been owned and fully paid for
13 by the local agency for a minimum of 30 days prior to sale.

14 (B) The total of all reverse repurchase agreements and securities
15 lending agreements on investments owned by the local agency
16 does not exceed 20 percent of the base value of the portfolio.

17 (C) The agreement does not exceed a term of 92 days, unless
18 the agreement includes a written codicil guaranteeing a minimum
19 earning or spread for the entire period between the sale of a security
20 using a reverse repurchase agreement or securities lending
21 agreement and the final maturity date of the same security.

22 (D) Funds obtained or funds within the pool of an equivalent
23 amount to that obtained from selling a security to a counterparty
24 using a reverse repurchase agreement or securities lending
25 agreement shall not be used to purchase another security with a
26 maturity longer than 92 days from the initial settlement date of the
27 reverse repurchase agreement or securities lending agreement,
28 unless the reverse repurchase agreement or securities lending
29 agreement includes a written codicil guaranteeing a minimum
30 earning or spread for the entire period between the sale of a security
31 using a reverse repurchase agreement or securities lending
32 agreement and the final maturity date of the same security.

33 (4) (A) Investments in reverse repurchase agreements, securities
34 lending agreements, or similar investments in which the local
35 agency sells securities prior to purchase with a simultaneous
36 agreement to repurchase the security may be made only upon prior
37 approval of the governing body of the local agency and shall be
38 made only with primary dealers of the Federal Reserve Bank of
39 New York or with a nationally or state-chartered bank that has or
40 has had a significant banking relationship with a local agency.

1 (B) For purposes of this chapter, “significant banking
2 relationship” means any of the following activities of a bank:

3 (i) Involvement in the creation, sale, purchase, or retirement of
4 a local agency’s bonds, warrants, notes, or other evidence of
5 indebtedness.

6 (ii) Financing of a local agency’s activities.

7 (iii) Acceptance of a local agency’s securities or funds as
8 deposits.

9 (5) (A) “Repurchase agreement” means a purchase of securities
10 by the local agency pursuant to an agreement by which the
11 counterparty seller will repurchase the securities on or before a
12 specified date and for a specified amount and the counterparty will
13 deliver the underlying securities to the local agency by book entry,
14 physical delivery, or by third-party custodial agreement. The
15 transfer of underlying securities to the counterparty bank’s
16 customer book-entry account may be used for book-entry delivery.

17 (B) “Securities,” for purposes of repurchase under this
18 subdivision, means securities of the same issuer, description, issue
19 date, and maturity.

20 (C) “Reverse repurchase agreement” means a sale of securities
21 by the local agency pursuant to an agreement by which the local
22 agency will repurchase the securities on or before a specified date
23 and includes other comparable agreements.

24 (D) “Securities lending agreement” means an agreement under
25 which a local agency agrees to transfer securities to a borrower
26 who, in turn, agrees to provide collateral to the local agency.
27 During the term of the agreement, both the securities and the
28 collateral are held by a third party. At the conclusion of the
29 agreement, the securities are transferred back to the local agency
30 in return for the collateral.

31 (E) For purposes of this section, the base value of the local
32 agency’s pool portfolio shall be that dollar amount obtained by
33 totaling all cash balances placed in the pool by all pool participants,
34 excluding any amounts obtained through selling securities by way
35 of reverse repurchase agreements, securities lending agreements,
36 or other similar borrowing methods.

37 (F) For purposes of this section, the spread is the difference
38 between the cost of funds obtained using the reverse repurchase
39 agreement and the earnings obtained on the reinvestment of the
40 funds.

(k) Medium-term notes, defined as all corporate and depository institution debt securities with a maximum remaining maturity of five years or less, issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States. Notes eligible for investment under this subdivision shall be rated *in a rating category of "A" or its equivalent* or better by an NRSRO. Purchases of medium-term notes shall not include other instruments authorized by this section and shall not exceed 30 percent of the agency's moneys that may be invested pursuant to this section.

(l) (1) Shares of beneficial interest issued by diversified management companies that invest in the securities and obligations as authorized by subdivisions (a) to (k), inclusive, and subdivisions (m) to (q), inclusive, and that comply with the investment restrictions of this article and Article 2 (commencing with Section 53630). However, notwithstanding these restrictions, a counterparty to a reverse repurchase agreement or securities lending agreement is not required to be a primary dealer of the Federal Reserve Bank of New York if the company's board of directors finds that the counterparty presents a minimal risk of default, and the value of the securities underlying a repurchase agreement or securities lending agreement may be 100 percent of the sales price if the securities are marked to market daily.

(2) Shares of beneficial interest issued by diversified management companies that are money market funds registered with the Securities and Exchange Commission under the Investment Company Act of 1940 (15 U.S.C. Sec. 80a-1 et seq.).

(3) If investment is in shares issued pursuant to paragraph (1), the company shall have met either of the following criteria:

(A) Attained the highest ranking or the highest letter and numerical rating provided by not less than two NRSROs.

(B) Retained an investment adviser registered or exempt from registration with the Securities and Exchange Commission with not less than five years' experience investing in the securities and obligations authorized by subdivisions (a) to (k), inclusive, and subdivisions (m) to (q), inclusive, and with assets under management in excess of five hundred million dollars (\$500,000,000).

1 (4) If investment is in shares issued pursuant to paragraph (2),
2 the company shall have met either of the following criteria:

3 (A) Attained the highest ranking or the highest letter and
4 numerical rating provided by not less than two NRSROs.

5 (B) Retained an investment adviser registered or exempt from
6 registration with the Securities and Exchange Commission with
7 not less than five years' experience managing money market
8 mutual funds with assets under management in excess of five
9 hundred million dollars (\$500,000,000).

10 (5) The purchase price of shares of beneficial interest purchased
11 pursuant to this subdivision shall not include commission that the
12 companies may charge and shall not exceed 20 percent of the
13 agency's moneys that may be invested pursuant to this section.
14 However, no more than 10 percent of the agency's funds may be
15 invested in shares of beneficial interest of any one mutual fund
16 pursuant to paragraph (1).

17 (m) Moneys held by a trustee or fiscal agent and pledged to the
18 payment or security of bonds or other indebtedness, or obligations
19 under a lease, installment sale, or other agreement of a local
20 agency, or certificates of participation in those bonds, indebtedness,
21 or lease installment sale, or other agreements, may be invested in
22 accordance with the statutory provisions governing the issuance
23 of those bonds, indebtedness, or lease installment sale, or other
24 agreement, or to the extent not inconsistent therewith or if there
25 are no specific statutory provisions, in accordance with the
26 ordinance, resolution, indenture, or agreement of the local agency
27 providing for the issuance.

28 (n) Notes, bonds, or other obligations that are at all times secured
29 by a valid first priority security interest in securities of the types
30 listed by Section 53651 as eligible securities for the purpose of
31 securing local agency deposits having a market value at least equal
32 to that required by Section 53652 for the purpose of securing local
33 agency deposits. The securities serving as collateral shall be placed
34 by delivery or book entry into the custody of a trust company or
35 the trust department of a bank that is not affiliated with the issuer
36 of the secured obligation, and the security interest shall be perfected
37 in accordance with the requirements of the Uniform Commercial
38 Code or federal regulations applicable to the types of securities in
39 which the security interest is granted.

(o) A mortgage passthrough security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable passthrough certificate, or consumer receivable-backed bond of a maximum of five years' maturity. Securities eligible for investment under this subdivision shall be issued by an issuer ~~having an~~ *rated in a rating category of "A" or higher rating its equivalent or better* for the issuer's debt as provided by an NRSRO and rated in a rating category of "AA" or its equivalent or better by an NRSRO. Purchase of securities authorized by this subdivision shall not exceed 20 percent of the agency's surplus moneys that may be invested pursuant to this section.

(p) Shares of beneficial interest issued by a joint powers authority organized pursuant to Section 6509.7 that invests in the securities and obligations authorized in subdivisions (a) to (q), inclusive. Each share shall represent an equal proportional interest in the underlying pool of securities owned by the joint powers authority. To be eligible under this section, the joint powers authority issuing the shares shall have retained an investment adviser that meets all of the following criteria:

(1) The adviser is registered or exempt from registration with the Securities and Exchange Commission.

(2) The adviser has not less than five years of experience investing in the securities and obligations authorized in subdivisions (a) to (q), inclusive.

(3) The adviser has assets under management in excess of five hundred million dollars (\$500,000,000).

(q) United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank, with a maximum remaining maturity of five years or less, and eligible for purchase and sale within the United States. Investments under this subdivision shall be *rated in a rating category of "AA" or its equivalent* or better by an NRSRO and shall not exceed 30 percent of the agency's moneys that may be invested pursuant to this section.

SEC. 11. Section 65091 of the Government Code is amended to read:

1 65091. (a) When a provision of this title requires notice of a
2 public hearing to be given pursuant to this section, notice shall be
3 given in all of the following ways:

4 (1) Notice of the hearing shall be mailed or delivered at least
5 10 days prior to the hearing to the owner of the subject real
6 property as shown on the latest equalized assessment roll. Instead
7 of using the assessment roll, the local agency may use records of
8 the county assessor or tax collector if those records contain more
9 recent information than the information contained on the
10 assessment roll. Notice shall also be mailed to the owner's duly
11 authorized agent, if any, and to the project applicant.

12 (2) When the Subdivision Map Act (Div. 2 (commencing with
13 Section 66410)) requires notice of a public hearing to be given
14 pursuant to this section, notice shall also be given to any owner of
15 a mineral right pertaining to the subject real property who has
16 recorded a notice of intent to preserve the mineral right pursuant
17 to Section 883.230 of the Civil Code.

18 (3) Notice of the hearing shall be mailed or delivered at least
19 10 days prior to the hearing to each local agency expected to
20 provide water, sewage, streets, roads, schools, or other essential
21 facilities or services to the project, whose ability to provide those
22 facilities and services may be significantly affected.

23 (4) Notice of the hearing shall be mailed or delivered at least
24 10 days prior to the hearing to all owners of real property as shown
25 on the latest equalized assessment roll within 300 feet of the real
26 property that is the subject of the hearing. In lieu of using the
27 assessment roll, the local agency may use records of the county
28 assessor or tax collector which contain more recent information
29 than the assessment roll. If the number of owners to whom notice
30 would be mailed or delivered pursuant to this paragraph or
31 paragraph (1) is greater than 1,000, a local agency, in lieu of mailed
32 or delivered notice, may provide notice by placing a display
33 advertisement of at least one-eighth page in at least one newspaper
34 of general circulation within the local agency in which the
35 proceeding is conducted at least 10 days prior to the hearing.

36 (5) If the notice is mailed or delivered pursuant to paragraph
37 ~~(3)~~, (4), the notice shall also either be:

38 (A) Published pursuant to Section 6061 in at least one newspaper
39 of general circulation within the local agency which is conducting
40 the proceeding at least 10 days prior to the hearing.

1 (B) Posted at least 10 days prior to the hearing in at least three
2 public places within the boundaries of the local agency, including
3 one public place in the area directly affected by the proceeding.

4 (b) The notice shall include the information specified in Section
5 65094.

6 (c) In addition to the notice required by this section, a local
7 agency may give notice of the hearing in any other manner it deems
8 necessary or desirable.

9 (d) Whenever a hearing is held regarding a permit for a
10 drive-through facility, or modification of an existing drive-through
11 facility permit, the local agency shall incorporate, where necessary,
12 notice procedures to the blind, aged, and disabled communities in
13 order to facilitate their participation in any hearing on, or appeal
14 of the denial of, a drive-through facility permit. The Legislature
15 finds that access restrictions to commercial establishments affecting
16 the blind, aged, or disabled, is a critical statewide problem;
17 therefore, this subdivision shall be applicable to charter cities.

18 ~~SEC. 2.~~

19 *SEC. 12.* Section 65302 of the Government Code, as amended
20 by Section 1 of Chapter 608 of the Statutes of 2015, is amended
21 to read:

22 65302. The general plan shall consist of a statement of
23 development policies and shall include a diagram or diagrams and
24 text setting forth objectives, principles, standards, and plan
25 proposals. The plan shall include the following elements:

26 (a) A land use element that designates the proposed general
27 distribution and general location and extent of the uses of the land
28 for housing, business, industry, open space, including agriculture,
29 natural resources, recreation, and enjoyment of scenic beauty,
30 education, public buildings and grounds, solid and liquid waste
31 disposal facilities, and other categories of public and private uses
32 of land. The location and designation of the extent of the uses of
33 the land for public and private uses shall consider the identification
34 of land and natural resources pursuant to paragraph (3) of
35 subdivision (d). The land use element shall include a statement of
36 the standards of population density and building intensity
37 recommended for the various districts and other territory covered
38 by the plan. The land use element shall identify and annually
39 review those areas covered by the plan that are subject to flooding
40 identified by flood plain mapping prepared by the Federal

1 Emergency Management Agency (FEMA) or the Department of
2 Water Resources. The land use element shall also do both of the
3 following:

4 (1) Designate in a land use category that provides for timber
5 production those parcels of real property zoned for timberland
6 production pursuant to the California Timberland Productivity Act
7 of 1982 (Chapter 6.7 (commencing with Section 51100) of Part 1
8 of Division 1 of Title 5).

9 (2) Consider the impact of new growth on military readiness
10 activities carried out on military bases, installations, and operating
11 and training areas, when proposing zoning ordinances or
12 designating land uses covered by the general plan for land, or other
13 territory adjacent to military facilities, or underlying designated
14 military aviation routes and airspace.

15 (A) In determining the impact of new growth on military
16 readiness activities, information provided by military facilities
17 shall be considered. Cities and counties shall address military
18 impacts based on information from the military and other sources.

19 (B) The following definitions govern this paragraph:

20 (i) "Military readiness activities" mean all of the following:

21 (I) Training, support, and operations that prepare the men and
22 women of the military for combat.

23 (II) Operation, maintenance, and security of any military
24 installation.

25 (III) Testing of military equipment, vehicles, weapons, and
26 sensors for proper operation or suitability for combat use.

27 (ii) "Military installation" means a base, camp, post, station,
28 yard, center, homeport facility for any ship, or other activity under
29 the jurisdiction of the United States Department of Defense as
30 defined in paragraph (1) of subsection (g) of Section 2687 of Title
31 10 of the United States Code.

32 (b) (1) A circulation element consisting of the general location
33 and extent of existing and proposed major thoroughfares,
34 transportation routes, terminals, any military airports and ports,
35 and other local public utilities and facilities, all correlated with the
36 land use element of the plan.

37 (2) (A) Commencing January 1, 2011, upon any substantive
38 revision of the circulation element, the legislative body shall
39 modify the circulation element to plan for a balanced, multimodal
40 transportation network that meets the needs of all users of streets,

1 roads, and highways for safe and convenient travel in a manner
2 that is suitable to the rural, suburban, or urban context of the
3 general plan.

4 (B) For purposes of this paragraph, “users of streets, roads, and
5 highways” mean bicyclists, children, persons with disabilities,
6 motorists, movers of commercial goods, pedestrians, users of public
7 transportation, and seniors.

8 (c) A housing element as provided in Article 10.6 (commencing
9 with Section 65580).

10 (d) (1) A conservation element for the conservation,
11 development, and utilization of natural resources including water
12 and its hydraulic force, forests, soils, rivers and other waters,
13 harbors, fisheries, wildlife, minerals, and other natural resources.
14 The conservation element shall consider the effect of development
15 within the jurisdiction, as described in the land use element, on
16 natural resources located on public lands, including military
17 installations. That portion of the conservation element including
18 waters shall be developed in coordination with any countywide
19 water agency and with all district and city agencies, including
20 flood management, water conservation, or groundwater agencies
21 that have developed, served, controlled, managed, or conserved
22 water of any type for any purpose in the county or city for which
23 the plan is prepared. Coordination shall include the discussion and
24 evaluation of any water supply and demand information described
25 in Section 65352.5, if that information has been submitted by the
26 water agency to the city or county.

27 (2) The conservation element may also cover all of the
28 following:

29 (A) The reclamation of land and waters.

30 (B) Prevention and control of the pollution of streams and other
31 waters.

32 (C) Regulation of the use of land in stream channels and other
33 areas required for the accomplishment of the conservation plan.

34 (D) Prevention, control, and correction of the erosion of soils,
35 beaches, and shores.

36 (E) Protection of watersheds.

37 (F) The location, quantity and quality of the rock, sand, and
38 gravel resources.

39 (3) Upon the next revision of the housing element on or after
40 January 1, 2009, the conservation element shall identify rivers,

1 creeks, streams, flood corridors, riparian habitats, and land that
2 may accommodate floodwater for purposes of groundwater
3 recharge and stormwater management.

4 (e) An open-space element as provided in Article 10.5
5 (commencing with Section 65560).

6 (f) (1) A noise element that shall identify and appraise noise
7 problems in the community. The noise element shall analyze and
8 quantify, to the extent practicable, as determined by the legislative
9 body, current and projected noise levels for all of the following
10 sources:

11 (A) Highways and freeways.

12 (B) Primary arterials and major local streets.

13 (C) Passenger and freight online railroad operations and ground
14 rapid transit systems.

15 (D) Commercial, general aviation, heliport, helistop, and military
16 airport operations, aircraft overflights, jet engine test stands, and
17 all other ground facilities and maintenance functions related to
18 airport operation.

19 (E) Local industrial plants, including, but not limited to, railroad
20 classification yards.

21 (F) Other ground stationary noise sources, including, but not
22 limited to, military installations, identified by local agencies as
23 contributing to the community noise environment.

24 (2) Noise contours shall be shown for all of these sources and
25 stated in terms of community noise equivalent level (CNEL) or
26 day-night average sound level (L_{dn}). The noise contours shall be
27 prepared on the basis of noise monitoring or following generally
28 accepted noise modeling techniques for the various sources
29 identified in paragraphs (1) to (6), inclusive.

30 (3) The noise contours shall be used as a guide for establishing
31 a pattern of land uses in the land use element that minimizes the
32 exposure of community residents to excessive noise.

33 (4) The noise element shall include implementation measures
34 and possible solutions that address existing and foreseeable noise
35 problems, if any. The adopted noise element shall serve as a
36 guideline for compliance with the state's noise insulation standards.

37 (g) (1) A safety element for the protection of the community
38 from any unreasonable risks associated with the effects of
39 seismically induced surface rupture, ground shaking, ground
40 failure, tsunamis, seiche, and dam failure; slope instability leading

1 to mudslides and landslides; subsidence; liquefaction; and other
2 seismic hazards identified pursuant to Chapter 7.8 (commencing
3 with Section 2690) of Division 2 of the Public Resources Code,
4 and other geologic hazards known to the legislative body; flooding;
5 and wildland and urban fires. The safety element shall include
6 mapping of known seismic and other geologic hazards. It shall
7 also address evacuation routes, military installations, peakload
8 water supply requirements, and minimum road widths and
9 clearances around structures, as those items relate to identified fire
10 and geologic hazards.

11 (2) The safety element, upon the next revision of the housing
12 element on or after January 1, 2009, shall also do the following:

13 (A) Identify information regarding flood hazards, including,
14 but not limited to, the following:

15 (i) Flood hazard zones. As used in this subdivision, "flood
16 hazard zone" means an area subject to flooding that is delineated
17 as either a special hazard area or an area of moderate or minimal
18 hazard on an official flood insurance rate map issued by the Federal
19 Emergency Management Agency (FEMA). The identification of
20 a flood hazard zone does not imply that areas outside the flood
21 hazard zones or uses permitted within flood hazard zones will be
22 free from flooding or flood damage.

23 (ii) National Flood Insurance Program maps published by
24 FEMA.

25 (iii) Information about flood hazards that is available from the
26 United States Army Corps of Engineers.

27 (iv) Designated floodway maps that are available from the
28 Central Valley Flood Protection Board.

29 (v) Dam failure inundation maps prepared pursuant to Section
30 8589.5 that are available from the Office of Emergency Services.

31 (vi) Awareness Floodplain Mapping Program maps and 200-year
32 flood plain maps that are or may be available from, or accepted
33 by, the Department of Water Resources.

34 (vii) Maps of levee protection zones.

35 (viii) Areas subject to inundation in the event of the failure of
36 project or nonproject levees or floodwalls.

37 (ix) Historical data on flooding, including locally prepared maps
38 of areas that are subject to flooding, areas that are vulnerable to
39 flooding after wildfires, and sites that have been repeatedly
40 damaged by flooding.

1 (x) Existing and planned development in flood hazard zones,
2 including structures, roads, utilities, and essential public facilities.

3 (xi) Local, state, and federal agencies with responsibility for
4 flood protection, including special districts and local offices of
5 emergency services.

6 (B) Establish a set of comprehensive goals, policies, and
7 objectives based on the information identified pursuant to
8 subparagraph (A), for the protection of the community from the
9 unreasonable risks of flooding, including, but not limited to:

10 (i) Avoiding or minimizing the risks of flooding to new
11 development.

12 (ii) Evaluating whether new development should be located in
13 flood hazard zones, and identifying construction methods or other
14 methods to minimize damage if new development is located in
15 flood hazard zones.

16 (iii) Maintaining the structural and operational integrity of
17 essential public facilities during flooding.

18 (iv) Locating, when feasible, new essential public facilities
19 outside of flood hazard zones, including hospitals and health care
20 facilities, emergency shelters, fire stations, emergency command
21 centers, and emergency communications facilities or identifying
22 construction methods or other methods to minimize damage if
23 these facilities are located in flood hazard zones.

24 (v) Establishing cooperative working relationships among public
25 agencies with responsibility for flood protection.

26 (C) Establish a set of feasible implementation measures designed
27 to carry out the goals, policies, and objectives established pursuant
28 to subparagraph (B).

29 (3) Upon the next revision of the housing element on or after
30 January 1, 2014, the safety element shall be reviewed and updated
31 as necessary to address the risk of fire for land classified as state
32 responsibility areas, as defined in Section 4102 of the Public
33 Resources Code, and land classified as very high fire hazard
34 severity zones, as defined in Section 51177. This review shall
35 consider the advice included in the Office of Planning and
36 Research's most recent publication of "Fire Hazard Planning,
37 General Plan Technical Advice Series" and shall also include all
38 of the following:

39 (A) Information regarding fire hazards, including, but not limited
40 to, all of the following:

1 (i) Fire hazard severity zone maps available from the Department
2 of Forestry and Fire Protection.

3 (ii) Any historical data on wildfires available from local
4 agencies or a reference to where the data can be found.

5 (iii) Information about wildfire hazard areas that may be
6 available from the United States Geological Survey.

7 (iv) General location and distribution of existing and planned
8 uses of land in very high fire hazard severity zones and in state
9 responsibility areas, including structures, roads, utilities, and
10 essential public facilities. The location and distribution of planned
11 uses of land shall not require defensible space compliance measures
12 required by state law or local ordinance to occur on publicly owned
13 lands or open space designations of homeowner associations.

14 (v) Local, state, and federal agencies with responsibility for fire
15 protection, including special districts and local offices of
16 emergency services.

17 (B) A set of goals, policies, and objectives based on the
18 information identified pursuant to subparagraph (A) for the
19 protection of the community from the unreasonable risk of wildfire.

20 (C) A set of feasible implementation measures designed to carry
21 out the goals, policies, and objectives based on the information
22 identified pursuant to subparagraph (B) including, but not limited
23 to, all of the following:

24 (i) Avoiding or minimizing the wildfire hazards associated with
25 new uses of land.

26 (ii) Locating, when feasible, new essential public facilities
27 outside of high fire risk areas, including, but not limited to,
28 hospitals and health care facilities, emergency shelters, emergency
29 command centers, and emergency communications facilities, or
30 identifying construction methods or other methods to minimize
31 damage if these facilities are located in a state responsibility area
32 or very high fire hazard severity zone.

33 (iii) Designing adequate infrastructure if a new development is
34 located in a state responsibility area or in a very high fire hazard
35 severity zone, including safe access for emergency response
36 vehicles, visible street signs, and water supplies for structural fire
37 suppression.

38 (iv) Working cooperatively with public agencies with
39 responsibility for fire protection.

1 (D) If a city or county has adopted a fire safety plan or document
2 separate from the general plan, an attachment of, or reference to,
3 a city or county's adopted fire safety plan or document that fulfills
4 commensurate goals and objectives and contains information
5 required pursuant to this paragraph.

6 (4) Upon the next revision of a local hazard mitigation plan,
7 adopted in accordance with the federal Disaster Mitigation Act of
8 2000 (Public Law 106-390), on or after January 1, 2017, or, if a
9 local jurisdiction has not adopted a local hazard mitigation plan,
10 beginning on or before January 1, 2022, the safety element shall
11 be reviewed and updated as necessary to address climate adaptation
12 and resiliency strategies applicable to the city or county. This
13 review shall consider advice provided in the Office of Planning
14 and Research's General Plan Guidelines and shall include all of
15 the following:

16 (A) (i) A vulnerability assessment that identifies the risks that
17 climate change poses to the local jurisdiction and the geographic
18 areas at risk from climate change impacts, including, but not limited
19 to, an assessment of how climate change may affect the risks
20 addressed pursuant to paragraphs (2) and (3).

21 (ii) Information that may be available from federal, state,
22 regional, and local agencies that will assist in developing the
23 vulnerability assessment and the adaptation policies and strategies
24 required pursuant to subparagraph (B), including, but not limited
25 to, all of the following:

26 (I) Information from the Internet-based Cal-Adapt tool.

27 (II) Information from the most recent version of the California
28 Adaptation Planning Guide.

29 (III) Information from local agencies on the types of assets,
30 resources, and populations that will be sensitive to various climate
31 change exposures.

32 (IV) Information from local agencies on their current ability to
33 deal with the impacts of climate change.

34 (V) Historical data on natural events and hazards, including
35 locally prepared maps of areas subject to previous risk, areas that
36 are vulnerable, and sites that have been repeatedly damaged.

37 (VI) Existing and planned development in identified at-risk
38 areas, including structures, roads, utilities, and essential public
39 facilities.

1 (VII) Federal, state, regional, and local agencies with
2 responsibility for the protection of public health and safety and
3 the environment, including special districts and local offices of
4 emergency services.

5 (B) A set of adaptation and resilience goals, policies, and
6 objectives based on the information specified in subparagraph (A)
7 for the protection of the community.

8 (C) A set of feasible implementation measures designed to carry
9 out the goals, policies, and objectives identified pursuant to
10 subparagraph (B) including, but not limited to, all of the following:

11 (i) Feasible methods to avoid or minimize climate change
12 impacts associated with new uses of land.

13 (ii) The location, when feasible, of new essential public facilities
14 outside of at-risk areas, including, but not limited to, hospitals and
15 health care facilities, emergency shelters, emergency command
16 centers, and emergency communications facilities, or identifying
17 construction methods or other methods to minimize damage if
18 these facilities are located in at-risk areas.

19 (iii) The designation of adequate and feasible infrastructure
20 located in an at-risk area.

21 (iv) Guidelines for working cooperatively with relevant local,
22 regional, state, and federal agencies.

23 (v) The identification of natural infrastructure that may be used
24 in adaptation projects, where feasible. Where feasible, the plan
25 shall use existing natural features and ecosystem processes, or the
26 restoration of natural features and ecosystem processes, when
27 developing alternatives for consideration. For the purposes of this
28 clause, "natural infrastructure" means the preservation or
29 restoration of ecological systems, or utilization of engineered
30 systems that use ecological processes, to increase resiliency to
31 climate change, manage other environmental hazards, or both.
32 This may include, but is not limited to, floodplain and wetlands
33 restoration or preservation, combining levees with restored natural
34 systems to reduce flood risk, and urban tree planting to mitigate
35 high heat days.

36 (D) (i) If a city or county has adopted the local hazard
37 mitigation plan, or other climate adaptation plan or document that
38 fulfills commensurate goals and objectives and contains the
39 information required pursuant to this paragraph, separate from the

1 general plan, an attachment of, or reference to, the local hazard
2 mitigation plan or other climate adaptation plan or document.

3 (ii) Cities or counties that have an adopted hazard mitigation
4 plan, or other climate adaptation plan or document that substantially
5 complies with this section, or have substantially equivalent
6 provisions to this subdivision in their general plans, may use that
7 information in the safety element to comply with this subdivision,
8 and shall summarize and incorporate by reference into the safety
9 element the other general plan provisions, climate adaptation plan
10 or document, specifically showing how each requirement of this
11 subdivision has been met.

12 (5) After the initial revision of the safety element pursuant to
13 paragraphs (2) and (3), upon each revision of the housing element,
14 the planning agency shall review and, if necessary, revise the safety
15 element to identify new information that was not available during
16 the previous revision of the safety element.

17 (6) Cities and counties that have flood plain management
18 ordinances that have been approved by FEMA that substantially
19 comply with this section, or have substantially equivalent
20 provisions to this subdivision in their general plans, may use that
21 information in the safety element to comply with this subdivision,
22 and shall summarize and incorporate by reference into the safety
23 element the other general plan provisions or the flood plain
24 ordinance, specifically showing how each requirement of this
25 subdivision has been met.

26 (7) Prior to the periodic review of its general plan and prior to
27 preparing or revising its safety element, each city and county shall
28 consult the California Geological Survey of the Department of
29 Conservation, the Central Valley Flood Protection Board, if the
30 city or county is located within the boundaries of the Sacramento
31 and San Joaquin Drainage District, as set forth in Section 8501 of
32 the Water Code, and the Office of Emergency Services for the
33 purpose of including information known by and available to the
34 department, the agency, and the board required by this subdivision.

35 (8) To the extent that a county's safety element is sufficiently
36 detailed and contains appropriate policies and programs for
37 adoption by a city, a city may adopt that portion of the county's
38 safety element that pertains to the city's planning area in
39 satisfaction of the requirement imposed by this subdivision.

1 *SEC. 13. Section 67661 of the Government Code is amended*
2 *to read:*

3 67661. The following may serve as ex officio nonvoting
4 members of the board:

5 (a) A representative appointed by the Monterey Peninsula
6 Community College District.

7 (b) A representative appointed by the Monterey Peninsula
8 Unified School District.

9 (c) A representative designated by the Member of Congress
10 ~~from the 17th~~ *that has the majority portion of Ford Ord in his or*
11 *her Congressional District.*

12 (d) A representative designated by the Senator ~~from the 15th~~
13 *that has the majority portion of Ford Ord in his or her Senate*
14 *District.*

15 (e) A representative designated by the Assembly Member ~~from~~
16 ~~the 27th~~ *that has the majority portion of Ford Ord in his or her*
17 *Assembly District.*

18 (f) A representative designated by the United States Army.

19 (g) A representative designated by the Chancellor of the
20 California State University.

21 (h) A representative designated by the President of the
22 University of California.

23 (i) A representative designated by the Monterey County Water
24 Resources Agency.

25 (j) A representative designated by the Transportation Agency
26 of Monterey County.

27 *SEC. 14. Section 5471 of the Health and Safety Code is*
28 *amended to read:*

29 5471. (a) In addition to the powers granted in the principal
30 act, any entity shall have power, by an ordinance *or resolution*
31 approved by a two-thirds vote of the members of the legislative
32 body thereof, to prescribe, revise and collect, fees, tolls, rates,
33 rentals, or other charges for services and facilities furnished by it,
34 either within or without its territorial limits, in connection with its
35 water, sanitation, storm drainage, or sewerage system.

36 (b) In addition to the powers granted in the principal act, any
37 entity shall have power, pursuant to the notice, protest, and hearing
38 procedures in Section 53753 of the Government Code, to prescribe,
39 revise, and collect water, sewer, or water and sewer standby or
40 immediate availability charges for services and facilities furnished

1 by it, either within or without its territorial limits, in connection
2 with its water, sanitation, storm drainage, or sewerage system.

3 (c) The entity may provide that the charge for the service shall
4 be collected with the rates, tolls, and charges for any other utility,
5 and that any or all of these charges may be billed upon the same
6 bill. Where the charge is to be collected with the charges for any
7 other utility service furnished by a department or agency of the
8 entity and over which its legislative body does not exercise control,
9 the consent of the department or agency shall be obtained prior to
10 collecting water, sanitation, storm drainage, or sewerage charges
11 with the charges for any other utility. Revenues derived under the
12 provisions in this section, shall be used only for the acquisition,
13 construction, reconstruction, maintenance, and operation of water
14 systems and sanitation, storm drainage, or sewerage facilities, to
15 repay principal and interest on bonds issued for the construction
16 or reconstruction of these water systems and sanitary, storm
17 drainage, or sewerage facilities and to repay federal or state loans
18 or advances made to the entity for the construction or
19 reconstruction of water systems and sanitary, storm drainage, or
20 sewerage facilities. However, the revenue shall not be used for the
21 acquisition or construction of new local street sewers or laterals
22 as distinguished from main trunk, interceptor and outfall sewers.

23 (d) If the procedures set forth in this section as it read at the
24 time a standby charge was established were followed, the entity
25 may, by ordinance *or resolution* adopted by a two-thirds vote of
26 the members of the legislative body thereof, continue the charge
27 pursuant to this section in successive years at the same rate. If new,
28 increased, or extended assessments are proposed, the entity shall
29 comply with the notice, protest, and hearing procedures in Section
30 53753 of the Government Code.

31 *SEC. 15. Section 5473 of the Health and Safety Code is*
32 *amended to read:*

33 5473. Any entity which has adopted an ordinance *or resolution*
34 pursuant to this article or an order pursuant to Section 6520.5 may,
35 by such ordinance *or resolution* or by separate ordinances or
36 resolutions approved by a two-thirds vote of the members of the
37 legislative body thereof, elect to have such charges collected on
38 the tax roll in the same manner, by the same persons, and at the
39 same time as, together with and not separately from, its general
40 taxes. In such event, it shall cause a written report to be prepared

1 each year and filed with the clerk, which shall contain a description
2 of each parcel of real property receiving such services and facilities
3 and the amount of the charge for each parcel for the year, computed
4 in conformity with the charges prescribed by the ordinance or
5 resolution.

6 Any ordinance or resolution adopted pursuant to this section
7 authorizing the collection of charges on the tax roll shall remain
8 in effect for the time specified in the ordinance or resolution or, if
9 no time is specified in the ordinance or resolution, until repealed
10 or until a change is made in the rates charged by the entity.

11 The powers authorized by this section shall be alternative to all
12 other powers of any entity, and alternative to other procedures
13 adopted by the legislative body thereof for the collection of such
14 charges.

15 The real property may be described by reference to maps
16 prepared in accordance with Section 327, Revenue and Taxation
17 Code, and on file in the office of the county assessor or by
18 reference to plats or maps on file in the office of the clerk.

19 *SEC. 16. Section 5474 of the Health and Safety Code is*
20 *amended to read:*

21 5474. An entity shall have the power by ordinance or resolution
22 approved by two-thirds vote of the members of the legislative body
23 thereof to fix fees or charges for the privilege of connecting to its
24 sanitation or sewerage facilities and improvements constructed by
25 the entity pursuant to Sections 5463 and 5464, to fix the time or
26 times at which the fees or charges shall become due, to provide
27 for the payment of the fees or charges prior to connection or in
28 installments over a period of not to exceed 30 years, to provide
29 the rate of interest, not to exceed 12 percent per annum, to be
30 charged on the unpaid balance of the fees or charges, and to provide
31 that the amount of the fees or charges and the interest thereon shall
32 constitute a lien against the respective lots or parcels of land to
33 which the facilities are connected at the time and in the manner
34 specified in Sections 5473.5 and 5473.8. Prior to making the fees
35 or charges a lien against the land, the legislative body shall give
36 notice to the owners of the lots or parcels of land affected, and the
37 notice shall set forth all of the following:

38 (a) The schedule of fees or charges to be imposed by the entity.

39 (b) A description of the property subject to the fees or charges,
40 which description may be by reference to a plat or diagram on file

1 in the office of the clerk of the legislative body, or to maps prepared
2 in accordance with Section 327 of the Revenue and Taxation Code,
3 and on file in the office of the county assessor.

4 (c) The time or times at which the fees or charges shall become
5 due.

6 (d) The number of installments in which the fees or charges
7 shall be payable.

8 (e) The rate of interest, not to exceed 12 percent per annum, to
9 be charged on the unpaid balance of the fees or charges.

10 (f) That it is proposed that the fees or charges and interest
11 thereon shall constitute a lien against the lots or parcels of land to
12 which the facilities are furnished.

13 (g) The time and place at which the legislative body will hold
14 a hearing at which persons may appear and present any and all
15 objections they may have to the imposition of the fees or charges
16 as a lien against the land.

17 *SEC. 17. Section 5474.8 of the Health and Safety Code is*
18 *amended to read:*

19 5474.8. Fees or charges imposed by an entity by ordinance *or*
20 *resolution* adopted pursuant to Section 5474 may differ in amount
21 or method of computation from fees or charges imposed by any
22 other ordinance *or resolution* of such entity adopted pursuant to
23 said Section 5474.

24 ~~SEC. 3.~~

25 *SEC. 18. Section 13822 of the Health and Safety Code is*
26 *amended to read:*

27 13822. Once the chief petitioners have filed a sufficient petition
28 or a legislative body has filed a resolution of application, the local
29 agency formation commission shall proceed pursuant to Chapter
30 5 (commencing with Section 56825) of Part 3 of Division 3 of
31 Title 5 of the Government Code.

32 ~~SEC. 4.~~

33 *SEC. 19. Section 22161 of the Public Contract Code, as*
34 *amended by Section 2 of Chapter 715 of the Statutes of 2015, is*
35 *amended to read:*

36 22161. For purposes of this chapter, the following definitions
37 apply:

38 (a) "Best value" means a value determined by evaluation of
39 objective criteria that relate to price, features, functions, life-cycle
40 costs, experience, and past performance. A best value determination

1 may involve the selection of the lowest cost proposal meeting the
2 interests of the local agency and meeting the objectives of the
3 project, selection of the best proposal for a stipulated sum
4 established by the procuring agency, or a tradeoff between price
5 and other specified factors.

6 (b) “Construction subcontract” means each subcontract awarded
7 by the design-build entity to a subcontractor that will perform work
8 or labor or render service to the design-build entity in or about the
9 construction of the work or improvement, or a subcontractor
10 licensed by the State of California that, under subcontract to the
11 design-build entity, specially fabricates and installs a portion of
12 the work or improvement according to detailed drawings contained
13 in the plans and specifications produced by the design-build team.

14 (c) “Design-build” means a project delivery process in which
15 both the design and construction of a project are procured from a
16 single entity.

17 (d) “Design-build entity” means a corporation, limited liability
18 company, partnership, joint venture, or other legal entity that is
19 able to provide appropriately licensed contracting, architectural,
20 and engineering services as needed pursuant to a design-build
21 contract.

22 (e) “Design-build team” means the design-build entity itself
23 and the individuals and other entities identified by the design-build
24 entity as members of its team. Members shall include the general
25 contractor and, if utilized in the design of the project, all electrical,
26 mechanical, and plumbing contractors.

27 (f) “Local agency” means the following:

28 (1) A city, county, or city and county.

29 (2) A special district that operates wastewater facilities, solid
30 waste management facilities, water recycling facilities, or fire
31 protection facilities.

32 (3) Any transit district, included transit district, municipal
33 operator, included municipal operator, any consolidated agency,
34 as described in Section 132353.1 of the Public Utilities Code, any
35 joint powers authority formed to provide transit service, any county
36 transportation commission created pursuant to Section 130050 of
37 the Public Utilities Code, or any other local or regional agency,
38 responsible for the construction of transit projects.

39 (4) The San Diego Association of Governments, as referenced
40 in the San Diego Regional Transportation Consolidation Act

1 (Chapter 3 (commencing with Section 132350) of Division 12.7
2 of the Public Utilities Code).

3 (g) (1) For a local agency defined in paragraph (1) of
4 subdivision (f), “project” means the construction of a building or
5 buildings and improvements directly related to the construction
6 of a building or buildings, county sanitation wastewater treatment
7 facilities, and park and recreational facilities, but does not include
8 the construction of other infrastructure, including, but not limited
9 to, streets and highways, public rail transit, or water resources
10 facilities and infrastructure. For a local agency defined in paragraph
11 (1) of subdivision (f) that operates wastewater facilities, solid waste
12 management facilities, or water recycling facilities, “project” also
13 means the construction of regional and local wastewater treatment
14 facilities, regional and local solid waste facilities, or regional and
15 local water recycling facilities.

16 (2) For a local agency defined in paragraph (2) of subdivision
17 (f), “project” means the construction of regional and local
18 wastewater treatment facilities, regional and local solid waste
19 facilities, regional and local water recycling facilities, or fire
20 protection facilities.

21 (3) For a local agency defined in paragraph (3) of subdivision
22 (f), “project” means a transit capital project that begins a project
23 solicitation on or after January 1, 2015. A “project,” as defined by
24 this paragraph, that begins the solicitation process before January
25 1, 2015, is subject to Article 6.8 (commencing with Section
26 20209.5) of Chapter 1. “Project,” as defined by this paragraph,
27 does not include state highway construction or local street and
28 road projects.

29 (4) For a local agency defined in paragraph (4) of subdivision
30 (f), “project” has the same meaning as in paragraph (3), and in
31 addition shall include development projects adjacent, or physically
32 or functionally related, to transit facilities developed or jointly
33 developed by the local agency.

34 *SEC. 20. Section 11005 of the Revenue and Taxation Code is*
35 *amended to read:*

36 11005. After payment of refunds therefrom and after making
37 the deductions authorized by Section 11003 and reserving the
38 amount determined necessary by the Pooled Money Investment
39 Board to meet the transfers ordered or proposed to be ordered
40 pursuant to Section 16310 of the Government Code, the balance

of all motor vehicle license fees and any other money appropriated by law for expenditure pursuant to this section, deposited to the credit of the Motor Vehicle License Fee Account in the Transportation Tax Fund, and remaining unexpended in that account at the close of business on the last day of the calendar month, shall be allocated by the Controller by the 10th day of the following month in accordance with the following:

(a) On and after July 1, 2011, to the Local Law Enforcement Services Account in the Local Revenue Fund 2011, as established by Section 30025 of the Government Code, for allocation to cities, counties, and cities and counties.

(b) On or after July 1, 2004, but before July 1, 2011:

(1) First, to the County of Orange. For the 2004–05 fiscal year, that county shall be allocated fifty-four million dollars (\$54,000,000) in monthly installments. For the 2005–06 fiscal year and each fiscal year thereafter, that county shall receive, in monthly installments, an amount equal to the amount allocated under this section for the prior fiscal year, adjusted for the percentage change in the amount of revenues credited to the Motor Vehicle License Fee Account in the Transportation Tax Fund from the revenues credited to that account in the prior fiscal year. Moneys allocated to the County of Orange under this subdivision shall be used first for the service of indebtedness as provided in paragraph (1) of subdivision (a) of Section 11001.5. Any amounts in excess of the amount required for this service of indebtedness may be used by that county for any lawful purpose.

(2) Second, to each city, the population of which is determined under Section 11005.3 on August 5, 2004, in an amount equal to the additional amount of vehicle license fee revenue, including offset transfers, that would be allocated to that city under Sections 11000 and 11005, as those sections read on January 1, 2004, as a result of that city's population being determined under subdivision (a) or (b) of Section 11005.3.

(3) Third, to each city that was incorporated from an unincorporated territory after August 5, 2004, in an amount equal to the product of the following two amounts:

(A) The quotient derived from the following fraction:

(i) The numerator is the product of the following two amounts:

(I) Fifty dollars (\$50) per year.

1 (II) The fraction determined as the total amount of vehicle
2 license fee revenue collected during the most recent fiscal year
3 divided by the total amount of vehicle license fee revenue collected
4 during the 2004–05 fiscal year.

5 (ii) The denominator is the fraction determined as the actual
6 population, as defined in subdivision-(e) (d) of Section 11005.3,
7 of all cities during the most recent fiscal year, divided by the actual
8 population, as defined in subdivision-(e) (d) of Section 11005.3,
9 of all cities in the 2004–05 fiscal year.

10 (B) The city's population determined in accordance with Section
11 11005.3.

12 (4) Fourth, to each city that was incorporated before August 5,
13 2004, in an amount equal to the product of the following two
14 amounts:

15 (A) The quotient derived from the following fraction:

16 (i) The numerator is the product of the following two amounts:

17 (I) Fifty dollars (\$50) per year.

18 (II) The fraction determined as the total amount of vehicle
19 license fee revenue collected during the most recent fiscal year
20 divided by the total amount of vehicle license fee revenue collected
21 during the 2004–05 fiscal year.

22 (ii) The denominator is the fraction determined as the actual
23 population, as defined in subdivision-(e) (d) of Section 11005.3,
24 of all cities during the most recent fiscal year, divided by the actual
25 population, as defined in subdivision-(e) (d) of Section 11005.3,
26 of all cities in the 2004–05 fiscal year.

27 (B) The actual population, as defined in subdivision-(e) (d) of
28 Section 11005.3, residing in areas annexed after August 5, 2004,
29 as of the date of annexation.

30 (5) Fifth, to the cities and cities and counties of this state in the
31 proportion that the population of each city or city and county bears
32 to the total population of all cities and cities and counties in this
33 state, as determined by the Demographic Research Unit of the
34 Department of Finance. For the purpose of this subdivision, the
35 population of each city or city and county shall be determined in
36 accordance with Section 11005.3.

37 ~~SEC. 5.~~

38 *SEC. 21.* Section 11005.3 of the Revenue and Taxation Code
39 is amended to read:

1 11005.3. (a) In the case of a city that incorporated on or after
2 January 1, 1987, and before August 5, 2004, the Controller shall
3 determine that the population of the city for its first 10 full fiscal
4 years, and any portion of the first year in which the incorporation
5 is effective if less than a full fiscal year, is the greater of either:

6 (1) The number of registered voters in the city multiplied by
7 three. The number of registered voters shall be calculated as of the
8 effective date of the incorporation of the city.

9 (2) The actual population, as defined in subdivision (d).

10 (b) In the case of a city that incorporated on or after January 1,
11 1987, and before August 5, 2004, and for which the application
12 for incorporation was filed with the executive officer of the local
13 agency formation commission pursuant to subdivision (a) of
14 Section 56828 of the Government Code on or after January 1,
15 1991, the Controller shall determine that the population of the city
16 for its first seven full fiscal years, and any portion of the first year
17 in which the incorporation is effective if less than a full fiscal year,
18 is the greater of either:

19 (1) The number of registered voters in the city multiplied by
20 three. The number of registered voters shall be calculated as of the
21 effective date of the incorporation of the city.

22 (2) The actual population, as defined in subdivision (d).

23 (c) In the case of a city that was incorporated from
24 unincorporated territory after August 5, 2004, the Controller shall
25 determine the population of the city as follows:

26 (1) For its first 12 months, 150 percent of the city's actual
27 population.

28 (2) For its 13th through 24th months, 140 percent of the city's
29 actual population.

30 (3) For its 25th through 36th months, 130 percent of the city's
31 actual population.

32 (4) For its 37th through 48th months, 120 percent of the city's
33 actual population.

34 (5) For its 49th through 60th months, 110 percent of the city's
35 actual population.

36 (6) After its 60th month, the city's actual population.

37 (d) For purposes of this section, "actual population" means the
38 population determined by the last federal decennial or special
39 census, or a subsequent census validated by the Demographic
40 Research Unit of the Department of Finance or subsequent estimate

1 prepared pursuant to Section 2107.2 of the Streets and Highways
2 Code.

3 (e) In the case of unincorporated territory being annexed to a
4 city, during the 10-year, seven-year, or five-year period following
5 incorporation, as the case may be, subsequent to the last federal
6 census, or a subsequent census validated by the Demographic
7 Research Unit of the Department of Finance, the unit shall
8 determine the population of the annexed territory by the use of
9 any federal decennial or special census or any estimate prepared
10 pursuant to Section 2107.2 of the Streets and Highways Code. The
11 population of the annexed territory as determined by the
12 Demographic Research Unit shall be added to the city's population
13 as previously determined by the Controller pursuant to paragraph
14 (1) or (2) of subdivision (a), paragraph (1) or (2) of subdivision
15 (b), or subdivision (c), as applicable.

16 (f) After the 10-year, seven-year, or five-year period following
17 incorporation, as the case may be, the Controller shall determine
18 the population of the city as the city's actual population, as defined
19 in subdivision (d).

20 (g) The amendments made to this section by the act adding this
21 subdivision shall not apply with respect to either of the following:

22 (1) Any city that has adopted an ordinance or resolution,
23 approved a ballot measure, or is subject to a consent decree or
24 court order, that annually limits the number of housing units that
25 may be constructed within the city.

26 (2) Any city that has not prepared and adopted a housing element
27 in compliance with Section 65585 of the Government Code.

28 (h) This section shall become operative July 1, 1991.

29 *SEC. 22. Section 19201 of the Revenue and Taxation Code is*
30 *amended to read:*

31 19201. If any amount due under Part 10 (commencing with
32 Section 17001), Part 11 (commencing with Section 23001), or any
33 amount that may be collected by the Franchise Tax Board as though
34 it were a tax, is not paid, the Franchise Tax Board may file in the
35 Office of the ~~County~~ Clerk of the Court of Sacramento County,
36 or any other county, a certificate specifying the amount due, the
37 name and last known address of the taxpayer liable for the amount
38 due, and the fact that the Franchise Tax Board has complied with
39 all provisions of the law in the computation and levy of the amount

1 due, and a request that judgment be entered against the taxpayer
2 in the amount set forth in the certificate.

3 *SEC. 23. Section 19202 of the Revenue and Taxation Code is*
4 *amended to read:*

5 19202. The ~~county clerk~~ *Clerk of the Court* immediately upon
6 the filing of the certificate shall enter a judgment for the people
7 of the State of California against the taxpayer in the amount set
8 forth in the certificate. The ~~county clerk~~ *Clerk of the Court* may
9 file the judgment in a loose-leaf book entitled "Personal Income
10 Tax Judgments" or "Bank and Corporation Tax Judgments," as
11 appropriate.

12 ~~SEC. 6.~~

13 *SEC. 24. Section 2105 of the Streets and Highways Code is*
14 *amended to read:*

15 2105. Notwithstanding Section 13340 of the Government Code,
16 in addition to the apportionments prescribed by Sections 2104,
17 2106, and 2107, from the revenues derived from a per gallon tax
18 imposed pursuant to Section 7360 of the Revenue and Taxation
19 Code, and a per gallon tax imposed pursuant to Sections 8651,
20 8651.5, and 8651.6 of the Revenue and Taxation Code, and a per
21 gallon tax imposed pursuant to Sections 60050 and 60115 of the
22 Revenue and Taxation Code, the following apportionments shall
23 be made:

24 (a) A sum equal to 1.035 cents (\$0.01035) per gallon from the
25 tax under Section 7360 of the Revenue and Taxation Code, 11.5
26 percent of any per gallon tax in excess of nine cents (\$0.09) per
27 gallon under Sections 8651, 8651.5, and 8651.6 of the Revenue
28 and Taxation Code, and 1.035 cents (\$0.01035) per gallon from
29 the tax under Sections 60050 and 60115 of the Revenue and
30 Taxation Code, shall be apportioned among the counties, including
31 a city and county.

32 The amount of apportionment to each county, including a city
33 and county, during a fiscal year shall be calculated as follows:

34 (1) One million dollars (\$1,000,000) for apportionment to all
35 counties, including a city and county, in proportion to each county's
36 receipts during the prior fiscal year under Sections 2104 and 2106.

37 (2) One million dollars (\$1,000,000) for apportionment to all
38 counties, including a city and county, as follows:

39 (A) Seventy-five percent in the proportion that the number of
40 fee-paid and exempt vehicles which are registered in the county

1 bears to the number of fee-paid and exempt vehicles registered in
2 the state.

3 (B) Twenty-five percent in the proportion that the number of
4 miles of maintained county roads in the county bears to the miles
5 of maintained county roads in the state.

6 (3) For each county, determine its factor which is the higher
7 amount calculated pursuant to paragraph (1) or (2) divided by the
8 sum of the higher amounts for all of the counties.

9 (4) The amount to be apportioned to each county is equal to its
10 factor multiplied by the amount available for apportionment.

11 (b) A sum equal to 1.035 cents (\$0.01035) per gallon from the
12 tax under Section 7360 of the Revenue and Taxation Code, 11.5
13 percent of any per gallon tax in excess of nine cents (\$0.09) per
14 gallon under ~~Section 8651~~ Sections 8651, 8651.5, and 8651.6 of
15 the Revenue and Taxation Code, and 1.035 cents (\$0.01035) per
16 gallon from the tax under Sections 60050 and 60115 of the
17 Revenue and Taxation Code, shall be apportioned to cities,
18 including a city and county, in the proportion that the total
19 population of the city bears to the total population of all the cities
20 in the state.

21 (c) (1) Transfers of revenues from the Highway Users Tax
22 Account to counties or cities pursuant to this section collected
23 during the months of March, April, May, June, and July of 2008,
24 shall be made with the transfer of August 2008 revenues in
25 September of 2008. This suspension shall not apply to a county
26 with a population of less than 40,000.

27 (2) For the purpose of meeting the cash obligations associated
28 with ongoing budgeted costs, a city or county may make use of
29 any cash balance in the city account that is designated for the
30 receipt of state funds allocated for local streets and roads or the
31 county road fund, including that resulting from the receipt of funds
32 pursuant to the Highway Safety, Traffic Reduction, Air Quality,
33 and Port Security Bond Act of 2006 (Chapter 12.49 (commencing
34 with Section 8879.20) of Division 1 of Title 2 of the Government
35 Code (hereafter bond act)) for local streets and roads maintenance,
36 during the period of this suspension, without the use of this cash
37 being reflected as an expenditure of bond act funds, provided the
38 cash is replaced once this suspension is repaid in September of
39 2008. Counties and cities may accrue the revenue received in
40 September 2008 as repayment of these suspensions for the months

1 of April, May, and June of 2008 back to the 2007–08 fiscal year.
2 Nothing in this paragraph shall change the fact that expenditures
3 must be accrued and reflected from the appropriate funding sources
4 for which the moneys were received and meet all the requirements
5 of those funding sources.

6 (d) (1) The transfer of revenues from the Highway Users Tax
7 Account to counties or cities pursuant to this section collected
8 during the months of January, February, and March 2009 shall be
9 made with the transfer of April 2009 revenues in May 2009.

10 (2) For the purpose of meeting the cash obligations associated
11 with ongoing budgeted costs, a city or county may make use of
12 any cash balance in the city account that is designated for the
13 receipt of state funds allocated for local streets and roads or the
14 county road fund, including that resulting from the receipt of funds
15 pursuant to the Highway Safety, Traffic Reduction, Air Quality,
16 and Port Security Bond Act of 2006 (Chapter 12.49 (commencing
17 with Section 8879.20) of Division 1 of Title 2 of the Government
18 Code (bond act)) for local streets and roads maintenance, during
19 the period of this suspension, and the use of this cash shall not be
20 considered as an expenditure of bond act funds, if the cash is
21 replaced when the payments that are suspended pursuant to this
22 subdivision are repaid in May 2009.

23 (3) This subdivision shall not affect any requirement that an
24 expenditure is required to be accrued and reflected from the
25 appropriate funding source for which the money was received and
26 to meet all the requirements of its funding source.

27 *SEC. 25. Section 7.3 of the Kern County Water Agency Act*
28 *(Chapter 1003 of the Statutes of 1961), as amended by Section 2*
29 *of Chapter 832 of the Statutes of 1972, is repealed.*

30 ~~Sec. 7.3. Unless previously approved by the board of~~
31 ~~supervisors, no tax or assessment shall be levied hereunder, no~~
32 ~~zone of benefit shall be created pursuant to Section 14.2 hereof,~~
33 ~~and no expenditure of funds unless previously approved in the~~
34 ~~form of a budget by the board of supervisors shall be made. The~~
35 ~~board of supervisors may, in connection with any of the foregoing,~~
36 ~~conduct public hearings. Such hearings shall be declared by a~~
37 ~~resolution specifying the purpose and the day, hour, and place~~
38 ~~where all interested persons may appear and be heard. This~~
39 ~~resolution shall be published in the agency pursuant to Section~~
40 ~~6063 of the Government Code in a newspaper of general circulation~~

1 in the agency. The hearing may be adjourned from time to time at
2 the discretion of the board of supervisors and at its conclusion the
3 board of supervisors shall declare its decision.

4 SEC. 26. Section 7.6 of the Kern County Water Agency Act
5 (Chapter 1003 of the Statutes of 1961), as added by Section 2 of
6 Chapter 49 of the Statutes of 1982, is amended to read:

7 Sec. 7.6. (a) The board of directors shall not approve an
8 agency budget or submit it to the board of supervisors for approval
9 unless the board has first conducted a public hearing.

10 The

11 (b) The board shall publish a notice of the hearing pursuant to
12 Section 6066 of the Government Code.

13 SEC. 27. Section 8 of the Kern County Water Agency Act
14 (Chapter 1003 of the Statutes of 1961) is repealed.

15 Sec. 8. If the county surveyor is a registered civil engineer and
16 is employed to supervise the engineering work of the agency, the
17 board may provide compensation for his services in addition to
18 his salary as county surveyor which shall be payable from the
19 funds of the agency. The board may employ the county counsel
20 as the attorney for the agency and may provide compensation for
21 his services in addition to his salary as county counsel which shall
22 be payable from the funds of the agency. All other officers of the
23 county, and their assistants, deputies, clerks, and employees, shall
24 be ex officio officers, assistants, deputies, clerks and employees
25 respectively of the agency, and shall perform, unless otherwise
26 provided by the board, the same duties for the agency as performed
27 for the county.

28 SEC. 28. If the Commission on State Mandates determines that
29 this act contains costs mandated by the state, reimbursement to
30 local agencies and school districts for those costs shall be made
31 pursuant to Part 7 (commencing with Section 17500) of Division
32 4 of Title 2 of the Government Code.

EXHIBIT "J"



IRVINE RANCH WATER DISTRICT

15600 Sand Canyon Avenue • P.O. Box 57000 • Irvine, California 92619-7000 • (949) 453-5300 • www.irwd.com

March 30, 2016

The Honorable Robert Hertzberg
Senate Governance & Finance Committee
State Capitol, Room 408
Sacramento, California 95814

RE: SB 974 (COMMITTEE): SUPPORT

Dear Chairman Hertzberg:

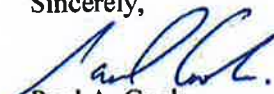
On behalf of the Irvine Ranch Water District, I write in support of SB 974 (Committee), the annual Senate Local Government Omnibus Bill. This measure proposes relatively minor, noncontroversial changes to the laws affecting local agencies' powers and duties that do not warrant separate and expensive bills.

The Irvine Ranch Water District is a local agency that delivers water and sewer services to more than 380,000 customers. As a local government agency, we must comply with the many statutes affecting both water agencies and local agencies. We appreciate the convenience of cleaning up errors or omissions in the statutes through the annual omnibus bill.

The "Local Government Omnibus Act of 2016" proposes changes to statutes affecting local agencies' powers and duties, including general plan elements, county recorders, veterans' records, financial transaction reports and consistency across existing statutes authorizing local agencies to adopt either an ordinance or a resolution, among others.

For these reasons, we strongly urge an "AYE" vote on SB 974. Please do not hesitate to contact me at (949) 453-5590 or our Sacramento Advocate, Maureen O'Haren, at (916) 498-1900 if you have questions regarding our position on this measure.

Sincerely,


Paul A. Cook
General Manager

cc: The Honorable Members, Senate Governance & Finance Committee
Brian Weinberger, Chief Consultant, Senate Governance & Finance Committee
Ryan Eisberg, Senate Republican Policy Consultants
Camille Wagner, Office of the Governor

EXHIBIT "K"

SENATE BILL

No. 1317

Introduced by Senator Wolk

February 19, 2016

An act to add Article 2.10 (commencing with Section 65891) to Chapter 4 of Division 1 of Title 7 of the Government Code, relating to land use.

LEGISLATIVE COUNSEL'S DIGEST

SB 1317, as introduced, Wolk. Conditional use permit: groundwater extraction facility.

The California Constitution requires the reasonable and beneficial use of water and that the conservation of the water resources of the state is to be exercised with a view to the reasonable and beneficial use of the water in the interest of the people and for the public welfare. Existing law, the Sustainable Groundwater Management Act, requires all groundwater basins designated as high- or medium-priority basins by the Department of Water Resources that are designated as basins subject to critical conditions of overdraft to be managed under a groundwater sustainability plan or coordinated groundwater sustainability plans by January 31, 2020, and requires all other groundwater basins designated as high- or medium-priority basins to be managed under a groundwater sustainability plan or coordinated groundwater sustainability plans by January 31, 2022, except as specified.

This bill, by July 1, 2017, would require a city or county overlying a basin designated as a high- or medium-priority basin to establish a process for the issuance of conditional use permits for the development of a groundwater extraction facility in order to prevent a new groundwater extraction facility from contributing to or creating an undesirable result, as prescribed. By increasing the duties of cities and counties, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.

State-mandated local program: yes.

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

SECTION 1. Article 2.10 (commencing with Section 65891) is added to Chapter 4 of Division 1 of Title 7 of the Government Code, to read:

Article 2.10. Aquifer Protection

65891. The Legislature finds and declares as follows:

(a) Groundwater provides substantial water supplies for many farms and communities across the state, particularly in drier years. While in some parts of the state groundwater is very well managed, in other parts there has been substantial groundwater overdraft.

(b) During California's record drought, there has been a substantial increase in the extraction of groundwater resulting in impacts to aquifers.

(c) In 2014, California adopted landmark legislation, the Sustainable Groundwater Management Act (Part 2.74 (commencing with Section 10720) of Division 6 of the Water Code), to sustainably manage groundwater resources. The act will not be fully implemented for many years, allowing groundwater overdraft to continue in some regions.

(d) Despite the drought, there has been a substantial and dramatic increase in conversion of existing pastureland and nonirrigated lands to new permanent crops irrigated by new deep groundwater wells. In many parts of the central valley, these new orchards and groundwater wells have caused or contributed to existing groundwater wells drying up. These new groundwater wells exacerbate overdraft in some regions of the state and have harmed and will continue to harm groundwater supplies for existing farms and rural communities and the long-term viability of aquifers.

1 (e) A number of new developments also rely on individual new
2 wells, further stressing overdrafted groundwater basins.

3 (f) The number of new wells supplying significant new demands
4 for groundwater has resulted in alarming subsidence in many areas
5 of California. Subsidence threatens statewide resources and
6 infrastructure such as roads, highways, and aqueducts. Importantly,
7 subsidence may also cause permanent damage to aquifers,
8 threatening groundwater resources for future generations.

9 (g) The lack of protection for aquifers, existing groundwater
10 users, and important infrastructure from the explosive increase in
11 new wells is an issue of statewide importance and requires
12 statewide regulation to avoid undesirable results to groundwater
13 and statewide resources while local communities are working to
14 comply with the provisions of the Sustainable Groundwater
15 Management Act. Preventing undesirable results in a high- or
16 medium-priority basin pursuant to this article and in furtherance
17 of Section 113 of the Water Code is a matter of statewide concern
18 and not a municipal affair, as that term is used in Section 5 of
19 Article XI of the California Constitution. Therefore, this act applies
20 to charter cities.

21 (h) This act is in furtherance of the policy contained in Section
22 2 of Article X of the California Constitution.

23 65891.1. As used in this article:

24 (a) "Basin" has the meaning provided in Section 10721 of the
25 Water Code.

26 (b) "Bulletin 118" has the meaning provided in Section 10721
27 of the Water Code.

28 (c) "De minimis extractor" has the meaning provided in Section
29 10721 of the Water Code.

30 (d) "Department" means the Department of Water Resources.

31 (e) "Groundwater" has the meaning provided in Section 10721
32 of the Water Code.

33 (f) "Groundwater extraction facility" has the meaning provided
34 in Section 10721 of the Water Code.

35 (g) "High-priority basin," "medium-priority basin," "low-priority
36 basin," and "very low priority basin" have the same meaning as
37 the categorization of a basin by the department pursuant to Section
38 10722.4 of the Water Code.

39 (h) "Probationary basin" has the meaning provided in Section
40 10735 of the Water Code.

1 (i) “Undesirable result” has the meaning provided in Section
2 10721 of the Water Code.

3 65891.2. (a) A city or county overlying a basin designated as
4 a high- or medium-priority basin shall do both of the following:

5 (1) By July 1, 2017, establish a process for the issuance of a
6 conditional use permit for the development of a groundwater
7 extraction facility that imposes conditions on the development of
8 a new groundwater extraction facility in order to prevent the new
9 groundwater extraction facility from contributing to or creating
10 an undesirable result.

11 (2) Prohibit the issuance of a conditional use permit for a new
12 groundwater extraction facility in either of the following:

13 (A) A probationary basin.

14 (B) A basin designated in Bulletin 118 as a basin subject to
15 critical conditions of overdraft.

16 (b) A conditional use permit for the development of a
17 groundwater extraction facility shall not be required for either of
18 the following:

19 (1) A de minimis extractor.

20 (2) The replacement of an existing groundwater extraction
21 facility with a new groundwater extraction facility with the same
22 or a lesser extraction capacity. For the purposes of this article,
23 replacement includes the deepening of a groundwater extraction
24 facility.

25 (c) A city or county overlying a basin designated as a low- or
26 very low priority basin may adopt an ordinance establishing a
27 process for the issuance of conditional use permits for the
28 development of a groundwater extraction facility in accordance
29 with this section.

30 65891.3. (a) A city or county shall review an application for
31 a groundwater extraction facility pursuant to the timelines
32 established in the Permit Streamlining Act (Chapter 4.5
33 (commencing with Section 65920)).

34 (b) A fee charged by a city or county to review an application
35 for a groundwater extraction facility shall be determined in
36 accordance with Sections 66014 and 66016.

37 65891.4. This article does not require a city or county to
38 establish a new process for the issuance of a conditional use permit
39 for the development of a groundwater extraction facility if the city
40 or county has in effect an ordinance adopted before January 1,

1 2017, that imposes conditions on the development of a new
2 groundwater extraction facility in order to prevent the new
3 groundwater extraction facility from contributing to or creating
4 an undesirable result.

5 SEC. 2. No reimbursement is required by this act pursuant to
6 Section 6 of Article XIII B of the California Constitution because
7 a local agency or school district has the authority to levy service
8 charges, fees, or assessments sufficient to pay for the program or
9 level of service mandated by this act, within the meaning of Section
10 17556 of the Government Code.

O

IMPROVING RELIABILITY AND SAFETY FOR DROUGHTS AND FLOODS

PREPARED BY SONOMA COUNTY WATER AGENCY

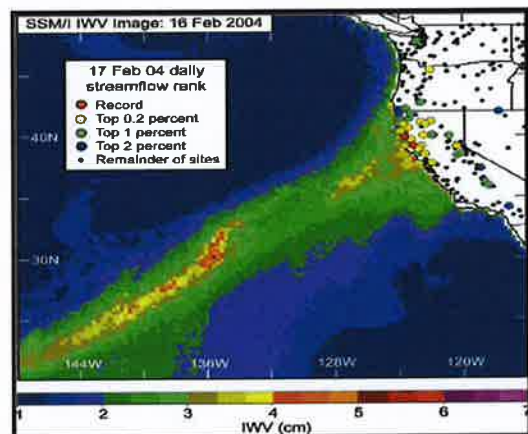
SONOMA COUNTY WATER AGENCY REQUEST

1. Include in FY17 Corps budget +\$5.5M within the Water Operations Technical Support (WOTS) program within Operations and Maintenance, Flood Risk Management. (The FY16 omnibus appropriations included \$5.5M).
2. Include in the FY17 NOAA budget +\$5.0M within Physical Sciences Division of Office of Atmospheric Research, specifically for atmospheric rivers work on the west coast.

Recent droughts highlight the need for access to the latest weather and seasonal forecasting and environmental data, which offer the opportunity for (a) improved operations to increase water supply while maintaining critical flood control and (b) enhanced public safety for extreme precipitation events.

THE PROBLEM

Water Operations: U.S. Army Corps of Engineers (Corps) reservoirs are managed through Water Control Plans and Reservoir Regulation Schedules, many of which were developed over a half century ago and have not been updated in decades. The Corps can periodically review and update these according to evolving conditions. The Manual utilizes gross estimates of flood potential to establish reservoir storage and release requirements. It does not account for changing conditions in the watershed—for example, increased variation in dry and wet weather patterns and reductions to imported flows. Given the ongoing drought, some adjustments to the current reservoir operating procedures may be possible by incorporating modern observation and prediction technology. Such improvements would reduce flood risk during extreme weather events by supporting decisions of greater reservoir level drawdown in advance of storms.



Atmospheric river hitting the U.S. West Coast:
from Ralph et al. 2006

Public Safety: NOAA and California are working to improve ocean buoy and radar systems and technical modeling to provide better lead-time and prediction precision to estimate amounts and locations of extreme weather events. The results will benefit road, rail, air and sea transportation; reservoir, drinking water, sewer and wastewater management; and wetlands, irrigation and general watershed management.

THE SOLUTION

Forecast-Informed Reservoir Operations (FIRO)

An interagency Steering Committee was formed to explore methods to better balance flood control and water supply needs. The Committee, consisting of state and federal agencies,



and Sonoma County Water Agency are working together on a viability study to determine if Forecast-Informed Reservoir Operations (FIRO) at Lake Mendocino in Sonoma County can improve water supply, maintain flood risk reduction, and achieve additional ecosystem benefits. Recent studies show the potential for improved predictability of atmospheric rivers, narrow bands of enhanced water vapor which provide approximately half of the region's precipitation and cause most of the Russian River's floods.

FIRO is a management strategy that uses data from watershed monitoring and modern weather and water forecasting to help water managers selectively retain or release water from reservoirs in a manner that reflects current and forecasted conditions. FIRO's utilization of modern technology can help to:

Improve Supply Reliability for Downstream Uses – When storms cause moderate-to-high reservoir levels, normal operation is to release water to re-establish flood control space. Some of that water could be retained for future supply as long as no major precipitation is predicted for several days and it can be demonstrated that the retained water can be released past downstream flood prone areas before the arrival of the next storm. This strategy will permit earlier supply capture in some years, improving summer season supply reliability for downstream water users and improving the timing and volume of releases to protect water quality and provide flows needed for recovery of fisheries.

For example, following an atmospheric river event that delivered a significant amount of rain in December 2012, water was released to create flood space according to the Manual, dropping reservoir levels by more than 35%. 2013 was the driest year on record, resulting in little inflow to refill the reservoir. By December 2013, lake levels were extremely low and remained low through 2014. Ideally, water from the December 2012 event could have been retained based on longer-term precipitation forecasts, lessening the impact of drought.

Advanced Quantitative Precipitation Information (AQPI)

The partners are working to fill in the hardware gaps through buoys and radar upgrades. Combined with enhanced modeling and data research, the infrastructure upgrades will allow for more accurate predictive capabilities on the west coast for extreme precipitation events. The economic benefits study shows substantial return for the investment.

THE REQUEST

The strategy is three-fold. First, funding is required to assess how new research and observations could improve reservoir operations, which would create opportunities to bridge gaps between historically rigid operations manuals and newfound predictability of atmospheric rivers. The goal is to develop necessary data for the Corps to safely update standard flood control guidelines to improve water supply and environmental outcomes without diminishing flood risk reduction or dam safety. Second, as more is understood about regions and specific watersheds, funding would be focused on improvements that can have the greatest potential of optimizing water storage, flood control, and water management. Third, when advances are made, support for a vibrant federal program could ensure updates to reservoir operations and other community water management activities.

For more information, please contact Brad Sherwood with SCWA at (707) 547-1927.



FACT SHEET: LAKE MENDOCINO FORECAST INFORMED RESERVOIR OPERATIONS PRELIMINARY VIABILITY ASSESSMENT WORK PLAN

PURPOSE: The Lake Mendocino Forecast Informed Reservoir Operations (FIRO) Preliminary Viability Assessment Work Plan (Work Plan) describes an approach for using modeling, forecasting tools and improved information to determine whether the Lake Mendocino Water Control Manual can be adjusted to improve flood-control and water supply operations. This proof-of-concept FIRO viability assessment uses Lake Mendocino as a model that could be applied to other reservoirs.

BACKGROUND: The 1959 Lake Mendocino Water Control Manual (with minor updates in 1986), specifies reservoir elevations to control flooding and establishes the volume of storage that may be used for water supply. The Manual was developed using the best information available at the time, but it has not been adjusted to reflect changing climate conditions and reduced inflows over the past 30 years.

FIRO WORK PLAN: The FIRO Steering Committee* has developed a work plan for assessing the viability of FIRO to take advantage of current science and technology. FIRO employs modern observation and prediction technology to enable water managers more lead time to selectively retain or release water from reservoirs based on longer-term forecasts. Optimizing reservoir operations benefits water supply and environmental flows without diminishing flood control or dam safety.

This Work Plan presents an approach for conducting a proof-of-concept FIRO viability assessment using Lake Mendocino as a model. Specifically, it outlines a process for evaluating whether FIRO can support adjustments to the Manual. The work plan describes current technical and scientific capabilities, and outlines technical/scientific analyses and future programs to demonstrate the potential of FIRO to improve reservoir management.

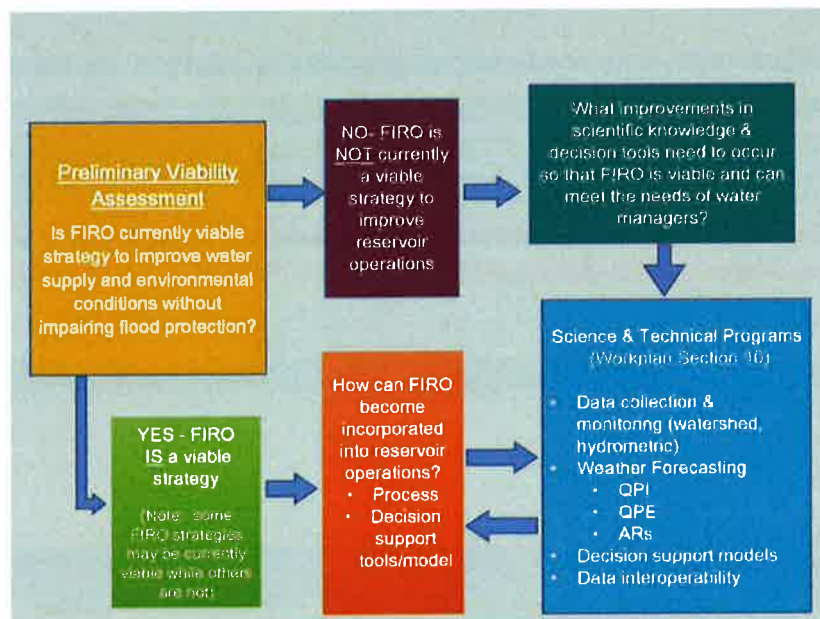
The assessment will present a suite of actions ranging from practical, short-term steps to longer-term research needs. If deemed viable, FIRO will be likely be implemented incrementally, as science evolves and implementation criteria are met. FIRO follows adaptive management principles for continual improvement of reservoir operations. In the case of Lake Mendocino, and much of the West Coast, this hinges on opportunistically applying advances in monitoring and predicting atmospheric rivers, their associated precipitation and runoff.

While aimed at benefitting Lake Mendocino, the project has transferability potential, thus the work plan will document a process that can be replicated in other watersheds. It consists of the following steps:

- Develop evaluation criteria and methodology
- Develop evaluation scenarios
- Identify science needs and carry out necessary research projects.
- Evaluate model results
- Evaluate FIRO viability (preliminary) and assess benefits
- Develop implementation strategies

(over) →

The flow chart below shows how the assessment decisions will be made:



The general timeframe for conducting the preliminary viability assessment is illustrated below:

July-September 2015	October-December 2015	January - March 2016	April - June 2016	July - September 2016	October - December 2016
• Complete work plan • Form task groups • Assess information • Identify monitoring sites • Develop evaluation criteria	• Develop study strategy • Agree on scenarios, inputs • Convene modeling discussion • Develop evaluation scenarios • Evaluate past forecast performance	• Assemble models • Develop policy scenarios • Install monitoring stations • Evaluate past reservoir operations	• Preliminary model results available • Begin economic benefits analysis	• Finalize modeling results • Conduct stress test • Continue economic benefits assessment • Synthesize atmospheric river advances	• Complete Preliminary FIRO viability assessment • Refine scenario testing for years 2 & 3 • Identify priority research activities

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