

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

December 10, 2018

PLEDGE OF ALLEGIANCE

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

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

NOTICE

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

COMMUNICATIONS TO THE BOARD

1. A. Written:
- B. Oral:
2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

Recommendation: Determine the need to discuss and/or take immediate action on item(s).

PUBLIC HEARING

Next Resolution No. 2018-30

3. EVALUATING A CHANGE IN THE ELECTIONS PROCESS FOR THE
IRVINE RANCH WATER DISTRICT BOARD OF DIRECTORS AND
ESTABLISHING DIVISION BOUNDARIES
 - A. Declare the Board meeting to be the time and place for a third Board Meeting;
 - B. Announce the hearing was noticed by publication;
 - C. Receive and file the Affidavits of Posting and Proof of Publication;
 - D. Request legal counsel to describe the nature of the proceedings and purpose;
 - E. Open the hearing to solicit and accept comment on the proposed move to by-division elections;
 - F. Request that the Government Relations Officer provide a report to the Board regarding the draft division maps and on any written comments received;
 - G. Inquire whether there is any person present who wishes to provide comments;
 - H. Inquire whether there are any comments or questions from the members of the Board; and
 - I. Close the hearing and authorize staff to agendize a fourth Public Hearing on January 14, 2019 to solicit and accept comment on the proposed move to by division elections, composition of divisions, the draft division maps and sequence of elections.

CONSENT CALENDAR	Next Resolution No. 2018- 30	Items 4 - 11
4. <u>RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS</u>	Recommendation: That the Board ratify/approve the meetings and events for Mary Aileen Matheis, Steve LaMar, Peer Swan, Doug Reinhart, and John Withers, as described.	
5. <u>MINUTES OF REGULAR BOARD MEETING</u>	Recommendation: That the minutes of the November 12, 2018 Regular Board meeting be approved as presented.	
6. <u>NOVEMBER 2018 TREASURY REPORTS</u>	Recommendation: That the Board receive and file the Treasurer's Investment Summary report, the Summary of Fixed and Variable Rate Debt, and Disclosure report of reimbursements to Board members and staff; approve the November 2018 summary of payroll ach payments in the total amount of \$2,088,664 and approve the November 2018 Accounts Payable Disbursement Summary of Warrants 393005 through 393942 Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$16,006,783.	
7. <u>ELDERWOOD SEWER UPSIZING – FINAL ACCEPTANCE</u>	Recommendation: That the Board accept construction of the Elderwood Sewer Upsizing, Project 10095; authorize the General Manager to file a Notice of Completion; and authorize the Payment of the retention 35 days after the date of recording the Notice of Completion.	
8. <u>ADOPTION OF A REVISED DISTRICT SCHEDULE OF POSITIONS AND SALARY RATE RANGES</u>	Recommendation: That the Board adopt a resolution rescinding Resolution No. 2018-24 and adopting a revised schedule of positions and salary rate ranges.	Res. No. 2018-
9. <u>ADOPTION OF THE 2018 SOUTH ORANGE COUNTY INTEGRATED REGIONAL WATER MANAGEMENT PLAN</u>	Recommendation: That the Board adopt a Resolution adopting the 2018 South Orange County Integrated Regional Water Management Plan.	Res. No. 2018-

CONSENT CALENDAR	Next Resolution No. 2018-30	Items 4 - 11
-------------------------	------------------------------------	---------------------

- | | | |
|--|--|--|
| <p>10. <u>FY 2017-18 COMPREHENSIVE ANNUAL FINANCIAL REPORT</u></p> <p> Recommendation: Receive and file.</p> <p>11. <u>TWO-YEAR OPERATING BUDGET PROPOSAL</u></p> <p> Recommendation: That the Board approve a shift to a two-year budget rate setting cycle, starting with fiscal year 2019-20 and 2020-21.</p> | | |
|--|--|--|
-

ACTION CALENDAR

- | | | |
|--|--|--|
| <p>12. <u>MWRP EMERGENCY DISCHARGE TO SAN DIEGO CREEK CONSTRUCTION AWARD</u></p> <p> Recommendation: That the Board authorize the General Manager to execute a construction contract with PCL Construction Inc., in the amount of \$981,465, for the Michelson Water Recycling Plant Emergency Recycled Water Diversion to San Diego Creek, Project 10093.</p> <p>13. <u>ENTERPRISE SERVER AND STORAGE REPLACEMENT</u></p> <p> Recommendation: That the Board approve a General Plant budget increase and expenditure of \$340,000 with Sirius Computer Solutions to purchase and implement the Enterprise Server and Storage Replacement Equipment.</p> <p>14. <u>ELECTION OF OFFICERS FOR 2019</u></p> <p> Recommendation: That an election be conducted of the President and Vice President of the Board of Directors of the Irvine Ranch Water District.</p> | | |
|--|--|--|
-

OTHER BUSINESS

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

- | | | |
|---|--|--|
| <p>15. General Manager's Report</p> <p>16. Directors' Comments</p> <p>17. Community Updates: Receive an oral update from District liaison(s) regarding communities within IRWD's service area and discuss relevant community happenings.</p> | | |
|---|--|--|

OTHER BUSINESS

18. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION – Pursuant to Government Code Section 54956.9(d)(1): *Orange County Water District v. SABIC Innovative Plastics US, LLC, et al.*, Case No.:30-2008-00078246-CU-TT-CXC
19. Open Session
20. Adjourn

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the Irvine Ranch Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Board Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available at the entrance to the Board of Directors Room of the District Office. The Irvine Ranch Water District Board Room is wheelchair accessible. If you require any special disability-related accommodations (e.g., access to an amplified sound system, etc.), please contact the District Secretary at (949) 453-5300 during business hours at least seventy-two (72) hours prior to the scheduled meeting. This agenda can be obtained in alternative format upon written request to the District Secretary at least seventy-two (72) hours prior to the scheduled meeting.

December 10, 2018

Prepared and

submitted by: C. Compton

Approved by: Paul A. Cook

PUBLIC HEARING

EVALUATING A CHANGE IN THE ELECTIONS PROCESS FOR THE IRVINE RANCH WATER DISTRICT BOARD OF DIRECTORS AND ESTABLISHING DIVISION BOUNDARIES

SUMMARY:

Pursuant to Water Code section 35180, IRWD uses an at-large method to elect the members of its Board of Directors. The at-large method allows for voters from the entire service area to elect each of the five members of the Board of Directors. The California Voting Rights Act favors a by-division method of election instead of an at-large method of election for electing members of local government governing bodies. A by-division method divides a service area into separate divisions and allows the voters from each division, as opposed to voters from the entire service area, to elect a member of the board of directors. In a by-division method of election, the elected individual serves as the division's representative on the board and must reside in that division.

Since 2017, Elections Code section 10650 has authorized special districts such as IRWD to move from an at-large method of election to a by-division method of election in furtherance of the purposes of the California Voting Rights Act. Elections Code section 10010 governs the process for evaluating and transitioning to a by-division method of election. The first step in initiating the process is the adoption of a resolution of "Intent to Initiate the Process of Establishing Divisions and Elections by Divisions." The IRWD Board of Directors adopted a resolution of "Intent to Initiate the Process of Establishing Divisions and Elections by Divisions" on April 2, 2018. The next steps involved a series of public hearings.

Pursuant to Elections Code section 10010, a public hearing is now being held on December 10 after the drawing of draft maps. The purpose of this hearing is to invite and solicit public comments on the draft division maps, which have been published by the District on its website, and the potential sequence of elections for the directors from each division at different times to provide for staggered terms of office.

RECOMMENDED HEARING PROCEDURE:

President: Declare the Board meeting of December 10, 2018, to be the time and place for a third hearing on evaluating a change in the elections process for the Irvine Ranch Water District Board of Directors and establishing division boundaries, and asks the Board Secretary to announce how the hearing was noticed.

Board Secretary: Announce that the hearing was noticed by publication in the *Orange County Register* on Sunday, November 25, 2018; by publication in Spanish in the *Excelsior Unidos* on Friday, November 23, 2018; by publication in Korean in the *Korea Times* on Saturday, November 24, 2018; by publication in English and Traditional Chinese in the *World*

Journal on Saturday, November 24, 2018, and Sunday, November 25, 2018; by publication in Farsi in *Hafteh Bazaar* on Friday, November 30, 2018; by electronic posting in English, Farsi, Korean, Traditional Chinese, and Spanish on the IRWD website, through which the notice can be translated into approximately 20 languages; and by physical posting at IRWD's headquarters. Announce that the four draft maps— Map A, Map B, Map C, and Map D— were published on IRWD's website by December 3, 2018. The Board Secretary presents affidavits of posting and proof of publication to the Board related to the hearing.

Board of Directors: The Board of Directors receives and files the affidavits of posting and proof of publication as presented by the Board Secretary.

President: Request legal counsel to describe the nature of the proceedings, and to explain the purpose of the hearing.

Legal Counsel: Describe the nature of the proceedings, and explains the purpose of the hearing as being the opportunity to invite and solicit public comment on the draft division maps, which have been published by the District on its website at least seven days prior to the hearing, and the potential sequence of elections for the directors from each division at different times to provide for staggered terms of office.

Board of Directors: Open the hearing by taking the following recommended action:

RECOMMENDED MOTION: THAT THE PUBLIC HEARING BE OPENED TO SOLICIT AND ACCEPT COMMENT ON THE PROPOSED MOVE TO BY-DIVISION ELECTIONS, THE COMPOSITION OF DIVISIONS, THE DRAFT DIVISION MAPS, AND SEQUENCE OF ELECTIONS.

President: Request that the Government Relations Officer provide a report to the Board regarding the draft division maps, and on any written comments received.

Government Relations Officer: Provide a report to the Board regarding the draft division maps, and on any written comments received.

President: Inquire whether there is any person present who wishes to provide comments on the proposed move to by-division elections, the composition of divisions, the draft maps, and the sequence of elections.

Inquire whether there are any comments or questions from members of the Board of Directors. After comments or questions, states that the hearing will be closed.

Board of Directors: Close the hearing by taking the following recommended action:

RECOMMENDED MOTION: THAT THIS THIRD PUBLIC HEARING BE CLOSED AND AUTHORIZE STAFF TO AGENDIZE A FOURTH PUBLIC HEARING FOR JANUARY 14, 2019, FOR THE BOARD OF DIRECTORS TO SOLICIT AND ACCEPT COMMENT ON THE PROPOSED MOVE TO BY-DIVISION ELECTIONS, THE COMPOSITION OF DIVISIONS, THE DRAFT DIVISION MAPS, AND SEQUENCE OF ELECTIONS.

BACKGROUND:

In 2002, Governor Gray Davis signed the California Voting Rights Act (CVRA) into law. The CVRA states that an at-large method of election may not be used to elect local governing boards if it “impairs the ability of a protected class to elect candidates of its choice or its ability to influence the outcome of an election.” (Elections Code §14027)

A violation of the CVRA may be established if it is shown that racially polarized voting, combined with an at-large voting system, impairs the ability of a protected class of voters to elect candidates of its choice or to influence the outcome of an election. (Elections Code §14028(a)) Under the CVRA, “racially polarized voting” means voting in which there is a difference between the choice of candidates or other electoral choices that are preferred by voters in a protected class, and in the choice of candidates and electoral choices that are preferred by voters in the rest of the electorate. (Elections Code §14026(e))

As of the writing of this report, IRWD has not been presented with any evidence of racially polarized voting in its elections, but many local governments have had their at-large method of election challenged under the CVRA. Additionally, many local governments have voluntarily moved to a by-division method of election because it is the only election method not vulnerable to a challenge under the CVRA.

Statutorily Mandated Process for Evaluating a By-Division Method of Election:

While the current at-large method of election used by IRWD pursuant to Water Code section 35180 has served the District’s customers and constituents well, Elections Code section 10650 allows the board of a special district, like IRWD, to move from an at-large method of election to a by-division method of election in furtherance of the purposes of the CVRA.

Elections Code section 10010 provides the process for evaluating divisions and a transition to by-division elections. That process requires, at a minimum, that a special district:

- Adopt a resolution of intent to change the election system;
- Hold at least four public hearings to discuss division maps and the sequence of the division elections;

- The first and second hearing must be held within 30 days of each other and the public is invited to provide input regarding the composition of the divisions and sequence of elections;
- After draft division maps are drawn, one or more proposed maps are published at least seven days before the third hearing. Any further revisions to the proposed map(s) would be published at least seven days before being adopted; and
- The third and fourth public hearings are held within 45 days of each other; and
- Hold at least one more public hearing at which it considers final action to transition to by-division elections and considers adoption of a final map of division boundaries.

Legally Required Factors Considered When Evaluating Division Boundaries:

While a number of federal and state laws govern the drawing of division boundaries, the U.S. Constitution establishes the fundamental principle which governs the drawing of division boundaries. Above all else, the Constitution requires that divisions be equal, or nearly equal, in total population. Federal courts have ruled that this means that the population difference between the most and least populous divisions may not exceed ten percent. California Elections Code section 22000 further suggests that divisions should be drawn to be, “as far as practicable, equal in population” using the population numbers from the last federal decennial census.

Provided that the equality in population, based on the last decennial census, requirement is met, the Elections Code also allows for consideration of: (1) topography, (2) geography, (3) cohesiveness, contiguity, integrity, and compactness of territory, and (4) communities of interests of the division” when determining where division boundaries are placed.

IRWD Process to Evaluate Establishment of Divisions and Elections by Divisions:

On April 2, 2018, the IRWD Board of Director adopted a resolution of “Intent to Initiate the Process of Establishing Divisions and Elections by Divisions.” In its adoption of the resolution, the Board determined that the public interest was best served by initiating the process to evaluate divisions and a transition to by-division elections. The Board authorized the General Manager, or his designee, to initiate a public evaluation process that complies with Elections Code section 10010, and encourages and allows for full public participation, careful consideration and input into an evaluation of divisions and a transition to by-division elections within IRWD.

The first step in the District’s evaluation process was the release of data related to the population characteristics of the IRWD’s service area. That data was presented to the Board during a Board workshop on May 14, 2018. Attached as Exhibit “A” is a copy of the summary of “Existing Conditions for Irvine Ranch Water District” provided to the Board.

The second step in the District’s evaluation process was to hold two public hearings, which were held on June 4 and June 18. These hearings were conducted before the drawing of a draft map or

maps of proposed division boundaries. The purpose of the hearings was to invite and solicit public comment on the proposed move to by-division elections, the composition of divisions and the sequence of elections prior to the drawing of draft maps.

The third step in the District's evaluation process was for the Board to discuss criteria to be used by the District when drawing proposed director division boundaries. The criteria was discussed at a Board Workshop held on August 13, 2018. The criteria discussed at the August 13 workshop is included in the presentation materials attached as Exhibit "B".

Following the workshop, prior to the drawing of potential division area maps, the District invited the public to submit additional comments on the composition of possible divisions and to submit conceptual maps for consideration as the potential division area maps were drawn. That public comment period ran from August 15 to October 15, 2018. During the comment period, the District received two comments and maps from the public. Those comments and maps are attached as Exhibit "C".

Now, IRWD is holding a third public hearing to invite and solicit public comment on the draft division maps, which have been published by the District on its website, and the potential sequence of elections for the directors from each division at different times to provide for staggered terms of office. The four draft maps are attached as Exhibit "D".

It is important to note that the draft maps are a starting point for the Board's discussion on possible division boundaries, and additional maps or refinements may be made should the Board want to see other options at the next public hearing.

FISCAL IMPACTS:

Due to the adoption of a resolution of "Intent to Initiate the Process of Establishing Divisions and Elections by Divisions" and by undertaking the Elections Code section 10010 process to evaluate by-divisions elections, the District is incurring costs of a demographer and special legal counsel in addition to potentially other costs.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

LIST OF EXHIBITS:

Exhibit "A" – Existing Conditions for Irvine Ranch Water District
Exhibit "B" – Presentation Materials from the December 10, 2018, Public Hearing
Exhibit "C" – Public Comments and Maps Received Between August 15 and October 15, 2018
Exhibit "D" – Draft Division Maps A, B, C and D

Existing Conditions for Irvine Ranch Water District

Table 1. Population by Race/Ethnicity for IRWD

	Number	Percent
2010 Total Population	337,151	100.0%
Hispanic or Latino of any Race	40,325	12.0%
Non-Hispanic White	171,195	50.8%
Non-Hispanic Asian	104,775	31.1%
Non-Hispanic Black or African-American	5,173	1.5%
All Other Non-Hispanic Races/Ethnicities	15,681	4.7%
2010 Population 18 Years and Older	261,651	100.0%
Hispanic or Latino of any Race	28,531	10.9%
Non-Hispanic White	138,759	53.0%
Non-Hispanic Asian	81,062	31.0%
Non-Hispanic Black or African-American	4,029	1.5%
All Other Non-Hispanic Races/Ethnicities	9,266	3.5%
2016 Citizen Voting Age Population (CVAP)	244,343	100.0%
Hispanic or Latino of any Race	27,413	11.2%
Non-Hispanic White	135,507	55.5%
Non-Hispanic Asian	68,731	28.1%
Non-Hispanic Black or African-American	4,810	2.0%
All Other Non-Hispanic Races/Ethnicities	7,879	3.2%

Sources: 2010 Decennial Census P.L. 94-171 Redistricting Data;

U.S. Census Bureau American Community Survey 5-year estimates, 2012-2016

The target director division population is calculated by dividing the total population by the number of board members.

Table 2. Target Population for Division Scenarios

Division ID	Division Type	Total 2010 Population	Target Population for Each Division	Division Majority (50% + 1)	Majority of CVAP (50% + 1)
5	5-Division Plan	337,151	67,430	33,716	24,435

PUBLIC HEARING

BOARD OF DIRECTORS DISTRICTING DRAFT MAPS

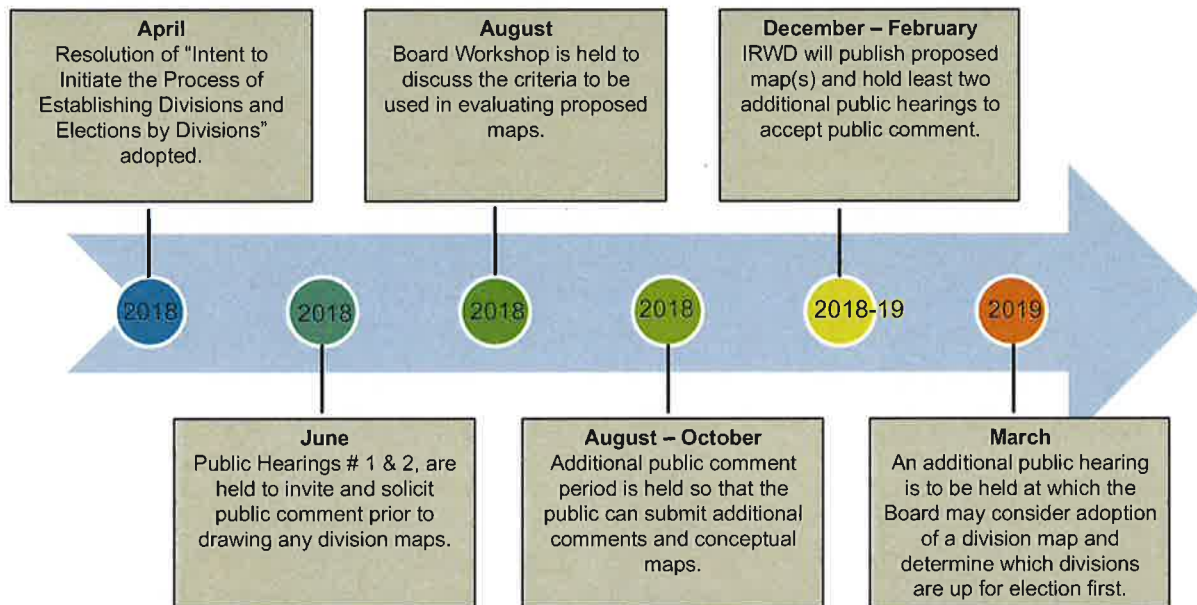
December 10, 2018



Presentation Agenda

- Review of Process and Timeline for Evaluation
- Proposed Sequencing of Elections
- Review the Criteria for Drawing Division Boundaries
- Review of Draft Maps
- Discussion

Process for Evaluating a Change of Election Method and Director Division Boundaries



Goal for Today

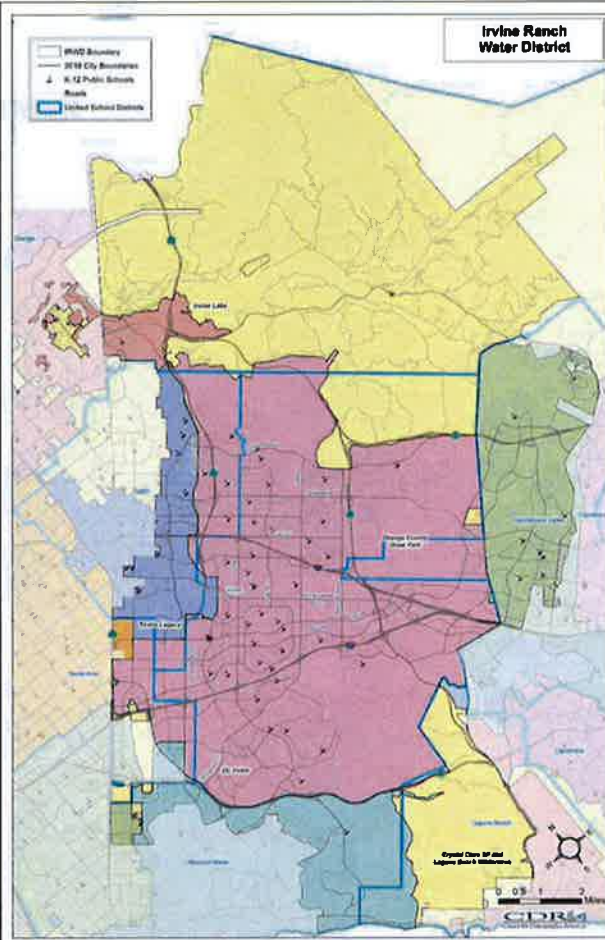
- Review and discuss proposed sequencing of elections.
- Review and discuss the draft maps.
 - Are any of the maps not viable?
 - Are there revisions you would like to see made to the draft maps?
 - Prioritization.

Proposed Sequencing of Elections

- If adopted, new divisions would take effect for the 2020 election.
- Propose to sequence elections with existing staggered terms of board members.
 - 2020: Two divisions up for election
 - 2022: Three divisions up for election

IRWD Criteria for Drawing Division Boundaries

- 1) Each director division shall contain a nearly equal number of inhabitants as reflected in the most recent decennial census.
- 2) Divisions shall be drawn in a manner that complies with the Federal Voting Rights Act.
- 3) Divisions shall consist of contiguous territory.
- 4) Divisions will be in as compact a form as possible given the other criteria set forth.
- 5) Division boundaries will respect communities of interest as much as possible.
- 6) Division boundaries will consider jurisdictional boundaries as much as possible.
- 7) Division boundaries will observe topography and geography such as man-made and natural geographic features insofar as practicable.
- 8) Division boundaries will attempt to allow the voters to retain current Directors if they choose by avoiding placing Directors in the same division insofar as this does not conflict with federal or state law requirements.
- 9) To the extent proposed divisions do not contain equal population as reflected in the most recent decennial census, population growth since the last decennial census and anticipated population growth before the next decennial census may be considered so long as population deviation remains within the parameters allowed by law.



7

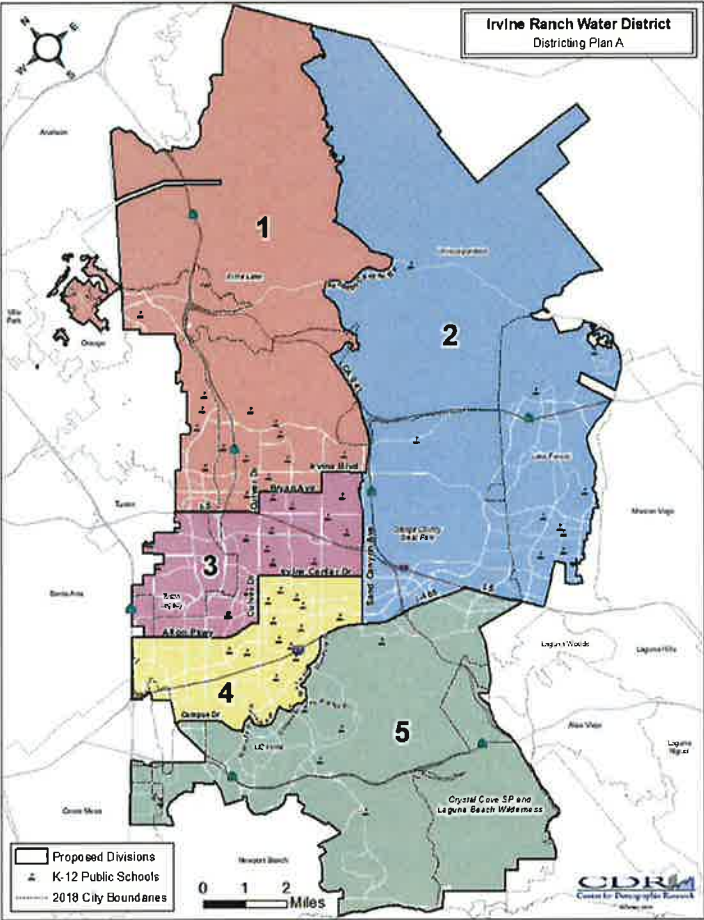
Summary of Plans

Map	Percent Spread	Contiguous Divisions?	Viable?
Plan A	3.19%	Yes	Yes
Plan B	8.60%	Yes	Yes
Plan C	6.89%	Yes	Yes
Plan D	4.90%	Yes	Yes

Plan A

Plan A
Percentage Spread:
3.19%

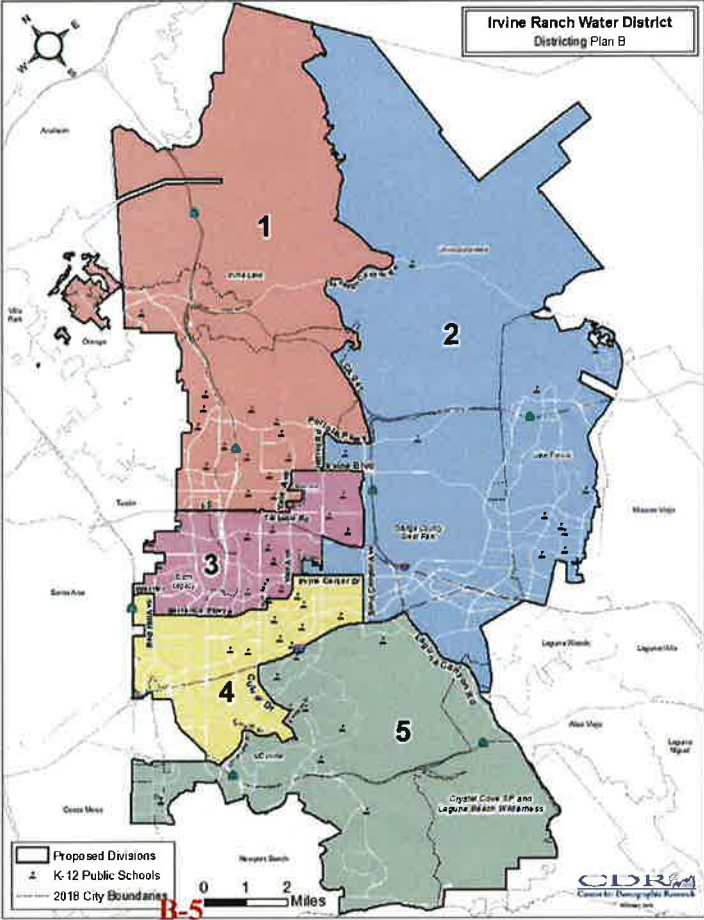
Irvine Ranch Water District



Plan B

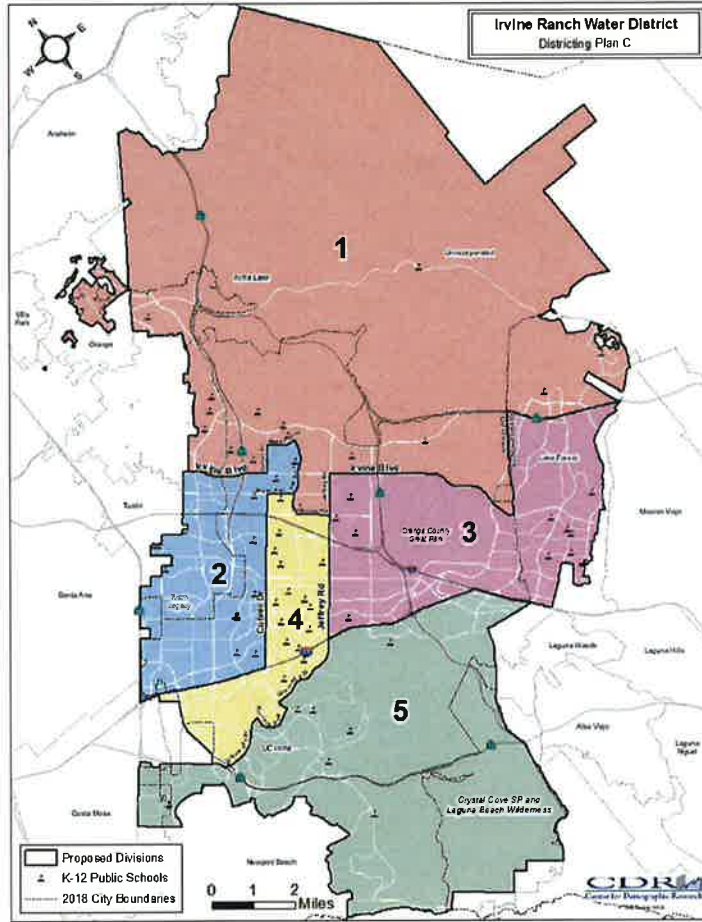
Plan B
Percentage Spread:
8.60%

Irvine Ranch Water District



Plan C

Plan C
Percentage Spread:
6.89%

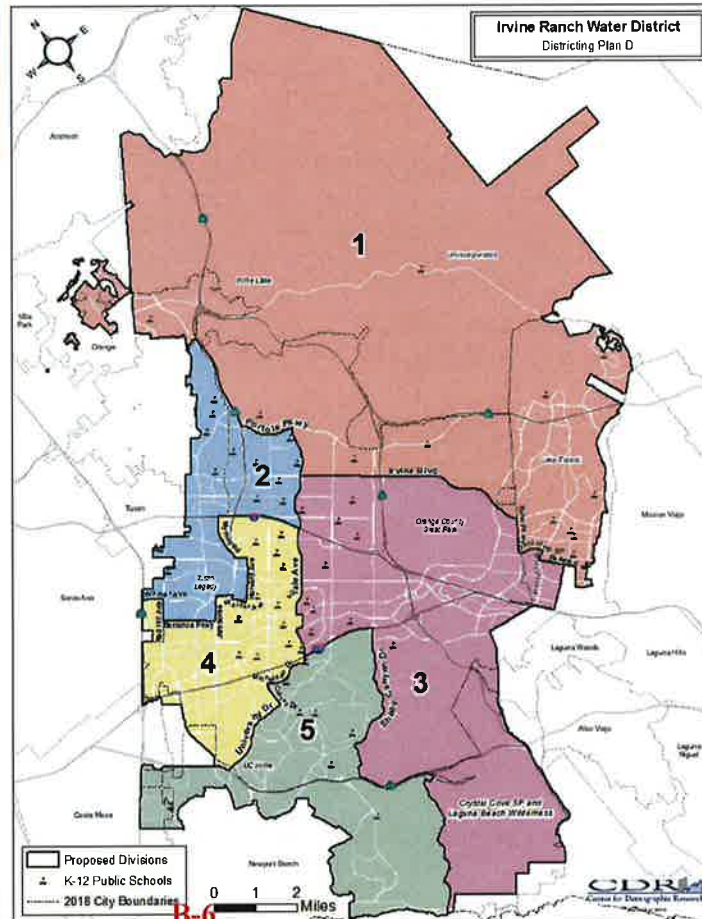


Irvine Ranch Water District

11

Plan D

Plan D
Percentage Spread:
4.90%



Irvine Ranch Water District

12

Plan A

Plan A
Percentage Spread:
3.19%

Irvine Ranch Water District- Plan A

Table 1. Population by Division and Race/Ethnicity

	DIVISION					Total
	1	2	3	4	5	
Total Population	67,229	66,316	67,365	68,468	67,773	337,151
Hispanic or Latino of any Race	7,092	13,223	7,809	6,058	6,143	40,325
Non-Hispanic White	31,151	39,670	27,294	34,423	38,659	171,197
Non-Hispanic Asian	25,013	9,693	27,673	23,253	19,143	104,775
Non-Hispanic Black or African-American	993	1,050	1,284	1,123	713	5,173
All Other Non-Hispanic Races/Ethnicities	2,980	2,670	3,305	3,611	3,115	15,681
Population 18 Years and Older	49,792	50,705	50,050	54,799	55,405	261,651
Hispanic or Latino of any Race	4,657	8,993	5,422	4,428	4,831	28,531
Non-Hispanic White	24,432	31,702	21,987	28,806	31,836	138,763
Non-Hispanic Asian	18,245	7,661	20,746	18,347	16,061	81,062
Non-Hispanic Black or African-American	751	855	933	888	602	4,029
All Other Non-Hispanic Races/Ethnicities	1,507	1,494	1,860	2,330	2,075	9,266
Children Voting Age Population (CVAP)	47,635	49,668	46,432	48,938	51,670	244,343
Hispanic or Latino of any Race	4,875	6,338	5,553	4,097	4,550	27,413
Non-Hispanic White	21,773	32,994	20,425	29,094	31,224	135,510
Non-Hispanic Asian	18,195	7,835	17,550	13,355	11,796	68,731
Non-Hispanic Black or African-American	1,093	1,081	1,274	950	462	4,810
All Other Non-Hispanic Races/Ethnicities	1,899	1,420	1,680	1,442	1,638	7,879
Target Division Population	67,430					
Division Difference from Target Population	-201	-1,114	-65	1,038	343	
Percent Difference from Target Population	-0.30%	-1.65%	-0.10%	1.54%	0.51%	
Percentage Spread	3.19%					

Table 2. Share of Division Populations

	DIVISION					
	1	2	3	4	5	
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.5%	19.9%	11.6%	8.8%	9.1%	9.1%
Non-Hispanic White	46.3%	59.8%	40.5%	50.3%	57.0%	57.0%
Non-Hispanic Asian	37.2%	14.6%	41.1%	34.0%	28.2%	28.2%
Non-Hispanic Black or African-American	1.5%	1.6%	1.9%	1.6%	1.1%	1.1%
All Other Non-Hispanic Races/Ethnicities	4.4%	4.0%	4.9%	5.3%	4.6%	4.6%
Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	9.6%	17.7%	10.8%	8.1%	8.7%	8.7%
Non-Hispanic White	49.1%	62.5%	43.2%	52.6%	57.5%	57.5%
Non-Hispanic Asian	36.6%	15.1%	40.7%	33.5%	29.0%	29.0%
Non-Hispanic Black or African-American	1.5%	1.7%	1.8%	1.6%	1.1%	1.1%
All Other Non-Hispanic Races/Ethnicities	3.0%	2.9%	3.7%	4.3%	3.7%	3.7%
Children Voting Age Population (CVAP)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.2%	12.8%	12.0%	8.4%	12.7%	12.7%
Non-Hispanic White	45.7%	66.4%	44.0%	58.5%	60.4%	60.4%
Non-Hispanic Asian	38.2%	15.8%	37.8%	27.3%	22.8%	22.8%
Non-Hispanic Black or African-American	2.3%	2.2%	2.6%	1.9%	0.9%	0.9%
All Other Non-Hispanic Races/Ethnicities	3.6%	2.9%	3.6%	2.9%	3.2%	3.2%

Plan B

Plan B
Percentage Spread:
8.60%

Irvine Ranch Water District- Plan B

Table 1. Population by Division and Race/Ethnicity

	DIVISION					Total
	1	2	3	4	5	
Total Population	67,094	68,886	65,550	64,512	70,709	337,151
Hispanic or Latino of any Race	7,047	13,668	7,409	6,362	6,939	40,325
Non-Hispanic White	30,783	41,003	27,634	30,375	41,402	171,197
Non-Hispanic Asian	25,335	10,516	26,224	23,282	19,318	104,775
Non-Hispanic Black or African-American	992	1,114	1,143	1,245	709	5,173
All Other Non-Hispanic Races/Ethnicities	2,967	2,285	3,140	3,548	3,241	15,681
Population 18 Years and Older	49,410	52,802	49,516	52,774	52,149	261,651
Hispanic or Latino of any Race	4,792	9,192	5,143	4,685	4,719	28,531
Non-Hispanic White	23,924	32,846	22,360	25,748	33,975	138,763
Non-Hispanic Asian	18,483	8,294	19,577	18,924	15,784	81,062
Non-Hispanic Black or African-American	725	900	815	992	597	4,029
All Other Non-Hispanic Races/Ethnicities	1,476	1,570	1,721	2,425	2,074	9,266
Children Voting Age Population (CVAP)	44,561	52,099	47,595	46,874	53,214	244,343
Hispanic or Latino of any Race	4,486	6,512	5,471	4,698	6,046	27,413
Non-Hispanic White	20,375	34,244	21,111	26,098	33,682	135,510
Non-Hispanic Asian	17,041	8,661	18,035	13,387	11,587	68,731
Non-Hispanic Black or African-American	1,085	1,128	1,197	1,008	392	4,810
All Other Non-Hispanic Races/Ethnicities	1,574	1,534	1,781	1,483	1,507	7,879
Target Division Population	67,430					
Division Difference from Target Population	-336	1,456	-1,880	-2,518	3,279	
Percent Difference from Target Population	-0.50%	2.16%	-2.79%	-3.73%	4.86%	
Percentage Spread	8.60%					

Table 2. Share of Division Populations

	DIVISION					
	1	2	3	4	5	
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.5%	19.6%	11.3%	9.8%	8.5%	8.5%
Non-Hispanic White	45.9%	59.5%	42.2%	46.8%	58.6%	58.6%
Non-Hispanic Asian	37.6%	15.3%	40.0%	36.0%	27.3%	27.3%
Non-Hispanic Black or African-American	1.4%	1.6%	1.7%	1.9%	1.0%	1.0%
All Other Non-Hispanic Races/Ethnicities	4.4%	4.0%	4.6%	5.5%	4.6%	4.6%
Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	9.7%	17.4%	10.4%	8.9%	8.3%	8.3%
Non-Hispanic White	48.4%	62.2%	45.0%	48.8%	59.4%	59.4%
Non-Hispanic Asian	37.4%	15.7%	39.5%	35.9%	27.6%	27.6%
Non-Hispanic Black or African-American	1.5%	1.7%	1.6%	1.9%	1.0%	1.0%
All Other Non-Hispanic Races/Ethnicities	3.0%	3.0%	3.5%	4.6%	3.6%	3.6%
Children Voting Age Population (CVAP)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.1%	12.5%	11.5%	10.4%	11.4%	11.4%
Non-Hispanic White	45.7%	65.7%	44.4%	55.7%	63.3%	63.3%
Non-Hispanic Asian	38.2%	16.7%	37.0%	28.6%	21.8%	21.8%
Non-Hispanic Black or African-American	2.4%	2.2%	2.5%	2.2%	0.7%	0.7%
All Other Non-Hispanic Races/Ethnicities	3.5%	2.9%	3.7%	3.2%	2.8%	2.8%

Plan C

Plan C
Percentage Spread:
6.89%

Irvine Ranch Water District-Plan C

Table 1. Population by Division and Race/Ethnicity

	DIVISION					Total
	1	2	3	4	5	
Total Population	67,287	68,734	64,489	67,504	69,137	337,151
Hispanic or Latino of any Race	7,207	8,266	11,970	6,565	6,217	40,325
Non-Hispanic White	34,971	27,775	34,295	34,978	39,178	171,197
Non-Hispanic Asian	21,208	27,914	14,497	21,318	19,836	104,775
Non-Hispanic Black or African-American	882	1,285	1,065	1,217	724	5,173
All Other Non-Hispanic Races/Ethnicities	3,019	3,394	2,662	3,426	3,180	15,681
Population 18 Years and Older	49,198	52,320	49,821	53,898	56,414	261,651
Hispanic or Latino of any Race	4,994	5,738	8,157	4,759	4,883	28,531
Non-Hispanic White	26,753	22,422	28,090	29,237	32,261	138,763
Non-Hispanic Asian	15,298	21,231	11,188	16,792	16,551	81,062
Non-Hispanic Black or African-American	681	958	846	904	610	4,029
All Other Non-Hispanic Races/Ethnicities	1,472	1,939	1,540	2,206	2,109	9,266
Citizen Voting Age Population (CVAP)	49,766	45,063	47,919	49,264	52,331	244,343
Hispanic or Latino of any Race	4,740	5,511	5,614	4,908	6,640	27,413
Non-Hispanic White	25,854	19,822	29,236	29,019	31,579	135,510
Non-Hispanic Asian	16,698	16,710	10,470	12,856	11,997	68,731
Non-Hispanic Black or African-American	889	1,160	1,328	971	462	4,810
All Other Non-Hispanic Races/Ethnicities	1,585	1,860	1,271	1,510	1,653	7,879

Target Division Population	67,430					
Division Difference from Target Population	-143	1,304	-2,941	74	1,707	
Percent Difference from Target Population	-0.21%	1.93%	-4.36%	0.11%	2.53%	
Percentage Spread	6.89%					

Table 2. Share of Division Populations

	DIVISION				
	1	2	3	4	5
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.7%	12.2%	18.6%	9.7%	9.0%
Non-Hispanic White	52.0%	40.4%	53.2%	51.8%	56.7%
Non-Hispanic Asian	31.5%	40.6%	22.5%	31.6%	28.7%
Non-Hispanic Black or African-American	1.3%	1.9%	1.7%	1.8%	1.0%
All Other Non-Hispanic Races/Ethnicities	4.3%	4.9%	4.1%	5.1%	4.6%
Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.2%	11.0%	16.4%	8.8%	8.7%
Non-Hispanic White	54.4%	42.5%	56.4%	54.2%	57.2%
Non-Hispanic Asian	31.1%	40.6%	22.5%	31.2%	29.3%
Non-Hispanic Black or African-American	1.4%	1.9%	1.7%	1.7%	1.1%
All Other Non-Hispanic Races/Ethnicities	3.0%	3.7%	3.1%	4.1%	3.7%
Citizen Voting Age Population (CVAP)	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	9.5%	12.2%	11.7%	10.0%	12.7%
Non-Hispanic White	52.0%	44.0%	61.0%	58.9%	60.3%
Non-Hispanic Asian	33.8%	37.1%	21.8%	26.1%	22.9%
Non-Hispanic Black or African-American	1.8%	2.6%	2.8%	2.0%	0.9%
All Other Non-Hispanic Races/Ethnicities	3.2%	4.1%	2.7%	3.1%	3.2%

Plan D

Plan D
Percentage Spread:
4.90%

Irvine Ranch Water District-Plan D

Table 1. Population by Division and Race/Ethnicity

	DIVISION					Total
	1	2	3	4	5	
Total Population	68,467	67,602	65,350	67,537	68,008	337,151
Hispanic or Latino of any Race	12,543	7,853	7,213	6,607	6,109	40,325
Non-Hispanic White	41,197	38,932	30,824	30,538	39,706	171,197
Non-Hispanic Asian	11,168	26,688	23,012	25,545	18,363	104,775
Non-Hispanic Black or African-American	1,026	1,045	1,082	1,310	710	5,173
All Other Non-Hispanic Races/Ethnicities	2,723	3,094	3,219	3,577	3,118	15,681
Population 18 Years and Older	51,839	49,715	50,426	53,280	56,391	261,651
Hispanic or Latino of any Race	8,542	5,290	5,073	4,749	4,874	28,531
Non-Hispanic White	32,446	22,525	25,379	25,332	33,081	138,763
Non-Hispanic Asian	8,565	19,542	17,249	19,971	15,735	81,062
Non-Hispanic Black or African-American	811	774	834	1,009	601	4,029
All Other Non-Hispanic Races/Ethnicities	1,475	1,941	1,891	2,219	2,100	9,266
Citizen Voting Age Population (CVAP)	50,644	44,570	50,582	45,690	53,057	244,343
Hispanic or Latino of any Race	6,593	4,568	4,832	4,856	6,764	27,413
Non-Hispanic White	32,329	19,404	26,910	24,296	32,571	135,510
Non-Hispanic Asian	9,180	17,843	16,566	13,602	11,540	68,731
Non-Hispanic Black or African-American	967	1,124	1,084	1,173	462	4,810
All Other Non-Hispanic Races/Ethnicities	1,575	1,631	1,190	1,763	1,720	7,879

Target Division Population	67,430					
Division Difference from Target Population	1,227	172	-2,080	107	575	
Percent Difference from Target Population	1.82%	0.25%	-3.08%	0.16%	0.85%	
Percentage Spread	4.90%					

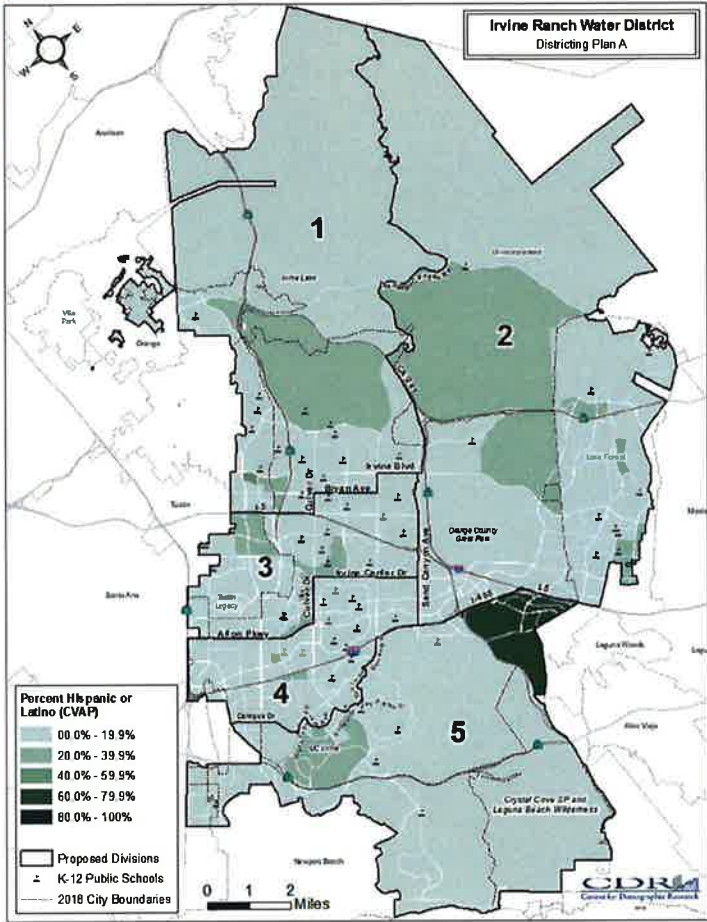
Table 2. Share of Division Populations

	DIVISION				
	1	2	3	4	5
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	18.3%	11.6%	11.0%	9.8%	9.0%
Non-Hispanic White	60.0%	42.8%	47.2%	45.2%	58.4%
Non-Hispanic Asian	16.3%	39.5%	35.2%	37.8%	27.0%
Non-Hispanic Black or African-American	1.5%	1.5%	1.7%	1.9%	1.0%
All Other Non-Hispanic Races/Ethnicities	4.0%	4.6%	4.9%	5.2%	4.6%
Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	16.5%	10.6%	10.1%	8.9%	8.6%
Non-Hispanic White	62.6%	45.3%	50.3%	47.5%	58.7%
Non-Hispanic Asian	16.5%	39.3%	34.2%	37.5%	27.9%
Non-Hispanic Black or African-American	1.6%	1.6%	1.7%	1.9%	1.1%
All Other Non-Hispanic Races/Ethnicities	2.8%	3.7%	3.8%	4.2%	3.7%
Citizen Voting Age Population (CVAP)	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	13.0%	10.2%	9.6%	10.2%	12.7%
Non-Hispanic White	63.8%	43.5%	53.2%	53.4%	61.4%
Non-Hispanic Asian	18.1%	40.0%	32.8%	29.9%	21.8%
Non-Hispanic Black or African-American	1.9%	2.5%	2.1%	2.6%	0.9%
All Other Non-Hispanic Races/Ethnicities	3.1%	3.7%	2.4%	3.9%	3.2%

Plan A

Plan A
 Percentage Spread:
 3.19%

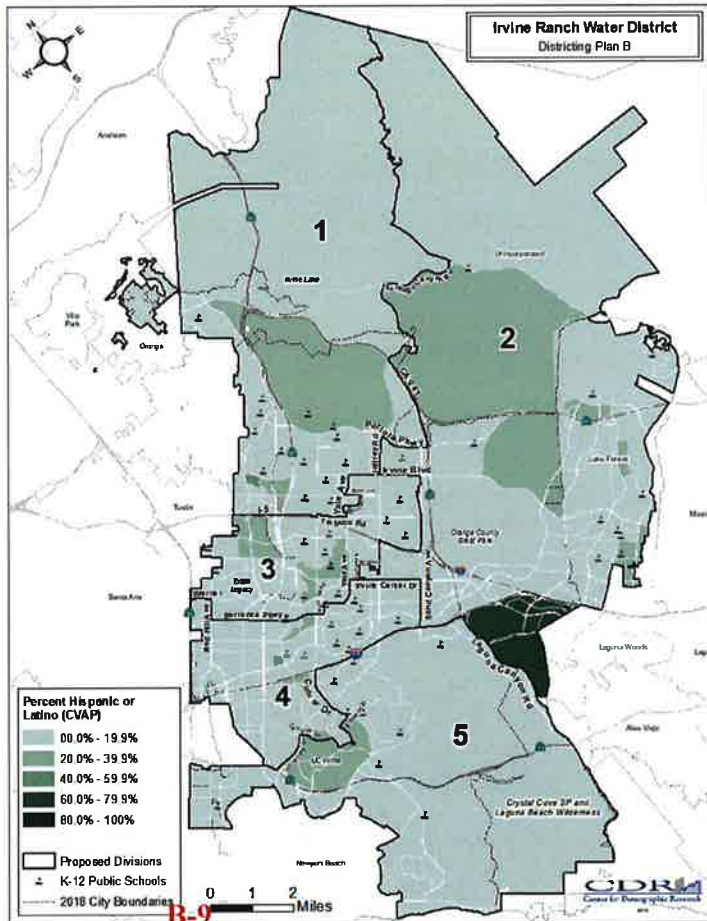
Largest Hispanic share of CVAP:
 12.8%- Division 2
 12.7%- Division 5



Plan B

Plan B
 Percentage Spread:
 8.60%

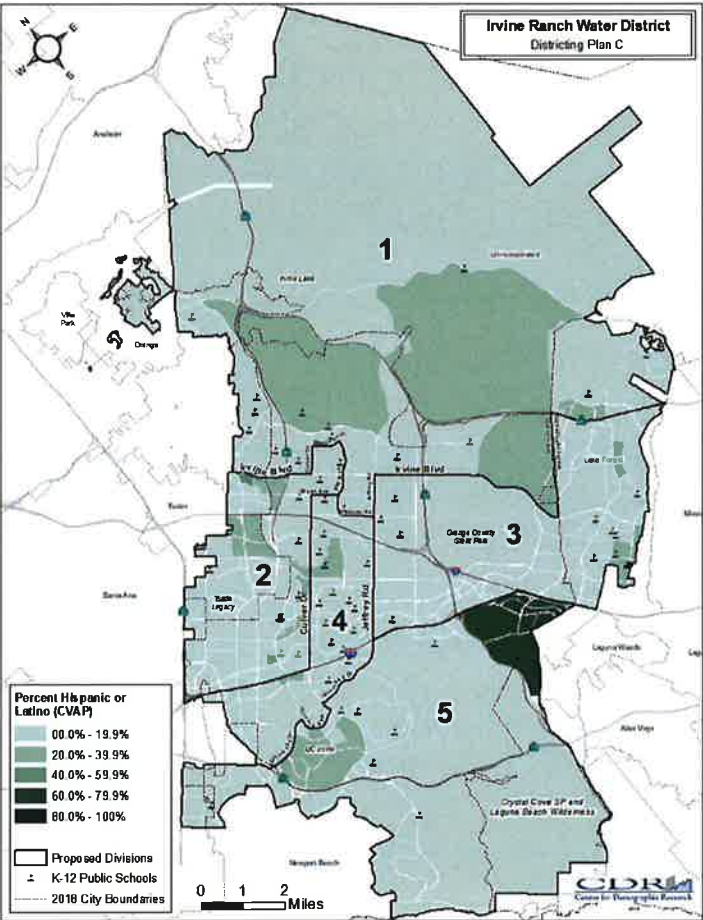
Largest Hispanic share of CVAP:
 12.5%- Division 2
 11.5%- Division 3



Plan C

Plan C
 Percentage Spread:
 6.89%

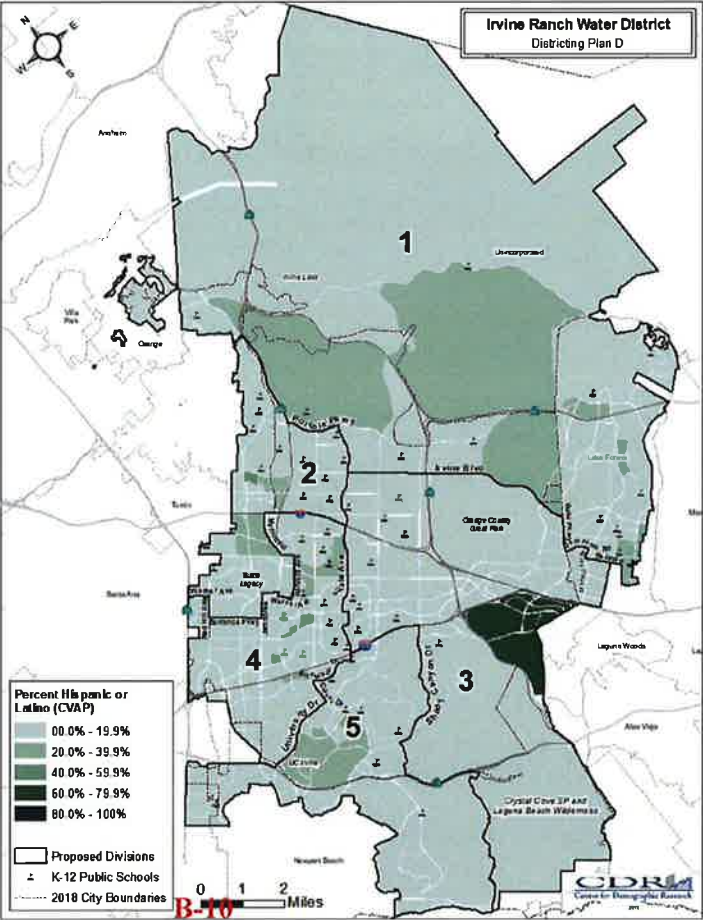
Largest Hispanic
 share of CVAP:
 12.7%- Division 5
 12.2%- Division 2



Plan D

Plan D
 Percentage Spread:
 4.90%

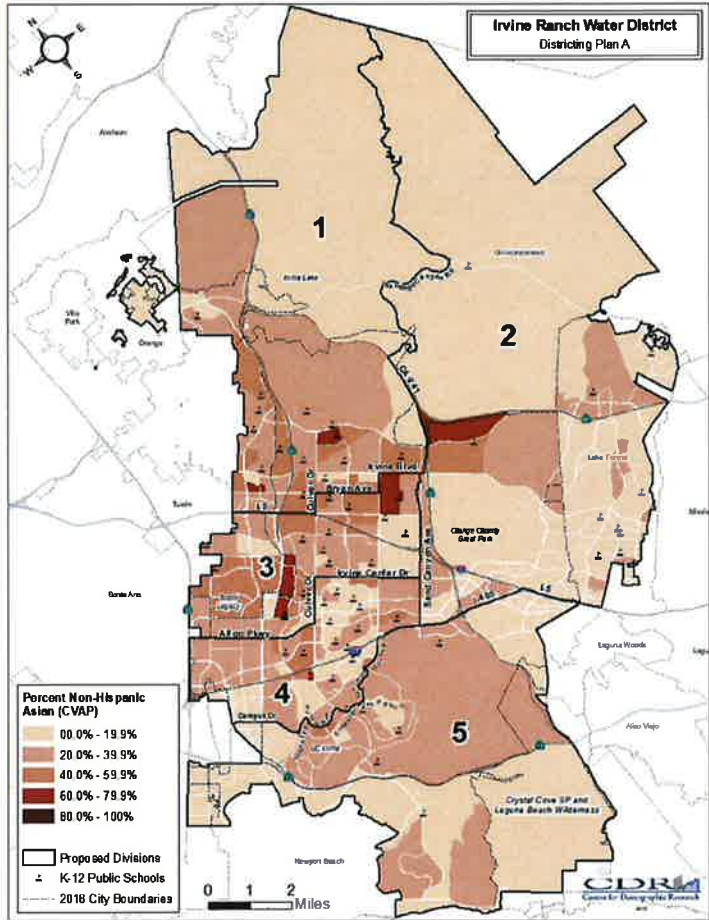
Largest Hispanic
 share of CVAP:
 13.0%- Division 1
 12.7%- Division 5



Plan A

Plan A
Percentage Spread:
3.19%

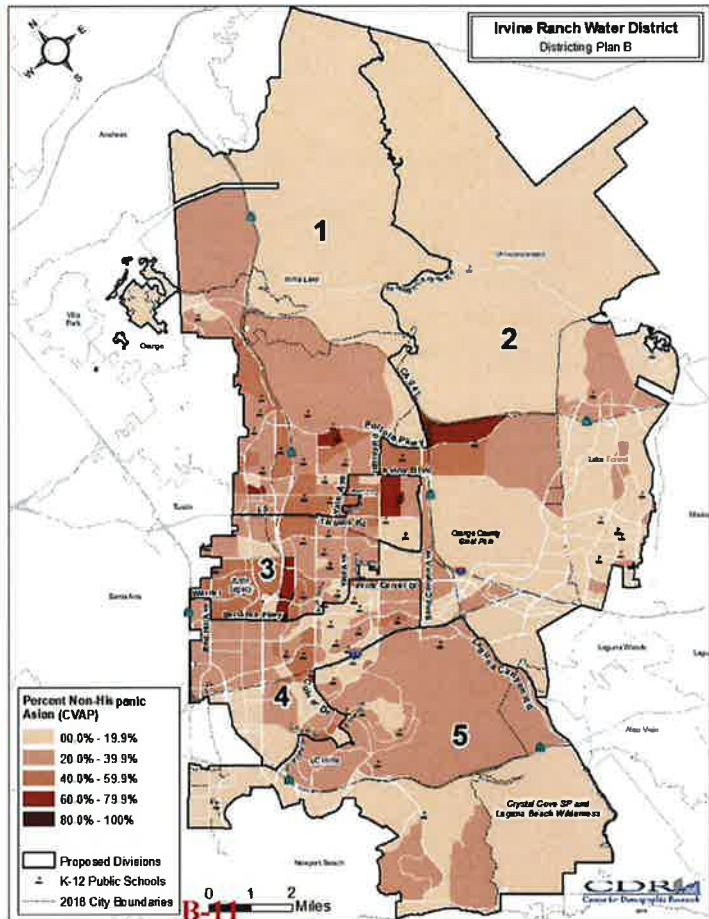
Largest Non-Hispanic Asian share of CVAP:
38.2%- Division 1
37.8%- Division 3



Plan B

Plan B
Percentage Spread:
8.60%

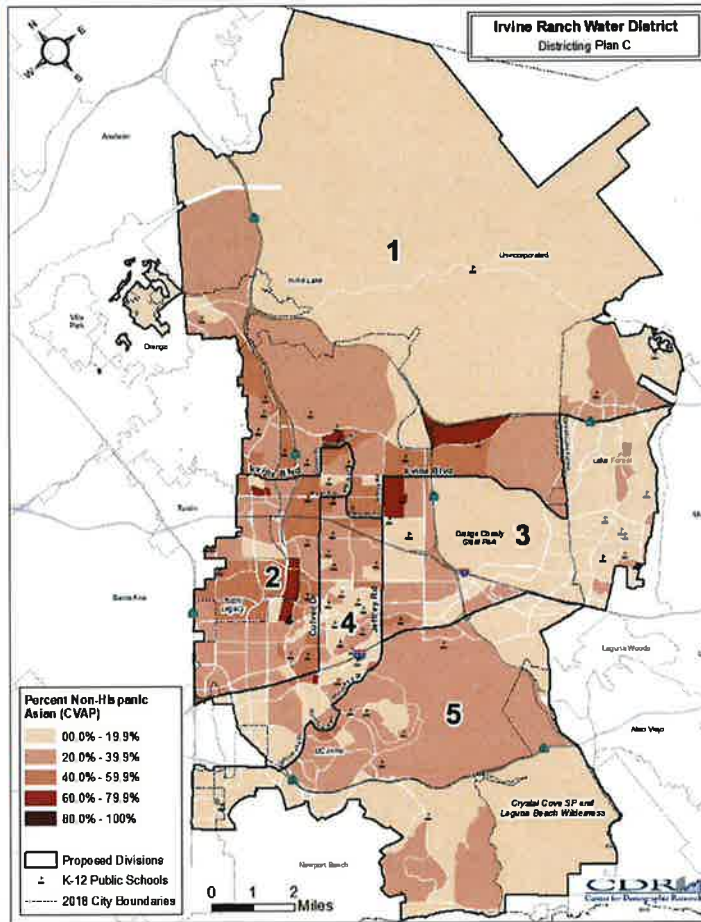
Largest Non-Hispanic Asian share of CVAP:
38.2%- Division 1
37.9%- Division 3



Plan C

Plan C
Percentage Spread:
6.89%

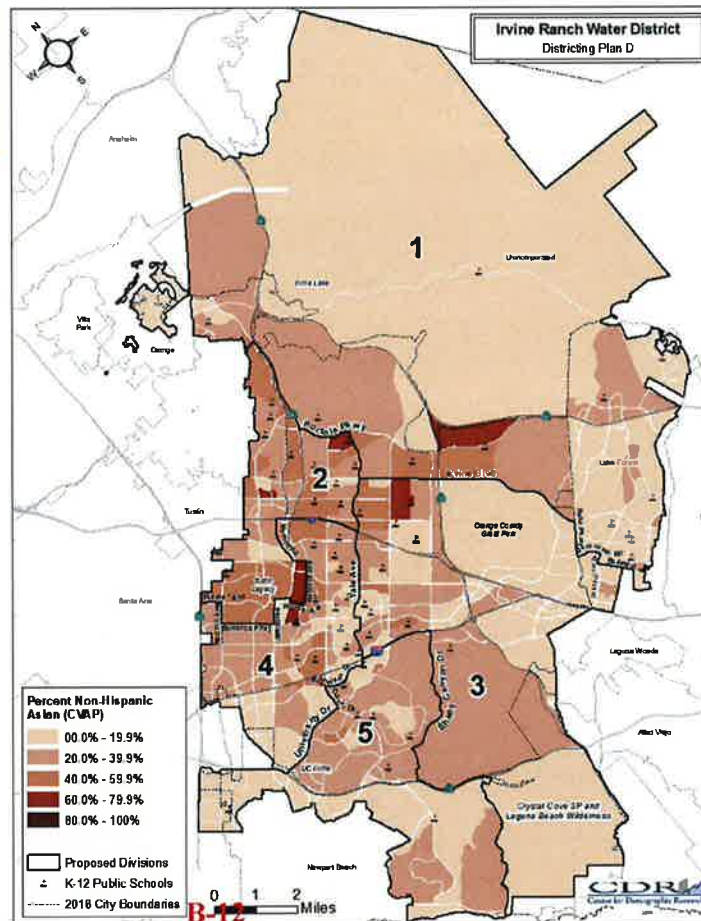
Largest Non-Hispanic Asian share of CVAP:
37.1%- Division 2
33.6%- Division 1



Plan D

Plan D
Percentage Spread:
4.90%

Largest Non-Hispanic Asian share of CVAP:
40.0%- Division 2
32.8%- Division 3



Questions & Public Comment



Irvine Ranch Water District

25

EXHIBIT "C"

Public Comment Submitted to the Irvine Ranch Water District on the Composition of Possible Divisions August 15 – October 15, 2018

Author	Comment Submitted
Andrew Pollard	<p>The proposed divisions were created as carefully as possible to minimize deviations from the target population amounts, while attempting to maintain well-established neighborhoods under a single director (Woodbridge, UC Irvine, Lake Forest, Tustin Ranch). Due to the nature of the population data, some neighborhoods had to be split between two directors to avoid an imbalance in the number of registered voters.</p> <p>From a geography perspective, I attempted to divide the overall land area as much as possible so that a single director is not left with an oversized district, while others are responsible for more compact districts, as this could potentially be viewed as an unfair advantage in an election. This is reflected in the division of the unincorporated area at the northeast end of the IRWD service area.</p> <p>Where possible, major streets and highways served as dividing lines between the various district areas. I attempted to keep the lines as clean and straight as possible, while minimizing the amount of zig-zags. I figured that this would be beneficial to the overall compactness and simplicity of the map.</p> <p>Lastly, this proposed breakup of the IRWD service area is not submitted in support or against the proposed move to district elections.</p> <p>Thank you, Andrew Pollard</p>

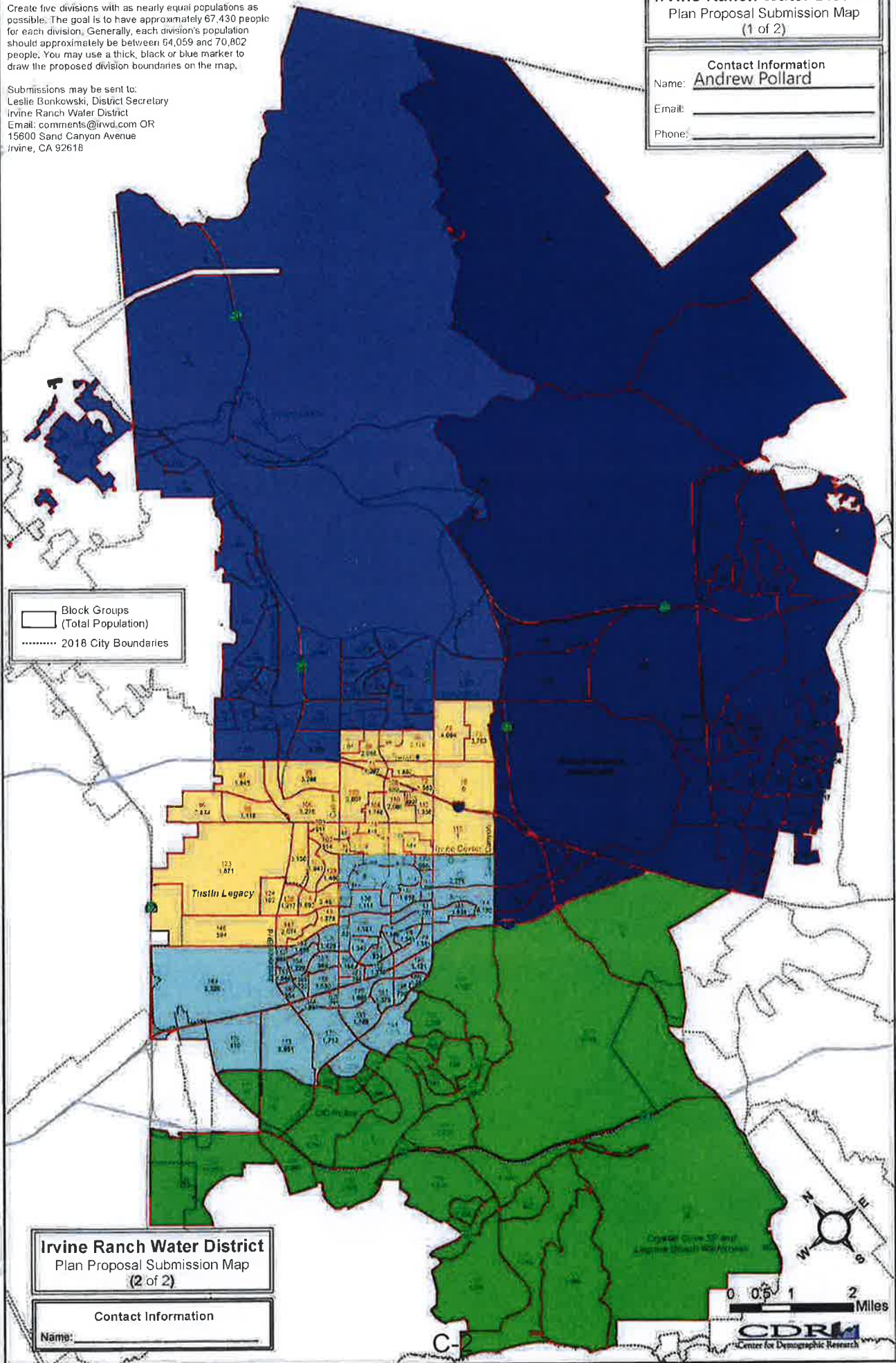
Create five divisions with as nearly equal populations as possible. The goal is to have approximately 67,430 people for each division. Generally, each division's population should approximately be between 64,059 and 70,802 people. You may use a thick, black or blue marker to draw the proposed division boundaries on the map.

Submissions may be sent to:
 Leslie Bonkowski, District Secretary
 Irvine Ranch Water District
 Email: comments@irwd.com OR
 15600 Sand Canyon Avenue
 Irvine, CA 92618

Irvine Ranch Water District
 Plan Proposal Submission Map
 (1 of 2)

Contact Information
 Name: Andrew Pollard
 Email: _____
 Phone: _____

Block Groups
 (Total Population)
 2018 City Boundaries



Irvine Ranch Water District
 Plan Proposal Submission Map
 (2 of 2)

Contact Information
 Name: _____

0 0.5 1 2 Miles

CDR
 Center for Demographic Research

**Public Comment Submitted to the Irvine Ranch Water District
on the Composition of Possible Divisions
August 15 – October 15, 2018**

Author	Comment Submitted
Zeke Hernandez on behalf of California LULAC/Santa Ana LULAC Council #147	This districting plan provides an opportunity for a Latino candidate to be elected to the IRWD board because the northeast area of the District that has a strong Latino voting block is not splintered.

Create five divisions with as nearly equal populations as possible. The goal is to have approximately 67,430 people for each division. Generally, each division's population should approximately be between 64,059 and 70,802 people. You may use a thick, black or blue marker to draw the proposed division boundaries on the map.

Submissions may be sent to:
 Leslie Bonkowski, District Secretary
 Irvine Ranch Water District
 Email: comments@irwd.com OR
 15600 Sand Canyon Avenue
 Irvine, CA 92618

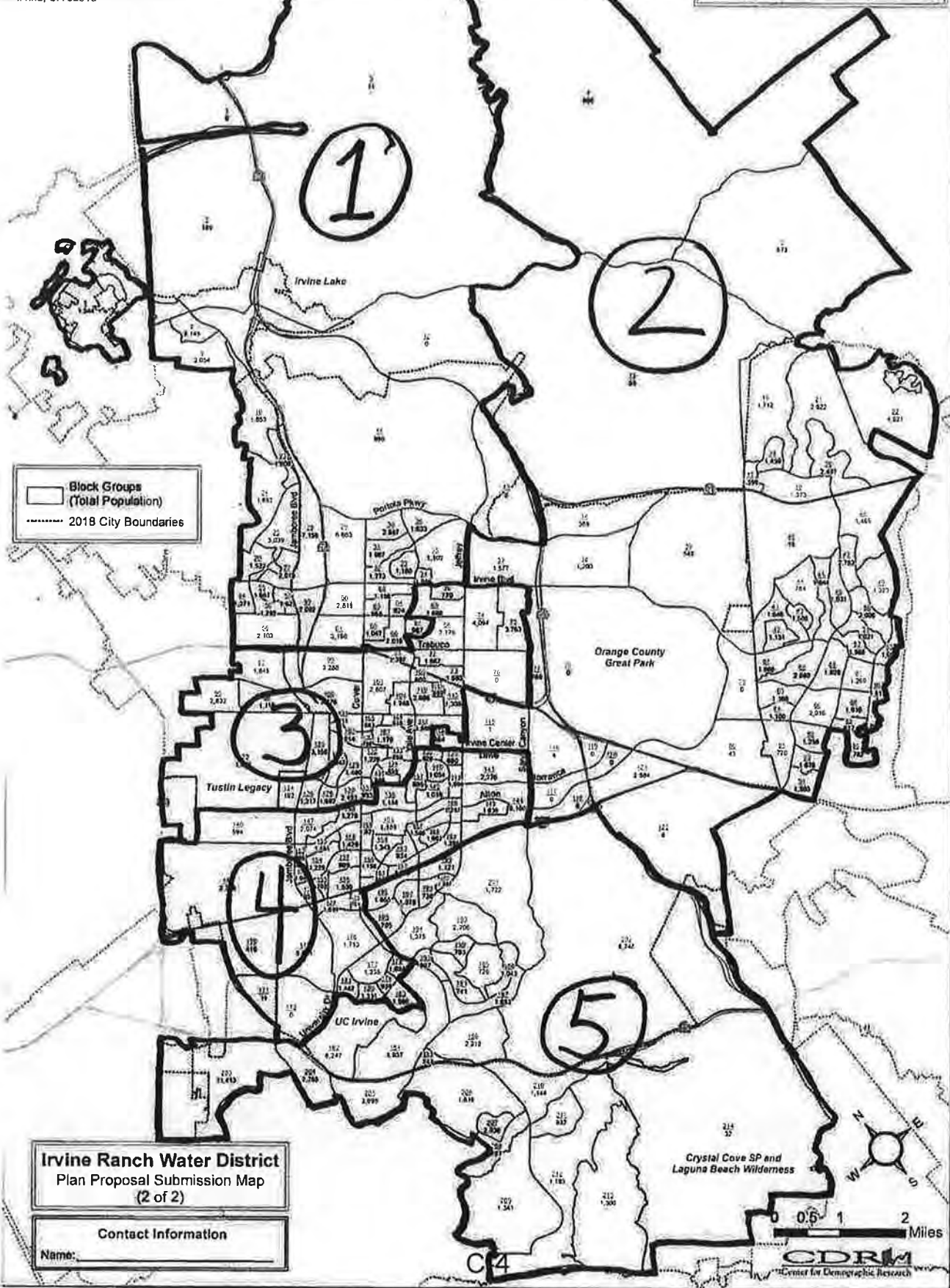
Irvine Ranch Water District
 Plan Proposal Submission Map
 (1 of 2)

Contact Information

Name: _____

Email: _____

Phone: _____



Block Groups
 (Total Population)

----- 2018 City Boundaries

Irvine Ranch Water District
 Plan Proposal Submission Map
 (2 of 2)

Contact Information

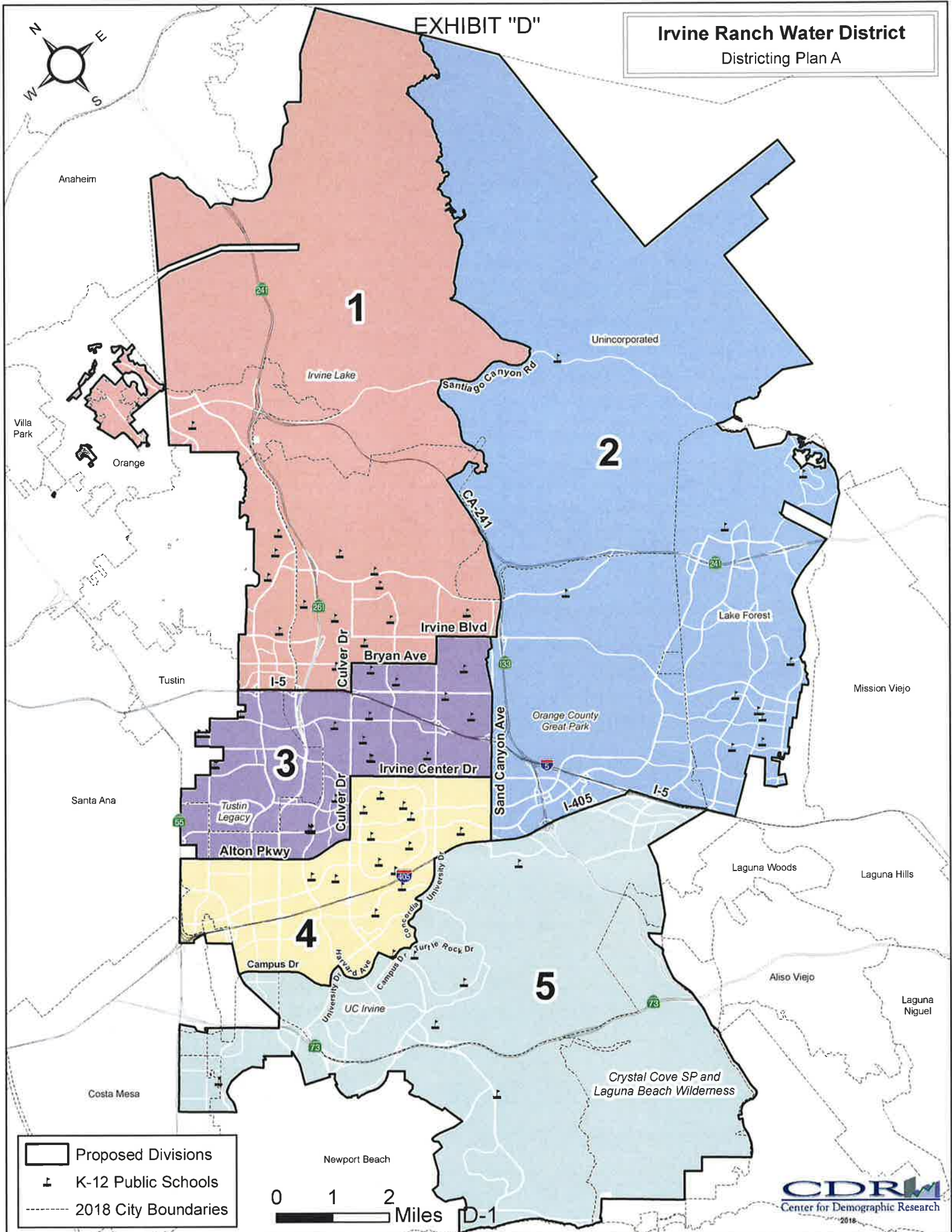
Name: _____

0 0.5 1 2 Miles

CDRM
 Center for Demographic Research

EXHIBIT "D"

Irvine Ranch Water District
Districting Plan A



Proposed Divisions
 K-12 Public Schools
 2018 City Boundaries



D-1

Irvine Ranch Water District- Plan A

Table 1. Population by Division and Race/Ethnicity

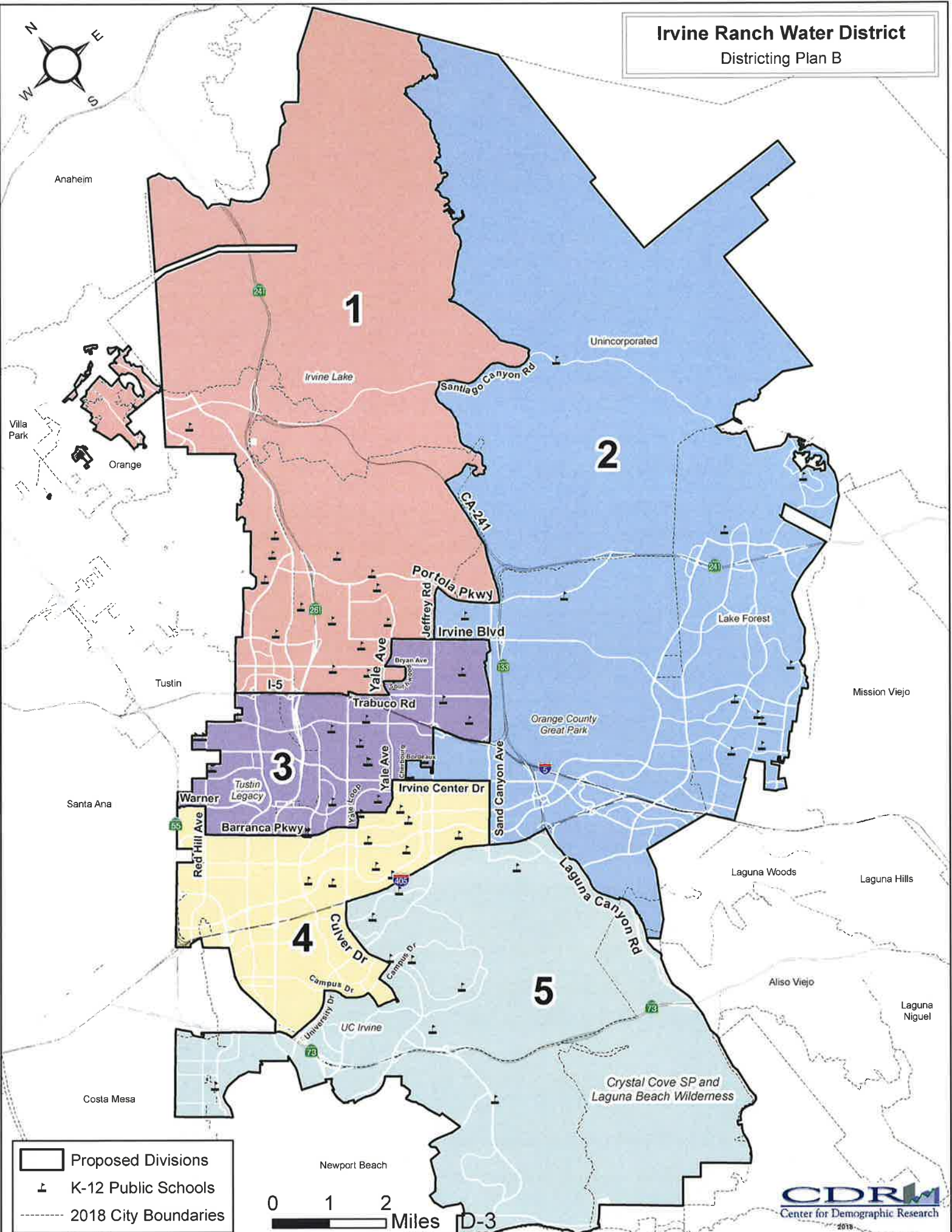
	DIVISION					Total
	1	2	3	4	5	
Total Population	67,229	66,316	67,365	68,468	67,773	337,151
Hispanic or Latino of any Race	7,092	13,223	7,809	6,058	6,143	40,325
Non-Hispanic White	31,151	39,670	27,294	34,423	38,659	171,197
Non-Hispanic Asian	25,013	9,693	27,673	23,253	19,143	104,775
Non-Hispanic Black or African-American	993	1,060	1,284	1,123	713	5,173
All Other Non-Hispanic Races/Ethnicities	2,980	2,670	3,305	3,611	3,115	15,681
Population 18 Years and Older	49,792	50,705	50,950	54,799	55,405	261,651
Hispanic or Latino of any Race	4,857	8,993	5,422	4,428	4,831	28,531
Non-Hispanic White	24,432	31,702	21,987	28,806	31,836	138,763
Non-Hispanic Asian	18,245	7,661	20,748	18,347	16,061	81,062
Non-Hispanic Black or African-American	751	855	933	888	602	4,029
All Other Non-Hispanic Races/Ethnicities	1,507	1,494	1,860	2,330	2,075	9,266
Citizen Voting Age Population (CVAP)	47,635	49,668	46,432	48,938	51,670	244,343
Hispanic or Latino of any Race	4,875	6,338	5,553	4,097	6,550	27,413
Non-Hispanic White	21,773	32,994	20,425	29,094	31,224	135,510
Non-Hispanic Asian	18,195	7,835	17,550	13,355	11,796	68,731
Non-Hispanic Black or African-American	1,093	1,081	1,224	950	462	4,810
All Other Non-Hispanic Races/Ethnicities	1,699	1,420	1,680	1,442	1,638	7,879

Target Division Population	67,430					
Division Difference from Target Population	-201	-1,114	-65	1,038	343	
Percent Difference from Target Population	-0.30%	-1.65%	-0.10%	1.54%	0.51%	
Percentage Spread	3.19%					

Table 2. Share of Division Populations

	DIVISION				
	1	2	3	4	5
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.5%	19.9%	11.6%	8.8%	9.1%
Non-Hispanic White	46.3%	59.8%	40.5%	50.3%	57.0%
Non-Hispanic Asian	37.2%	14.6%	41.1%	34.0%	28.2%
Non-Hispanic Black or African-American	1.5%	1.6%	1.9%	1.6%	1.1%
All Other Non-Hispanic Races/Ethnicities	4.4%	4.0%	4.9%	5.3%	4.6%
Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	9.8%	17.7%	10.6%	8.1%	8.7%
Non-Hispanic White	49.1%	62.5%	43.2%	52.6%	57.5%
Non-Hispanic Asian	36.6%	15.1%	40.7%	33.5%	29.0%
Non-Hispanic Black or African-American	1.5%	1.7%	1.8%	1.6%	1.1%
All Other Non-Hispanic Races/Ethnicities	3.0%	2.9%	3.7%	4.3%	3.7%
Citizen Voting Age Population (CVAP)	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.2%	12.8%	12.0%	8.4%	12.7%
Non-Hispanic White	45.7%	66.4%	44.0%	59.5%	60.4%
Non-Hispanic Asian	38.2%	15.8%	37.8%	27.3%	22.8%
Non-Hispanic Black or African-American	2.3%	2.2%	2.6%	1.9%	0.9%
All Other Non-Hispanic Races/Ethnicities	3.6%	2.9%	3.6%	2.9%	3.2%

Irvine Ranch Water District Districting Plan B



Legend:

- Proposed Divisions
- K-12 Public Schools
- 2018 City Boundaries



D-3

Irvine Ranch Water District- Plan B

Table 1. Population by Division and Race/Ethnicity

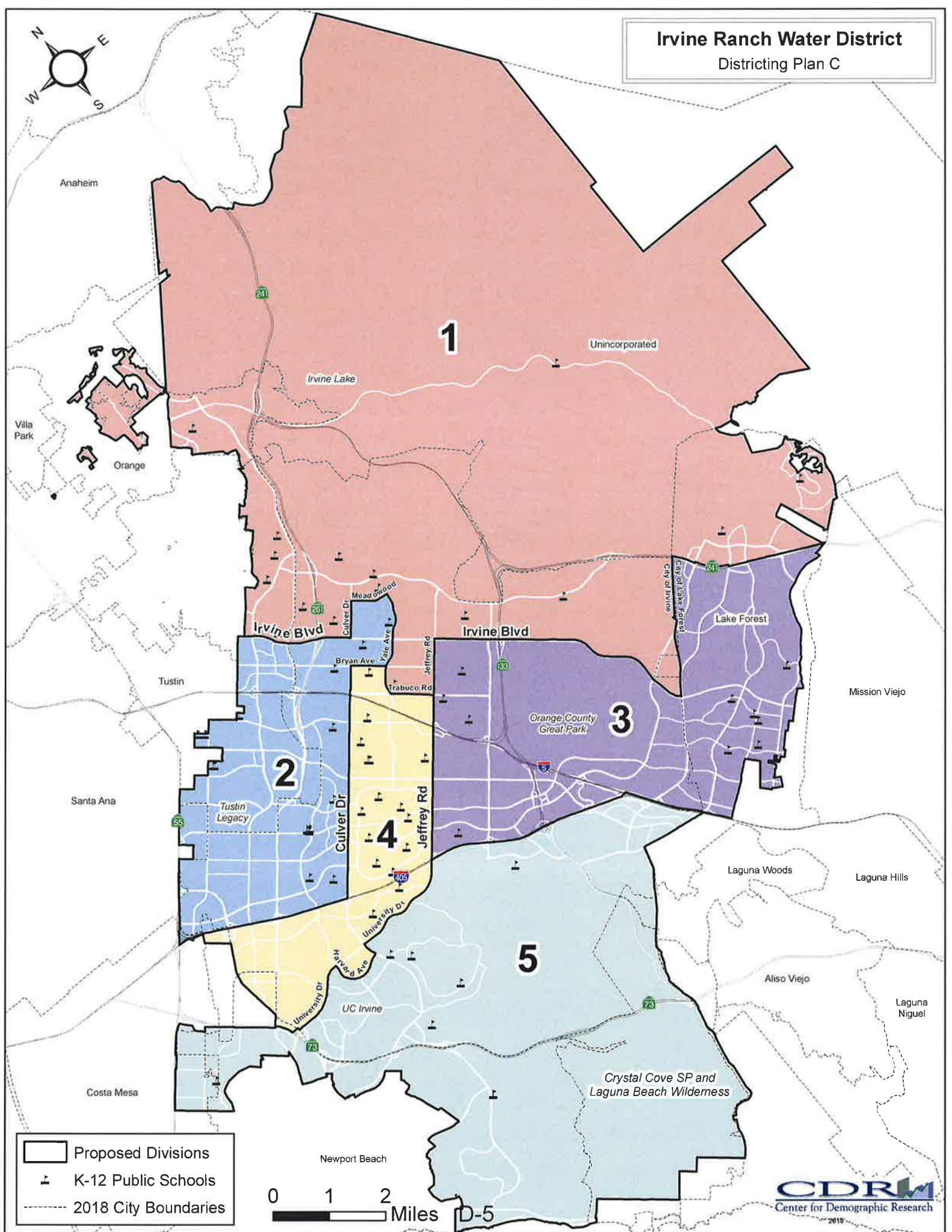
	DIVISION					Total
	1	2	3	4	5	
Total Population	67,094	68,886	65,550	64,912	70,709	337,151
Hispanic or Latino of any Race	7,047	13,468	7,409	6,362	6,039	40,325
Non-Hispanic White	30,783	41,003	27,634	30,375	41,402	171,197
Non-Hispanic Asian	25,335	10,516	26,224	23,382	19,318	104,775
Non-Hispanic Black or African-American	962	1,114	1,143	1,245	709	5,173
All Other Non-Hispanic Races/Ethnicities	2,967	2,785	3,140	3,548	3,241	15,681
Population 18 Years and Older	49,410	52,802	49,516	52,774	57,149	261,651
Hispanic or Latino of any Race	4,792	9,192	5,143	4,685	4,719	28,531
Non-Hispanic White	23,934	32,846	22,260	25,748	33,975	138,763
Non-Hispanic Asian	18,483	8,294	19,577	18,924	15,784	81,062
Non-Hispanic Black or African-American	725	900	815	992	597	4,029
All Other Non-Hispanic Races/Ethnicities	1,476	1,570	1,721	2,425	2,074	9,266
Citizen Voting Age Population (CVAP)	44,561	52,099	47,595	46,874	53,214	244,343
Hispanic or Latino of any Race	4,486	6,512	5,471	4,898	6,046	27,413
Non-Hispanic White	20,375	34,244	21,111	26,098	33,682	135,510
Non-Hispanic Asian	17,041	8,681	18,035	13,387	11,587	68,731
Non-Hispanic Black or African-American	1,085	1,128	1,197	1,008	392	4,810
All Other Non-Hispanic Races/Ethnicities	1,574	1,534	1,781	1,483	1,507	7,879

Target Division Population	67,430					
Division Difference from Target Population	-336	1,456	-1,880	-2,518	3,279	
Percent Difference from Target Population	-0.50%	2.16%	-2.79%	-3.73%	4.86%	
Percentage Spread	8.60%					

Table 2. Share of Division Populations

	DIVISION				
	1	2	3	4	5
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.5%	19.6%	11.3%	9.8%	8.5%
Non-Hispanic White	45.9%	59.5%	42.2%	46.8%	58.6%
Non-Hispanic Asian	37.8%	15.3%	40.0%	36.0%	27.3%
Non-Hispanic Black or African-American	1.4%	1.6%	1.7%	1.9%	1.0%
All Other Non-Hispanic Races/Ethnicities	4.4%	4.0%	4.8%	5.5%	4.6%
Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	9.7%	17.4%	10.4%	8.9%	8.3%
Non-Hispanic White	48.4%	62.2%	45.0%	48.8%	59.4%
Non-Hispanic Asian	37.4%	15.7%	39.5%	35.9%	27.6%
Non-Hispanic Black or African-American	1.5%	1.7%	1.6%	1.9%	1.0%
All Other Non-Hispanic Races/Ethnicities	3.0%	3.0%	3.5%	4.6%	3.6%
Citizen Voting Age Population (CVAP)	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.1%	12.5%	11.5%	10.4%	11.4%
Non-Hispanic White	45.7%	65.7%	44.4%	55.7%	63.3%
Non-Hispanic Asian	38.2%	16.7%	37.9%	28.6%	21.8%
Non-Hispanic Black or African-American	2.4%	2.2%	2.5%	2.2%	0.7%
All Other Non-Hispanic Races/Ethnicities	3.5%	2.9%	3.7%	3.2%	2.8%

Irvine Ranch Water District Districting Plan C



Legend:

- Proposed Divisions
- K-12 Public Schools
- 2018 City Boundaries



D-5

Irvine Ranch Water District- Plan C

Table 1. Population by Division and Race/Ethnicity

	DIVISION					Total
	1	2	3	4	5	
Total Population	67,287	68,734	64,489	67,504	69,137	337,151
Hispanic or Latino of any Race	7,207	8,366	11,970	6,565	6,217	40,325
Non-Hispanic White	34,971	27,775	34,295	34,978	39,178	171,197
Non-Hispanic Asian	21,208	27,914	14,497	21,318	19,838	104,775
Non-Hispanic Black or African-American	882	1,285	1,065	1,217	724	5,173
All Other Non-Hispanic Races/Ethnicities	3,019	3,394	2,662	3,426	3,180	15,681
Population 18 Years and Older	49,198	52,320	49,821	53,898	56,414	261,651
Hispanic or Latino of any Race	4,994	5,738	8,157	4,759	4,883	28,531
Non-Hispanic White	26,753	22,422	28,090	29,237	32,261	138,763
Non-Hispanic Asian	15,298	21,233	11,188	16,792	16,551	81,062
Non-Hispanic Black or African-American	681	988	846	904	610	4,029
All Other Non-Hispanic Races/Ethnicities	1,472	1,939	1,540	2,206	2,109	9,266
Citizen Voting Age Population (CVAP)	49,766	45,063	47,919	49,264	52,331	244,343
Hispanic or Latino of any Race	4,740	5,511	5,614	4,908	6,640	27,413
Non-Hispanic White	25,854	19,822	29,236	29,019	31,579	135,510
Non-Hispanic Asian	16,698	16,710	10,470	12,856	11,997	68,731
Non-Hispanic Black or African-American	889	1,160	1,328	971	462	4,810
All Other Non-Hispanic Races/Ethnicities	1,585	1,860	1,271	1,510	1,653	7,879

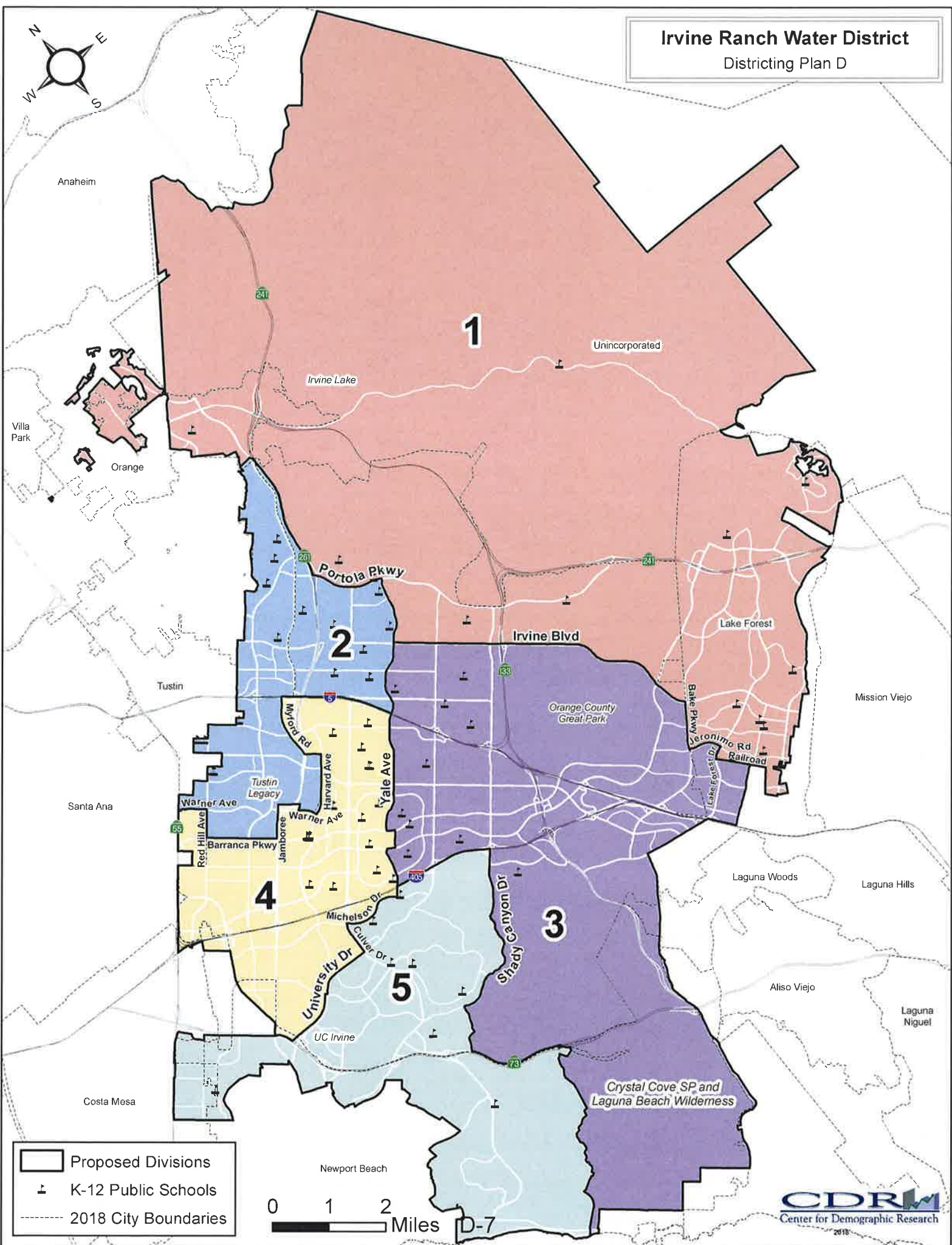
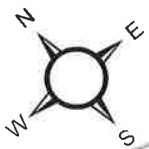
Target Division Population	67,430					
Division Difference from Target Population	-143	1,304	-2,941	74	1,707	
Percent Difference from Target Population	-0.21%	1.93%	-4.36%	0.11%	2.53%	
Percentage Spread	6.89%					

Table 2. Share of Division Populations

	DIVISION				
	1	2	3	4	5
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.7%	12.2%	18.6%	9.7%	9.0%
Non-Hispanic White	52.0%	40.4%	53.2%	51.8%	56.7%
Non-Hispanic Asian	31.5%	40.6%	22.5%	31.6%	28.7%
Non-Hispanic Black or African-American	1.3%	1.9%	1.7%	1.8%	1.0%
All Other Non-Hispanic Races/Ethnicities	4.5%	4.9%	4.1%	5.1%	4.6%
Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	10.2%	11.0%	16.4%	8.8%	8.7%
Non-Hispanic White	54.4%	42.9%	56.4%	54.2%	57.2%
Non-Hispanic Asian	31.1%	40.6%	22.5%	31.2%	29.3%
Non-Hispanic Black or African-American	1.4%	1.9%	1.7%	1.7%	1.1%
All Other Non-Hispanic Races/Ethnicities	3.0%	3.7%	3.1%	4.1%	3.7%
Citizen Voting Age Population (CVAP)	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	9.5%	12.2%	11.7%	10.0%	12.7%
Non-Hispanic White	52.0%	44.0%	61.0%	58.9%	60.3%
Non-Hispanic Asian	33.6%	37.1%	21.8%	26.1%	22.9%
Non-Hispanic Black or African-American	1.8%	2.6%	2.8%	2.0%	0.9%
All Other Non-Hispanic Races/Ethnicities	3.2%	4.1%	2.7%	3.1%	3.2%

Irvine Ranch Water District

Districting Plan D



- Proposed Divisions
- K-12 Public Schools
- 2018 City Boundaries

0 1 2 Miles

D-7

Irvine Ranch Water District- Plan D

Table 1. Population by Division and Race/Ethnicity

	DIVISION					Total
	1	2	3	4	5	
Total Population	68,657	67,602	65,350	67,537	68,005	337,151
Hispanic or Latino of any Race	12,543	7,853	7,213	6,607	6,109	40,325
Non-Hispanic White	41,197	28,932	30,824	30,538	39,706	171,197
Non-Hispanic Asian	11,168	26,688	23,012	25,545	18,362	104,775
Non-Hispanic Black or African-American	1,026	1,045	1,082	1,310	710	5,173
All Other Non-Hispanic Races/Ethnicities	2,723	3,084	3,219	3,537	3,118	15,681
Population 18 Years and Older	51,839	49,715	50,426	53,280	56,391	261,651
Hispanic or Latino of any Race	8,542	5,293	5,073	4,749	4,874	28,531
Non-Hispanic White	32,446	22,525	25,379	25,332	33,081	138,763
Non-Hispanic Asian	8,565	19,542	17,249	19,971	15,735	81,062
Non-Hispanic Black or African-American	811	774	834	1,009	601	4,029
All Other Non-Hispanic Races/Ethnicities	1,475	1,581	1,891	2,219	2,100	9,266
Citizen Voting Age Population (CVAP)	50,644	44,570	50,582	45,490	53,057	244,343
Hispanic or Latino of any Race	6,593	4,568	4,832	4,656	6,764	27,413
Non-Hispanic White	32,329	19,404	26,910	24,296	32,571	135,510
Non-Hispanic Asian	9,180	17,843	16,566	13,602	11,540	68,731
Non-Hispanic Black or African-American	967	1,124	1,084	1,173	462	4,810
All Other Non-Hispanic Races/Ethnicities	1,575	1,631	1,190	1,763	1,720	7,879

Target Division Population	67,430					
Division Difference from Target Population	1,227	172	-2,080	107	575	
Percent Difference from Target Population	1.82%	0.25%	-3.08%	0.16%	0.85%	
Percentage Spread	4.90%					

Table 2. Share of Division Populations

	DIVISION				
	1	2	3	4	5
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	18.3%	11.6%	11.0%	9.8%	9.0%
Non-Hispanic White	60.0%	42.8%	47.2%	45.2%	58.4%
Non-Hispanic Asian	16.3%	39.5%	35.2%	37.8%	27.0%
Non-Hispanic Black or African-American	1.5%	1.5%	1.7%	1.9%	1.0%
All Other Non-Hispanic Races/Ethnicities	4.0%	4.6%	4.9%	5.2%	4.6%
Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	16.5%	10.6%	10.1%	8.9%	8.6%
Non-Hispanic White	62.6%	45.3%	50.3%	47.5%	58.7%
Non-Hispanic Asian	16.5%	39.3%	34.2%	37.5%	27.9%
Non-Hispanic Black or African-American	1.6%	1.6%	1.7%	1.9%	1.1%
All Other Non-Hispanic Races/Ethnicities	2.8%	3.2%	3.8%	4.2%	3.7%
Citizen Voting Age Population (CVAP)	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic or Latino of any Race	13.0%	10.2%	9.6%	10.2%	12.7%
Non-Hispanic White	63.8%	43.5%	53.2%	53.4%	61.4%
Non-Hispanic Asian	18.1%	40.0%	32.8%	29.9%	21.8%
Non-Hispanic Black or African-American	1.9%	2.5%	2.1%	2.6%	0.9%
All Other Non-Hispanic Races/Ethnicities	3.1%	3.7%	2.4%	3.9%	3.2%

December 10, 2018

Prepared and

Submitted by: K. Swan *KJ*

Approved by: Paul A. Cook *PAC*

CONSENT CALENDAR

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

SUMMARY:

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

Events/Meetings

Steven LaMar

December 13 OCBC & ACC-OC 2018 Holiday Event
January 9-11, 2019 National Water Resources Association 2019 Leadership Forum, Phoenix

Mary Aileen Matheis

December 6 OC Forum's 2018 Midterm Election Recap Luncheon, Newport Beach

Doug Reinhart

December 6 MWDOC Semi-Annual Elected Officials' Forum

Peer Swan

December 5 Water Education Foundation's *Water Year 2019: Feast or Famine?*
Presentation, Irvine

December 6 OC Forum's 2018 Midterm Election Recap Luncheon, Newport Beach

December 7 California Association of Sanitation Agencies Federal Legislation Committee
Meeting, Sacramento

John Withers

December 6 MWDOC Semi-Annual Elected Officials' Forum

December 11 City of Irvine Swearing-In Ceremony

December 13 OCBC & ACC-OC 2018 Holiday Event

January 27-29, 2019 VerdeXchange 2019 Conference & Expo, Los Angeles

RECOMMENDATION:

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

LIST OF EXHIBITS:

None.

December 10, 2018

Prepared and

Submitted by: K. Swan *KS*

Approved by: Paul A. Cook *[Signature]*

CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the November 12, 2018 Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE NOVEMBER 12, 2018 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – November 12, 2018 Minutes of Regular Board Meeting

EXHIBIT "A"

MINUTES OF REGULAR MEETING – NOVEMBER 12, 2018

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Reinhart on November 12, 2018 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, LaMar, Swan, Matheis, and Withers.

Directors Absent: None.

Also Present: General Manager Cook, Executive of Engineering and Water Quality Burton, Executive Director of Finance and Administration Clary, Executive Director of Water Policy Weghorst, Executive Director of Operations Chambers, Director of Treasury and Risk Management Jacobson, Director of Water Resources Sanchez, Director of Water Recycling Operations Zepeda, Director of Public Affairs Beeman, Director of Human Resources Roney, Government Relations Officer Compton, Public Affairs Manager Fabris, Legal Counsel Collins, Assistant Secretary Swan, Asset Systems Manager Meserlian, Principal Engineer Akiyoshi, Principal Engineer Mori, Electrical and Instrumentation Manager O'Neill, Manager of Risk & Contracts Administration Shinbashi, Water Efficiency Manager McNulty, Water Efficiency Supervisor Hastings, Senior Human Resources Analyst Srader, Associate Engineer Marcacci, Associate Engineer Robinson, Financial Analyst Pardee, Operator III Daniel, , Mr. Andrew Pollard, Mr. Gregorio Estrada (HDR), Ms. Jennifer Ziv (Woodard & Curran), Mr. Scott Goldman (Woodard & Curran), Mr. Andrew Lazenby (Brown & Caldwell), Ms. Wendy Browley (Brown & Caldwell), Mr. Colin Lavin (IBEW #47), Mr. Jeff Brown, and members of the public.

WRITTEN COMMUNICATIONS: None.

ORAL COMMUNICATIONS: Mr. Colin Lavin of International Brotherhood of Electrical Workers addressed the Board relative to the status of the labor negotiations.

Mr. Matthew Daniel, a District Employee, introduced himself to the Board and spoke in support of the general unit employees labor negotiations and asked that negotiations move forward.

ITEMS TOO LATE TO BE AGENDIZED: None.

BOARD PRESENTATION

POTABLE REUSE CONCEPTUAL STUDY

Associate Engineer Marcacci presented a PowerPoint presentation regarding the Potable Reuse Conceptual Study to identify beneficial potable reuse options that was initiated by the District in December 2017. He outlined the three core elements of the project: 1) survey the current regulatory and industry environment; 2) conceptually analyze potable reuse alternatives for IRWD;

BOARD PRESENTATION (CONTINUED)

and 3) conduct a workshop with the Board of Directors regarding potable reuse. Mr. Marcacci indicated that staff and project consultant Brown and Caldwell completed the first two elements and presented nine alternatives to implementing potable reuse. Based on the screening criteria, staff identified four top recommended alternatives. Staff then responded to several comments made by the Board and staff was thanked for their efforts regarding the study.

CONSENT CALENDAR

President Reinhart asked that Item No. 9, IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES be moved to the action calendar for discussion. There being no further comments, this item was moved to the action calendar (See page 3).

Prior to the consideration of the Consent Calendar, President Reinhart provided comments on Item No. 6, CHANGES TO GENERAL MANAGER'S COMPENSATION. Mr. Reinhart reported that on October 22, 2018, the Board conducted its annual performance evaluation of the General Manager. The Board was asked to consider changes to his compensation as a result of that performance review.

Mr. Reinhart said that pursuant to Government Code Section 54953(c)(3), prior to taking final action on changes to the General Manager's compensation, he was providing a summary of the recommended action before the Board. The recommendation is to increase the annual base salary of the General Manager by 4%, or \$11,800, to \$306,800, a one-time performance award of \$9,000 as a taxable lump sum cash payment, and adjust the automobile allowance to \$725 per month, effective October 1, 2018. All other aspects of the General Manger's compensation would remain unchanged.

There being no further comments, on MOTION by Withers, seconded by LaMar, and unanimously carried (Withers, LaMar, Swan, Matheis, and Reinhart voting aye), CONSENT CALENDAR ITEMS 4 THROUGH 8 AND 10 WERE APPROVED AS FOLLOWS:

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

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

5. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the October 22, 2018 Regular Board Meeting be approved as presented.

CONSENT CALENDAR (CONTINUED)

6. CHANGES TO GENERAL MANAGER'S COMPENSATION

Recommendation: That the Board approve an increase to the annual salary of the General Manager to the amount of \$306,800, a one-time performance award in the amount of \$9,000, and adjust the General Manager's automobile allowance to \$725 per month, effective October 1, 2018.

7. OFFSITE PIPELINES FOR THE IRVINE LAKE PIPELINE NORTH CONVERSION FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the offsite pipelines for the Irvine Lake Pipeline North Conversion, Project 05823, authorize the General Manager to file a Notice of Completion, and authorize the payment of the retention 35 days after the date of recording the Notice of Completion.

8. REVISIONS TO THE DISTRICT'S CONFLICT OF INTEREST CODE

Recommendation: That the Board adopt the following resolution by title:

RESOLUTION NO. 2018 - 28

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT RESCINDING RESOLUTION NO. 2015-30 AND
ADOPTING A REVISED CONFLICT OF INTEREST CODE FOR THE DISTRICT

10. 2018 LEGISLATIVE AND REGULATORY UPDATE

Recommendation: That the Board approve including IRWD in the attached Orange County Water District letter as one of the Producers in support of the formation of a Funding Area that will allow north Orange County to compete for state bond funds through the Integrated Regional Water Management program.

ACTION CALENDAR

IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES

Following comments by President Reinhart and clarification provided by staff, on MOTION by Reinhart, seconded by LaMar, and unanimously carried (Withers, LaMar, Swan, Matheis, and

Reinhart voting aye), THE IRVINE RANCH WATER DISTRICT STRATEGIC MEASURES WERE RECEIVED AND FILED.

ACTION CALENDAR (CONTINUED)

ANNUAL MICROSOFT ENTERPRISE AGREEMENT SOFTWARE MAINTENANCE RENEWAL

General Manager Cook reported that the Microsoft Enterprise Agreement for Software Maintenance, which provides upgrades and maintenance for all of the Microsoft software used by the District, expires on November 30, 2018. This agreement provides discounted pricing for software maintenance and licenses to state and local government entities.

Director Swan reported that this item was reviewed by the Finance and Personnel Committee on November 6, 2018. On MOTION by Swan, seconded by LaMar, and unanimously carried (Withers, LaMar, Swan, Matheis, and Reinhart voting aye), THAT THE BOARD AUTHORIZED RENEWAL OF THE MICROSOFT ENTERPRISE AGREEMENT FOR A THREE-YEAR PERIOD EFFECTIVE DECEMBER 1, 2018 THROUGH NOVEMBER 30, 2021 IN THE AMOUNT OF \$510,000.

BUSINESS INTELLIGENCE CLOUD DISASTER RECOVERY IMPLEMENTATION AND REPORTING CONSULTANT SERVICES VARIANCE APPROVAL

Director of Information Services Mossbarger reported that the District's Oracle Business Intelligence (BI) Cloud Disaster Recovery Implementation and Reporting project started in October 2017. Mr. Mossbarger said that BI is an Oracle module used for analyzing data and presenting information to enhance decision making. He said the project provides for a backup Cloud Disaster Recovery (DR) environment for BI in the event of a system failure. The scope of the project included several initial user operational reports to be developed. The District entered into a Professional Services Agreement with Dilytics to assist with the implementation. A variance is needed to the Professional Services Agreement for development of additional reports.

Following discussion, on MOTION by Swan, seconded by Matheis, and unanimously carried (Withers, LaMar, Swan, Matheis, and Reinhart voting aye), THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A VARIANCE TO THE AGREEMENT WITH DILYTICS FOR VARIANCE NO. 4 IN THE AMOUNT OF \$426,000 FOR THE ORACLE BUSINESS INTELLIGENCE CLOUD DISASTER RECOVERY IMPLEMENTATION AND REPORTING AGREEMENT AND APPROVED A BUDGET INCREASE IN THE AMOUNT OF \$246,000 EACH TO PROJECTS 10345 AND 10347 FOR A TOTAL OF \$492,000.

CONSULTANT SELECTION FOR A STUDY OF IRWD'S FUTURE POTENTIAL WATER EFFICIENCY

General Manager Cook reported that a study of IRWD's Future Potential Water Efficiency is proposed to assist IRWD with understanding the current extent and impacts of water efficiency programs, device saturation, identifying opportunities for future water savings, and evaluating the potential efficacy of future water efficiency programs within IRWD. Mr. Cook said that the results of the study will inform the strategic planning, design, and implementation of future water

ACTION CALENDAR (CONTINUED)

efficiency programs and support activities that will IRWD's ensure compliance with statewide water use efficiency targets. Mr. Cook further said that staff has highlighted benefits noted in the bullet points in the write-up.

Supervisor Hastings reported that on August 21, 2018, staff issued a Request for Proposal to 18 firms to conduct a study on Future Potential Water Efficiency. Three firms submitted proposals: A & N Technical Services, EnviroSmart Solutions Group, and EKI. Staff completed a thorough evaluation of the proposals, conducted interviews and completed reference checks.

Ms. Hastings said staff recommends the selection of EKI to complete the work. Key strengths of the EKI's proposal include: 1) a strong project team that has in-depth understanding and expertise in designing, implementing, analyzing and modeling water efficiency programs to support water resources planning efforts; 2) extensive experience using principles of data science and analytics to conduct and present quantitative analyses of water efficiency program saturation and effectiveness; and 3) significant experience developing unique and proven methods to evaluate water use and savings potential to identify where best to target programs, identify future program opportunities and inform the strategic targeting and implementation of water efficiency programs.

Director Matheis reported that this item was reviewed by the Water Resources Policy and Communications Committee on November 5, 2018, and on MOTION by Matheis, seconded by LaMar, and unanimously carried (Withers, LaMar, Swan, Matheis, and Reinhart voting aye), **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH EKI ENVIRONMENT & WATER IN THE AMOUNT OF \$158,958 TO CONDUCT A STUDY ON IRWD'S FUTURE POTENTIAL WATER EFFICIENCY.**

2019-2020 FEDERAL ADVOCACY SERVICES

General Manager Cook reported on September 4, 2018, the District released a Request for Qualifications (RFQ) for federal advocacy services. Through the RFQ process, IRWD sought to retain the firm best suited to meet the District's federal advocacy needs. The District received nine responses to the RFQ and interviewed the top two qualified firms, with staff's recommendation of retaining the services Kadash & Associates.

Government Relations Officer Compton stated based on the firm's qualifications and strategic ability to influence policy decisions at the federal level, they bring decades of experience and key contacts that will provide the District with a high level of knowledge, credibility, and access in Washington, D.C., which will assist the District with achieving its federal policy, funding and regulatory goals. The firm has a strong record of engaging with clients on proper messaging, tracking, and monitoring funding and legislative opportunities, coordinating appropriate advocacy meetings, and communicating with clients.

ACTION CALENDAR (CONTINUED)

Director Matheis reported that this item was reviewed by the Water Resources Policy and Communications Committee on November 5, 2018, and on MOTION by Matheis, seconded by LaMar, and unanimously carried (Withers, LaMar, Swan, Matheis, and Reinhart voting aye), THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH KADESH & ASSOCIATES FOR FEDERAL ADVOCACY AND CONSULTING SERVICES FOR THE PERIOD OF DECEMBER 1, 2018, THROUGH DECEMBER 31, 2020, AT A RATE OF \$10,000 PER MONTH PLUS REASONABLE REIMBURSABLE DIRECT EXPENSES FOR A TOTAL CONTRACT AMOUNT NOT TO EXCEED \$265,000.

PROPOSED IRWD POLICY PRINCIPLES REGARDING METROPOLITAN WATER DISTRICT'S REGIONAL RECYCLED WATER PROGRAM

General Manager Cook introduced a new policy paper articulating IRWD's position on "the Carson Plant", a new groundwater augmentation program that is being developed by Metropolitan Water District of Southern California (MWD).

Executive Director of Water Policy Weghorst provided highlights outlining the District's support of advocacy for the Carson Plant. He stated while MWD is currently studying the feasibility of developing the Carson Plant, a full-scale project would provide up to 150 MGD of advanced purified water to the region and would become a major source of water for Orange County.

Director Matheis reported that this item was reviewed by the Water Resources Policy and Communications Committee on November 5, 2018, and the Committee recognizes that the policy paper fits into the District's projections moving forward. After discussion and comments regarding the policy principles with staff, the Board provided four modifications to be executed within the paper. On MOTION by Matheis, seconded by LaMar, and unanimously carried (Withers, LaMar, Swan, Matheis, and Reinhart voting aye), THE BOARD ADOPTED THE PROPOSED IRWD POLICY POSITION PAPER REGARDING METROPOLITAN WATER DISTRICT'S PROPOSED REGIONAL RECYCLED WATER PROGRAM AS AMENDED.

BOARD OF DIRECTORS' FEES

General Manager Cook reported that the Board of Directors' fees is an item that is brought to the Board every year and is reviewed by the Finance and Personnel Committee.

Director Swan reported that this item was reviewed by the Finance and Personnel Committee on November 6, 2018. The most recent increase was effective in January 2017; and the Board can elect to increase the fees by 5% each year.

On MOTION by Withers, seconded by Swan, and unanimously carried (Withers, LaMar, Swan, Matheis, and Reinhart voting aye), THE BOARD ACCEPTED THE FIVE (5%) PERCENT COMPENSATION INCREASE FOR CALENDAR YEAR 2019.

GENERAL MANAGER'S REPORT

General Manager Cook reported that the ACC-OC Thanksgiving Reception will be held at the District's Learning Center Thursday, November 15 and encouraged the Board to attend. Mr. Cook said that the next Board meeting will be cancelled due to insufficient items for approval. He concluded with a tribute to thank and honor all Veterans who work for the District and were present for tonight's meeting.

DIRECTORS' COMMENTS

Director Withers reported on the elections for OCSD, congratulated District staff member Mark Tettermer on his election for Lake Forest City Council. He further stated that he attended the NWRI Clarke Prize events.

Director Matheis congratulated fellow Board members on their reelection. She further reported on the Alliance for Community Trees' visit to the Shadetree Partnership nursery; the dedication of the Philip L. Anthony Water Quality Laboratory at OCWD; and a Shadetree Partnership monthly nursery event.

Director Swan reported on his attendance the NWRI Clarke Prize events; the monthly WACO meeting; the UCI Water event featuring Israel's experience with water management; and a Localizing California Waters workshop in Groveland.

Director LaMar congratulated Mr. Andrew Pollard on a great campaign. He reported on his participation in the Nation Water Resources Association's Conference in San Diego.

President Reinhart reported that he had approximately 45 residents participate in his resident tour of the District; he attended MWDOC and SOCWA Board meetings; a monthly WACO meeting; a MWDOC workshop with MWD Directors; and his monthly discussion of District activities with the General Manager.

COMMUNITY UPDATES: None.

CLOSED SESSION

At 7:08 p.m., President Reinhart recessed the Board meeting and announced that the following Closed Session would be held as follows:

CLOSED SESSION CONFERENCE WITH LABOR NEGOTIATORS – Pursuant to Government Code Section 54957.6

Designated Agency Representatives: Paul Cook and Jenny Roney

Employee Groups: IBEW Local #47 General Unit Employees and

IBEW Local #47 Non-Exempt Supervisor Unit Employees

OPEN SESSION

Following the Closed Session, the meeting was reconvened at 8:00 p.m. with Directors Reinhart, LaMar, Swan, Matheis and Withers present. President Reinhart said that there was no action to report.

ADJOURNMENT

There being no further business, President Reinhart adjourned the meeting at 8:03 p.m.





APPROVED and SIGNED this 10th day of December, 2018.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Claire Hervey Collins, Legal Counsel
– Lewis Brisbois

December 10, 2018 
Prepared by: J. Davis/T. Fournier 
Submitted by: R. Jacobson/C. Clary 
Approved by: Paul A. Cook 

CONSENT CALENDAR

NOVEMBER 2018 TREASURY REPORTS

SUMMARY:

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

- A. The Investment Summary Report for November 2018. This Investment Summary Report is in conformity with the 2018 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Summary of Fixed and Variable Debt as of November 30, 2018, as outlined in Exhibit "B".
- C. The Summary of Payroll ACH payments in the total amount of \$2,088,664 as outlined in Exhibit "C".
- D. The November 30, 2018 Disbursement Summary of warrants 393005 through 393942, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$16,006,783 as outlined in Exhibit "D".
- E. The Disclosure Report of Reimbursements to Board Members and Staff for November 2018, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "E".

FISCAL IMPACTS:

As of November 30, 2018, the book value of the investment portfolio was \$365,730,334, with a 1.69% rate of return and a market value of \$363,280,296. Based on the District's September 30, 2018 quarterly real estate investment rate of return of 9.05%, the weighted average return for the fixed income and real estate investments was 3.91%.

As of November 30, 2018, the outstanding principal amount of fixed and variable rate debt was \$672,220,000. The monthly weighted average all-in variable rate was 1.77%. Including the District's weighted average fixed rate bond issues of 3.70% and the previous month's negative cash accruals from fixed payer interest rate swaps, which hedge a portion of the District's variable rate debt, the total average debt rate was 3.71%.

Payroll ACH payments totaled \$2,088,664, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for November totaled \$16,006,783.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE SUMMARY OF FIXED AND VARIABLE RATE DEBT, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE NOVEMBER 2018 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$2,088,664 AND APPROVE THE NOVEMBER 2018 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 393005 THROUGH 393942 WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$16,006,783.

LIST OF EXHIBITS:

Exhibit "A" – Investment Summary Report

Exhibit "B" – Summary of Fixed and Variable Debt

Exhibit "C" – Monthly Payroll ACH Summary

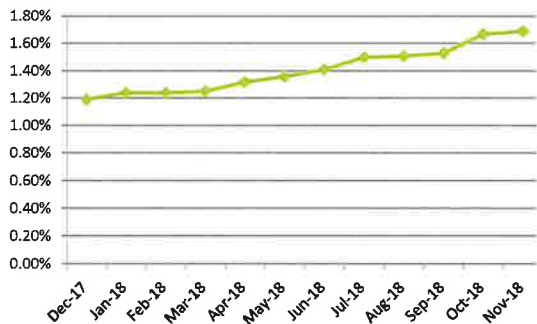
Exhibit "D" – Monthly Summary of District Disbursements

Exhibit "E" – Disclosure of Reimbursements to Board Members and Staff

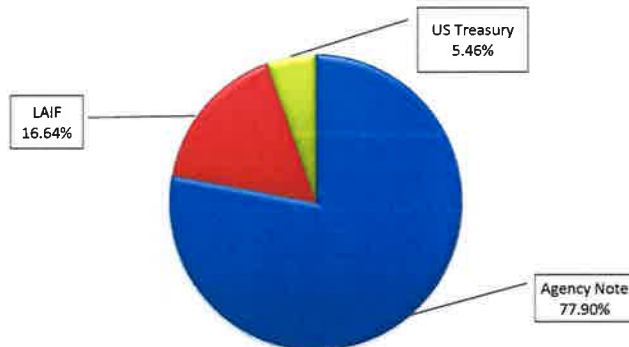
Exhibit "A"

Irvine Ranch Water District
Investment Portfolio Summary
November 2018

Monthly Fixed Income Yield



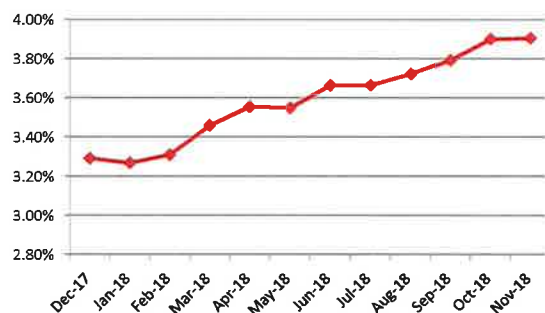
Portfolio Distribution



Investment Summary

Type	PAR	Book Value	Market Value
Agency Note	285,550,000	285,223,861	282,859,169
LAIF	61,000,000	61,000,000	60,867,777
US Treasury	20,000,000	19,506,473	19,553,350
Grand Total	366,550,000	365,730,334	363,280,296

Weighted Average Return
Including Real Estate Portfolio



Maturity Distribution



Top Issuers

Issuer	PAR	% Portfolio
Fed Natl Mortgage Assoc	80,000,000	21.83%
Fed Home Loan Bank	70,550,000	19.24%
Fed Farm Credit Bank	70,000,000	19.10%
Fed Home Loan Mortgage Corp	65,000,000	17.73%
State of California Treasury - LAIF	61,000,000	16.64%
US Treasury	20,000,000	5.46%
Grand Total	366,550,000	100.00%

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

11/30/18

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 11/30/2018	UNREALIZED ⁽²⁾ GAIN/(LOSS)
08/23/17			12/01/18		LAIF	State of California Tsy.	\$61,000,000		2.000%	\$61,000,000.00	\$61,000,000.00	60,867,776.64	(132,223.36)
12/21/16	N/A	N/A	12/05/18	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.100%	1.319%	4,978,900.00	5,001,423.14	4,999,650.00	(1,773.14)
09/01/16	NA	NA	12/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.750%	0.941%	5,091,300.00	5,000,753.10	4,999,150.00	(1,603.10)
12/27/16	NA	NA	12/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.750%	1.320%	5,041,536.20	4,999,881.79	4,999,150.00	(731.79)
09/01/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.009%	4,993,000.00	4,999,523.27	4,988,450.00	(11,073.27)
10/26/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.035%	4,999,500.00	4,999,240.92	4,988,450.00	(10,790.92)
10/26/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.040%	4,990,000.00	4,999,200.97	4,988,450.00	(10,750.97)
10/12/16	Continuous after	02/12/18	02/12/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	1.050%	1.093%	9,990,000.00	9,998,909.73	9,973,900.00	(25,009.73)
09/01/16	NA	NA	03/08/19	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Bank	5,000,000	1.500%	0.964%	5,066,500.00	5,007,026.69	4,987,800.00	(19,226.69)
03/21/18	NA	NA	03/21/19	Aaa/NA/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	2.125%	2.125%	10,000,000.00	10,000,000.00	9,990,900.00	(9,100.00)
10/12/16	N/A	N/A	03/29/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.050%	1.050%	4,999,950.00	4,999,992.32	4,976,250.00	(23,742.32)
10/12/16	N/A	N/A	04/15/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	1.125%	0.992%	10,032,800.00	10,005,556.28	9,950,500.00	(55,056.28)
10/31/16	N/A	N/A	04/26/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.050%	1.060%	4,998,750.00	4,999,797.41	4,970,600.00	(29,197.41)
09/01/16	N/A	N/A	05/28/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.030%	1.048%	4,997,550.00	4,999,563.46	4,964,000.00	(35,563.46)
04/19/18	N/A	N/A	05/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.750%	2.252%	4,972,500.00	4,987,807.88	4,979,800.00	(8,007.88)
09/01/16	NA	NA	06/14/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.625%	0.987%	5,087,400.00	5,016,774.61	4,974,750.00	(42,024.61)
10/12/16	NA	NA	06/14/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.625%	1.103%	5,068,515.88	5,015,108.63	4,974,750.00	(40,358.63)
10/12/16	NA	NA	07/19/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.875%	1.098%	4,969,652.90	4,992,488.34	4,945,400.00	(47,088.34)
09/01/16	NA	NA	07/26/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.150%	1.180%	4,995,700.00	4,999,036.77	4,951,450.00	(47,586.77)
09/01/16	N/A	N/A	08/28/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.150%	1.160%	4,998,500.00	4,999,628.78	4,944,350.00	(55,278.78)
09/01/16	NA	NA	08/28/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	1.132%	4,999,000.00	4,999,752.52	4,943,450.00	(56,302.52)
09/28/16	Quarterly	03/09/17	09/09/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	1.142%	4,997,500.00	4,999,339.67	4,940,050.00	(59,289.67)
04/10/18	NA	NA	09/13/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.375%	2.288%	5,006,000.00	5,003,293.67	4,987,150.00	(16,143.67)
09/28/16	Continuous after	12/27/16	09/27/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.250%	1.189%	5,001,500.00	5,000,411.33	4,940,900.00	(59,511.33)
10/12/16	Continuous after	10/03/17	10/03/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	1.125%	1.160%	9,989,780.00	9,996,932.12	9,868,100.00	(128,832.12)
10/12/16	Continuous after	10/11/17	10/11/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	1.120%	1.205%	9,975,000.00	9,992,367.46	9,864,400.00	(127,967.46)
11/08/16	Quarterly	05/08/17	11/08/19	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.250%	1.245%	5,000,750.00	5,000,234.25	4,930,850.00	(69,384.25)
11/28/16	NA	NA	11/15/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.375%	1.440%	4,990,550.00	4,996,951.89	4,934,750.00	(62,201.89)
11/28/16	Quarterly	05/25/17	11/25/19	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.400%	1.503%	4,985,000.00	4,995,068.68	4,934,050.00	(61,018.68)
12/12/16	NA	NA	12/12/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.450%	1.440%	5,001,450.00	5,000,497.03	4,933,000.00	(67,497.03)
12/21/16	NA	NA	12/19/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.500%	1.621%	4,982,350.00	4,993,815.23	4,931,850.00	(61,965.23)
12/20/17	NA	NA	01/17/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.500%	1.932%	4,956,250.00	4,970,333.11	4,930,700.00	(39,633.11)
10/16/17	NA	NA	02/28/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	1.612%	4,987,025.00	4,993,190.00	4,921,650.00	(71,540.00)
12/20/17	NA	NA	03/13/20	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	4.125%	1.940%	5,237,200.00	5,166,098.28	5,082,450.00	(83,648.28)
10/03/17	NA	NA	04/20/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.375%	1.630%	4,968,350.00	4,982,779.68	4,903,800.00	(78,979.68)
06/29/18	NA	NA	04/23/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.500%	2.544%	4,996,000.00	4,996,962.73	4,979,850.00	(17,112.73)
06/29/18	NA	NA	05/15/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.550%	2.566%	4,998,450.00	4,998,800.22	4,981,450.00	(17,350.22)
11/21/17	Continuous after	02/20/18	05/20/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.830%	1.930%	4,987,500.00	4,980,565.45	4,929,850.00	(50,715.45)
06/11/18	NA	NA	06/11/20	Aaa/NR/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.500%	2.570%	4,997,100.00	4,997,786.32	4,979,950.00	(17,836.32)
11/10/17	NA	NA	06/22/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	1.750%	4,968,000.00	4,992,796.38	4,901,750.00	(91,046.38)

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

11/30/18

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE ⁽¹⁾ 11/30/2018	UNREALIZED ⁽²⁾ GAIN/(LOSS)
04/19/18	NA	NA	07/30/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	2.535%	4,886,000.00	4,916,929.17	4,894,550.00	(22,379.17)
06/08/18	NA	NA	07/30/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	2.559%	4,890,100.00	4,914,802.94	4,894,550.00	(20,252.94)
12/20/17	Quarterly	11/10/16	08/10/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.450%	2.052%	4,923,000.00	4,942,489.63	4,883,050.00	(59,439.63)
09/14/18	NA	NA	08/24/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.680%	2.789%	4,989,700.00	4,990,831.55	4,986,400.00	(4,431.55)
05/21/18	Continuous after	12/01/17	09/01/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.680%	2.735%	4,884,250.00	4,911,175.06	4,901,650.00	(9,525.06)
09/14/18	NA	NA	09/04/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.690%	2.794%	4,990,050.00	4,991,126.42	4,984,300.00	(6,826.42)
12/12/17	One Time	09/28/18	09/28/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	2.000%	2.000%	5,000,000.00	5,000,000.00	4,916,150.00	(83,850.00)
10/31/17	One Time	10/30/18	10/30/20	Aaa/NR/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,550,000	1.850%	1.850%	5,550,000.00	5,550,000.00	5,431,119.00	(118,881.00)
09/28/18	NA	NA	10/31/20	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.750%	2.847%	4,889,453.13	4,880,192.66	4,900,200.00	20,007.34
12/13/17	Continuous after	08/23/17	11/23/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.770%	2.060%	4,958,750.00	4,968,104.09	4,895,800.00	(72,304.09)
12/13/17	Quarterly	05/24/18	11/24/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.900%	2.023%	4,982,500.00	4,986,464.72	4,896,950.00	(89,514.72)
11/30/17	NA	NA	11/24/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.850%	1.964%	4,983,550.00	4,989,073.58	4,903,300.00	(85,773.58)
12/20/17	NA	NA	12/28/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.875%	2.023%	4,978,400.00	4,983,173.91	4,903,650.00	(79,523.91)
11/09/18	NA	NA	12/31/20	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.375%	2.958%	4,939,843.75	4,941,533.96	4,955,450.00	13,916.04
11/27/18	NA	NA	01/25/21	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	3.020%	3.021%	5,000,000.00	5,000,000.00	4,999,950.00	(50.00)
10/12/18	NA	NA	01/31/21	Aaa/NR/AAA	Treasury - Note	US Treasury	10,000,000	1.375%	2.890%	9,664,843.76	9,684,746.15	9,697,700.00	12,953.85
TOTAL INVESTMENTS							\$366,550,000			\$365,798,250.62	\$365,730,333.94	\$363,280,295.64	

Petty Cash
Ck Balance Bank of America

3,400.00
1,849,167.99
\$367,650,818.61

⁽¹⁾ LAIF market value is as of the most recent quarter-end as reported by LAIF.
Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing

⁽²⁾ Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers

⁽³⁾ Real estate rate of return is based on most recent quarter end return

Outstanding Variable Rate Debt	\$273,300,000
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)	\$143,300,000
Investment Balance:	\$367,650,819
Investment to Variable Rate Debt Ratio:	257%
Portfolio - Average Number of Days To Maturity	320

	Investment Portfolio	Real Estate ⁽³⁾ Portfolio	Weighted Avg. Return
November	1.69%	9.05%	3.91%
October	1.67%	9.05%	3.90%
Change	0.02%		0.01%

This Investment Summary Report is in conformity with the 2018 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.
*S - Step up

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

11/30/18

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Collateral Deposit	US Treasury
11/18	\$61,000,000	16.64%	\$61,000,000				
12/18	15,000,000	4.09%		15,000,000			
01/19	15,000,000	4.09%		15,000,000			
02/19	10,000,000	2.73%		10,000,000		-	
03/19	20,000,000	5.46%		20,000,000			
04/19	15,000,000	4.09%		15,000,000			
05/19	10,000,000	2.73%		10,000,000			
06/19	10,000,000	2.73%		10,000,000			
07/19	10,000,000	2.73%		10,000,000			
08/19	10,000,000	2.73%		10,000,000			
09/19	15,000,000	4.09%		15,000,000			
10/19	20,000,000	5.46%		20,000,000			
SUB-TOTAL	\$211,000,000	57.56%	\$61,000,000	\$150,000,000			
13 Months - 3 YEARS							
11/01/19 - 2/28/2020	35,000,000	9.55%		35,000,000			
3/01/2020 - 5/31/2020	30,000,000	8.18%		30,000,000			
6/01/2020 - 8/31/2020	25,000,000	6.82%		25,000,000			
9/01/2020 - 11/30/2020	40,550,000	11.06%		35,550,000			5,000,000
12/01/2020 - 2/28/2021	25,000,000	6.82%		10,000,000			15,000,000
	-						
	-						
	-						
	-						
TOTALS	\$366,550,000	100.00%	\$61,000,000	\$285,550,000			\$20,000,000

% OF PORTFOLIO

16.64%

77.90%

5.46%

Irvine Ranch Water District
Summary of Real Estate - Income Producing Investments
9/30/2018

	ACQUISITION DATE	PROPERTY TYPE	OWNERSHIP INTEREST	ORIGINAL COST	MARKET VALUE 9/30/2018	ANNUALIZED RATE OF RETURN QUARTER ENDED 9/30/2018
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	\$ 145,000,000	19.02%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	\$ 30,670,120	8.55%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	\$ 11,500,000	10.85%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	\$ 9,000,000	5.82%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	\$ 11,000,000	8.88%
Total - Income Properties				\$ 72,569,826	\$ 207,170,120	14.73%
OTHER REAL ESTATE						
DESCRIPTION						
Serrano Summit - Promissory Note	Sep-17	NA	NA	\$ 81,600,000	\$ 81,600,000	4.00%
Total - Income Producing Real Estate Investments				\$ 154,169,826	\$ 288,770,120	9.05%

IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT
INVESTMENT ACTIVITY
Nov-18

MATURITIES/SALES/CALLS

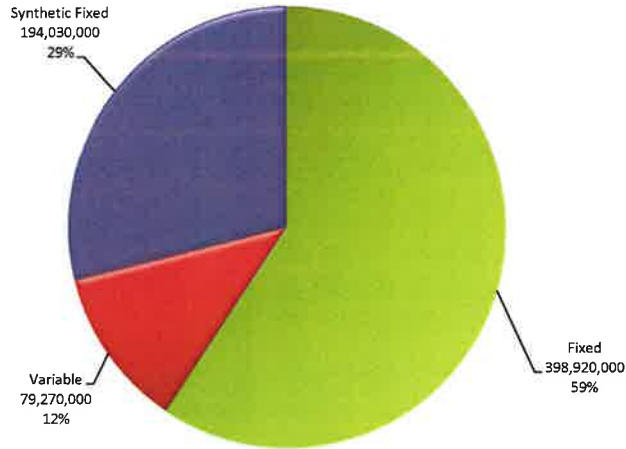
PURCHASES

DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
11/27/2018	FNMA - Note	\$10,000,000	0.96%	11/9/2018	12/31/2020	US - Treasury Note	\$5,000,000	2.96%
				11/27/2018	1/25/2021	FHLMC - Note	\$5,000,000	3.02%

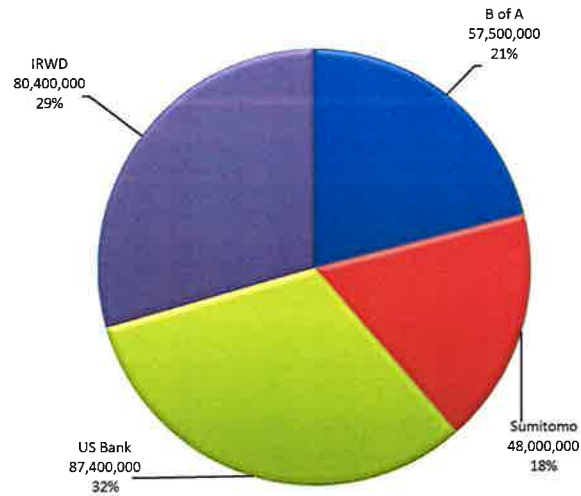
Exhibit "B"

Irvine Ranch Water District Summary of Fixed and Variable Rate Debt November 2018

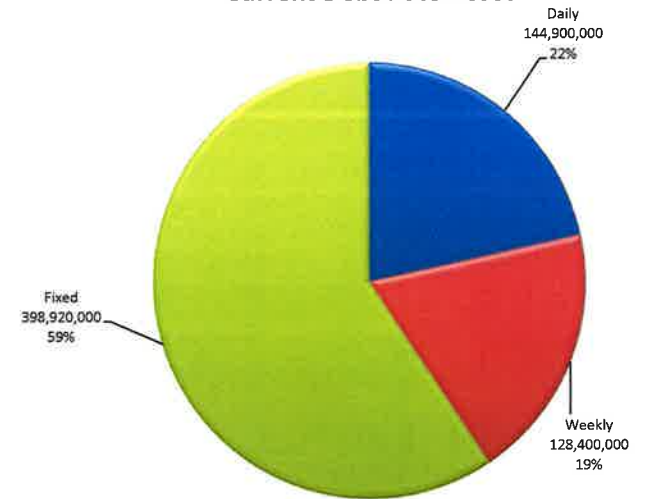
Current Debt Mix By Type



Letters of Credit / Support



Current Debt Rate Reset



Outstanding Par by Series

Series	Issue Date	Maturity Date	Remaining Principal	Percent	Letter of Credit/Support	Rmkt Agent	Mode	Reset
Series 1993	05/19/93	04/01/33	\$29,900,000	4.45%	US Bank	BAML	Variable	Daily
Series 2008-A Refunding	04/24/08	07/01/35	\$48,000,000	7.14%	Sumitomo	BAML	Variable	Weekly
Series 2011-A-1 Refunding	04/15/11	10/01/37	\$48,240,000	7.18%	IRWD	Goldman	Variable	Weekly
Series 2011-A-2 Refunding	04/15/11	10/01/37	\$32,160,000	4.78%	IRWD	Morgan	Variable	Weekly
Series 2009 - A	06/04/09	10/01/41	\$57,500,000	8.55%	US Bank	US Bank	Variable	Daily
Series 2009 - B	06/04/09	10/01/41	\$57,500,000	8.55%	B of A	Goldman	Variable	Daily
2010 Refunding COPS	02/23/10	03/01/20	\$3,775,000	0.56%	N/A	N/A	Fixed	Fixed
2016 COPS	09/01/16	03/01/46	\$116,745,000	17.37%	N/A	N/A	Fixed	Fixed
2010 Build America Taxable Bond	12/16/10	05/01/40	\$175,000,000	26.03%	N/A	N/A	Fixed	Fixed
Series 2016	10/12/16	02/01/46	\$103,400,000	15.38%	N/A	N/A	Fixed	Fixed
Total			\$672,220,000	100.00%				

IRVINE RANCH WATER DISTRICT
SUMMARY OF FIXED & VARIABLE RATE DEBT

November-18

ITN
Daily
Weekly

GENERAL BOND INFORMATION							LETTER OF CREDIT INFORMATION							TRUSTEE INFORMATION							
VARIABLE RATE ISSUES	Issue Date	Maturity Date	Principal Payment Date	Payment Date	Original Par Amount	Remaining Principal	Letter of Credit	Reimbursement Agreement Date	L/C Exp. Date	MOODYS	S&P	FITCH	LOC Stated Amount	LOC Fee	Annual LOC Cost	Rmkt Agent	Reset	Rmkt Fees	Annual Cost	Trustee	
SERIES 1993	05/19/93	04/01/33	APR 1 (2014)	5th Bus. Day	\$38,300,000	\$29,900,000	US BANK	05/07/15	12/15/21	Aa3/VMIG1	AA-/A-1+	N/R	\$30,303,036	0.3300%	\$100,000	BAML	DAILY	0.10%	\$29,900	BANK OF NY	
SERIES 2008-A Refunding	04/24/08	07/01/35	JUL 1	5th Bus. Day	\$60,215,000	\$48,000,000	SUMITOMO	04/01/11	07/21/21	A1/P-1	A/A-1	A/F1	\$48,710,137	0.3150%	\$153,437	BAML	WED	0.07%	\$33,600	BANK OF NY	
SERIES 2011-A-1 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$60,545,000	\$48,240,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Goldman	WED	0.13%	\$60,300	BANK OF NY	
SERIES 2011-A-2 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$40,370,000	\$32,160,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Morgan S	WED	0.13%	\$40,200	BANK OF NY	
SERIES 2009 - A	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$57,500,000	US BANK	04/01/11	12/15/21	Aa2/VMIG 1	AA-/A-1+	AA/F1+	\$58,142,740	0.3300%	\$191,871	US Bank	DAILY	0.07%	\$40,250	US BANK	
SERIES 2009 - B	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$57,500,000	B of A	04/01/11	07/15/19	A1/VMIG 1	A/A-1	A1/F1+	\$58,142,740	0.4000%	\$232,571	Goldman	DAILY	0.10%	\$57,500	US BANK	
					\$349,430,000	\$273,300,000	SUB-TOTAL VARIABLE RATE DEBT							\$195,298,652	0.3471%	\$677,879					
														(Wt. Avg)							
FIXED RATE ISSUES																					
2010 REFUNDING COPS	02/23/10	03/01/20	Mar -1	MAR/SEPT	\$85,145,000	\$3,775,000	N/A	N/A	N/A	Aa1	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BANK OF NY	
2010 GO Build America Taxable Bonds	12/16/10	05/01/40	MAY (2025)	MAY/NOV	\$175,000,000	\$175,000,000	N/A	N/A	N/A	Aa1	AAA	NR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US BANK	
2016 COPS	09/01/16	03/01/46	Mar -1	MAR/SEPT	\$116,745,000	\$116,745,000	N/A	N/A	N/A	NR	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US BANK	
SERIES 2016	10/12/16	02/01/46	Feb -1	FEB/AUG	\$103,400,000	\$103,400,000	N/A	N/A	N/A	NR	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BANK OF NY	
					\$480,290,000	\$398,920,000	SUB-TOTAL FIXED RATE DEBT														
					\$829,720,000	\$672,220,000	TOTAL - FIXED & VARIABLE RATE DEBT														

Remarketing Agents			GO VS COP's		
Goldman	105,740,000	39%	GO:	551,700,000	82%
Morgan Stanley	32,160,000	12%	COPS:	120,520,000	18%
BAML	77,900,000	29%	Total	672,220,000	
US Bank	57,500,000	21%			
	273,300,000				

LOC Banks		Breakdown Between Variable & Fixed Rate Mode	
SUMITOMO	48,000,000	Daily Issues	144,900,000 22%
BANK OF AMERICA	57,500,000	Weekly Issues	48,000,000 7%
US BANK	87,400,000	ITN Issues	80,400,000 12%
	192,900,000	Sub-Total	273,300,000
		Fixed Rate Issues	\$398,920,000 59%
		Sub-Total - Fixed	398,920,000
		TOTAL DEBT	
		FIXED & VAR.	672,220,000 100%

IRVINE RANCH WATER DISTRICT
SUMMARY OF DEBT RATES
Nov-18

Rmkt Agent Mode	GOLDMAN DAILY	GOLDMAN WEEKLY	MORGAN STANLEY WEEKLY	MERRILL LYNCH DAILY	MERRILL LYNCH WEEKLY	US BANK DAILY
Bond Issue	2009 - B	2011 A-1	2011 A-2	1993	2008-A	2009-A
Par Amount	57,500,000	48,240,000	32,160,000	29,900,000	48,000,000	57,500,000
Bank	BOFA	(SIFMA -1)	(SIFMA -1)	US BANK	Sumitomo	US BANK
Reset		Wednesday	Wednesday	Wednesday	Wednesday	
11/1/2018	1.23%	1.60%	1.60%	1.22%	1.33%	1.23%
11/2/2018	1.22%	1.60%	1.60%	1.17%	1.33%	1.23%
11/3/2018	1.22%	1.60%	1.60%	1.17%	1.33%	1.23%
11/4/2018	1.22%	1.60%	1.60%	1.17%	1.33%	1.23%
11/5/2018	1.23%	1.60%	1.60%	1.17%	1.33%	1.23%
11/6/2018	1.23%	1.60%	1.60%	1.23%	1.33%	1.22%
11/7/2018	1.26%	1.60%	1.60%	1.26%	1.33%	1.24%
11/8/2018	1.27%	1.61%	1.61%	1.26%	1.38%	1.28%
11/9/2018	1.28%	1.61%	1.61%	1.28%	1.38%	1.30%
11/10/2018	1.28%	1.61%	1.61%	1.28%	1.38%	1.30%
11/11/2018	1.28%	1.61%	1.61%	1.28%	1.38%	1.30%
11/12/2018	1.28%	1.61%	1.61%	1.28%	1.38%	1.30%
11/13/2018	1.31%	1.61%	1.61%	1.31%	1.38%	1.30%
11/14/2018	1.32%	1.61%	1.61%	1.35%	1.38%	1.32%
11/15/2018	1.33%	1.65%	1.65%	1.35%	1.44%	1.34%
11/16/2018	1.35%	1.65%	1.65%	1.37%	1.44%	1.35%
11/17/2018	1.35%	1.65%	1.65%	1.37%	1.44%	1.35%
11/18/2018	1.35%	1.65%	1.65%	1.37%	1.44%	1.35%
11/19/2018	1.35%	1.65%	1.65%	1.37%	1.44%	1.36%
11/20/2018	1.38%	1.65%	1.65%	1.38%	1.44%	1.37%
11/21/2018	1.38%	1.65%	1.65%	1.39%	1.44%	1.38%
11/22/2018	1.38%	1.68%	1.68%	1.39%	1.46%	1.38%
11/23/2018	1.40%	1.68%	1.68%	1.38%	1.46%	1.38%
11/24/2018	1.40%	1.68%	1.68%	1.38%	1.46%	1.38%
11/25/2018	1.40%	1.68%	1.68%	1.38%	1.46%	1.38%
11/26/2018	1.38%	1.68%	1.68%	1.39%	1.46%	1.38%
11/27/2018	1.38%	1.68%	1.68%	1.37%	1.46%	1.38%
11/28/2018	1.40%	1.68%	1.68%	1.38%	1.46%	1.40%
11/29/2018	1.42%	1.68%	1.68%	1.39%	1.45%	1.40%
11/30/2018	1.44%	1.68%	1.68%	1.39%	1.45%	1.40%
Avg Interest Rates	1.32%	1.64%	1.64%	1.32%	1.41%	1.32%
Rmkt Fee	0.10%	0.13%	0.13%	0.10%	0.07%	0.07%
LOC Fee	0.40%			0.33%	0.32%	0.33%
All-in Rate	1.82%	1.77%	1.77%	1.75%	1.79%	1.72%
Par Amount	105,740,000		32,160,000	77,900,000		57,500,000

Interest Rate Mode	Percent of Total Variable Rate Debt	Par Outstanding	Weighted All-In Average Rate	Base Rate Average
Daily	53.02%	144,900,000	1.77%	1.32%
Weekly	46.98%	128,400,000	1.77%	1.55%
	100.00%	\$ 273,300,000	1.77%	1.43%
Fixed				
COPS 2010	0.95%	3,775,000	3.82%	
COPS 2016	29.27%	116,745,000	2.90%	
BABS 2010	43.87%	175,000,000	4.45%	(1)
SERIES 2016	25.92%	103,400,000	3.32%	
	100.00%	\$ 398,920,000	3.70%	
All-in Debt Rate Including \$130 Million Notional Amount of Swaps				3.71%

(1) Rate adjusted up from 4.35% as a result of sequestration reducing BAB's subsidy by 6.2%

Exhibit "C"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

**November
2018**

	AMOUNT	VENDOR	PURPOSE
11/9/2018	1,126,326.04	BANK OF AMERICA	ACH Payments for Payroll
11/23/2018	962,338.33	BANK OF AMERICA	ACH Payments for Payroll
	<u>\$2,088,664.37</u>		

Exhibit "D"

IRWD Ledger Upgrade

Void Payment Register

Report Date: 03-DEC-2018 15:19

Include Zero Amount Payments: Yes
 Display Payee Address: No

Period From: 01-NOV-18

Page: 1
 To: 30-NOV-18
 Date: Void Date

Bank: Bank of America N.A.

Branch: Los Angeles

Account: Checking AP and PR

Bank Account Currency: USD

Payment Currency: USD (US Dollar)

Payment Number	Date	Payee Name	Site	Address	Payment Amount	Void Date
Payment Document: IRWD CHECK						
389489	05-JUL-18	ARAKI, YASUHIRO	PAY		47.69	19-NOV-18
389512	05-JUL-18	CUESTA CONSTRUCTION COMPANY	PAY		535.26	29-NOV-18
389531	05-JUL-18	HUANG, QIYING	PAY		33.56	19-NOV-18
389537	05-JUL-18	KILBURN, M.	PAY		28.04	19-NOV-18
389638	12-JUL-18	CHEN, SHULING	PAY		22.88	19-NOV-18
389677	12-JUL-18	GRACE, MELVIN	PAY		59.37	19-NOV-18
389703	12-JUL-18	MACDUFF, CHRIS	PAY		16.00	19-NOV-18
389704	12-JUL-18	MAILLOUX, KOLLEEN	PAY		29.80	19-NOV-18
389709	12-JUL-18	MOMENTUM PROPERTY MANAGMENT	PAY		53.46	19-NOV-18
389899	19-JUL-18	JI, WEI	PAY		60.00	19-NOV-18
390111	26-JUL-18	LIU, XIAOYANG	PAY		60.11	19-NOV-18
390121	26-JUL-18	MILLER-WHITE, SHERRY	PAY		370.64	29-NOV-18
392489	11-OCT-18	WATERSMART SOFTWARE, INC	SAN FRANCISCO		13,597.50	28-NOV-18
393202	08-NOV-18	Hartoog, Jeremy	HOME		805.78	13-NOV-18
393940	28-NOV-18	SINFIELD, LILY	PAY		19.99	29-NOV-18

Payment Document Subtotal 15,740.08

Bank Account Subtotal 15,740.08

Report Count: 15

Report Total 15,740.08

Voids

*** End of Report ***

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 1
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393005		01-NOV-18	IRWD-PETTY CASH CUSTODIAN	IRVINE	1,200.71	01-NOV-18	1,200.71	Reconciled
393006		01-NOV-18	Cortez, Malcolm A (Malcolm)		227.32	16-NOV-18	227.32	Reconciled
393007		01-NOV-18	Hankla, Jeremy		50.00	05-NOV-18	50.00	Reconciled
393008		01-NOV-18	Hufana, Eugenio D		89.93	01-NOV-18	89.93	Reconciled
393009		01-NOV-18	McElroy, Dorien		197.00	05-NOV-18	197.00	Reconciled
393010		01-NOV-18	Nash, Joel		93.20	06-NOV-18	93.20	Reconciled
393011		01-NOV-18	Oldewage, Lars D (Lars)		172.22	05-NOV-18	172.22	Reconciled
393012		01-NOV-18	Orozco, Linda		63.23	06-NOV-18	63.23	Reconciled
393013		01-NOV-18	Saini, Mohit		238.14	05-NOV-18	238.14	Reconciled
393014		01-NOV-18	Smithson, Christopher F (Christopher)		103.50	07-NOV-18	103.50	Reconciled
393015		01-NOV-18	A, YINA		88.49			Negotiable
393016		01-NOV-18	ADLER, MICHAEL & BETH		4,457.97	05-NOV-18	4,457.97	Reconciled
393017		01-NOV-18	ADT SECURITY SERVICES INC		412.47	08-NOV-18	412.47	Reconciled
393018		01-NOV-18	AIRGAS, INC.		966.61	05-NOV-18	966.61	Reconciled
393019		01-NOV-18	ALEXANDER'S CONTRACT SERVICES, INC.		119,397.70	07-NOV-18	119,397.70	Reconciled
393020		01-NOV-18	ALLIANCE RESOURCE CONSULTING LLC		12,500.00	07-NOV-18	12,500.00	Reconciled
393021		01-NOV-18	ALSTON & BIRD LLP		23,986.83	08-NOV-18	23,986.83	Reconciled
393022		01-NOV-18	ANTHONY N. LARSEN		450.00	06-NOV-18	450.00	Reconciled
393023		01-NOV-18	APPLIED ENGINEERING CONCEPTS		8,680.00	05-NOV-18	8,680.00	Reconciled
393024		01-NOV-18	ARMORCAST PRODUCTS COMPANY		7,695.93	05-NOV-18	7,695.93	Reconciled
393025		01-NOV-18	AT&T		4,280.93	07-NOV-18	4,280.93	Reconciled
393026		01-NOV-18	AT&T		54.06	07-NOV-18	54.06	Reconciled
393027		01-NOV-18	AT&T		11.61	07-NOV-18	11.61	Reconciled
393028		01-NOV-18	AUSTIN HARDWOODS, INC		209.37	13-NOV-18	209.37	Reconciled
393029		01-NOV-18	AUTOZONE PARTS, INC.		128.81	08-NOV-18	128.81	Reconciled
393030		01-NOV-18	BALES, TWILA		149.49			Negotiable
393031		01-NOV-18	BARTOLOME, JADE		29.27	05-NOV-18	29.27	Reconciled
393032		01-NOV-18	BAY, TRENISE		35.00			Negotiable
393033		01-NOV-18	BERNABE, ESTEPHANY		64.18	16-NOV-18	64.18	Reconciled
393034		01-NOV-18	BILL'S SWEEPING SERVICE INC		1,050.00	07-NOV-18	1,050.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 2
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393035		01-NOV-18	BLACK & VEATCH CORPORATION		302,326.28	13-NOV-18	302,326.28	Reconciled
393036		01-NOV-18	BRIGHTVIEW LANDSCAPE DEVELOPMENT		1,515.74			Negotiable
393037		01-NOV-18	BRITHINEE ELECTRIC		38,722.82	07-NOV-18	38,722.82	Reconciled
393038		01-NOV-18	BTF PRECISE MICROBIOLOGY INC.		571.81	06-NOV-18	571.81	Reconciled
393039		01-NOV-18	C I OLSON & ASSOCIATES, INC.		3,600.01	07-NOV-18	3,600.01	Reconciled
393040		01-NOV-18	C WELLS PIPELINE MATERIALS INC		6,087.90	09-NOV-18	6,087.90	Reconciled
393041		01-NOV-18	CALIFORNIA BARRICADE RENTAL, INC.		9,505.00	07-NOV-18	9,505.00	Reconciled
393042		01-NOV-18	CANON SOLUTIONS AMERICA, INC.		498.63	06-NOV-18	498.63	Reconciled
393043		01-NOV-18	CAPTIVE AUDIENCE MARKETING INC.		79.00	06-NOV-18	79.00	Reconciled
393044		01-NOV-18	CDW GOVERNMENT LLC		796.00	07-NOV-18	796.00	Reconciled
393045		01-NOV-18	CHAIREL CUSTOM HAY, INC.		9,223.00	06-NOV-18	9,223.00	Reconciled
393046		01-NOV-18	CHARLES P CROWLEY COMPANY INC		6,184.59	09-NOV-18	6,184.59	Reconciled
393047		01-NOV-18	CHEM TECH INTERNATIONAL INC		35,448.89	07-NOV-18	35,448.89	Reconciled

393048	01-NOV-18	CHUNG, LING		365.45	06-NOV-18	365.45	Reconciled
393049	01-NOV-18	CITY OF IRVINE		3,173.20	05-NOV-18	3,173.20	Reconciled
393050	01-NOV-18	CITY OF ORANGE		171.23	05-NOV-18	171.23	Reconciled
393051	01-NOV-18	CONSTELLATION NEWENERGY, INC.		30,123.88	08-NOV-18	30,123.88	Reconciled
393052	01-NOV-18	CORELOGIC INC		241.24	07-NOV-18	241.24	Reconciled
393053	01-NOV-18	CORREA, JENNIFER		47.49	06-NOV-18	47.49	Reconciled
393054	01-NOV-18	COX COMMUNICATIONS, INC.		391.31	06-NOV-18	391.31	Reconciled
393055	01-NOV-18	CRASNEAN, BENJAMIN		33.25			Negotiable
393056	01-NOV-18	CS-AMSCO		5,400.01	14-NOV-18	5,400.01	Reconciled
393057	01-NOV-18	CULLIGAN OF SANTA ANA		7,000.00	05-NOV-18	7,000.00	Reconciled
393058	01-NOV-18	D & G SIGNS		4,367.56	07-NOV-18	4,367.56	Reconciled
393059	01-NOV-18	DAI, ZEYI		15.30	21-NOV-18	15.30	Reconciled
393060	01-NOV-18	DARTMOUTH COURT APTS		738.61	07-NOV-18	738.61	Reconciled
393061	01-NOV-18	DAVIS FARR LLP		30,000.00	06-NOV-18	30,000.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 3
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393062		01-NOV-18	DE VAUL PAINT COMPANY		834.42	07-NOV-18	834.42	Reconciled
393063		01-NOV-18	DEE JASPAR & ASSOCIATES, INC.		147.00	15-NOV-18	147.00	Reconciled
393064		01-NOV-18	DELL MARKETING LP		5,040.04	05-NOV-18	5,040.04	Reconciled
393065		01-NOV-18	DIGITAL MAP PRODUCTS, INC.		4,284.00	09-NOV-18	4,284.00	Reconciled
393066		01-NOV-18	DIRECTV INC		125.53	08-NOV-18	125.53	Reconciled
393067		01-NOV-18	DISCOUNT COURIER SERVICE INC.		72.24	06-NOV-18	72.24	Reconciled
393068		01-NOV-18	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY		4,170.96	07-NOV-18	4,170.96	Reconciled
393069		01-NOV-18	EDWARD P BAKER III		333.00	27-NOV-18	333.00	Reconciled
393070		01-NOV-18	ENTERPRISE SECURITY, INC		3,088.12	05-NOV-18	3,088.12	Reconciled
393071		01-NOV-18	EVANTEC CORPORATION		1,386.43	06-NOV-18	1,386.43	Reconciled
393072		01-NOV-18	EXECUTIVE LIGHTING & ELECTRIC		753.77	06-NOV-18	753.77	Reconciled
393073		01-NOV-18	FARRELL & ASSOCIATES		241.18	05-NOV-18	241.18	Reconciled
393074		01-NOV-18	FEDEX		294.63	07-NOV-18	294.63	Reconciled
393075		01-NOV-18	FERGUSON ENTERPRISES, INC.		4,568.60	05-NOV-18	4,568.60	Reconciled
393076		01-NOV-18	FISHER SCIENTIFIC COMPANY LLC		2,883.97	05-NOV-18	2,883.97	Reconciled
393077		01-NOV-18	FLEET SOLUTIONS LLC		872.96	05-NOV-18	872.96	Reconciled
393078		01-NOV-18	FRONTIER CALIFORNIA INC.		273.35	09-NOV-18	273.35	Reconciled
393079		01-NOV-18	FUSCOE ENGINEERING, INC.		2,989.05	05-NOV-18	2,989.05	Reconciled
393080		01-NOV-18	GLENN LUKOS ASSOCIATES, INC		809.82	06-NOV-18	809.82	Reconciled
393081		01-NOV-18	GONG, XITONG		426.76			Negotiable
393082		01-NOV-18	GRAINGER		2,908.09	06-NOV-18	2,908.09	Reconciled
393083		01-NOV-18	GRAYBAR ELECTRIC COMPANY		276.05	05-NOV-18	276.05	Reconciled
393084		01-NOV-18	GRIGORIOU, DIMITRIS		29.40	05-NOV-18	29.40	Reconciled
393085		01-NOV-18	HAAKER EQUIPMENT COMPANY		782.09	06-NOV-18	782.09	Reconciled
393086		01-NOV-18	HABITAT RESTORATION SCIENCES, INC.		1,183.00	08-NOV-18	1,183.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 4
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393087		01-NOV-18	HACH COMPANY		4,211.95	06-NOV-18	4,211.95	Reconciled
393088		01-NOV-18	HARDY & HARPER, INC.		17,810.00	06-NOV-18	17,810.00	Reconciled
393089		01-NOV-18	HARRIS & ASSOCIATES, INC.		1,490.00	05-NOV-18	1,490.00	Reconciled
393090		01-NOV-18	HDR ENGINEERING INC		157,136.93	08-NOV-18	157,136.93	Reconciled
393091		01-NOV-18	HELPMATES STAFFING		16,707.79	07-NOV-18	16,707.79	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
393092	01-NOV-18		SERVICES HILL BROTHERS CHEMICAL COMPANY		8,134.76	08-NOV-18	8,134.76	Reconciled
393093	01-NOV-18		HOME DEPOT USA INC		180.23	07-NOV-18	180.23	Reconciled
393094	01-NOV-18		HU, XIAOYUN		102.25	07-NOV-18	102.25	Reconciled
393095	01-NOV-18		INDUSTRIAL METAL SUPPLY CO		1,234.53	05-NOV-18	1,234.53	Reconciled
393096	01-NOV-18		IRVINE COMMUNITY DEVELOPMENT COMPANY LLC		1,596,498.45	08-NOV-18	1,596,498.45	Reconciled
393097	01-NOV-18		IRVINE PACIFIC		138.13	07-NOV-18	138.13	Reconciled
393098	01-NOV-18		IRVINE PIPE & SUPPLY INC		1,387.66	06-NOV-18	1,387.66	Reconciled
393099	01-NOV-18		JCI JONES CHEMICALS INC		9,042.15	07-NOV-18	9,042.15	Reconciled
393100	01-NOV-18		KAESER COMPRESSORS, INC.		2,685.68	06-NOV-18	2,685.68	Reconciled
393101	01-NOV-18		KAYAR, MELIH		257.40	06-NOV-18	257.40	Reconciled
393102	01-NOV-18		KOELLER NEBEKER CARLSON & HALUCK, LLP		280.00	05-NOV-18	280.00	Reconciled
393103	01-NOV-18		LAMONICA, JASON		19.82	13-NOV-18	19.82	Reconciled
393104	01-NOV-18		LANCER SALES USA, INC.		408.86	08-NOV-18	408.86	Reconciled
393105	01-NOV-18		LENNAR HOMES		583.86	26-NOV-18	583.86	Reconciled
393106	01-NOV-18		LEWIS BRISBOIS BISGAARD AND SMITH, LLP		110,579.73	09-NOV-18	110,579.73	Reconciled
393107	01-NOV-18		LEWIS, RALPH		465.93			Negotiable
393108	01-NOV-18		LILLESTRAND LEADERSHIP CONSULTING, INC.		957.32	19-NOV-18	957.32	Reconciled
393109	01-NOV-18		LUBRICATION ENGINEERS, INC.		6,240.91	06-NOV-18	6,240.91	Reconciled
393110	01-NOV-18		MARK HELLER AND XIAN GE		122.78	23-NOV-18	122.78	Reconciled
393111	01-NOV-18		MBC AQUATIC SCIENCES, INC.		4,050.00	08-NOV-18	4,050.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 5
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393112	01-NOV-18		MC FADDEN-DALE INDUSTRIAL		41.75	06-NOV-18	41.75	Reconciled
393113	01-NOV-18		MC MASTER CARR SUPPLY CO		32.36	05-NOV-18	32.36	Reconciled
393114	01-NOV-18		MERCH SOURCE		38.33			Negotiable
393115	01-NOV-18		MERRIMAC PETROLEUM, INC.		18,407.08	05-NOV-18	18,407.08	Reconciled
393116	01-NOV-18		MOHAMED, ASHRAF		39.12			Negotiable
393117	01-NOV-18		MULHOLAND, RYAN		43.07	06-NOV-18	43.07	Reconciled
393118	01-NOV-18		MUNICIPAL MAINTENANCE EQUIPMENT INC		7,734.75	05-NOV-18	7,734.75	Reconciled
393119	01-NOV-18		MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		89,238.70	06-NOV-18	89,238.70	Reconciled
393120	01-NOV-18		MUTUAL PROPANE		11.46	07-NOV-18	11.46	Reconciled
393121	01-NOV-18		NATALIZIA, CARL		25.39	14-NOV-18	25.39	Reconciled
393122	01-NOV-18		NATIONAL READY MIXED CONCRETE CO.		1,064.09	05-NOV-18	1,064.09	Reconciled
393123	01-NOV-18		NGUYEN, ALLEEN		50.53	27-NOV-18	50.53	Reconciled
393124	01-NOV-18		NIKNAMI, MOHAMMAD		28.83			Negotiable
393125	01-NOV-18		NORTHERN TOOL & EQUIPMENT CATALOG COMPANY, INC		626.47	05-NOV-18	626.47	Reconciled
393126	01-NOV-18		OLIN CORPORATION		20,411.33	09-NOV-18	20,411.33	Reconciled
393127	01-NOV-18		OLSON ENGINEERING SYSTEM, INC.		2,812.50	06-NOV-18	2,812.50	Reconciled
393128	01-NOV-18		ONESOURCE DISTRIBUTORS LLC		12,048.54	07-NOV-18	12,048.54	Reconciled
393129	01-NOV-18		ORANGE COUNTY AUTO PARTS CO		202.03	07-NOV-18	202.03	Reconciled
393130	01-NOV-18		PACIFIC COAST BOLT CORP		1,573.50	07-NOV-18	1,573.50	Reconciled
393131	01-NOV-18		PADUA, ANDRE		45.84	09-NOV-18	45.84	Reconciled
393132	01-NOV-18		PANCHAL, AADIS		9.29			Negotiable
393133	01-NOV-18		PAREJA, IAN		45.82			Negotiable
393134	01-NOV-18		PARKHOUSE TIRE INC		2,547.77	06-NOV-18	2,547.77	Reconciled
393135	01-NOV-18		PEEPPER, ZACH		70.93			Negotiable
393136	01-NOV-18		PRAXAIR DISTRIBUTION INC		3,288.90	07-NOV-18	3,288.90	Reconciled
393137	01-NOV-18		PRO MOBILE AUTO DETAILING		300.00	05-NOV-18	300.00	Reconciled
393138	01-NOV-18		PSOMAS		325.00	06-NOV-18	325.00	Reconciled
393139	01-NOV-18		PTI SAND & GRAVEL INC		1,288.66	06-NOV-18	1,288.66	Reconciled
393140	01-NOV-18		QIAO, ZIYU		15.50			Negotiable

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393141		01-NOV-18	R&B AUTOMATION, INC.		19,541.70	13-NOV-18	19,541.70	Reconciled
393142		01-NOV-18	RAM AIR ENGINEERING INC		3,085.00	06-NOV-18	3,085.00	Reconciled
393143		01-NOV-18	RANCHO SANTA FE APTS		913.08	07-NOV-18	913.08	Reconciled
393144		01-NOV-18	RINCON TRUCK CENTER INC.		45.49	05-NOV-18	45.49	Reconciled
393145		01-NOV-18	RMC WATER AND ENVIRONMENT		584.63	05-NOV-18	584.63	Reconciled
393146		01-NOV-18	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT		156,649.59	14-NOV-18	156,649.59	Reconciled
393147		01-NOV-18	ROSEMOUNT INC.		10,312.93	08-NOV-18	10,312.93	Reconciled
393148		01-NOV-18	ROYAL INDUSTRIAL SOLUTIONS		3,720.99	05-NOV-18	3,720.99	Reconciled
393149		01-NOV-18	SAN MARCO APARTMENTS		32.89	07-NOV-18	32.89	Reconciled
393150		01-NOV-18	SANDERS PAVING INC		1,200.00	08-NOV-18	1,200.00	Reconciled
393151		01-NOV-18	SANTA ANA BLUE PRINT		365.97	07-NOV-18	365.97	Reconciled
393152		01-NOV-18	SANTA ROSA APARTMENTS		326.21	07-NOV-18	326.21	Reconciled
393153		01-NOV-18	SCHINDLER ELEVATOR CORPORATION		214.92	06-NOV-18	214.92	Reconciled
393154		01-NOV-18	SHANK, GREGORY		99.74			Negotiable
393155		01-NOV-18	SONG, YANG		437.07			Negotiable
393156		01-NOV-18	SOUTHERN CALIFORNIA EDISON COMPANY		447,191.00	05-NOV-18	447,191.00	Reconciled
393157		01-NOV-18	STANDARD REGISTER, INC.		1,204.11	06-NOV-18	1,204.11	Reconciled
393158		01-NOV-18	STANFORD COURT APARTMENTS		43.15	07-NOV-18	43.15	Reconciled
393159		01-NOV-18	STIFT, MICHELLE		186.55	06-NOV-18	186.55	Reconciled
393160		01-NOV-18	STONEGATE VILLAGE COMM ASSN		411.11	16-NOV-18	411.11	Reconciled
393161		01-NOV-18	STRADLING YOCCA CARLSON & RAUTH		340.80	05-NOV-18	340.80	Reconciled
393162		01-NOV-18	STREAKWAVE WIRELESS, INC.		1,163.08	06-NOV-18	1,163.08	Reconciled
393163		01-NOV-18	SUEZ TREATMENT SOLUTIONS INC.		541.15	05-NOV-18	541.15	Reconciled
393164		01-NOV-18	TA, LAC		16.98	13-NOV-18	16.98	Reconciled
393165		01-NOV-18	TEKDRAULICS		530.21	05-NOV-18	530.21	Reconciled
393166		01-NOV-18	TETRA TECH, INC		9,667.00	05-NOV-18	9,667.00	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 7
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393167		01-NOV-18	THYSSENKRUPP ELEVATOR CORPORATION		191.94	05-NOV-18	191.94	Reconciled
393168		01-NOV-18	TIC-OFFICE PROPERTIES		67.24	06-NOV-18	67.24	Reconciled
393169		01-NOV-18	TOLL BROS., INC.		176.97	13-NOV-18	176.97	Reconciled
393170		01-NOV-18	TORRES, MONICA		210.24	13-NOV-18	210.24	Reconciled
393171		01-NOV-18	TRI POINTE HOMES, INC.		151.84	13-NOV-18	151.84	Reconciled
393172		01-NOV-18	TRUCPARCO		497.68	13-NOV-18	497.68	Reconciled
393173		01-NOV-18	TUNG, DAVID		3,100.77	07-NOV-18	3,100.77	Reconciled
393174		01-NOV-18	TURTLE ROCK CANYON APTS		330.24	07-NOV-18	330.24	Reconciled
393175		01-NOV-18	UNITED PARCEL SERVICE INC		663.11	06-NOV-18	663.11	Reconciled
393176		01-NOV-18	US BANK NAT'L ASSOCIATION NORTH DAKOTA		66,338.70	13-NOV-18	66,338.70	Reconciled
393177		01-NOV-18	VALBUENA, STEPHEN		21,564.72	08-NOV-18	21,564.72	Reconciled
393178		01-NOV-18	VELEZ, DAINY		11.28	16-NOV-18	11.28	Reconciled
393179		01-NOV-18	VERIZON WIRELESS SERVICES LLC		12,689.49	07-NOV-18	12,689.49	Reconciled
393180		01-NOV-18	VESCO PLASTIC SALES		2,875.32			Negotiable
393181		01-NOV-18	VIBRALIGN INC.		1,053.42	07-NOV-18	1,053.42	Reconciled
393182		01-NOV-18	WANG, DANYANG		10.41	15-NOV-18	10.41	Reconciled
393183		01-NOV-18	WATERBORNE, INC		490.00	13-NOV-18	490.00	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
393184		01-NOV-18	WATERLINE TECHNOLOGIES INC		2,840.00	05-NOV-18	2,840.00	Reconciled
393185		01-NOV-18	WAXIE'S ENTERPRISES, INC		3,521.58	05-NOV-18	3,521.58	Reconciled
393186		01-NOV-18	WECK LABORATORIES INC		295.00	06-NOV-18	295.00	Reconciled
393187		01-NOV-18	WILLIAM F. WRIGHT AND MARGARET WRIGHT		40.11	13-NOV-18	40.11	Reconciled
393188		01-NOV-18	WILLIAMS, KARYN L		12.79	13-NOV-18	12.79	Reconciled
393189		01-NOV-18	WOODRUFF, SPRADLIN & SMART APC		51.00	06-NOV-18	51.00	Reconciled
393190		01-NOV-18	XU, HAO YING		180.16	13-NOV-18	180.16	Reconciled
393191		01-NOV-18	YONEZAKI, KRIS		206.03			Negotiable
393192		01-NOV-18	YOO, DANIEL		253.65	09-NOV-18	253.65	Reconciled
393193		01-NOV-18	YUXUAN, SUN		23.53	09-NOV-18	23.53	Reconciled
393194		01-NOV-18	ZIMMERMAN, ANDRA		34.90			Negotiable
393195		07-NOV-18	JICI JONES CHEMICALS INC	NEWARK	3,314.20	14-NOV-18	3,314.20	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 8
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393196		08-NOV-18	Chandler, Michael J (Mike)		90.00	14-NOV-18	90.00	Reconciled
393197		08-NOV-18	Chauv, Denise		37.06	19-NOV-18	37.06	Reconciled
393198		08-NOV-18	Cho, Harry K (Harry)		122.27	14-NOV-18	122.27	Reconciled
393199		08-NOV-18	Compton, Christine A		131.54	13-NOV-18	131.54	Reconciled
393200		08-NOV-18	Fehser, Noah (Noah)		55.00	09-NOV-18	55.00	Reconciled
393201		08-NOV-18	Garcia, Dorys Elizabeth		2,714.33	14-NOV-18	2,714.33	Reconciled
393202		08-NOV-18	Hartoog, Jeremy		805.78			Voided
393203		08-NOV-18	Joseph, Brandon		188.00	14-NOV-18	188.00	Reconciled
393204		08-NOV-18	Lao, Richard S		53.70	15-NOV-18	53.70	Reconciled
393205		08-NOV-18	Malloy, Steven L (Steven)		115.00	09-NOV-18	115.00	Reconciled
393206		08-NOV-18	Mares, Michael		227.00	15-NOV-18	227.00	Reconciled
393207		08-NOV-18	Moeder, Jacob J (Jacob)		44.15			Negotiable
393208		08-NOV-18	Mossbarger, Anthony J (Tony)		162.51	08-NOV-18	162.51	Reconciled
393209		08-NOV-18	Paulson, David		105.00	14-NOV-18	105.00	Reconciled
393210		08-NOV-18	Perez, Rodolfo (Rudy)		33.39			Negotiable
393211		08-NOV-18	Pham, Elizabeth		121.00	27-NOV-18	121.00	Reconciled
393212		08-NOV-18	Pizanie, Nicholas B		255.00	14-NOV-18	255.00	Reconciled
393213		08-NOV-18	Rutherford, Allan		188.00	14-NOV-18	188.00	Reconciled
393214		08-NOV-18	Solis, Henry (Henry)		1,453.65	14-NOV-18	1,453.65	Reconciled
393215		08-NOV-18	Swan, Peer		2,789.19	13-NOV-18	2,789.19	Reconciled
393216		08-NOV-18	Torres, Richard P (Richard)		188.00	13-NOV-18	188.00	Reconciled
393217		08-NOV-18	AAF INTERNATIONAL		998.94	13-NOV-18	998.94	Reconciled
393218		08-NOV-18	ABM INDUSTRY GROUPS, LLC		18,915.01	15-NOV-18	18,915.01	Reconciled
393219		08-NOV-18	ACCUSTANDARD INC		319.10	16-NOV-18	319.10	Reconciled
393220		08-NOV-18	ADS LLC		2,160.00	13-NOV-18	2,160.00	Reconciled
393221		08-NOV-18	AHIMAHI ENTERPRISE, LLC		111.21	16-NOV-18	111.21	Reconciled
393222		08-NOV-18	AIRGAS, INC.		168.95	13-NOV-18	168.95	Reconciled
393223		08-NOV-18	ALI, TAMER		21.82	16-NOV-18	21.82	Reconciled
393224		08-NOV-18	ALLIANCE AG SERVICES, LLC		3,000.00	15-NOV-18	3,000.00	Reconciled
393225		08-NOV-18	AMAZON CAPITAL SERVICES, INC.		153.81	13-NOV-18	153.81	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 9
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393226		08-NOV-18	AMERICAN WATER CHEMICALS, INC.		5,389.85	13-NOV-18	5,389.85	Reconciled
393227		08-NOV-18	AMIRMOKRI, NAMVAR		18.84	13-NOV-18	18.84	Reconciled
393228		08-NOV-18	APEX LIFE SCIENCES, LLC		4,760.00	13-NOV-18	4,760.00	Reconciled
393229		08-NOV-18	ASHFORD, WALT		485.80	26-NOV-18	485.80	Reconciled
393230		08-NOV-18	ASSOCIATION OF CALIFORNIA WATER		34,679.99	16-NOV-18	34,679.99	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
393231	08-NOV-18	08-NOV-18	AGENCIES/JPIA AT&T		1,096.82	15-NOV-18	1,096.82	Reconciled
393232	08-NOV-18	08-NOV-18	AUTOZONE PARTS, INC.		23.26	14-NOV-18	23.26	Reconciled
393233	08-NOV-18	08-NOV-18	BATTERIES PLUS AND BATTERIES PLUS BULBS		6,996.17	14-NOV-18	6,996.17	Reconciled
393234	08-NOV-18	08-NOV-18	BELSHIRE ENVIRONMENTAL SERVICES, INC.		1,172.20	13-NOV-18	1,172.20	Reconciled
393235	08-NOV-18	08-NOV-18	BERGNER, BONNIE		61.06	19-NOV-18	61.06	Reconciled
393236	08-NOV-18	08-NOV-18	BIOMAGIC INC		15,065.07	15-NOV-18	15,065.07	Reconciled
393237	08-NOV-18	08-NOV-18	BOOT WORLD, INC.		1,128.63	28-NOV-18	1,128.63	Reconciled
393238	08-NOV-18	08-NOV-18	BRENNTAG PACIFIC INC		2,070.00	13-NOV-18	2,070.00	Reconciled
393239	08-NOV-18	08-NOV-18	BRIGHTVIEW LANDSCAPE DEVELOPMENT		371.39			Negotiable
393240	08-NOV-18	08-NOV-18	BUREAU VERITAS NORTH AMERICA, INC		13,829.48	19-NOV-18	13,829.48	Reconciled
393241	08-NOV-18	08-NOV-18	CALIFORNIA BARRICADE RENTAL, INC.		4,505.00	13-NOV-18	4,505.00	Reconciled
393242	08-NOV-18	08-NOV-18	CALIFORNIA DEPT OF PUBLIC HEALTH		473.00	19-NOV-18	473.00	Reconciled
393243	08-NOV-18	08-NOV-18	CANON FINANCIAL SERVICES, INC		401.91	13-NOV-18	401.91	Reconciled
393244	08-NOV-18	08-NOV-18	CANON SOLUTIONS AMERICA, INC.		490.06	13-NOV-18	490.06	Reconciled
393245	08-NOV-18	08-NOV-18	CANON SOLUTIONS AMERICA, INC.		1,167.24	13-NOV-18	1,167.24	Reconciled
393246	08-NOV-18	08-NOV-18	CCL CONTRACTING INC.		160,133.90	21-NOV-18	160,133.90	Reconciled
393247	08-NOV-18	08-NOV-18	CHARLES WILLIAM ROBLE, JR.		135.00	19-NOV-18	135.00	Reconciled
393248	08-NOV-18	08-NOV-18	CHEM TECH INTERNATIONAL INC		6,934.40	16-NOV-18	6,934.40	Reconciled
393249	08-NOV-18	08-NOV-18	CHEN, KAI		17.00			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 10
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393250	08-NOV-18	08-NOV-18	CHO DESIGN ASSOCIATES, INC		9,200.00	13-NOV-18	9,200.00	Reconciled
393251	08-NOV-18	08-NOV-18	CHORI, YOUNG JUN		53.64			Negotiable
393252	08-NOV-18	08-NOV-18	CITY OF TUSTIN		63,821.30	15-NOV-18	63,821.30	Reconciled
393253	08-NOV-18	08-NOV-18	CLARIS STRATEGY INC.		14,637.00	16-NOV-18	14,637.00	Reconciled
393254	08-NOV-18	08-NOV-18	CLIFFORD MORIYAMA		4,000.00	14-NOV-18	4,000.00	Reconciled
393255	08-NOV-18	08-NOV-18	CNC ENGINEERING		1,987.50	16-NOV-18	1,987.50	Reconciled
393256	08-NOV-18	08-NOV-18	COAST PLUMBING HEATING AND AIR, INC		155.00	13-NOV-18	155.00	Reconciled
393257	08-NOV-18	08-NOV-18	COLE, JAMES R		2,392.83	13-NOV-18	2,392.83	Reconciled
393258	08-NOV-18	08-NOV-18	CONSOLIDATED CONTRACTING SERVICES, INC.		193.35			Negotiable
393259	08-NOV-18	08-NOV-18	CONSTELLATION NEWENERGY, INC.		17,542.16	15-NOV-18	17,542.16	Reconciled
393260	08-NOV-18	08-NOV-18	CORRPRO COMPANIES, INC.		171,034.15	21-NOV-18	171,034.15	Reconciled
393261	08-NOV-18	08-NOV-18	CUSTOM TRUCK ONE SOURCE, L.P.		3,780.00	19-NOV-18	3,780.00	Reconciled
393262	08-NOV-18	08-NOV-18	CYNOGEN INCORPORATION		43.53	19-NOV-18	43.53	Reconciled
393263	08-NOV-18	08-NOV-18	D & G SIGNS		1,435.69	14-NOV-18	1,435.69	Reconciled
393264	08-NOV-18	08-NOV-18	DC FROST ASSOCIATES, INC.		5,641.21	14-NOV-18	5,641.21	Reconciled
393265	08-NOV-18	08-NOV-18	DE GUZMAN, NORIA		16.24	20-NOV-18	16.24	Reconciled
393266	08-NOV-18	08-NOV-18	DEACON, JANET		848.30	23-NOV-18	848.30	Reconciled
393267	08-NOV-18	08-NOV-18	DEACON, JANET		936.54	23-NOV-18	936.54	Reconciled
393268	08-NOV-18	08-NOV-18	DEE JASPAR & ASSOCIATES, INC.		185.40	15-NOV-18	185.40	Reconciled
393269	08-NOV-18	08-NOV-18	DEMARIA ELECTRIC MOTOR SERVICES, INC.		5,722.14	15-NOV-18	5,722.14	Reconciled
393270	08-NOV-18	08-NOV-18	DING, DONG		53.58			Negotiable
393271	08-NOV-18	08-NOV-18	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY		2,912.70	14-NOV-18	2,912.70	Reconciled
393272	08-NOV-18	08-NOV-18	E.J. MEYER COMPANY, INC.		209,903.50	16-NOV-18	209,903.50	Reconciled
393273	08-NOV-18	08-NOV-18	EAGLE PRINT DYNAMICS		4,754.47	14-NOV-18	4,754.47	Reconciled
393274	08-NOV-18	08-NOV-18	EAST ORANGE COUNTY WATER DISTRICT		11,019.24	16-NOV-18	11,019.24	Reconciled
393275	08-NOV-18	08-NOV-18	ECO SERVICES LLC		4,877.91	13-NOV-18	4,877.91	Reconciled
393276	08-NOV-18	08-NOV-18	ELECTRABOND		5,232.00			Negotiable

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 11
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393277		08-NOV-18	ENTERPRISE SECURITY, INC		4,976.47	13-NOV-18	4,976.47	Reconciled
393278		08-NOV-18	ENVIRONMENTAL EXPRESS INC		2,086.41	14-NOV-18	2,086.41	Reconciled
393279		08-NOV-18	ENVIRONMENTAL SCIENCE ASSOCIATES		12,910.49	19-NOV-18	12,910.49	Reconciled
393280		08-NOV-18	EXECUTIVE LIGHTING & ELECTRIC		18,784.35	16-NOV-18	18,784.35	Reconciled
393281		08-NOV-18	FAN, YIREN		99.08			Negotiable
393282		08-NOV-18	FARRELL & ASSOCIATES		216.15	13-NOV-18	216.15	Reconciled
393283		08-NOV-18	FEDEX		221.02	14-NOV-18	221.02	Reconciled
393284		08-NOV-18	FERGUSON ENTERPRISES, INC.		2,281.07	13-NOV-18	2,281.07	Reconciled
393285		08-NOV-18	FIDELITY SECURITY LIFE INSURANCE COMPANY		7,226.01	19-NOV-18	7,226.01	Reconciled
393286		08-NOV-18	FIRE EXTINGUISHING SAFETY & SERVICE		537.07	13-NOV-18	537.07	Reconciled
393287		08-NOV-18	FISHER SCIENTIFIC COMPANY LLC		327.27	13-NOV-18	327.27	Reconciled
393288		08-NOV-18	FOUGHT, CYNTHIA J.		2,593.70	13-NOV-18	2,593.70	Reconciled
393289		08-NOV-18	FULLER-TRUCK ACCESSORIES		2,964.20	14-NOV-18	2,964.20	Reconciled
393290		08-NOV-18	FUSCOE ENGINEERING, INC.		9,598.75	13-NOV-18	9,598.75	Reconciled
393291		08-NOV-18	GANAHL LUMBER CO.		1,820.69	16-NOV-18	1,820.69	Reconciled
393292		08-NOV-18	GAO, GE		62.98			Negotiable
393293		08-NOV-18	GCI CONSTRUCTION, INC.		273,934.14	15-NOV-18	273,934.14	Reconciled
393294		08-NOV-18	GEE, JASON		74.18	16-NOV-18	74.18	Reconciled
393295		08-NOV-18	GHD INC.		1,257.62	14-NOV-18	1,257.62	Reconciled
393296		08-NOV-18	GRAINGER		7,593.32	13-NOV-18	7,593.32	Reconciled
393297		08-NOV-18	GRAYBAR ELECTRIC COMPANY		14,969.82	15-NOV-18	14,969.82	Reconciled
393298		08-NOV-18	GUAN, TIEBING		45.17	21-NOV-18	45.17	Reconciled
393299		08-NOV-18	GURAN, MARY		162.86	16-NOV-18	162.86	Reconciled
393300		08-NOV-18	HAAKER EQUIPMENT COMPANY		2,206.04	14-NOV-18	2,206.04	Reconciled
393301		08-NOV-18	HACH COMPANY		3,791.81	13-NOV-18	3,791.81	Reconciled
393302		08-NOV-18	HALDEMAN INC		5,603.00	13-NOV-18	5,603.00	Reconciled
393303		08-NOV-18	HARMSWORTH ASSOCIATES		953.00	23-NOV-18	953.00	Reconciled
393304		08-NOV-18	HARRINGTON INDUSTRIAL PLASTICS LLC		3,027.44	13-NOV-18	3,027.44	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 12
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393305		08-NOV-18	HARRY H. KOBZEFF		11,495.00	16-NOV-18	11,495.00	Reconciled
393306		08-NOV-18	HEALEY, LUISE		35.25			Negotiable
393307		08-NOV-18	HELPMATES STAFFING SERVICES		8,756.52	13-NOV-18	8,756.52	Reconciled
393308		08-NOV-18	HERC RENTALS INC.		2,185.17	13-NOV-18	2,185.17	Reconciled
393309		08-NOV-18	HERITAGE FIELDS EL TORO, LLC		1,210.24	21-NOV-18	1,210.24	Reconciled
393310		08-NOV-18	HILL BROTHERS CHEMICAL COMPANY		5,805.31	19-NOV-18	5,805.31	Reconciled
393311		08-NOV-18	HILTS CONSULTING GROUP, INC.		36,474.47	16-NOV-18	36,474.47	Reconciled
393312		08-NOV-18	HOFFMAN, ROXANNE		38.71	23-NOV-18	38.71	Reconciled
393313		08-NOV-18	HOLLAND, TATE		23.40			Negotiable
393314		08-NOV-18	HOME DEPOT USA INC		123.38	15-NOV-18	123.38	Reconciled
393315		08-NOV-18	HORIZON LIGHTING, INC.		14,799.90	16-NOV-18	14,799.90	Reconciled
393316		08-NOV-18	HUMANA INSURANCE COMPANY		73.80	13-NOV-18	73.80	Reconciled
393317		08-NOV-18	INTEGRITY IT SOLUTIONS INC.		3,195.00			Negotiable
393318		08-NOV-18	IRVINE PIPE & SUPPLY INC		636.28	13-NOV-18	636.28	Reconciled
393319		08-NOV-18	JAGARLAPUDI, UJVAL		27.67			Negotiable
393320		08-NOV-18	JOHN MICHAEL COVAS		173.20			Negotiable
393321		08-NOV-18	KENT & AMY DAHLBERG		55,290.00	15-NOV-18	55,290.00	Reconciled
393322		08-NOV-18	KIM, NAM		463.02			Negotiable

393323	08-NOV-18	KRONICK MOSKOVITZ TIEDEMANN & GIRARD		15,120.77	15-NOV-18	15,120.77	Reconciled
393324	08-NOV-18	LA HABRA FENCE COMPANY INC		5,981.00	15-NOV-18	5,981.00	Reconciled
393325	08-NOV-18	LAGUNA BEACH COUNTY WATER DISTRICT		3,303.06			Negotiable
393326	08-NOV-18	LANDCARE HOLDINGS, INC.		10,686.38	19-NOV-18	10,686.38	Reconciled
393327	08-NOV-18	LANDERS, JESSICA		46.66	28-NOV-18	46.66	Reconciled
393328	08-NOV-18	LAU, NICHOLAS		51.43	16-NOV-18	51.43	Reconciled
393329	08-NOV-18	LENNAR HOMES		96.78	28-NOV-18	96.78	Reconciled
393330	08-NOV-18	LEVENE, DANIEL		178.86	19-NOV-18	178.86	Reconciled
393331	08-NOV-18	LI, ZHAOXIA		36.60			Negotiable
393332	08-NOV-18	LIU, SHUO		55.00			Negotiable
393333	08-NOV-18	LU'S LIGHTHOUSE, INC.		756.28	15-NOV-18	756.28	Reconciled
393334	08-NOV-18	MAILFINANCE INC		12,377.26	19-NOV-18	12,377.26	Reconciled

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Account: Checking AP and PR Page: 13
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393335		08-NOV-18	MAP COMMUNICATIONS, INC.		955.63	26-NOV-18	955.63	Reconciled
393336		08-NOV-18	MENDOZA, DARRYL		37.19	21-NOV-18	37.19	Reconciled
393337		08-NOV-18	MERCH SOURCE		34.53			Negotiable
393338		08-NOV-18	MILLS, MICHAEL		43.23	19-NOV-18	43.23	Reconciled
393339		08-NOV-18	MPULSE MOBILE, INC		172.08	14-NOV-18	172.08	Reconciled
393340		08-NOV-18	MULLINS, MARK		57.25			Negotiable
393341		08-NOV-18	MUNICIPAL MAINTENANCE EQUIPMENT INC		1,963.76	14-NOV-18	1,963.76	Reconciled
393342		08-NOV-18	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		131.50	13-NOV-18	131.50	Reconciled
393343		08-NOV-18	NAKATSUKASA, NAKO		74.44	13-NOV-18	74.44	Reconciled
393344		08-NOV-18	NEAR, DONALD		17.14			Negotiable
393345		08-NOV-18	NEW PIG CORPORATION		1,096.62	14-NOV-18	1,096.62	Reconciled
393346		08-NOV-18	NEW RESOURCES GROUP INC		461.40	14-NOV-18	461.40	Reconciled
393347		08-NOV-18	NEWPORT REAL ESTATE SERVICES		13,100.00	19-NOV-18	13,100.00	Reconciled
393348		08-NOV-18	NINYO & MOORE		1,956.50	13-NOV-18	1,956.50	Reconciled
393349		08-NOV-18	O.C. SUPERIOR CUSTOM CLEANING SERVICES		1,040.00	13-NOV-18	1,040.00	Reconciled
393350		08-NOV-18	OLIN CORPORATION		40,435.47	19-NOV-18	40,435.47	Reconciled
393351		08-NOV-18	ONESOURCE DISTRIBUTORS LLC		9,616.07	13-NOV-18	9,616.07	Reconciled
393352		08-NOV-18	ORANGE COUNTY AUTO PARTS CO		1,345.13	13-NOV-18	1,345.13	Reconciled
393353		08-NOV-18	ORANGE COUNTY TREASURER		535.65	13-NOV-18	535.65	Reconciled
393354		08-NOV-18	PACIFIC COAST BOLT CORP		3,468.32	15-NOV-18	3,468.32	Reconciled
393355		08-NOV-18	PACIFIC HYDROTECH CORPORATION		232,663.65	16-NOV-18	232,663.65	Reconciled
393356		08-NOV-18	PACIFIC HYDROTECH CORPORATION		12,245.45	16-NOV-18	12,245.45	Reconciled
393357		08-NOV-18	PASCAL & LUDWIG CONSTRUCTORS		412,036.85	15-NOV-18	412,036.85	Reconciled
393358		08-NOV-18	PASCAL & LUDWIG CONSTRUCTORS		12,335.90	19-NOV-18	12,335.90	Reconciled
393359		08-NOV-18	PASCAL & LUDWIG CONSTRUCTORS		9,350.26	14-NOV-18	9,350.26	Reconciled

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Account: Checking AP and PR Page: 14
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393360		08-NOV-18	PCB PIEZOTRONICS, INC		905.89	13-NOV-18	905.89	Reconciled
393361		08-NOV-18	PENG, ZUJAM		31.47			Negotiable
393362		08-NOV-18	PRIEGEL, MARK		38.73			Negotiable
393363		08-NOV-18	PRUDENTIAL OVERALL SUPPLY		791.46	14-NOV-18	791.46	Reconciled
393364		08-NOV-18	PURE EFFECT INC		7,553.50	14-NOV-18	7,553.50	Reconciled
393365		08-NOV-18	R&B AUTOMATION, INC.		2,000.00	19-NOV-18	2,000.00	Reconciled
393366		08-NOV-18	RASMUSSEN, METTE		23.13			Negotiable

393367	08-NOV-18	RED WING SHOE STORE	200.00	14-NOV-18	200.00	Reconciled
393368	08-NOV-18	RELIANCE STANDARD LIFE INSURANCE COMPANY	30,549.44	19-NOV-18	30,549.44	Reconciled
393369	08-NOV-18	RESPONSE ENVELOPE, INC	2,801.28	13-NOV-18	2,801.28	Reconciled
393370	08-NOV-18	RICHMOND AMERICAN HOMES OF MARYLAND, INC	217.97	16-NOV-18	217.97	Reconciled
393371	08-NOV-18	RINCON TRUCK CENTER INC.	295.00	14-NOV-18	295.00	Reconciled
393372	08-NOV-18	RLG ENTERPRISES, INC	703.34	13-NOV-18	703.34	Reconciled
393373	08-NOV-18	ROYAL INDUSTRIAL SOLUTIONS	969.66	13-NOV-18	969.66	Reconciled
393374	08-NOV-18	SANDERS PAVING INC	27,275.00	15-NOV-18	27,275.00	Reconciled
393375	08-NOV-18	SANDOVAL, JOSEPHINE	172.47			Negotiable
393376	08-NOV-18	SANTA ANA BLUE PRINT	292.17	14-NOV-18	292.17	Reconciled
393377	08-NOV-18	SANTA MARGARITA FORD	1,138.64	14-NOV-18	1,138.64	Reconciled
393378	08-NOV-18	SECURITAS SECURITY SERVICES USA, INC.	61,460.29	15-NOV-18	61,460.29	Reconciled
393379	08-NOV-18	SHAMROCK SUPPLY CO INC	1,503.92	15-NOV-18	1,503.92	Reconciled
393380	08-NOV-18	SHEA HOMES LP	49.28	20-NOV-18	49.28	Reconciled
393381	08-NOV-18	SHINEY, WILLIAM	31.75			Negotiable
393382	08-NOV-18	SHOETERIA	218.17	14-NOV-18	218.17	Reconciled
393383	08-NOV-18	SITMATIC	635.83	15-NOV-18	635.83	Reconciled
393384	08-NOV-18	SOUTH COAST WATER DISTRICT	1,199.86	13-NOV-18	1,199.86	Reconciled
393385	08-NOV-18	SOUTHERN CALIFORNIA EDISON COMPANY	13,685.09	13-NOV-18	13,685.09	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 15
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393386		08-NOV-18	SS MECHANICAL CONSTRUCTION CORP		6,293.75	14-NOV-18	6,293.75	Reconciled
393387		08-NOV-18	STREAKWAVE WIRELESS, INC.		1,106.24	15-NOV-18	1,106.24	Reconciled
393388		08-NOV-18	SUNHAE PARK & SEUNGYOUB LEE		38.45	23-NOV-18	38.45	Reconciled
393389		08-NOV-18	SUSAN A. SIROTA		4,395.00	13-NOV-18	4,395.00	Reconciled
393390		08-NOV-18	TEMPLIN, PAM		100.00			Negotiable
393391		08-NOV-18	THE NEW HOME COMPANY SOUTHERN CALIFORNIA LLC		38.74			Negotiable
393392		08-NOV-18	THERMO ELECTRON NORTH AMERICA LLC		3,397.00	14-NOV-18	3,397.00	Reconciled
393393		08-NOV-18	TIC-RETAIL PROPERTIES		1,958.07	14-NOV-18	1,958.07	Reconciled
393394		08-NOV-18	TOLL BROS., INC.		1,088.08	20-NOV-18	1,088.08	Reconciled
393395		08-NOV-18	TOLL BROTHERS., INC		99.00	20-NOV-18	99.00	Reconciled
393396		08-NOV-18	TOTAL RESOURCE MANAGEMENT, INC.		59,002.88	20-NOV-18	59,002.88	Reconciled
393397		08-NOV-18	TRAINO, DAVID P		53.69	16-NOV-18	53.69	Reconciled
393398		08-NOV-18	TREE OF LIFE NURSERY		111.52	16-NOV-18	111.52	Reconciled
393399		08-NOV-18	TRI POINTE HOMES, INC.		165.54	20-NOV-18	165.54	Reconciled
393400		08-NOV-18	TRIPAC MARKETING INC		844.21	14-NOV-18	844.21	Reconciled
393401		08-NOV-18	TROPICAL PLAZA NURSERY INC		4,800.00	13-NOV-18	4,800.00	Reconciled
393402		08-NOV-18	TRUCPARCO		535.01	21-NOV-18	535.01	Reconciled
393403		08-NOV-18	ULINE INC		245.14	15-NOV-18	245.14	Reconciled
393404		08-NOV-18	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA		1,343.20	16-NOV-18	1,343.20	Reconciled
393405		08-NOV-18	UNITED HEALTHCARE INSURANCE COMPANY		264.27	16-NOV-18	264.27	Reconciled
393406		08-NOV-18	UNITED PARCEL SERVICE INC		97.96	13-NOV-18	97.96	Reconciled
393407		08-NOV-18	VADKERTI, MARTIN		75.73	14-NOV-18	75.73	Reconciled
393408		08-NOV-18	VATANKHAHI, MASSOUD		359.70			Negotiable
393409		08-NOV-18	VERIZON WIRELESS SERVICES LLC		4,084.44	14-NOV-18	4,084.44	Reconciled
393410		08-NOV-18	VERTECH INDUSTRIAL SYSTEMS, LLC		21,574.85	19-NOV-18	21,574.85	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 16

Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393411		08-NOV-18	VILLA SIENA APTS		9,862.40	16-NOV-18	9,862.40	Reconciled
393412		08-NOV-18	WASTE MANAGEMENT OF ORANGE COUNTY		4,483.32	13-NOV-18	4,483.32	Reconciled
393413		08-NOV-18	WAXIE'S ENTERPRISES, INC		756.30	13-NOV-18	756.30	Reconciled
393414		08-NOV-18	WECK LABORATORIES INC		5,900.00	16-NOV-18	5,900.00	Reconciled
393415		08-NOV-18	WINTER, WILLIAM		186.67	21-NOV-18	186.67	Reconciled
393416		08-NOV-18	WOODARD & CURRAN INC		19,958.38	23-NOV-18	19,958.38	Reconciled
393417		08-NOV-18	YI, CHEN		30.81	15-NOV-18	30.81	Reconciled
393418		08-NOV-18	YP LLC		96.07	14-NOV-18	96.07	Reconciled
393419		08-NOV-18	YU, CHUNBO		62.91	19-NOV-18	62.91	Reconciled
393420		08-NOV-18	ZEBRON CONTRACTING INC		22,376.66	19-NOV-18	22,376.66	Reconciled
393421		09-NOV-18	JCI JONES CHEMICALS INC	NEWARK	7,738.02	16-NOV-18	7,738.02	Reconciled
393422		09-NOV-18	PERS LONG TERM CARE	PASADENA	538.89	14-NOV-18	538.89	Reconciled
393423		09-NOV-18	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	DIAMOND BAR	1,400.00			Negotiable
393424		09-NOV-18	FRANCHISE TAX BOARD 1	SACRAMENTO	150.00			Negotiable
393425		09-NOV-18	ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	224.50	15-NOV-18	224.50	Reconciled
393426		12-NOV-18	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY	ATLANTA	72.30	16-NOV-18	72.30	Reconciled
393427		12-NOV-18	COLONIAL LIFE & ACCIDENT INSURANCE CO.	COLUMBIA	1,215.37	20-NOV-18	1,215.37	Reconciled
393428		12-NOV-18	AFLAC	1932 WYNNTON RD	6,840.50			Negotiable
393429		12-NOV-18	AFLAC	PO BOX 84069	148.74	27-NOV-18	148.74	Reconciled
393430		12-NOV-18	PRE-PAID LEGAL SERVICES INC	PO BOX 2629	1,212.00	21-NOV-18	1,212.00	Reconciled
393431		12-NOV-18	PERS LONG TERM CARE	PASADENA	538.89	15-NOV-18	538.89	Reconciled
393432		12-NOV-18	FRANCHISE TAX BOARD 1	SACRAMENTO	532.64			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar) Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Payment Type: All Display Supplier Address: No Account: Checking AP and PR Page: 17
 Payment Currency: USD (US Dollar)

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393433		12-NOV-18	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	DIAMOND BAR	1,400.00			Negotiable
393434		12-NOV-18	ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	224.50	19-NOV-18	224.50	Reconciled
393435		14-NOV-18	CITY OF IRVINE	IRVINE 1	9,847.52			Negotiable
393436		15-NOV-18	Beltran, Benjamin Vega		30.62	19-NOV-18	30.62	Reconciled
393437		15-NOV-18	Bornhoff, Mike (Mike)		290.00			Negotiable
393438		15-NOV-18	Borowski, Michael (Mike)		456.02	20-NOV-18	456.02	Reconciled
393439		15-NOV-18	Bowers, Marie		52.20			Negotiable
393440		15-NOV-18	Cotton, Derrien		146.26	20-NOV-18	146.26	Reconciled
393441		15-NOV-18	Drew, Michael A		90.00			Negotiable
393442		15-NOV-18	Ho, Connie		12.97			Negotiable
393443		15-NOV-18	Johnson, Dane		95.93	27-NOV-18	95.93	Reconciled
393444		15-NOV-18	Madrid, Adam		175.19	21-NOV-18	175.19	Reconciled
393445		15-NOV-18	McGehee, Joseph M (Joe)		353.16	16-NOV-18	353.16	Reconciled
393446		15-NOV-18	Meserlian, Barkev M		454.37	27-NOV-18	454.37	Reconciled
393447		15-NOV-18	Nicholson, Darin		39.68	19-NOV-18	39.68	Reconciled
393448		15-NOV-18	Seesangrit, Melody M		172.37	19-NOV-18	172.37	Reconciled
393449		15-NOV-18	ABOBAKER, MURHAF		31.77			Negotiable
393450		15-NOV-18	ADAM'S FALCONRY SERVICE, LLC		1,680.00	19-NOV-18	1,680.00	Reconciled
393451		15-NOV-18	AEGIS ENGINEERING MANAGEMENT, INC.		17,715.25	21-NOV-18	17,715.25	Reconciled
393452		15-NOV-18	AFLAC		6,913.16	28-NOV-18	6,913.16	Reconciled

393453	15-NOV-18	AFLAC	148.74	28-NOV-18	148.74	Reconciled
393454	15-NOV-18	AIRGAS, INC.	417.25	19-NOV-18	417.25	Reconciled
393455	15-NOV-18	ALCATARA, KRISTINE	37.66			Negotiable
393456	15-NOV-18	ALI, ANMAR	37.51			Negotiable
393457	15-NOV-18	ALL STAR GLASS	924.02	19-NOV-18	924.02	Reconciled
393458	15-NOV-18	ALLIANCE RESOURCE CONSULTING LLC	6,750.00	19-NOV-18	6,750.00	Reconciled
393459	15-NOV-18	AMAZON CAPITAL SERVICES, INC.	113.68	19-NOV-18	113.68	Reconciled
393460	15-NOV-18	AMSELEM, WINSTON	20.00	20-NOV-18	20.00	Reconciled
393461	15-NOV-18	APEX LIFE SCIENCES, LLC	13,804.00	23-NOV-18	13,804.00	Reconciled
393462	15-NOV-18	ARCADIS U.S., INC.	93,542.80	23-NOV-18	93,542.80	Reconciled
393463	15-NOV-18	ARMSTRONG, HAL	198.03	27-NOV-18	198.03	Reconciled

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Account: Checking AP and PR Page: 18
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393464		15-NOV-18	AT&T		1,665.91	19-NOV-18	1,665.91	Reconciled
393465		15-NOV-18	ATHENS SERVICES		10,101.38	21-NOV-18	10,101.38	Reconciled
393466		15-NOV-18	AUSTIN HARDWOODS, INC		133.98	21-NOV-18	133.98	Reconciled
393467		15-NOV-18	AUTOZONE PARTS, INC.		1,376.65	20-NOV-18	1,376.65	Reconciled
393468		15-NOV-18	BATTERIES PLUS AND BATTERIES PLUS BULBS		779.01			Negotiable
393469		15-NOV-18	BDC SPECIAL WASTE		372.00	19-NOV-18	372.00	Reconciled
393470		15-NOV-18	BELSHIRE ENVIRONMENTAL SERVICES, INC.		1,300.00	16-NOV-18	1,300.00	Reconciled
393471		15-NOV-18	BENSON, CONNIE		31.79	21-NOV-18	31.79	Reconciled
393472		15-NOV-18	BROOKFIELD HOMES SO. CALIF LLC		104.17	20-NOV-18	104.17	Reconciled
393473		15-NOV-18	BROOKFIELD RESIDENTIAL		22.96	20-NOV-18	22.96	Reconciled
393474		15-NOV-18	BROWN, CAITLYN		681.72	19-NOV-18	681.72	Reconciled
393475		15-NOV-18	BURKE, WILLIAMS & SORENSEN, LLP		260.00	19-NOV-18	260.00	Reconciled
393476		15-NOV-18	BURLINGTON SAFETY LABORATORY OF CALIFORNIA INC		199.78	16-NOV-18	199.78	Reconciled
393477		15-NOV-18	CALIFORNIA BARRICADE RENTAL, INC.		4,940.00	16-NOV-18	4,940.00	Reconciled
393478		15-NOV-18	CALIFORNIA PACIFIC HOMES		182.11	20-NOV-18	182.11	Reconciled
393479		15-NOV-18	CALIFORNIA STATE UNIVERSITY, FULLERTON		4,536.00	21-NOV-18	4,536.00	Reconciled
393480		15-NOV-18	CDB INVESTMENTS, L.P.		603.37	20-NOV-18	603.37	Reconciled
393481		15-NOV-18	CHEN, GIN SHEN		24.17			Negotiable
393482		15-NOV-18	CHILDE, KEVIN		21.00	23-NOV-18	21.00	Reconciled
393483		15-NOV-18	CHRISTOS, DANIELA		29.29			Negotiable
393484		15-NOV-18	CHU, CHUN-I		41.00			Negotiable
393485		15-NOV-18	CHU, MIN H		3.89			Negotiable
393486		15-NOV-18	CITY CIRCUIT BREAKERS		3,367.19	20-NOV-18	3,367.19	Reconciled
393487		15-NOV-18	CLEAN ENERGY		5,866.55	27-NOV-18	5,866.55	Reconciled
393488		15-NOV-18	COLONIAL LIFE & ACCIDENT INSURANCE CO.		1,103.26	28-NOV-18	1,103.26	Reconciled

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Account: Checking AP and PR Page: 19
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393489		15-NOV-18	COMMUTER VAN CONVERSION AND MORE INC		1,962.38	20-NOV-18	1,962.38	Reconciled
393490		15-NOV-18	CONSTELLATION NEWENERGY, INC.		15,928.06	21-NOV-18	15,928.06	Reconciled
393491		15-NOV-18	CONSUMERS PIPE & SUPPLY CO.		933.24	19-NOV-18	933.24	Reconciled
393492		15-NOV-18	COUNTY OF ORANGE		8,745.75	23-NOV-18	8,745.75	Reconciled
393493		15-NOV-18	COYNE, PHILIP		700.00	19-NOV-18	700.00	Reconciled
393494		15-NOV-18	CR & R INCORPORATED		389.96	19-NOV-18	389.96	Reconciled
393495		15-NOV-18	CULLIGAN OF SANTA ANA		11,000.00	26-NOV-18	11,000.00	Reconciled
393496		15-NOV-18	CUSTOM TRUCK ONE		1,395.58	26-NOV-18	1,395.58	Reconciled

393497	15-NOV-18	SOURCE, L.P. D & H WATER SYSTEMS INC.	724.21	19-NOV-18	724.21	Reconciled
393498	15-NOV-18	DC FROST ASSOCIATES, INC.	4,509.82	20-NOV-18	4,509.82	Reconciled
393499	15-NOV-18	DEE JASPAR & ASSOCIATES, INC.	151.56			Negotiable
393500	15-NOV-18	DIVITA BUILDERS, INC.	853.51	20-NOV-18	853.51	Reconciled
393501	15-NOV-18	DRIVELINES UNLIMITED	454.38	20-NOV-18	454.38	Reconciled
393502	15-NOV-18	DUKE CULTURAL RESOURCES MANAGEMENT, LLC	1,191.25	16-NOV-18	1,191.25	Reconciled
393503	15-NOV-18	EILERS, AARON	290.00			Negotiable
393504	15-NOV-18	ENDRESS AND HAUSER INC	2,405.72	21-NOV-18	2,405.72	Reconciled
393505	15-NOV-18	ENTERPRISE SECURITY, INC	6,311.25	19-NOV-18	6,311.25	Reconciled
393506	15-NOV-18	ENVIRONMENTAL EQUIPMENT SUPPLY	231.30	27-NOV-18	231.30	Reconciled
393507	15-NOV-18	ESL POWER SYSTEMS, INC.	10,384.32	27-NOV-18	10,384.32	Reconciled
393508	15-NOV-18	EXECUTIVE LIGHTING & ELECTRIC	1,393.21	20-NOV-18	1,393.21	Reconciled
393509	15-NOV-18	FARRELL & ASSOCIATES	243.18	16-NOV-18	243.18	Reconciled
393510	15-NOV-18	FEDEX	340.83	19-NOV-18	340.83	Reconciled
393511	15-NOV-18	FIRST CHOICE SERVICES	723.91	19-NOV-18	723.91	Reconciled
393512	15-NOV-18	FISERV	292.80	19-NOV-18	292.80	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 20
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393513		15-NOV-18	FLEET SOLUTIONS LLC		4,530.50	20-NOV-18	4,530.50	Reconciled
393514		15-NOV-18	FOUGHT, CYNTHIA J.		119.49	19-NOV-18	119.49	Reconciled
393515		15-NOV-18	FRONTIER CALIFORNIA INC.		51.96	23-NOV-18	51.96	Reconciled
393516		15-NOV-18	FUENTESPINA, GERALDINE		87.08	21-NOV-18	87.08	Reconciled
393517		15-NOV-18	FUSCOE ENGINEERING, INC.		968.75	16-NOV-18	968.75	Reconciled
393518		15-NOV-18	GARCIA, LEONEL B		44.51	21-NOV-18	44.51	Reconciled
393519		15-NOV-18	GENTERRA CONSULTANTS INC		7,832.00	19-NOV-18	7,832.00	Reconciled
393520		15-NOV-18	GJ AUTOMOTIVE EQUIPMENT CO INC		764.83	23-NOV-18	764.83	Reconciled
393521		15-NOV-18	GRAINGER		3,996.26	20-NOV-18	3,996.26	Reconciled
393522		15-NOV-18	GRAYBAR ELECTRIC COMPANY		3,066.49	19-NOV-18	3,066.49	Reconciled
393523		15-NOV-18	HAAKER EQUIPMENT COMPANY		1,242.80	20-NOV-18	1,242.80	Reconciled
393524		15-NOV-18	HACH COMPANY		3,530.29	19-NOV-18	3,530.29	Reconciled
393525		15-NOV-18	HAMILTON, KURT		1,308.19	28-NOV-18	1,308.19	Reconciled
393526		15-NOV-18	HARMSWORTH ASSOCIATES		3,621.00	23-NOV-18	3,621.00	Reconciled
393527		15-NOV-18	HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY		72.30	26-NOV-18	72.30	Reconciled
393528		15-NOV-18	HARVARD COURT APARTMENTS		111.21	26-NOV-18	111.21	Reconciled
393529		15-NOV-18	HELP/SYSTEMS, LLC		400.00	19-NOV-18	400.00	Reconciled
393530		15-NOV-18	HELPMATES STAFFING SERVICES		25,405.74	21-NOV-18	25,405.74	Reconciled
393531		15-NOV-18	HILL BROTHERS CHEMICAL COMPANY		10,753.75			Negotiable
393532		15-NOV-18	HOME DEPOT USA INC		1,202.28	19-NOV-18	1,202.28	Reconciled
393533		15-NOV-18	HSIAOFANGYEN, LILY		15.65			Negotiable
393534		15-NOV-18	INTEGRITY MUNICIPAL SERVICES LLC		2,045.00	28-NOV-18	2,045.00	Reconciled
393535		15-NOV-18	IRON MOUNTAIN INFORMATION MANAGEMENT INC		1,691.39	19-NOV-18	1,691.39	Reconciled
393536		15-NOV-18	IRVINE PACIFIC		132.15	27-NOV-18	132.15	Reconciled
393537		15-NOV-18	IRVINE PIPE & SUPPLY INC		1,693.21	16-NOV-18	1,693.21	Reconciled
393538		15-NOV-18	IRWD-PETTY CASH CUSTODIAN		733.86	20-NOV-18	733.86	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 21
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Cleared

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393539		15-NOV-18	JIANG, HONG		45.48			Negotiable
393540		15-NOV-18	JIG CONSULTANTS		12,530.00			Negotiable
393541		15-NOV-18	KAPITANOV, IVAN		40.45	19-NOV-18	40.45	Reconciled
393542		15-NOV-18	KAUFMAN, MASAKO I		37.47	28-NOV-18	37.47	Reconciled
393543		15-NOV-18	KAYUGA SOLUTION INC		23,915.00	21-NOV-18	23,915.00	Reconciled
393544		15-NOV-18	KENT & AMY DAHLBERG		45,220.00	26-NOV-18	45,220.00	Reconciled
393545		15-NOV-18	KIM, SUNG		11.68			Negotiable
393546		15-NOV-18	KIMBALL, MIDWEST		2,950.92	19-NOV-18	2,950.92	Reconciled
393547		15-NOV-18	LANDCARE HOLDINGS, INC.		520.00	19-NOV-18	520.00	Reconciled
393548		15-NOV-18	LEFTWICH, ROBIN		17.16			Negotiable
393549		15-NOV-18	LENNAR HOMES		174.97	26-NOV-18	174.97	Reconciled
393550		15-NOV-18	LI, GUIXIA		21.69			Negotiable
393551		15-NOV-18	LI, SHUJIE		31.04			Negotiable
393552		15-NOV-18	LIM, EDDY		38.90			Negotiable
393553		15-NOV-18	LINKEDIN CORPORATION		6,756.25	19-NOV-18	6,756.25	Reconciled
393554		15-NOV-18	LIU, KAIWEN		24.49	19-NOV-18	24.49	Reconciled
393555		15-NOV-18	LONE STAR BLOWER, INC		16,366.71	28-NOV-18	16,366.71	Reconciled
393556		15-NOV-18	LU JIANG AND PULSC GROUP LLC		280.91			Negotiable
393557		15-NOV-18	MADORSKY, RACHEL		210.41			Negotiable
393558		15-NOV-18	MAJIBZADEH, ALIREZA		383.86	23-NOV-18	383.86	Reconciled
393559		15-NOV-18	MARTIN, AARON		131.77	16-NOV-18	131.77	Reconciled
393560		15-NOV-18	MC FADDEN-DALE INDUSTRIAL		193.47	19-NOV-18	193.47	Reconciled
393561		15-NOV-18	MC MASTER CARR SUPPLY CO		1,701.39	19-NOV-18	1,701.39	Reconciled
393562		15-NOV-18	MERRIMAC PETROLEUM, INC.		25,392.59	19-NOV-18	25,392.59	Reconciled
393563		15-NOV-18	MICHAEL BAKER INTERNATIONAL, INC.		5,427.01	19-NOV-18	5,427.01	Reconciled
393564		15-NOV-18	MISSION COMMUNICATIONS, LLC		1,126.80	21-NOV-18	1,126.80	Reconciled
393565		15-NOV-18	MOBILE MODULAR MANAGEMENT CORPORATION		1,212.19	19-NOV-18	1,212.19	Reconciled
393566		15-NOV-18	MR CRANE INC		1,063.80	19-NOV-18	1,063.80	Reconciled
393567		15-NOV-18	MSC INDUSTRIAL SUPPLY CO		292.16	23-NOV-18	292.16	Reconciled
IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24								
BANK: Bank of America N.A.			Branch : Los Angeles		Account: Checking AP and PR		Page: 22	
Bank Account Currency: USD (US Dollar)					Payment Currency: USD (US Dollar)			
Payment Type: All					Display Supplier Address: No			

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393568		15-NOV-18	MUGLIA-ARIAS, IRVING		14.67			Negotiable
393569		15-NOV-18	MUNICIPAL MAINTENANCE EQUIPMENT INC		1,025.27	26-NOV-18	1,025.27	Reconciled
393570		15-NOV-18	MUNICIPAL UNDERGROUND SERVICES INC		3,850.00	16-NOV-18	3,850.00	Reconciled
393571		15-NOV-18	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		9,257.00	16-NOV-18	9,257.00	Reconciled
393572		15-NOV-18	NATIONAL READY MIXED CONCRETE CO.		1,622.29	19-NOV-18	1,622.29	Reconciled
393573		15-NOV-18	NIGUEL POINT PROP		25.00	20-NOV-18	25.00	Reconciled
393574		15-NOV-18	NINYO & MOORE		5,436.25	19-NOV-18	5,436.25	Reconciled
393575		15-NOV-18	NOVACOAST INC		520.00	19-NOV-18	520.00	Reconciled
393576		15-NOV-18	O.C. SUPERIOR CUSTOM CLEANING SERVICES		3,600.00			Negotiable
393577		15-NOV-18	OLIN CORPORATION		20,331.80	26-NOV-18	20,331.80	Reconciled
393578		15-NOV-18	ONESOURCE		534.42	19-NOV-18	534.42	Reconciled
393579		15-NOV-18	DISTRIBUTORS LLC ORANGE COUNTY AUTO PARTS CO		799.91	16-NOV-18	799.91	Reconciled
393580		15-NOV-18	ORANGE COUNTY SANITATION DISTRICT		1,843.09	16-NOV-18	1,843.09	Reconciled
393581		15-NOV-18	PACIFIC HYDROTECH CORPORATION		31,102.63	23-NOV-18	31,102.63	Reconciled
393582		15-NOV-18	PACIFIC HYDROTECH CORPORATION		14,714.70	23-NOV-18	14,714.70	Reconciled
393583		15-NOV-18	PACIFIC HYDROTECH CORPORATION		870,529.17	23-NOV-18	870,529.17	Reconciled
393584		15-NOV-18	PAPER DEPOT		540.00	23-NOV-18	540.00	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
393585	15-NOV-18	DOCUMENT	DESTRUCTION LLC		140.61	20-NOV-18	140.61	Reconciled
393586	15-NOV-18	PARKHOUSE TIRE INC	PASCAL & LUDWIG CONSTRUCTORS		154,531.96			Negotiable
393587	15-NOV-18	PASCAL & LUDWIG CONSTRUCTORS			8,133.26	19-NOV-18	8,133.26	Reconciled
393588	15-NOV-18	PMC ENGINEERING LLC.			3,642.44	19-NOV-18	3,642.44	Reconciled
393589	15-NOV-18	PONNUCHAMY, KARTHI			1,990.00	20-NOV-18	1,990.00	Reconciled
393590	15-NOV-18	PRE-PAID LEGAL SERVICES INC			1,212.00			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Register For 01-NOV-18 To 30-NOV-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 03-DEC-2018 15:24
 Page: 23

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393591	15-NOV-18	PRO MOBILE AUTO DETAILING			600.00	20-NOV-18	600.00	Reconciled
393592	15-NOV-18	PROCARE WORK INJURY CENTER			7,515.00	20-NOV-18	7,515.00	Reconciled
393593	15-NOV-18	PRUDENTIAL OVERALL SUPPLY			5,364.52	19-NOV-18	5,364.52	Reconciled
393594	15-NOV-18	PSOMAS			818.02	19-NOV-18	818.02	Reconciled
393595	15-NOV-18	QUACKENBUSH, JENNIFER			19.36			Negotiable
393596	15-NOV-18	R.J. NOBLE COMPANY			326.05	19-NOV-18	326.05	Reconciled
393597	15-NOV-18	RAINBOW DISPOSAL CO INC			28.39	21-NOV-18	28.39	Reconciled
393598	15-NOV-18	RAM AIR ENGINEERING INC			9,646.16	19-NOV-18	9,646.16	Reconciled
393599	15-NOV-18	REAL WATER CONSULTANTS INC.			11,850.00			Negotiable
393600	15-NOV-18	RENTOKIL NORTH AMERICA, INC			165.00	21-NOV-18	165.00	Reconciled
393601	15-NOV-18	RLG ENTERPRISES, INC			734.10	16-NOV-18	734.10	Reconciled
393602	15-NOV-18	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT			47,236.44			Negotiable
393603	15-NOV-18	ROYAL INDUSTRIAL SOLUTIONS			1,698.42	19-NOV-18	1,698.42	Reconciled
393604	15-NOV-18	SAFETY-KLEEN SYSTEMS, INC			277.75	19-NOV-18	277.75	Reconciled
393605	15-NOV-18	SALA, VASILIKI			29.27			Negotiable
393606	15-NOV-18	SANDERS PAVING INC			17,656.25	27-NOV-18	17,656.25	Reconciled
393607	15-NOV-18	SANTA ANA BLUE PRINT			162.71	20-NOV-18	162.71	Reconciled
393608	15-NOV-18	SANTA MARGARITA FORD			690.05	26-NOV-18	690.05	Reconciled
393609	15-NOV-18	SEPARATION PROCESSES INC			850.00	19-NOV-18	850.00	Reconciled
393610	15-NOV-18	SEVEN GABLES PROPERTY MANAGEMENT			41.58	19-NOV-18	41.58	Reconciled
393611	15-NOV-18	SHERWIN WILLIAMS COMPANY			2,109.10	23-NOV-18	2,109.10	Reconciled
393612	15-NOV-18	SIMI VALLEY LANDFILL AND RECYCLING CENTER			264.10	19-NOV-18	264.10	Reconciled
393613	15-NOV-18	SNYDER LANGSTON L.P.			667.50			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Register For 01-NOV-18 To 30-NOV-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 03-DEC-2018 15:24
 Page: 24

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393614	15-NOV-18	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT			2,435.91	28-NOV-18	2,435.91	Reconciled
393615	15-NOV-18	SOUTH COAST WATER CO.			90.00	21-NOV-18	90.00	Reconciled
393616	15-NOV-18	SOUTHERN CALIFORNIA EDISON COMPANY			302,742.13	20-NOV-18	302,742.13	Reconciled
393617	15-NOV-18	SOUTHERN CALIFORNIA GAS COMPANY			4,835.20	20-NOV-18	4,835.20	Reconciled
393618	15-NOV-18	SPARKLETTTS			231.50	23-NOV-18	231.50	Reconciled
393619	15-NOV-18	SPATIAL WAVE, INC.			1,387.50	16-NOV-18	1,387.50	Reconciled
393620	15-NOV-18	STACY GARNER AND DANIELA PEREZ LOZADA			48.92			Negotiable

393621	15-NOV-18	STANDARD REGISTER, INC.	2,635.92	19-NOV-18	2,635.92	Reconciled
393622	15-NOV-18	STANTEC CONSULTING SERVICES INC.	7,125.00	19-NOV-18	7,125.00	Reconciled
393623	15-NOV-18	STETSON ENGINEERS INC.	12,394.98	21-NOV-18	12,394.98	Reconciled
393624	15-NOV-18	SUEZ TREATMENT SOLUTIONS INC.	19,531.63	26-NOV-18	19,531.63	Reconciled
393625	15-NOV-18	SUN, JINGQING	37.76	27-NOV-18	37.76	Reconciled
393626	15-NOV-18	T.E. ROBERTS, INC.	58,425.00			Negotiable
393627	15-NOV-18	TASHIRO, CAROLYN	55.00	21-NOV-18	55.00	Reconciled
393628	15-NOV-18	THERMO ELECTRON NORTH AMERICA LLC	7,507.10	19-NOV-18	7,507.10	Reconciled
393629	15-NOV-18	TIC-OFFICE PROPERTIES	435.07	26-NOV-18	435.07	Reconciled
393630	15-NOV-18	TOLL BROS., INC.	398.57	20-NOV-18	398.57	Reconciled
393631	15-NOV-18	TOP TEN REAL ESTATE INC	50.04			Negotiable
393632	15-NOV-18	TOTAL RESOURCE MANAGEMENT, INC.	4,675.04	21-NOV-18	4,675.04	Reconciled
393633	15-NOV-18	TOTALFUNDS	4,000.00	19-NOV-18	4,000.00	Reconciled
393634	15-NOV-18	TRAN, TRI DI	670.41	16-NOV-18	670.41	Reconciled
393635	15-NOV-18	TRI POINTE HOMES, INC.	406.19			Negotiable
393636	15-NOV-18	TROPICAL PLAZA NURSERY INC	416.56	19-NOV-18	416.56	Reconciled
393637	15-NOV-18	TRUCPARCO	67.56	21-NOV-18	67.56	Reconciled
393638	15-NOV-18	TURNER ROYALTY, LLC	4,920.20	19-NOV-18	4,920.20	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 25
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393639		15-NOV-18	UNITED PARCEL SERVICE INC		40.40	19-NOV-18	40.40	Reconciled
393640		15-NOV-18	UNITED SITE SERVICES OF CALIFORNIA INC		665.15	20-NOV-18	665.15	Reconciled
393641		15-NOV-18	UNIVAR USA INC		5,343.30	19-NOV-18	5,343.30	Reconciled
393642		15-NOV-18	UNIVERSITY OF CALIFORNIA, IRVINE		2,174.14			Negotiable
393643		15-NOV-18	US BANK NAT'L ASSOC N.DAKOTA		1,375.00	20-NOV-18	1,375.00	Reconciled
393644		15-NOV-18	VILLA SIENA APTS		10,986.55	26-NOV-18	10,986.55	Reconciled
393645		15-NOV-18	VILLAGE AT PARK PLACE		735.67			Negotiable
393646		15-NOV-18	WANG, HUILAN		41.90			Negotiable
393647		15-NOV-18	WASTE MANAGEMENT OF ORANGE COUNTY		367.26	19-NOV-18	367.26	Reconciled
393648		15-NOV-18	WATER SYSTEMS OPTIMIZATION, INC.		1,920.00	27-NOV-18	1,920.00	Reconciled
393649		15-NOV-18	WATERSMART SOFTWARE, INC		13,597.50	21-NOV-18	13,597.50	Reconciled
393650		15-NOV-18	WATKINS, ROBERT		66.03	26-NOV-18	66.03	Reconciled
393651		15-NOV-18	WAXIE'S ENTERPRISES, INC		281.13	19-NOV-18	281.13	Reconciled
393652		15-NOV-18	WECK LABORATORIES INC		85.00			Negotiable
393653		15-NOV-18	WHITE, TODD		70.21	19-NOV-18	70.21	Reconciled
393654		15-NOV-18	WILLIAM LYON HOMES, INC.		11.73			Negotiable
393655		15-NOV-18	WIRELESS WATCHDOGS, LLC		1,016.00	27-NOV-18	1,016.00	Reconciled
393656		15-NOV-18	WONG, ERNEST		42.85	23-NOV-18	42.85	Reconciled
393657		15-NOV-18	WONG, HELEN		815.42	19-NOV-18	815.42	Reconciled
393658		15-NOV-18	WU, LINGLING		62.42			Negotiable
393659		15-NOV-18	XIAO, JINGRU		19.78	26-NOV-18	19.78	Reconciled
393660		15-NOV-18	XING, JIE		31.70	27-NOV-18	31.70	Reconciled
393661		15-NOV-18	YI, RANDY		450.00	19-NOV-18	450.00	Reconciled
393662		15-NOV-18	YILING CHEN AND ZHIWU YU		29.83	23-NOV-18	29.83	Reconciled
393663		20-NOV-18	JCI JONES CHEMICALS INC	NEWARK	2,494.30	27-NOV-18	2,494.30	Reconciled
393664		20-NOV-18	ANTHEM BLUE CROSS	LOS ANGELES	214.68	26-NOV-18	214.68	Reconciled
393665		20-NOV-18	ANTHEM BLUE CROSS	LOS ANGELES	290.43	26-NOV-18	290.43	Reconciled
393666		20-NOV-18	ANTHEM BLUE CROSS	LOS ANGELES	546.33	26-NOV-18	546.33	Reconciled

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 26
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

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

Payment Document : IRWD CHECK

393667	20-NOV-18	ANTHEM BLUE CROSS	LOS ANGELES	546.33	26-NOV-18	546.33	Reconciled
393668	20-NOV-18	ROJAS FISHERIES LLC	purchase	20,700.00			Negotiable
393669	21-NOV-18	REACH EMPLOYEE ASSISTANCE INC	PLACENTIA	1,038.80	27-NOV-18	1,038.80	Reconciled
393670	21-NOV-18	RELIANCE STANDARD LIFE INSURANCE COMPANY	SEATTLE	30,778.71	28-NOV-18	30,778.71	Reconciled
393671	21-NOV-18	HILLEBRECHT, WARREN K	PAY	395.25	26-NOV-18	395.25	Reconciled
393672	21-NOV-18	CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION	SACRAMENTO	1,685.00			Negotiable
393673	21-NOV-18	PERS LONG TERM CARE	PASADENA	538.89	27-NOV-18	538.89	Reconciled
393674	21-NOV-18	ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	224.50			Negotiable
393675	21-NOV-18	FRANCHISE TAX BOARD	SACRAMENTO 1	150.00			Negotiable
393676	21-NOV-18	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	DIAMOND BAR	1,385.00			Negotiable
393677	27-NOV-18	CITY OF SANTA ANA	SANTA ANA	5,584.70			Negotiable
393678	27-NOV-18	CITY OF SANTA ANA	PO BOX1988 M-36	15,000.00			Negotiable
393679	27-NOV-18	Thatcher, Forrest R (Ray)	HOME	519.71	27-NOV-18	519.71	Reconciled
393680	27-NOV-18	THE IRVINE COMPANY	NEWPORT BEACH	56,410.00			Negotiable
393681	28-NOV-18	Bennett, Ray R (Ray)		185.04			Negotiable
393682	28-NOV-18	Hankla, Jeremy		70.00			Negotiable
393683	28-NOV-18	Hartoog, Jeremy		586.27			Negotiable
393684	28-NOV-18	Kanady, Jacob		143.00			Negotiable
393685	28-NOV-18	Llewellyn, Shana W		145.00			Negotiable
393686	28-NOV-18	Malloy, Steven L (Steven)		135.00			Negotiable
393687	28-NOV-18	McKinstry, Brian H (Brian)		305.89			Negotiable
393688	28-NOV-18	Moeder, Jacob J (Jacob)		28.62			Negotiable
393689	28-NOV-18	Pan, Jenny W (Jenny)		129.72			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 03-DEC-2018 15:24
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 27
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393690		28-NOV-18	Pardee, Debra S		9.00			Negotiable
393691		28-NOV-18	Tran, Jason M (Jason)		135.00			Negotiable
393692		28-NOV-18	RED WING SHOE STORE	DALLAS	2,529.92			Negotiable
393693		28-NOV-18	A, YINA		17.70			Negotiable
393694		28-NOV-18	ABC ICEHOUSE, INC.		151.59			Negotiable
393695		28-NOV-18	ABM INDUSTRY GROUPS, LLC		2,060.00			Negotiable
393696		28-NOV-18	AIRGAS, INC.		258.60			Negotiable
393697		28-NOV-18	ALARCON, TERESA		19.53			Negotiable
393698		28-NOV-18	ALLIANCE RESOURCE CONSULTING LLC		6,250.00			Negotiable
393699		28-NOV-18	ALSTON & BIRD LLP		89,203.42			Negotiable
393700		28-NOV-18	AMAZON CAPITAL SERVICES, INC.		937.43			Negotiable
393701		28-NOV-18	AMERICAN GEOTECHNICAL, INC.		9,911.25			Negotiable
393702		28-NOV-18	ANDERSONPENNA PARTNERS, INC		68,820.00			Negotiable
393703		28-NOV-18	ANTHONY N. LARSEN		450.00			Negotiable
393704		28-NOV-18	APEX LIFE SCIENCES, LLC		3,570.00			Negotiable
393705		28-NOV-18	AQUA-METRIC SALES COMPANY		54,716.00			Negotiable
393706		28-NOV-18	AQUINO, BRITTNEY		84.96			Negotiable
393707		28-NOV-18	ASHLEY, JENNIFER		52.06			Negotiable
393708		28-NOV-18	AT&T		49.38			Negotiable
393709		28-NOV-18	AT&T		10,705.73			Negotiable
393710		28-NOV-18	AT&T		173.53			Negotiable
393711		28-NOV-18	ATHENS SERVICES		601.54			Negotiable
393712		28-NOV-18	ATKINSON, ANDELSON, LOYA, RUUD AND ROMO		678.50			Negotiable
393713		28-NOV-18	AUTOMOTIVE MARKETING		3,680.00			Negotiable

393714	28-NOV-18	CONSULTANTS, INC. AXA EQUITABLE LIFE INSURANCE COMPANY	9,780.00	Negotiable
393715	28-NOV-18	BATTERIES PLUS AND BATTERIES PLUS BULBS	1,045.74	Negotiable
393716	28-NOV-18	BDC SPECIAL WASTE	207.20	Negotiable
393717	28-NOV-18	BILL'S SWEEPING SERVICE INC	460.00	Negotiable
393718	28-NOV-18	BIOMAGIC INC	15,247.87	Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 03-DEC-2018 15:24
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 28
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393719		28-NOV-18	BLACK & VEATCH CORPORATION		287,722.54			Negotiable
393720		28-NOV-18	BLACKHAWK NETWORK INC		29,952.00			Negotiable
393721		28-NOV-18	BOKHARI, TARIQ		318.60			Negotiable
393722		28-NOV-18	BORCHARD SURVEYING & MAPPING, INC.		8,662.50			Negotiable
393723		28-NOV-18	BROWN AND CALDWELL		16,625.86			Negotiable
393724		28-NOV-18	BRUCE NEWELL		1,250.00			Negotiable
393725		28-NOV-18	BSI SERVICES AND SOLUTIONS (WEST), INC.		2,462.24			Negotiable
393726		28-NOV-18	BUCCOLA LANDSCAPE SERVICES, INC.		231.21			Negotiable
393727		28-NOV-18	C WELLS PIPELINE MATERIALS INC		28,658.20			Negotiable
393728		28-NOV-18	CALIFORNIA BARRICADE RENTAL, INC.		4,240.00			Negotiable
393729		28-NOV-18	CANON FINANCIAL SERVICES, INC		11,021.22			Negotiable
393730		28-NOV-18	CDW GOVERNMENT LLC		34,574.20			Negotiable
393731		28-NOV-18	CHANG, CHIEN-MEI		67.78			Negotiable
393732		28-NOV-18	CHANG, TIFFANY		885.26			Negotiable
393733		28-NOV-18	CHARLES WILLIAM ROBLE, JR.		360.00			Negotiable
393734		28-NOV-18	CHEM SERVICE INC.		139.80			Negotiable
393735		28-NOV-18	CHEN, GANG		18.24			Negotiable
393736		28-NOV-18	CHO, JIEUN		12.34			Negotiable
393737		28-NOV-18	CHO, SO		40.06			Negotiable
393738		28-NOV-18	CITY OF IRVINE		880.52			Negotiable
393739		28-NOV-18	CITY OF IRVINE		1,875.20			Negotiable
393740		28-NOV-18	CITY OF NEWPORT BEACH		1,220.41			Negotiable
393741		28-NOV-18	CIVIL SOURCE, INC.		62,607.00			Negotiable
393742		28-NOV-18	CLARIS STRATEGY INC.		6,360.00			Negotiable
393743		28-NOV-18	COMMERCIAL COATING RESOURCE INC		3,460.00			Negotiable
393744		28-NOV-18	COMMUTER VAN CONVERSION AND MORE INC		981.19			Negotiable
393745		28-NOV-18	CONSTELLATION NEWENERGY, INC.		1,791.26			Negotiable
393746		28-NOV-18	CORE & MAIN LP		7,064.82			Negotiable
393747		28-NOV-18	COUNTY OF ORANGE		7,440.00			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 03-DEC-2018 15:24
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 29
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393748		28-NOV-18	CRADE, CLAIRE		20.69			Negotiable
393749		28-NOV-18	CRIDER, NATHAN		3.70			Negotiable
393750		28-NOV-18	CS-AMSCO		3,331.86			Negotiable
393751		28-NOV-18	CUSTOM TRUCK ONE SOURCE, L.P.		380.00			Negotiable
393752		28-NOV-18	CVS PHARMACY, INC.		3,007.00			Negotiable
393753		28-NOV-18	D & H WATER SYSTEMS INC.		5,517.52			Negotiable
393754		28-NOV-18	DATA CLEAN CORPORATION		534.00			Negotiable
393755		28-NOV-18	DATASITE INC		5,234.00			Negotiable
393756		28-NOV-18	DAVID WILSON'S FORD OF ORANGE		36,510.75			Negotiable
393757		28-NOV-18	DB INDUSTRIAL SUPPLY CO		381.18			Negotiable
393758		28-NOV-18	DC FROST ASSOCIATES, INC.		9,284.36			Negotiable

393759	28-NOV-18	DELL MARKETING LP	6,745.89	Negotiable
393760	28-NOV-18	DIRECTV INC	255.51	Negotiable
393761	28-NOV-18	DISCOUTN COURIER SERVICE INC.	99.00	Negotiable
393762	28-NOV-18	DUDLEY RIDGE WATER DISTRICT	87,097.31	Negotiable
393763	28-NOV-18	EAGLE SYSTEMS INTERNATIONAL INC.	39,077.76	Negotiable
393764	28-NOV-18	EI&C ENGINEERING INC	44,750.00	Negotiable
393765	28-NOV-18	ELITE EQUIPMENT, INC.	1,017.33	Negotiable
393766	28-NOV-18	ENTERPRISE RIDESHARE	38,044.01	Negotiable
393767	28-NOV-18	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.	22,447.50	Negotiable
393768	28-NOV-18	ENVIRONMENTAL RESOURCE ASSOCIATES	212.00	Negotiable
393769	28-NOV-18	ENVIRONMENTAL SCIENCE ASSOCIATES	55,920.78	Negotiable
393770	28-NOV-18	EVERETT DOREY LLP	1,072.50	Negotiable
393771	28-NOV-18	EXECUTIVE LIGHTING & ELECTRIC	674.10	Negotiable
393772	28-NOV-18	FAIRFIELD RESIDENTIAL VON KARMAN	554.24	Negotiable

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393773		28-NOV-18	FERGUSON ENTERPRISES, INC.		3,717.92			Negotiable
393774		28-NOV-18	FIONA HUTTON & ASSOCIATES, INC.		9,291.25			Negotiable
393775		28-NOV-18	FIRE EXTINGUISHING SAFETY & SERVICE		654.04			Negotiable
393776		28-NOV-18	FIRST FINANCIAL ASSET MANAGEMENT		1,066.97			Negotiable
393777		28-NOV-18	FISERV		20,088.94			Negotiable
393778		28-NOV-18	FISHER SCIENTIFIC COMPANY LLC		8,336.14			Negotiable
393779		28-NOV-18	FRONTIER CALIFORNIA INC.		643.47			Negotiable
393780		28-NOV-18	GANAHL LUMBER CO.		232.27			Negotiable
393781		28-NOV-18	GEEL, STEPHEN		40.06			Negotiable
393782		28-NOV-18	GERMAN, JOHN		28.50			Negotiable
393783		28-NOV-18	GOLDSTONE, REBECCA		5,090.58			Negotiable
393784		28-NOV-18	GRAINGER		13,617.63			Negotiable
393785		28-NOV-18	GRAYBAR ELECTRIC COMPANY		380.61			Negotiable
393786		28-NOV-18	HAAKER EQUIPMENT COMPANY		1,202.26			Negotiable
393787		28-NOV-18	HACH COMPANY		8,277.45			Negotiable
393788		28-NOV-18	HALPERIN, LARRY		19.61			Negotiable
393789		28-NOV-18	HARBOR ALL GLASS & MIRROR INC.		129.30			Negotiable
393790		28-NOV-18	HARPER & ASSOCIATES ENGINEERING INC		3,040.00			Negotiable
393791		28-NOV-18	HARRINGTON INDUSTRIAL PLASTICS LLC		19,861.32			Negotiable
393792		28-NOV-18	HDR ENGINEERING INC		116,087.10			Negotiable
393793		28-NOV-18	HELPMATES STAFFING SERVICES		17,584.44			Negotiable
393794		28-NOV-18	HERITAGE FIELDS EL TORO, LLC		1,652.41			Negotiable
393795		28-NOV-18	HERNANDEZ, ROBERTO		28.55			Negotiable
393796		28-NOV-18	HILL BROTHERS CHEMICAL COMPANY		12,121.97			Negotiable
393797		28-NOV-18	HOME DEPOT USA INC		1,140.60			Negotiable
393798		28-NOV-18	IBM CORPORATION		2,970.00			Negotiable
393799		28-NOV-18	IDEXX DISTRIBUTION, INC		5,633.85			Negotiable
393800		28-NOV-18	INFOSYS LIMITED		24,480.00			Negotiable

IRWD Ledger Upgrade Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 31
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

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

393801	28-NOV-18	IRVINE COMMUNITY DEVELOPMENT COMPANY LLC	53,072.65	Negotiable
393802	28-NOV-18	IRVINE PACIFIC	360.80	Negotiable
393803	28-NOV-18	IRVINE PIPE & SUPPLY INC	4,400.39	Negotiable
393804	28-NOV-18	IRWD-PETTY CASH CUSTODIAN	1,434.21	Negotiable
393805	28-NOV-18	JELINEK, JONATHAN	200.00	Negotiable
393806	28-NOV-18	JH TECHNOLOGIES, INC	8,609.17	Negotiable
393807	28-NOV-18	JOHNSTONE SUPPLY	119.31	Negotiable
393808	28-NOV-18	JUST ENERGY SOLUTIONS INC.	49.94	Negotiable
393809	28-NOV-18	KAZARIANS & ASSOCIATES, INC.	2,096.52	Negotiable
393810	28-NOV-18	KELLER, MICHELLE	37.46	Negotiable
393811	28-NOV-18	KENT & AMY DAHLBERG	4,127.10	Negotiable
393812	28-NOV-18	KIM, BOKYUNG	27.53	Negotiable
393813	28-NOV-18	KIM, KANGSEOK	85.09	Negotiable
393814	28-NOV-18	KLINE PROPERTY MANAGEMENT	39.29	Negotiable
393815	28-NOV-18	KO, JIM	33.90	Negotiable
393816	28-NOV-18	LA HABRA FENCE COMPANY INC	2,543.00	Negotiable
393817	28-NOV-18	LAMB, BAILEE	23.58	Negotiable
393818	28-NOV-18	LENNAR HOMES	808.33	Negotiable
393819	28-NOV-18	LEWIS BRISBOIS BISGAARD AND SMITH, LLP	65,737.35	Negotiable
393820	28-NOV-18	LI, YUANXI	19.37	Negotiable
393821	28-NOV-18	LU'S LIGHTHOUSE, INC.	2,597.34	Negotiable
393822	28-NOV-18	LU, HONGRU	48.36	Negotiable
393823	28-NOV-18	MA, MICHAEL	45.68	Negotiable
393824	28-NOV-18	MAC DERMOTT, SCOTT	27.67	Negotiable
393825	28-NOV-18	MACDUFF, CHRIS	16.00	Negotiable
393826	28-NOV-18	MBC AQUATIC SCIENCES, INC.	1,350.00	Negotiable
393827	28-NOV-18	MC FADDEN-DALE INDUSTRIAL	132.75	Negotiable
393828	28-NOV-18	MC MASTER CARR SUPPLY CO	2,183.84	Negotiable
393829	28-NOV-18	MCCARTHY, LEE ANN	37.36	Negotiable
393830	28-NOV-18	MCGOVERN, DENNIS	34.09	Negotiable

IRWD Ledger Upgrade

Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 32
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393831		28-NOV-18	MERCADEL, HENRY		85.21			Negotiable
393832		28-NOV-18	MERRIMAC		71,484.34			Negotiable
393833		28-NOV-18	PETROLEUM, INC. MICHAEL BAKER INTERNATIONAL, INC.		4,676.00			Negotiable
393834		28-NOV-18	MOBILE MODULAR MANAGEMENT CORPORATION		87.19			Negotiable
393835		28-NOV-18	MOJARRO, YESENIA		42.68			Negotiable
393836		28-NOV-18	MOORE INDUSTRIES INTERNATIONAL, INC.		284.03			Negotiable
393837		28-NOV-18	MSC INDUSTRIAL SUPPLY CO		1,018.88			Negotiable
393838		28-NOV-18	MYERS & SONS HI-WAY SAFETY, INC.		2,605.40			Negotiable
393839		28-NOV-18	NATIONAL READY MIXED CONCRETE CO.		2,890.05			Negotiable
393840		28-NOV-18	NCH CORPORATION		195.89			Negotiable
393841		28-NOV-18	NEW PIG CORPORATION		645.00			Negotiable
393842		28-NOV-18	NEW STAR ENVIRONMENTAL, INC.		570.00			Negotiable
393843		28-NOV-18	NMG GEOTECHNICAL INC		12,416.10			Negotiable
393844		28-NOV-18	NOVACOAST INC		597.50			Negotiable
393845		28-NOV-18	NPG INC.		1,461.81			Negotiable
393846		28-NOV-18	OFFICE DEPOT INC		316.83			Negotiable
393847		28-NOV-18	OLIN CORPORATION		51,887.08			Negotiable
393848		28-NOV-18	OLSON, HAGEL & FISHBURN, LLP		530.50			Negotiable
393849		28-NOV-18	ONESOURCE DISTRIBUTORS LLC		1,129.57			Negotiable
393850		28-NOV-18	ORACLE AMERICA, INC.		19,380.90			Negotiable

393851	28-NOV-18	ORANGE COUNTY AUTO PARTS CO		2,173.10	Negotiable
393852	28-NOV-18	ORANGE COUNTY SANITATION DISTRICT		238.86	Negotiable
393853	28-NOV-18	ORANGE LINE OIL COMPANY		933.32	Negotiable
393854	28-NOV-18	PACIFIC COAST BOLT CORP		732.17	Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 33
 Payment Type: All Payment Currency: USD (US Dollar) Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393855		28-NOV-18	PACIFIC PARTS & CONTROLS INC		2,772.25			Negotiable
393856		28-NOV-18	PACIFIC SURVEYS, LLC		1,195.00			Negotiable
393857		28-NOV-18	PARKHOUSE TIRE INC		5,941.65			Negotiable
393858		28-NOV-18	PARKWAY LAWNMOWER SHOP		214.42			Negotiable
393859		28-NOV-18	PERKINELMER HEALTH SCIENCES INC		600.85			Negotiable
393860		28-NOV-18	PINNACLE TOWERS LLC		720.39			Negotiable
393861		28-NOV-18	PIVOT INTERIORS INC		480.00			Negotiable
393862		28-NOV-18	POWER, JOHN		62.69			Negotiable
393863		28-NOV-18	PRAXAIR DISTRIBUTION INC		1,821.29			Negotiable
393864		28-NOV-18	PRIME CONTROLS COMPANY INC		3,243.77			Negotiable
393865		28-NOV-18	PSOMAS		2,020.00			Negotiable
393866		28-NOV-18	PTI SAND & GRAVEL INC		2,967.92			Negotiable
393867		28-NOV-18	PULTE HOMES		143.46			Negotiable
393868		28-NOV-18	R&B AUTOMATION, INC.		2,000.00			Negotiable
393869		28-NOV-18	RAM AIR ENGINEERING INC		35,111.89			Negotiable
393870		28-NOV-18	RCE CONSULTANTS, INC.		8,162.40			Negotiable
393871		28-NOV-18	RED WING SHOE STORE		2,630.39			Negotiable
393872		28-NOV-18	RELEVANT SOLUTIONS		6,575.08			Negotiable
393873		28-NOV-18	RELIANCE SAFETY CONSULTANTS, INC.		5,700.00			Negotiable
393874		28-NOV-18	RIEDEL, JANE		33.46			Negotiable
393875		28-NOV-18	RINCON TRUCK CENTER INC.		1,146.72			Negotiable
393876		28-NOV-18	ROYAL INDUSTRIAL SOLUTIONS		442.17			Negotiable
393877		28-NOV-18	RS HUGHES COMPANY, INC.		3,409.22			Negotiable
393878		28-NOV-18	SAFETY CENTER INCORPORATED		1,400.00			Negotiable
393879		28-NOV-18	SANDERS PAVING INC		104,457.50			Negotiable
393880		28-NOV-18	SANTA ANA BLUE PRINT		1,015.46			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 34
 Payment Type: All Payment Currency: USD (US Dollar) Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393881		28-NOV-18	SANTA MARGARITA FORD		290.34			Negotiable
393882		28-NOV-18	SANTIAGO AQUEDUCT COMMISSION		600.00			Negotiable
393883		28-NOV-18	SANTIAGO, ITZHEL		33.57			Negotiable
393884		28-NOV-18	SCHWEITZER ENGINEERING LABORATORIES, INC.		7,747.23			Negotiable
393885		28-NOV-18	SEAL ANALYTICAL INC		1,996.57			Negotiable
393886		28-NOV-18	SENGCHAN, VILA		33.86			Negotiable
393887		28-NOV-18	SHAMROCK SUPPLY CO INC		1,085.07			Negotiable
393888		28-NOV-18	SHEA HOMES LP		136.15			Negotiable
393889		28-NOV-18	SHOETERIA		189.09			Negotiable
393890		28-NOV-18	SIRIUS COMPUTER SOLUTIONS INC		57,956.06			Negotiable
393891		28-NOV-18	SITMATIC		635.83			Negotiable
393892		28-NOV-18	SKORUZ		20,196.00			Negotiable

393893	28-NOV-18	TECHNOLOGIES INC SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		2,836.11		Negotiable
393894	28-NOV-18	SOUTH ORANGE COUNTY WASTEWATER AUTHORITY		53,688.00		Negotiable
393895	28-NOV-18	SOUTHERN CALIFORNIA EDISON COMPANY		296,477.38		Negotiable
393896	28-NOV-18	SOUTHERN CALIFORNIA EDISON COMPANY		43.68		Negotiable
393897	28-NOV-18	SOUTHERN CALIFORNIA GAS COMPANY		1,370.72		Negotiable
393898	28-NOV-18	SPARKLETT'S		141.54		Negotiable
393899	28-NOV-18	STANTEC CONSULTING SERVICES INC.		12,240.18		Negotiable
393900	28-NOV-18	STREAKWAVE WIRELESS, INC.		1,735.96		Negotiable
393901	28-NOV-18	SUNSHINE SUPPLY COMPANY, INC.		2,734.70		Negotiable
393902	28-NOV-18	SURTERRE PROPERTY MANAGEMENT		34.90		Negotiable
393903	28-NOV-18	T.E. ROBERTS, INC.		106,951.00		Negotiable
393904	28-NOV-18	TALLEY INC		2,973.92		Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 35
 Payment Type: All Payment Currency: USD (US Dollar) Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
393905		28-NOV-18	TEKDRAULICS		4,021.14			Negotiable
393906		28-NOV-18	TELEDYNE INSTRUMENTS, INC.		730.59			Negotiable
393907		28-NOV-18	TESTAMERICA LABORATORIES, INC		192.15			Negotiable
393908		28-NOV-18	THE FURMAN GROUP, INC.		12,540.00			Negotiable
393909		28-NOV-18	THERMO ELECTRON NORTH AMERICA LLC		1,119.91			Negotiable
393910		28-NOV-18	TOLL BROS., INC.		724.08			Negotiable
393911		28-NOV-18	TRAN, LYNDA		77.74			Negotiable
393912		28-NOV-18	TROPICAL PLAZA NURSERY INC		67,914.65			Negotiable
393913		28-NOV-18	TRUCPARCO		497.02			Negotiable
393914		28-NOV-18	TUTTLE-CLICK FORD LINCOLN		23,992.82			Negotiable
393915		28-NOV-18	UECHI, WILLIAM		21.74			Negotiable
393916		28-NOV-18	ULINE INC		86.06			Negotiable
393917		28-NOV-18	UNITED PARCEL SERVICE INC		82.21			Negotiable
393918		28-NOV-18	US BANK NAT'L ASSOCIATION NORTH DAKOTA		65,301.67			Negotiable
393919		28-NOV-18	V&A CONSULTING ENGINEERS		29,992.99			Negotiable
393920		28-NOV-18	VERIZON WIRELESS SERVICES LLC		1,778.97			Negotiable
393921		28-NOV-18	VIRTUAL GRAFFITI, INC.		20,076.27			Negotiable
393922		28-NOV-18	VULCAN MATERIALS COMPANY		1,439.18			Negotiable
393923		28-NOV-18	VWR INTERNATIONAL, LLC		4,273.19			Negotiable
393924		28-NOV-18	WACO FILTERS CORPORATION		3,276.81			Negotiable
393925		28-NOV-18	WALTERS WHOLESALE ELECTRIC		7,198.20			Negotiable
393926		28-NOV-18	WARE MALCOMB		5,517.75			Negotiable
393927		28-NOV-18	WARMINGTON RESIDENTIAL		45.70			Negotiable
393928		28-NOV-18	WATER RESEARCH FOUNDATION		25,000.00			Negotiable
393929		28-NOV-18	WAXIE'S ENTERPRISES, INC		1,676.02			Negotiable
393930		28-NOV-18	WECK LABORATORIES INC		2,364.00			Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 36
 Payment Type: All Payment Currency: USD (US Dollar) Display Supplier Address: No

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

393931	28-NOV-18	WESSEL, ROBERT		47.47	Negotiable
393932	28-NOV-18	WEST COAST SAFETY SUPPLY INC		13,323.36	Negotiable
393933	28-NOV-18	WILHELM, KRIS		50.54	Negotiable
393934	28-NOV-18	WILKINS, BARBARA		17.03	Negotiable
393935	28-NOV-18	WILSON, JEFF		145.35	Negotiable
393936	28-NOV-18	WOODRUFF, SPRADLIN & SMART APC		76.10	Negotiable
393937	28-NOV-18	YI, SIYING		93.44	Negotiable
393938	28-NOV-18	ZHOU, SUYUE		86.67	Negotiable
393939	28-NOV-18	ZOLMAJDI, MAJID		43.05	Negotiable
393940	28-NOV-18	SINFIELD, LILY	PAY	19.99	Voided
393941	28-NOV-18	WATERSMART SOFTWARE, INC	SAN FRANCISCO	13,597.50	Negotiable
393942	29-NOV-18	JCI JONES CHEMICALS INC	NEWARK	2,494.30	Negotiable

Payment Document Subtotal: 11,313,730.04 8,016,532.12

Payment Document : IRWD Wire

12848	09-NOV-18	YORK INSURANCE SERVICES GROUP INC - CA	PAY	4,596.11	Negotiable
12849	19-NOV-18	RODGERS, MELANIE	PAY	20.82	Negotiable
12850	19-NOV-18	VASHIST, DEEPAK	PAY	78.15	Negotiable
12851	19-NOV-18	WILLIAMS, TROY	PAY	39.67	Negotiable
12852	20-NOV-18	YORK INSURANCE SERVICES GROUP INC - CA	PAY	12,654.48	Negotiable
12853	20-NOV-18	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	42,595.11	Negotiable
12854	20-NOV-18	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN	1,646,563.09	Negotiable
12855	20-NOV-18	YORK INSURANCE SERVICES GROUP INC - CA	PAY	6,543.86	Negotiable
12856	20-NOV-18	CALPERS	SACRAMENTO 1	2,802.27	Negotiable
12857	20-NOV-18	CALPERS	SACRAMENTO 1	502,186.78	Negotiable
12858	20-NOV-18	FILANC-BALFOUR BEATTY JV	WEST COVINA	630,196.50	Negotiable

IRWD Ledger Upgrade

BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-NOV-18 To 30-NOV-18 Report Date: 03-DEC-2018 15:24
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 37
 Payment Type: All Payment Currency: USD (US Dollar) Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
12859		20-NOV-18	FILANC-BALFOUR BEATTY JV	ESR 211084000	7,610.27			Negotiable
12860		20-NOV-18	U.S. BANK NATIONALST. ASSOCIATION	LOUIS	8,718.12			Negotiable
12861		21-NOV-18	EMPLOYEE BENEFIT SPECIALISTS, INC.	PO BOX 11657	12,722.39			Negotiable
12862		21-NOV-18	EMPLOYEE BENEFIT SPECIALISTS, INC.	PO BOX 11657	12,653.16			Negotiable
12863		21-NOV-18	EMPLOYEE BENEFIT SPECIALISTS, INC.	PO BOX 11657	1,570.00			Negotiable
12864		21-NOV-18	EMPLOYEE BENEFIT SPECIALISTS, INC.	PO BOX 11657	26,615.54			Negotiable
12865		21-NOV-18	CALPERS	SACRAMENTO	191,397.05			Negotiable
12866		21-NOV-18	CALPERS	SACRAMENTO	1,064.56			Negotiable
12867		21-NOV-18	CALPERS	SACRAMENTO	192,830.34			Negotiable
12868		21-NOV-18	CALPERS	SACRAMENTO	1,276.26			Negotiable
12869		27-NOV-18	YORK INSURANCE SERVICES GROUP INC - CA	PAY	982.30			Negotiable
12870		28-NOV-18	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	13,422.22			Negotiable
12871		28-NOV-18	U.S. BANK NATIONALST. ASSOCIATION	LOUIS	30,629.07			Negotiable
12872		28-NOV-18	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	54,904.11			Negotiable
12873		28-NOV-18	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	105,687.45			Negotiable
12874		28-NOV-18	U.S. BANK NATIONALST. ASSOCIATION	LOUIS	58,397.89			Negotiable
12875		28-NOV-18	BANK OF AMERICA	SAN FRANCISCO	58,949.29			Negotiable
12876		28-NOV-18	INTERNAL REVENUE SERVICE	FRESNO	220,054.40			Negotiable
12877		28-NOV-18	FRANCHISE TAX BOARD	SACRAMENTO	69,409.70			Negotiable

12878	28-NOV-18	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	11,783.04	Negotiable
12879	28-NOV-18	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	1,729.50	Negotiable

IRWD Ledger Upgrade
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Register For 01-NOV-18 To 30-NOV-18
 Account: Checking AP and PR
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

Report Date: 03-DEC-2018 15:24
 Page: 38

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
12880		28-NOV-18	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	163,406.42			Negotiable
12881		29-NOV-18	INTERNAL REVENUE SERVICE	FRESNO	202,490.57			Negotiable
12882		29-NOV-18	FRANCHISE TAX BOARD	SACRAMENTO	62,664.59			Negotiable
12883		29-NOV-18	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	10,452.63			Negotiable
12884		29-NOV-18	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	1,729.50			Negotiable
12885		29-NOV-18	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	123,544.75			Negotiable
12886		29-NOV-18	CALPERS	SACRAMENTO	192,875.83			Negotiable
12887		29-NOV-18	BANK OF AMERICA MERRILL LYNCH	CHICAGO	19,656.65			Negotiable
12888		29-NOV-18	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	1,288.46			Negotiable

Payment Document Subtotal: 4,708,792.90

Bank Account Subtotal : 16,022,522.94 8,016,532.12

Report Count : 979 Report Total: 16,022,522.94 8,016,532.12

Disbursements

*** End of Report ***

\$ 16,022,522.94 Disbursements
~~<15,740.08>~~ Voids
 \$ 16,006,782.86 Total voids and disbursements


Exhibit "E"

IRWD Gov Code 53065.5 Disclosure Report

Payment or Reimbursements for Individual charges of \$100 or more per transaction for services or product received.

01-NOV-18 to 30-NOV-18

NAME	CHECK NO.	CHECK	AMOUNT	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Bennett, Ray	393681	28-Nov-18	170.04	Mileage	Monthly Rosedale-Rio Bravo DRP Project Tour/Inspection
Bornhoff, Mike	393437	15-Nov-18	290.00	Certification Renewal	CWEA Electrical/Instrumentation Grade IV
Borowski, Michael	393438	15-Nov-18	188.00	Membership Renewal	CWEA membership
Cho, Harry	393198	8-Nov-18	112.27	Mileage	Attended AWWA Annual Fall Conf., Rancho Mirage, CA - Oct. 23, 2018
Compton, Christine	393199	8-Nov-18	119.90	Mileage	Attended CSDA Annual Conf., Indian Wells, CA - Sept. 24-27, 2018
Cortez, Malcolm	393006	1-Nov-18	115.00	Membership Renewal	Principal Engineers License renewal
Cotton, Derrien	393440	15-Nov-18	146.26	Other(Misc)	Meeting supplies
Joseph, Brandon	393203	8-Nov-18	188.00	Membership Renewal	CWEA membership
Kanady, Jacob	393684	28-Nov-18	143.00	Membership Renewal	CWEA membership
Madrid, Adam	393444	15-Nov-18	175.19	Other(Misc)	Safety shoe reimbursement
Malloy, Steven	393205	8-Nov-18	115.00	Membership Renewal	Principal Engineers License renewal
Malloy, Steven	393686	28-Nov-18	105.00	Membership Renewal	2019 ASCE membership
Mares, Michael	393206	8-Nov-18	105.00	Certification Renewal	SWRCB Water Distribution Operator Grade D5
McElroy, Dorien	393009	1-Nov-18	110.00	Certification Renewal	SWRCB Waterwater Treatment Operator Grade II
McGehee, Joe	393445	15-Nov-18	353.16	Mileage	Zone 1 Reservoir Nevada Nursery, Mesquite, NV - Nov. 8, 2018
McKinstry, Brian	393687	28-Nov-18	224.40	Other(Misc)	Parts for NetApp and WiFi
Meserlian, Barkev	393446	15-Nov-18	454.37	Other(Misc)	Meeting supplies
Mossbarger, Tony	393208	8-Nov-18	162.51	Other(Misc)	Meeting supplies
Pan, Jenny	393689	28-Nov-18	123.18	Other(Misc)	Meeting supplies
Paulson, David	393209	8-Nov-18	105.00	Certification Renewal	SWRCB Water Distribution Operator Grade D5
Pizanie, Nicholas	393212	8-Nov-18	155.00	Certification Renewal	SWRCB Water Distribution Operator Grade D5
Pizanie, Nicholas	393212	8-Nov-18	100.00	Certification Renewal	SWRCB Water Treatment Operator Grade III
Rutherford, Allan	393213	8-Nov-18	188.00	Membership Renewal	CWEA membership
Saini, Mohit	393013	1-Nov-18	115.60	Other(Misc)	Meeting supplies
Saini, Mohit	393013	1-Nov-18	122.54	Other(Misc)	Meeting supplies
Seesangrit, Melody	393448	15-Nov-18	101.70	Lodging	Attended WaterSmart Innovations Conf., Las Vegas, NV - Oct. 4, 2018
Smithson, Christopher	393014	1-Nov-18	103.50	Other(Misc)	Meeting supplies
Swan, Peer	393215	8-Nov-18	409.12	Lodging	Attended CASA Conf., Monterey, CA - Aug. 7, 2018
Swan, Peer	393215	8-Nov-18	405.98	Mileage	Attended CASA Conf., Monterey, CA - Aug. 7-9, 2018
Swan, Peer	393215	8-Nov-18	298.40	Lodging	Attended CASA Conf., Monterey, CA - Aug. 8, 2018
Swan, Peer	393215	8-Nov-18	298.40	Lodging	Attended CASA Conf., Monterey, CA - Aug. 9, 2018
Swan, Peer	393215	8-Nov-18	231.02	Lodging	Attended Urban Water Institute Conf., San Diego, CA - Aug. 23, 2018
Swan, Peer	393215	8-Nov-18	563.96	Airfare	Attended ACWA Energy Committee meeting, Folsom, CA - Aug. 28, 2018
Torres, Richard	393216	8-Nov-18	188.00	Membership Renewal	CWEA membership
Tran, Jason	393691	28-Nov-18	135.00	Certification Renewal	ICML certification
Total Amount:			\$6,921.50		

December 10, 2018
Prepared by: A. Murphy/M. Cortez
Submitted by: K. Burton
Approved by: Paul A. Cook 

CONSENT CALENDAR

ELDERWOOD SEWER UPSIZING FINAL ACCEPTANCE

SUMMARY:

The Elderwood Sewer Upsizing project is complete. The contractor, GCI Construction, completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

This project upsized an existing eight-inch sewer segment to a 10-inch sewer to accommodate projected future flow rates and installed a cured-in-place-pipe liner in the sewer segment immediately downstream to mitigate circumferential cracking of the existing pipe.

Staff completed the design in May 2018. GCI Construction was awarded the construction contract on June 26, 2018, mobilized in September 2018 and completed construction of all improvements on November 8, 2018.

Project Title:	Elderwood Sewer Upsizing
Project No.:	10095
Design Engineer:	Psomas
Construction Management by:	IRWD Staff
Contractor:	GCI Construction
Original Contract Cost:	\$183,260.00
Final Contract Cost:	\$195,558.24
Original Contract Days:	90
Final Contract Days:	135
Final Change Order Approved On:	November 28, 2018

FISCAL IMPACTS:

Project 10095 is included in the FY 2018-19 Capital Budget. The existing budget is sufficient to fund the final payment for the project.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) and in conformance with California Code of Regulation, Title 14, Chapter 3, Section 15282 in that the installation of new pipeline or maintenance, repair restoration, removal, or demolition of an existing pipeline as set forth in Section 21080.21 of the Public Resources Code, as long as the project does not exceed one mile in length. A Notice of Exemption for the project was prepared and filed with the County of Orange on June 12, 2018.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE ELDERWOOD SEWER UPSIZING, PROJECT 10095; AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

None.

December 10, 2018

Prepared and

Submitted by: J. Roney

Approved by: Paul A. Cook



CONSENT CALENDAR

ADOPTION OF A REVISED DISTRICT SCHEDULE OF POSITIONS AND SALARY RATE RANGES

SUMMARY:

Staff recommends that the Board adopt a revised District Schedule of Positions and Salary Rate Ranges by resolution, effective December 10, 2018, as attached in Exhibit "A".

BACKGROUND:

Each year during the process of developing the Operating Budget, staff reviews the current budgeted positions to determine the necessary staffing levels necessary to accomplish the District's goals and strategic objectives and to deliver efficient, effective service to our customers. The justifications for staffing and organizational changes and the associated costs and cost savings have been incorporated in the FY 2018-19 Operating Budget, adopted by the Board on April 23, 2018.

Staff is recommending that a revised District Schedule of Positions and Salary Rate Ranges be adopted, with changes becoming effective as of December 10, 2018, to incorporate the following changes:

- Delete Regulatory Compliance Manager position (U18.E)
- Add Director of Water Quality and Regulatory Compliance position (U27.E)

While the changes to the positions and salary grades listed above are allowable under the General Manager's authority, CalPERS requires that each employment position and pay rate be identified in a publicly available pay schedule (CalPERS Regulations, 2 CCR 570.5).

FISCAL IMPACTS:

The fiscal impacts of this item were included in the FY 2018-19 Operating Budget adopted by the Board of Directors on April 23, 2018.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2018 - _____

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT RESCINDING
RESOLUTION NO. 2018-24 AND ADOPTING A REVISED
SCHEDULE OF POSITIONS AND SALARY RATE RANGES

LIST OF EXHIBITS:

Exhibit "A" – Resolution of the Board of Directors of the Irvine Ranch Water District adopting a revised Schedule of Positions and Salary Rate Ranges effective as of December 10, 2018.

EXHIBIT "A"

RESOLUTION NO. 2018 -

RESOLUTION OF THE BOARD OF DIRECTORS
OF IRVINE RANCH WATER DISTRICT,
RESCINDING RESOLUTION NO. 2018-24 AND
ADOPTING A REVISED SCHEDULE OF POSITIONS
AND SALARY RATE RANGES

The Board of Directors of Irvine Ranch Water District, by adoption of Resolution No. 2018-24 on August 13, 2018, established a Schedule of Positions and Salary Rate Ranges of the Irvine Ranch Water District; and

The Board of Directors of Irvine Ranch Water District has reviewed the Schedule of Positions and Salary Rate Ranges and desires to make revisions thereto.

The Board of Directors of Irvine Ranch Water District therefore resolves as follows:

Section 1. That the Schedule of Positions and Salary Rate Ranges adopted by Resolution No. 2018-24 on August 13, 2018 is hereby rescinded, effective December 10, 2018.

Section 2. That the Schedule of Positions and Salary Rate Ranges for the Irvine Ranch Water District as set forth in Schedule I to this Resolution, be and hereby is approved and adopted.

ADOPTED, SIGNED and APPROVED on December 10, 2018.

President, IRVINE RANCH WATER DISTRICT

Secretary, IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:
Lewis Brisbois Bisgaard & Smith LLP

By: _____
District Counsel

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE

Managers, Exempt Supervisors, Confidential & Exempt Employees

Effective December 10, 2018

NON-EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U 1.N	2,937	3,642	3,823
Salary Grade U 2.N	3,001	3,742	3,929
Salary Grade U 3.N	3,064	3,844	4,037
Salary Grade U 4.N	3,120	3,956	4,154
Salary Grade U 5.N	3,192	4,066	4,269
Salary Grade U 6.N	3,254	4,184	4,393
Salary Grade U 7.N	3,319	4,300	4,516
Salary Grade U 8.N	3,391	4,423	4,644
Salary Grade U 9.N	3,456	4,545	4,774
Salary Grade U 10.N	3,528	4,670	4,902
Salary Grade U 11.N	3,596	4,789	5,026
Salary Grade U 12.N	3,667	4,929	5,177
Salary Grade U 13.N	3,736	5,070	5,326
Salary Grade U 14.N	3,820	5,214	5,475
Salary Grade U 15.N	3,902	5,352	5,620
Salary Grade U 16.N	3,994	5,502	5,776
Salary Grade U 17.N	4,079	5,640	5,922
Salary Grade U 18.N	4,168	5,791	6,082
Salary Grade U 19.N	4,263	5,937	6,236

NON-EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Safety Assistant			
Salary Grade U 20.N	4,377	6,130	6,437
Salary Grade U 21.N	4,501	6,315	6,633
Salary Grade U 22.N	4,625	6,514	6,840
Executive Secretary Human Resources Assistant			
Salary Grade U 23.N	4,747	6,711	7,045
Salary Grade U 24.N	4,882	6,920	7,266
Salary Grade U 25.N	5,010	7,132	7,491
Human Resources Technician			
Salary Grade U 26.N	5,166	7,346	7,713
Executive Assistant			
Salary Grade U 27.N	5,314	7,561	7,939
Salary Grade U 28.N	5,469	7,785	8,176
Salary Grade U 29.N	5,632	8,012	8,413
Administrative Assistant Safety Specialist			
Salary Grade U 30.N	5,803	8,249	8,662
Salary Grade U 31.N	5,975	8,498	8,922
Human Resources Analyst			
Salary Grade U 32.N	6,146	8,748	9,186
User Support Administrator Network Administrator			
Salary Grade U 33.N	6,325	9,003	9,454
Salary Grade U 34.N	6,514	9,252	9,716
Salary Grade U 35.N	6,710	9,530	10,007

EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U 1.E	4,723	6,068	6,371
Salary Grade U 2.E	4,881	6,303	6,619
Salary Grade U 3.E	5,037	6,538	6,867
Salary Grade U 4.E	5,194	6,790	7,128
Salary Grade U 5.E	5,352	7,041	7,394
Salary Grade U 6.E	5,537	7,314	7,680
Salary Grade U 7.E	5,714	7,585	7,962
Salary Grade U 8.E	5,900	7,881	8,275
Salary Grade U 9.E	6,080	8,170	8,577
Salary Grade U 10.E	6,283	8,479	8,903
Asset Systems Analyst Assistant Engineer Customer Service Supervisor Development Services Supervisor Management Analyst Public Affairs Analyst Regulatory Compliance Analyst Senior Public Affairs Specialist			
Salary Grade U 11.E	6,484	8,792	9,233
Financial Analyst Purchasing Supervisor Senior Accountant Water Efficiency Supervisor			
Salary Grade U 12.E	6,694	9,131	9,585
Energy Analyst Source Control Program Administrator Treasury Analyst			
Salary Grade U 13.E	6,911	9,462	9,933
Accounting Supervisor GIS Supervisor Legislative Analyst Right of Way Agent Senior Human Resources Analyst Water Resources Planner			

EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U 14.E Associate Engineer District Secretary QA/QC Compliance Administrator	7,135	9,826	10,317
Salary Grade U 15.E Applications Analyst Automation Programmer Laboratory Supervisor Senior Network Administrator	7,362	10,194	10,702
Salary Grade U 16.E	7,608	10,579	11,109
Salary Grade U 17.E Asset Systems Manager Automation Manager Collection Systems Manager Construction Inspection Manager Construction Services Manager Customer Service Manager Electrical and Instrumentation Manager Engineer Facilities/Fleet Manager Field Services Manager Natural Resources Manager Purchasing Manager Safety Manager Water Efficiency Manager	7,850	10,968	11,515
Salary Grade U 18.E Manager of Risk & Contracts Administration Public Affairs Manager Regulatory Compliance Manager Senior Applications Analyst Senior Applications Developer Senior Database Administrator Treasury Manager User Support Manager Water Quality Manager	8,105	11,386	11,954

<u>EXEMPT</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>	<u>EXCEPTIONAL PERFORMANCE TOP OF RANGE</u>
Salary Grade U 19.E Operations Manager Mechanical Services Manager Recycled Water Development Manager Water Resources Manager	8,362	11,806	12,398
Salary Grade U 20.E Controller Manager of Strategic Planning and Analysis Network and Cybersecurity Manager Senior Engineer	8,622	12,244	12,856
Salary Grade U 21.E	8,885	12,686	13,321
Salary Grade U 22.E Applications Manager	9,170	13,158	13,817
Salary Grade U 23.E Government Relations Officer Principal Engineer	9,461	13,634	14,317
Salary Grade U 24.E	9,717	14,184	14,891
Salary Grade U 25.E	10,017	14,720	15,455
Salary Grade U 26.E	10,474	15,499	16,273
Salary Grade U 27.E Director of Administrative Services Director of Human Resources Director of Maintenance Director of Public Affairs Director of Recycling Operations Director of Water Operations Director of Water Quality & Regulatory Compliance Director of Water Resources Treasurer/Director of Risk Management	10,954	16,320	17,135
Salary Grade U 28.E	11,457	17,179	18,038
Salary Grade U 29.E	11,980	18,088	18,992
Salary Grade U 30.E	12,533	19,049	20,000

<u>EXEMPT</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>	<u>EXCEPTIONAL PERFORMANCE TOP OF RANGE</u>
Executive Director of Finance Executive Director of Engineering & Water Quality Executive Director of Operations Executive Director of Water Policy			
Salary Grade U 31.E	13,157	20,129	21,135
Salary Grade U 32.E	13,816	21,275	22,339
Salary Grade U 33.E	14,503	22,483	23,607
Salary Grade U 34.E General Manager	15,231	23,759	26,281

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
General Employees Unit
Effective December 10, 2018

NON-EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 1.N	\$2,818	\$3,495	\$3,669
Salary Grade 2.N	\$2,879	\$3,590	\$3,770
Salary Grade 3.N	\$2,941	\$3,689	\$3,874
Salary Grade 4.N	\$2,994	\$3,796	\$3,986
Salary Grade 5.N	\$3,062	\$3,902	\$4,097
Salary Grade 6.N	\$3,123	\$4,015	\$4,215
Office Assistant Mail Coordinator			
Salary Grade 7.N	\$3,184	\$4,126	\$4,333
Salary Grade 8.N	\$3,255	\$4,245	\$4,457
Salary Grade 9.N	\$3,318	\$4,362	\$4,580
Salary Grade 10.N	\$3,385	\$4,480	\$4,703
Salary Grade 11.N	\$3,451	\$4,596	\$4,824
Maintenance Apprentice Material Control Clerk I Utility Worker			
Salary Grade 12.N	\$3,519	\$4,730	\$4,968
Salary Grade 13.N	\$3,585	\$4,866	\$5,109
Customer Service Specialist I Support Specialist			
Salary Grade 14.N	\$3,665	\$5,002	\$5,253
Salary Grade 15.N	\$3,744	\$5,137	\$5,394
Collection Systems Technician I Office Specialist			

NON-EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Accounting Clerk Customer Service Field Technician Laboratory Analyst Metering Systems Technician I Water Efficiency Field Technician Water Maintenance Technician I			
Salary Grade 17.N	\$3,914	\$5,411	\$5,681
Customer Service Specialist II			
Salary Grade 18.N	\$3,999	\$5,558	\$5,835
Material Control Clerk II Senior Support Specialist			
Salary Grade 19.N	\$4,091	\$5,698	\$5,984
Development Services Specialist Purchasing Coordinator Senior Office Specialist			
Salary Grade 20.N	\$4,200	\$5,881	\$6,176
Collection Systems Technician II Engineering Technician I GIS Technician I Operator I Senior Accounting Clerk			
Salary Grade 21.N	\$4,319	\$6,059	\$6,364
Collection Systems CCTV Technician Customer Service Specialist III Senior Customer Service Field Technician Senior Water Efficiency Field Technician			
Salary Grade 22.N	\$4,438	\$6,250	\$6,564
Facilities Services Technician Maintenance Mechanic Metering Systems Technician II Recycled Water Specialist Senior Purchasing Coordinator Vehicle/Equipment Mechanic Water Maintenance Technician II			

NON-EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 23.N	\$4,555	\$6,439	\$6,761
Salary Grade 24.N	\$4,684	\$6,641	\$6,973
Buyer Cross Connection Specialist Public Affairs Assistant Water Efficiency Specialist Water Resources Specialist Wetlands Specialist			
Salary Grade 25.N	\$4,807	\$6,845	\$7,188
Engineering Technician II GIS Technician II Senior Collection Systems CCTV Technician Senior Collection Systems Technician			
Salary Grade 26.N	\$4,955	\$7,049	\$7,400
Metering Systems Technician III Water Maintenance Technician III			
Salary Grade 27.N	\$5,099	\$7,255	\$7,618
Accountant Senior Vehicle/Equipment Maintenance Mechanic Senior Facilities Services Technician Operator II Senior Maintenance Mechanic Senior Recycled Water Specialist			
Salary Grade 28.N	\$5,249	\$7,472	\$7,846
Construction Inspector Automation Technician Landscape Contracts Administrator Electrical Technician Instrumentation Technician Scientist			

NON-EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 29.N Senior Buyer Engineering Technician III GIS Technician III Senior Wetlands Specialist Operator III Lead Maintenance Mechanic Recycled Water Project Specialist Senior Water Efficiency Specialist Public Affairs Specialist	\$5,405	\$7,689	\$8,072
Salary Grade 30.N Risk Analyst Senior Electrical Technician Senior Instrumentation Technician Environmental Compliance Specialist Graphic Design Specialist	\$5,568	\$7,915	\$8,313
Salary Grade 31.N Information Services Coordinator Senior Construction Inspector Water Efficiency Analyst Payroll Administrator	\$5,732	\$8,155	\$8,561
Salary Grade 32.N Wetlands Scientist Automation Specialist Process Specialist Senior Scientist Asset Maintenance Coordinator	\$5,898	\$8,395	\$8,815
Salary Grade 33.N Operations Coordinator	\$6,070	\$8,639	\$9,071
Salary Grade 34.N Electrical/Instrumentation Designer	\$6,250	\$8,878	\$9,323
Salary Grade 35.N	\$6,438	\$9,144	\$9,602

IRVINE RANCH WATER DISTRICT
MONTHLY SALARY GRADE SCHEDULE
Non-Exempt Supervisors Unit
Effective December 10, 2018

NON-EXEMPT	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade S 26.N	4,967	7,063	7,416
Salary Grade S 27.N	5,110	7,270	7,634
Salary Grade S 28.N	5,259	7,486	7,862
Salary Grade S 29.N	5,415	7,704	8,089
Salary Grade S 30.N	5,580	7,932	8,329
Salary Grade S 31.N Cross Connection Supervisor Facilities Services Supervisor Fleet Supervisor	5,745	8,171	8,579
Salary Grade S 32.N Collection Systems Supervisor Mechanical Services Supervisor	5,910	8,412	8,833
Salary Grade S 33.N Water Maintenance Supervisor	6,082	8,657	9,090
Salary Grade S 34.N Construction Inspection Supervisor Automation Supervisor Electrical Supervisor Instrumentation Supervisor	6,263	8,896	9,342
Salary Grade S 35.N Operations Supervisor	6,452	9,163	9,622

December 10, 2018

Prepared by: M. Tetterer

Submitted by: P. Weghorst

Approved by: Paul A. Cook



CONSENT CALENDAR

ADOPTION OF THE 2018 SOUTH ORANGE COUNTY INTEGRATED REGIONAL WATER MANAGEMENT PLAN

SUMMARY:

In 2010, Irvine Ranch Water District became a member of the Executive Committee for the South Orange County Watershed Management Area (SOCWMA) and adopted the 2005 South Orange County Integrated Regional Water Management Plan (IRWMP). The IRWD Board passed a resolution in 2013 adopting an update to the IRWMP that complied with Proposition 84 guidelines. In 2018, the County of Orange, with input from the SOCWMA Executive Committee member agencies and stakeholders, updated the IRWMP to comply with Proposition 1 guidelines. As a result of this update, the County of Orange is asking each member agency to adopt the updated IRWMP. Staff recommends that the Board adopt a resolution adopting the 2018 update to the IRWMP for the South Orange County Watershed Management Area.

BACKGROUND:

In June 2005, the IRWMP for the SOCWMA was adopted, accepted and/or supported by the City Councils and Boards of all agencies participating in the process. In 2010, the County of Orange led an effort to create a cooperative entity similar to the Newport Bay Watershed Executive Committee. This south Orange County cooperative, called the SOCWMA Executive Committee, now has 22 public member agencies including the County of Orange, 11 cities and 10 water agencies. IRWD joined this new group in 2010, and adopted the 2005 version of the IRWMP.

California voters passed Proposition 84, the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act in November 2006, which required that Integrated Regional Water Management Plans be updated to comply with new guidelines to be eligible for Proposition 84 grant funding. The IRWMP was updated in 2013 to comply with Proposition 84 Plan Standards issued by the California Department of Water Resources (DWR). The 2013 IRWMP was adopted July 18, 2013, by unanimous vote of the SOCWMA Executive Committee. IRWD adopted the updated IRWMP on August 26, 2013. Under the 2013 IRWMP, IRWD received a \$500,000 grant from Proposition 84 to help fund the Baker Water Treatment Plant.

Proposition 1 passed in November 2014 and is known as the Water Quality, Supply and Infrastructure Improvement Act of 2014 and similarly requires that IRWMPs be updated to be eligible for Proposition 1 grant funding. Over the past year, numerous meetings and workshops were held which focused on updating the plan to make it more current and to meet DWR standards. These updates included describing a new data management system, adding a Stormwater Resource Plan, updating the Climate Change analysis to meet new standards, describing the water needs assessment process and providing technical revisions to the Salt and Nutrient Management Plan.

At its May 3, 2018 meeting, the SOCWMA Executive Committee voted to adopt the 2018 IRWMP after a member agency and stakeholder update process, which included several meetings and

workshops. In accordance with Proposition 1 Guidelines and Plan Standards, agencies that will receive grant funding must also adopt the 2018 IRWM Plan. Following approval and adoption of the 2018 IRWM Plan, County staff will work with member agencies and stakeholders to develop a slate of projects for submittal to DWR for Proposition 1 IRWM grant funding. The County, on behalf of the SOCWMA, recently released a call for projects.

Staff recommends the Board adopt a resolution adopting the 2018 South Orange County Integrated Regional Water Management Plan. The draft resolution is attached as Exhibit "A". Exhibit "B" is the Introduction of the 2018 South Orange County Integrated Regional Water Management Plan.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed at the December 4, 2018, Water Resources Policy and Communications Committee Meeting.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

Resolution No. 2018 -

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT
ADOPTING THE 2018 SOUTH ORANGE COUNTY
INTEGRATED REGIONAL WATER MANAGEMENT PLAN

LIST OF EXHIBITS:

- Exhibit "A" – Resolution Adopting the 2018 South Orange County Integrated Regional Water Management Plan
- Exhibit "B" – Introduction to the 2018 South Orange County Integrated Regional Water Management Plan

EXHIBIT "A"

RESOLUTION NO. 2018 -

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE
IRVINE RANCH WATER DISTRICT
ADOPTING THE 2018 SOUTH ORANGE COUNTY
INTEGRATED REGIONAL WATER MANAGEMENT PLAN**

Regional planning serves an important function in watersheds throughout California as regional stakeholders work to solve watershed challenges in a collaborative fashion.

In 2004, the County of Orange, cities, and water agencies formed a regional watershed management group that would later be known as the South Orange County Watershed Management Area (SOCWMA) Executive Committee, which in 2005 prepared an Integrated Regional Water Management Plan (IRWMP).

In 2010, Irvine Ranch Water District became a member of the SOCWMA Executive Committee and adopted the 2005 IRWMP.

In 2013, the SOCWMA Executive Committee adopted an updated IRWMP, which was revised to comply with Proposition 84 guidelines. Irvine Ranch Water District thereafter adopted the 2013 IRWMP.

In 2018, the SOCWMA Executive Committee adopted an updated IRWMP, which was revised to comply with Proposition 1 guidelines. These updates included describing a new data management system, adding a Stormwater Resource Plan, updating the Climate Change analysis to meet new standards, describing the water needs assessment process, and providing technical revisions to the Salt and Nutrient Management Plan. Each member agency must adopt the updated IRWMP in order for that agency to be eligible for IRWM Proposition 1 grant funding.

Irvine Ranch Water District supports the SOCWMA Executive Committee and the continual improvement of the IRWMP for the benefit of South Orange County Watershed Management Planning Area.

The Board of Directors of the Irvine Ranch Water District therefore resolves as follows:

The Irvine Ranch Water District hereby adopts the 2018 South Orange County Integrated Regional Water Management Plan as the integrated watershed plan for the area referred to by the County of Orange as the South Orange County Watershed Management Area.

ADOPTED, SIGNED and APPROVED December 10, 2018.

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

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

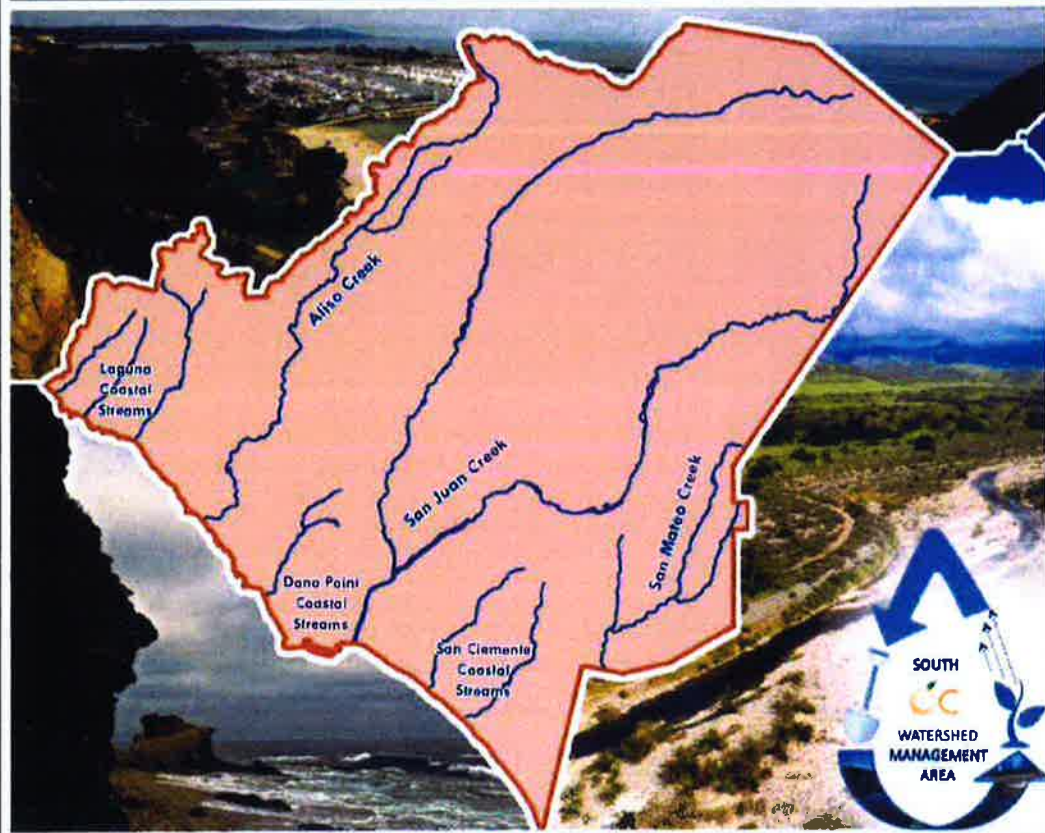
APPROVED AS TO FORM:
Lewis Brisbois Bisgaard & Smith, LLP

By _____
District Counsel

Exhibit "B"

INTEGRATED REGIONAL WATER MANAGEMENT PLAN

FOR SOUTH ORANGE COUNTY



Cover art courtesy of Orange County Water District

South Orange County Integrated Regional Watershed Management Plan Contacts

County of Orange



Orange County Watersheds
Orange County Department of Public Works
2301 N. Glassell Street
Orange, California 92865
<http://www.ocwatersheds.com>
Jenna Voss jenna.voss@ocpw.ocgov.com
Grant Sharp grant.sharp@ocpw.ocgov.com

IRWM Group Agencies and Contacts:



City of Aliso Viejo
12 Journey, Suite 100
Aliso Viejo, California 92656
(949) 425-2500
<http://www.cityofalisoviejo.com/>
Moya Yahya myahya@cityofalisoviejo.com
Shaun Pelletier spelletier@cityofalisoviejo.com



City of Dana Point
33282 Golden Lantern
Dana Point, California 92629
(949) 248-3500
<http://www.danapoint.org>
Lisa Zawaski lzawaski@danapoint.org
Matt Sinacori, msinacori@danapoint.org



City of Laguna Beach
505 Forest Avenue
Laguna Beach, California 92651
(949) 497-0328
<http://www.lagunabeachcity.net>
David Shissler dshissler@lagunabeachcity.net
Mary Vondrak mvondrak@lagunabeachcity.net



City of Laguna Hills
24035 El Toro Road
Laguna Hills, California 92653
(949) 707-2600
<http://www.ci.laguna-hills.ca.us>
Ken Rosenfield krosenfield@lagunahillsca.gov
Amber Shah ashah@lagunahillsca.gov
City of Laguna Niguel



30111 Crown Valley Parkway
Laguna Niguel, California 92677
(949) 362-4300
<http://www.cityoflagunaniguel.org/>
Hal Ghafari HGHafari@cityoflagunaniguel.org



City of Laguna Woods
24264 El Toro Road
Laguna Woods, California 92637
(949) 639-0500
<http://www.cityoflagunawoods.org>
Chris Macon cmacon@cityoflagunawood.org
Moya Yahya myahya@cityofalisoviejo.com



City of Lake Forest
25550 Commercentre Drive
Lake Forest, California 92630
(949) 461-3400
<http://www.lakeforestca.gov>
Devin Slaven dslaven@lakeforestca.gov
Thomas Wheeler twheeler@lakeforestca.gov



City of Mission Viejo
200 Civic Center
Mission Viejo, California 92691
(949) 470-3000
<http://cityofmissionviejo.org>
Joe Ames james@cityofmissionviejo.org
Rich Schlesinger rschlesinger@cityofmissionviejo.org



City of Rancho Santa Margarita
22112 El Paseo
Rancho Santa Margarita, California 92688
(949) 635-1800
<http://www.cityofrsm.org>
E. Maximous emaximous@cityofrsm.org
Hazel McIntosh hmcintosh@cityofrsm.org



City of San Clemente
100 Avenida Presidio
San Clemente, California 92672
(949) 361-8200
<http://san-clemente.org/home>
David Rebensdorf rebensdorf@san-clemente.org
Cynthia Mallett MallettC@san-clemente.org



City of San Juan Capistrano
32400 Paseo Adelanto
San Juan Capistrano, California 92675
(949) 493-1171
<http://www.sanjuancapistrano.org>
Hossein Ajideh HAjideh@sanjuancapistrano.org



El Toro Water District
24251 Los Alisos Boulevard
Lake Forest, California 92630
(949) 837-0660
<http://www.etwd.com>
Bob Hill bhill@etwd.com
Dennis Cafferty dcafferty@etwd.com



Irvine Ranch
WATER DISTRICT

Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618
(949) 453-5300
<http://www.irwd.com>
Paul Cook cook@irwd.com
Mark Tettemer tettemer@irwd.com



Laguna Beach County Water District
306 3rd Street
Laguna Beach, CA 92651
(949) 494-1041
David Youngblood dyoungblood@lbcwd.org
Renaë Hinchey rhinchey@lbcwd.org



moulton niguel water district

Moulton Niguel Water District
27500 La Paz Road
Laguna Niguel, California 92677
(949) 831-2500
<http://www.mnwd.com>
Rodney Woods RWoods@mnwd.com
Matt Collings mcollings@mnwd.com



Municipal Water District of Orange County

P.O. Box 20895
Fountain Valley, California 92728
(714) 963-3058

<http://www.mwdoc.com>

Karl Seckel kseckel@mwdoc.com

Charles Busslinger cbusslinger@mwdoc.com

Joe Berg jberg@mwdoc.com



Santa Margarita
Water District

Santa Margarita Water District

26111 Antonio Parkway
Las Flores, California 92688
(949) 459-6400

<http://www.smwd.com>

Daniel Ferons danf@smwd.com

Don Bunts donb@smwd.com



South Coast Water District

31592 West Street
Laguna Beach, California 92651
(949) 499-4555

<http://www.scwd.org>

Andrew Brunhart abrunhart@scwd.org

Rick Shintaku rshintaku@scwd.org



South Orange County Wastewater Authority

34156 Del Obispo Street
Dana Point, California 92629
(949) 324-5421

<http://www.socwa.com>

Betty Burnett bburnett@socwa.com

Amber Baylor abaylor@socwa.com



Trabuco Canyon Water District

32003 Dove Canyon Drive.
Trabuco Canyon, California 92679
(949) 858-0277

<http://www.tcwd.ca.gov/>

Hector Ruiz, P.E. hruiz@tcwd.ca.gov

TABLE OF CONTENTS

LIST OF ACRONYMS 1

1 INTRODUCTION 1-1

2 GOVERNANCE 2-1

 2.1 SOUTH ORANGE COUNTY IRWM GROUP 2-1

 2.1.1 *Governance Model for the County of Orange* 2-1

 2.1.2 *Formation of South Orange County WMA* 2-2

 2.1.3 *South Orange County IRWM Plan Adoption Status* 2-3

 2.2 SOUTH ORANGE COUNTY WMA STRUCTURE AND PROCESS 2-5

 2.2.1 *Executive Committee* 2-5

 2.2.2 *Management Committee* 2-6

 2.2.3 *Other Standing Committees or AdHoc Committees* 2-8

 2.2.4 *Overall Committee Structure and Support* 2-8

 2.3 REGIONAL WATER MANAGEMENT RESPONSIBILITIES 2-8

 2.3.1 *Jurisdictional IRWM Group Participants (City and County)* 2-8

 2.3.2 *Special Districts and Agency Participants in IRWM Group* 2-11

 2.3.3 *Other Participants in the South Orange County IRWM Activities* 2-14

 2.4 STATUTORY AUTHORITY AND PLAN RELATIONSHIP 2-16

 2.5 PUBLIC OUTREACH AND INVOLVEMENT PROCESS 2-21

 2.5.1 *Summary of Outreach and Communication* 2-21

 2.5.2 *Letters of Support from Non-Agency Stakeholders* 2-22

 2.6 WORKING RELATIONSHIP OF SOUTH ORANGE COUNTY IRWM GROUP 2-23

 2.6.1 *Regional Participation and Project Coordination* 2-23

 2.6.2 *IRWM Plan Updates and Sharing of Information* 2-27

 2.6.3 *Native American Tribes Coordination* 2-31

 2.7 ADDING NEW MEMBERS 2-32

 2.8 WORKING RELATIONSHIP OF TRI-COUNTY FACC 2-32

 2.8.1 *Coordination within San Diego Funding Area* 2-32

 2.8.2 *Evolution of Inter-Regional Planning* 2-36

 2.8.3 *Committed Inter-Regional Process* 2-37

2.8.4	<i>Memorandum of Understanding</i>	2-39
2.8.5	<i>Water Management Differences</i>	2-39
2.8.6	<i>Relationship and Coordination with Watershed Management Areas</i>	2-41
2.8.7	<i>Overlapping and Void Areas</i>	2-44
2.9	TRI-COUNTY FACC STRUCTURE AND GOVERNANCE	2-44
2.9.1	<i>History and Background</i>	2-44
2.9.2	<i>Summary of the Governance MOU</i>	2-44
2.9.3	<i>Future Efforts and Cooperation</i>	2-45
3	REGIONAL DESCRIPTION	3-1
3.1	SOUTH ORANGE COUNTY IRWM AREA	3-1
3.2	CITIES AND SPECIAL DISTRICTS	3-7
3.3	WATER RELATED COMPONENTS OF WMA	3-4
3.3.1	<i>Watersheds and Biological Significant Units</i>	3-4
3.3.1.1	Aliso Creek Watershed	3-5
3.3.1.2	Dana Point Coastal Streams Watershed	3-7
3.3.1.3	Laguna Coastal Streams Watershed.....	3-9
3.3.1.4	San Juan Creek Watershed.....	3-11
3.3.1.5	San Clemente Coastal Streams Watershed	3-16
3.3.1.6	San Mateo Creek Watershed	3-17
3.3.1.7	Open Space	3-18
3.3.1.8	Parks, Forests, Refuges and ASBS	3-22
3.3.2	<i>Groundwater Basins</i>	3-23
3.3.2.1	San Juan Valley Groundwater Basin	3-23
3.3.2.2	San Mateo Groundwater Basin	3-27
3.3.3	<i>Surface Water Impoundments</i>	3-27
3.3.4	<i>Water Quality</i>	3-29
3.3.4.1	Ocean Desalination Quality.....	3-32
3.3.4.2	Groundwater Desalter Water Quality	3-33
3.3.4.3	Impaired Water Bodies	3-33
3.3.4.4	South County Coastal Areas Beaches and Creeks	3-48
3.3.5	<i>Imported and Local Supply</i>	3-50

3.3.5.1	Imported Water Supply	3-51
3.3.5.2	Local Water Supply	3-54
3.3.5.3	Ocean Desalination Supply	3-55
3.3.5.4	Groundwater Desalter Water Supply	3-57
3.3.6	<i>Water Supply Infrastructure</i>	3-57
3.3.7	<i>Wastewater and Recycled Water Systems</i>	3-61
3.3.8	<i>Flood Control Infrastructure</i>	3-66
3.3.9	<i>Recharge Facilities</i>	3-69
3.4	POLITICAL/JURISDICTIONAL BOUNDARIES	3-69
3.5	REGIONAL DEMOGRAPHICS	3-71
3.6	DISADVANTAGED COMMUNITIES AND ECONOMICALLY DISTRESSED AREAS.....	3-77
3.7	WATER MANAGEMENT ISSUES.....	3-80
3.7.1	<i>History of South Orange County IRWM Efforts</i>	3-80
3.7.2	<i>Regional Water Management</i>	3-81
3.7.2.1	Water Supply	3-81
3.7.2.2	Water System Reliability	3-83
3.7.2.3	Water Conservation	3-85
3.7.2.4	Recycled Water	3-87
3.7.2.5	Recycled Water Quality.....	3-90
3.7.2.6	Groundwater Management	3-91
3.7.2.7	Water Quality Management	3-92
3.7.2.8	Flood Management: Orange County Flood Control District.....	3-96
3.7.2.9	Wastewater System: South Orange County Wastewater Authority	3-98
3.7.3	<i>Competing Interests of IRWM Group</i>	3-98
3.8	POTENTIAL CLIMATE CHANGE IMPACTS TO WMA	3-100
3.8.1	<i>Sea Level Rise</i>	3-100
3.8.2	<i>Changing Mountain Snowpack Runoff</i>	3-101
3.8.3	<i>Changes in Precipitation and Temperature</i>	3-101
3.8.4	<i>Changes in Drought Persistence</i>	3-101
3.8.5	<i>High Stream and Reservoir Temperatures</i>	3-102
3.8.6	<i>Increased Water Demands</i>	3-102

3.8.7	<i>Increased Flood Flows and Flood Frequencies</i>	3-102
3.8.8	<i>Tree Damage and Increased Wildfire and Erosion Risk</i>	3-102
3.8.9	<i>Summary of Climate Change Impacts</i>	3-103
4	OBJECTIVES	4-1
4.1	REGIONAL VISION	4-1
4.1.1	<i>Statewide Priorities</i>	4-2
4.1.2	<i>Regional Goals</i>	4-6
4.2	DEVELOPMENT OF WMA OBJECTIVES	4-7
4.2.1	<i>Regional Issues/Challenges</i>	4-7
4.2.2	<i>Tri-County FACC Issues/Conflicts</i>	4-8
4.2.3	<i>Basin Plan Objectives & WMA Water Quality Concerns</i>	4-8
4.2.4	<i>Water Efficiency Goals</i>	4-8
4.2.5	<i>Water Priorities for the WMA</i>	4-10
4.3	WMA OBJECTIVES	4-10
4.3.1	<i>Integrate Flood Management Objectives and Strategies</i>	4-11
4.3.2	<i>Objectives and Strategies to Improve Water Quality</i>	4-12
4.3.3	<i>Increase Water Supply, Reliability, and Efficiency Objectives and Strategies</i>	4-14
4.3.4	<i>Protect Natural Resources Objectives and Strategies</i>	4-20
4.3.5	<i>Objectives and Multiple Priorities</i>	4-22
4.4	OBJECTIVE WEIGHTING	4-23
5	RESOURCE MANAGEMENT STRATEGIES	5-1
5.1	PROCESS TO CONSIDER RESOURCE MANAGEMENT STRATEGIES	5-1
5.2	RESOURCE MANAGEMENT STRATEGIES APPLICABILITY TO REGION	5-1
5.3	RESOURCE MANAGEMENT STRATEGIES (RMS) NOT APPLICABLE TO REGION	5-8
5.4	REGIONAL STRATEGIES	5-9
5.4.1	<i>Integrate Flood Management Strategies</i>	5-9
5.4.2	<i>Improve Water Quality Strategies</i>	5-10
5.4.3	<i>Increase Water Supply, Reliability, and Efficiency Strategies</i>	5-11
5.4.4	<i>Protect Natural Resources Strategies</i>	5-14
5.5	REGIONAL AND INTER-REGIONAL BENEFITS	5-15

5.6	DAC / ENVIRONMENTAL JUSTICE BENEFITS	5-16
5.7	ENVIRONMENTAL IMPACTS / BENEFITS TO OTHER RESOURCES	5-19
6	PROJECTS	6-1
6.1	PROJECT REVIEW PROCESS	6-1
6.1.1	<i>Project Solicitation</i>	6-2
6.1.2	<i>Evaluation and Prioritization</i>	6-5
6.1.3	<i>Contribution to Statewide Priorities</i>	6-6
6.1.4	<i>Project Integration of Regional Strategies</i>	6-6
6.2	IMPACTS AND BENEFITS	6-7
6.2.1	<i>Impacts on WMA Watersheds</i>	6-12
6.2.1.1	<i>Aliso Creek Watershed</i>	6-12
6.2.1.2	<i>Dana Point Coastal Streams Watershed</i>	6-14
6.2.1.3	<i>Laguna Coastal Streams Watershed</i>	6-15
6.2.1.4	<i>San Juan Creek Watershed</i>	6-16
6.2.1.5	<i>San Clemente Coastal Streams Watershed</i>	6-18
6.2.1.6	<i>San Mateo Creek Watershed</i>	6-19
6.2.2	<i>Inter-regional Impacts</i>	6-20
6.2.3	<i>DAC, Environmental Justice, Tribal Communities</i>	6-20
6.3	COMPLETED/FUNDED PROJECTS.....	6-23
6.4	PLAN PERFORMANCE AND MONITORING.....	6-24
7	DATA MANAGEMENT	7-26
7.1	DATA COLLECTION	7-26
7.2	DATA MANAGEMENT SYSTEM AND DISSEMINATION.....	7-28
7.2.1	<i>State Data Management Programs</i>	7-30
8	FINANCE.....	8-1
8.1	TRI-COUNTY FACC ONGOING FUNDING	8-1
8.2	SOUTH OC WMA COOPERATIVE AGREEMENT ONGOING FUNDING	8-3
8.3	SOUTH ORANGE COUNTY WMA COSTS	8-4
8.4	SOURCES OF FUNDING.....	8-4

8.4.1	<i>Capital Improvements Program Funding</i>	8-6
8.4.2	<i>Federal, State, and Local Funding</i>	8-6
8.4.3	<i>Operation and Maintenance Funding</i>	8-8
9	TECHNICAL ANALYSIS	9-1
9.1	TECHNICAL INFORMATION	9-1
9.2	TECHNICAL ANALYSES AND METHODS	9-10
9.3	DATA GAPS	9-14
10	COORDINATION WITH EXISTING LOCAL/REGIONAL PLANS	10-1
10.1	LOCAL WATER PLANNING	10-1
10.2	LOCAL LAND USE PLANNING	10-11
11	STAKEHOLDER INVOLVEMENT	11-1
11.1	PROCESS TO IDENTIFY AND INVOLVE STAKEHOLDERS	11-1
11.2	DISADVANTAGED COMMUNITIES	11-2
11.3	NATIVE AMERICAN TRIBES	11-3
12	CLIMATE CHANGE	12-1
12.1	CONSIDERATION OF EFFECTS OF CLIMATE CHANGE TO REGION	12-1
12.2	RELATIONSHIP OF CLIMATE CHANGE ANALYSIS TO IRWM PLAN STANDARDS	12-2
12.3	KEY ELEMENTS OF CLIMATE CHANGE IN IRWM REGION	12-3
12.4	VULNERABILITY ASSESSMENT	12-7
12.5	ADAPTATION TO ADDRESS CLIMATE CHANGE CONCERNS	12-8
12.6	LEGISLATIVE AND POLICY CONTEXT	12-13
13	SALT AND NUTRIENT MANAGEMENT PLAN	13-1
13.1	PLAN FOCUS	13-1
13.2	HYDROLOGIC / HYDROGEOLOGICAL	13-3
13.3	ISSUES	13-4
13.4	WATER QUALITY	13-5
13.5	PLAN ANALYSES	13-5
13.6	PLAN OUTCOME –BASIN PLAN REFINEMENTS	13-8

TABLES

TABLE 2-1: SOUTH ORANGE COUNTY IRWM GROUP PARTICIPANTS.....	2-16
TABLE 3-1: OCEAN DESALINATION RO RESULTS.....	3-32
TABLE 3-2: 303(D) LIST AND TMDL PRIORITY SCHEDULE.....	3-34
TABLE 3-3: SOUTH ORANGE COUNTY WMA POTENTIAL NEW SUPPLIES.....	3-50
TABLE 3-4: SOUTH OC WATER DEMAND PROJECTIONS.....	3-51
TABLE 3-5: SOUTH OC NON-IMPORTED POTABLE WATER SUPPLY PROJECTS.....	3-52
TABLE 3-6: SOUTH OC NON-POTABLE (RECYCLED) SUPPLY PROJECTIONS.....	3-53
TABLE 3-7: WATER SERVICE AGENCY POPULATION.....	3-72
TABLE 3-8: WASTEWATER SERVICE AGENCY POPULATION.....	3-72
TABLE 3-9: CITY POPULATIONS.....	3-73
TABLE 3-10: SOUTH ORANGE COUNTY HISTORICAL POPULATION GROWTH.....	3-75
TABLE 6-1: IMPACTS AND BENEFITS.....	6-7
TABLE 8-1: PROJECT FUNDING SUMMARY.....	8-5
TABLE 9-1: WMA TECHNICAL STUDIES/DATA SETS.....	9-2
TABLE 10-1: EXISTING LOCAL AND REGIONAL PLANS, DOCUMENTS AND PROGRAMS.....	10-2
TABLE 12-1: AVERAGE PROJECTED CHANGE IN PRECIPITATION IN IRWM REGION 16 GLOBAL CLIMATE MODELS.....	12-4
TABLE 12-2: AVERAGE PROJECTED CHANGE IN TEMPERATURE IN IRWM REGION 16 GLOBAL CLIMATE MODELS.....	12-4
TABLE 12-3: ESTIMATED AVERAGE AND DRY-PERIOD DELIVERIES OF SWP TABLE A WATER UNDER CONDITIONS EXISTING IN 2011 AND 2015 (TAF/YEAR).....	12-10
TABLE 13-1: PHASE 1 SNMP PROJECT/ISSUE LISTING.....	13-4
TABLE 13-2: PHASE 1 CONSTITUENT SUMMARY.....	13-5
TABLE 13-3: APPLICATION OF ANALYTICAL METHODOLOGIES.....	13-7

FIGURES

FIGURE 1-1: SOUTH ORANGE COUNTY MAP..... 1-2

FIGURE 1-2: SOUTH ORANGE COUNTY IRWM PLAN GOALS..... 1-3

FIGURE 2-1: SOUTH ORANGE COUNTY WMA GOVERNANCE STRUCTURE 2-5

FIGURE 2-2: IRWM PLAN UPDATE PROCESS 2-28

FIGURE 2-3: WATERSHED OVERLAP WITHIN IRWM AREAS..... 2-34

FIGURE 2-4: EVOLUTION OF REGIONAL PLANNING IN THE SAN DIEGO FUNDING AREA 2-36

FIGURE 2-5: TRI-COUNTY FACC BOUNDARIES 2-38

FIGURE 2-6: ORANGE COUNTY WATERSHED MANAGEMENT AREAS..... 2-43

FIGURE 3-1: IRWM REGIONAL LOCATION 3-3

FIGURE 3-2: IRWM REGIONAL WATERSHED AND SURFACE WATER BODIES..... 3-4

FIGURE 3-3: TOPOGRAPHIC FEATURES..... 3-6

FIGURE 3-4: IRWM PLAN MEMBER CITIES 3-2

FIGURE 3-5: IRWM PLAN MEMBER DISTRICTS..... 3-3

FIGURE 3-6: IMPAIRED WATER BODIES AND STEELHEAD CRITICAL HABITAT 3-13

FIGURE 3-7: NATURAL COMMUNITIES CONSERVATION PLAN 3-21

FIGURE 3-8: GROUNDWATER BASINS 3-25

FIGURE 3-9: REGIONAL IMPORTED WATER DISTRIBUTION SYSTEM & WATER AGENCIES 3-59

FIGURE 3-10: WASTEWATER BOUNDARY & TRANSMISSION LINES 3-63

FIGURE 3-11: FLOOD CONTROL INFRASTRUCTURE 3-68

FIGURE 3-12: REGIONAL WATER QUALITY CONTROL BOARDS..... 3-70

FIGURE 3-13: POPULATION INFORMATION BY CENSUS TRACT 3-74

FIGURE 3-14: MEDIAN HOUSEHOLD INCOME 3-76

FIGURE 3-15: DISADVANTAGED COMMUNITIES AND ECONOMICALLY DISTRESSED AREAS 3-78

FIGURE 4-1: IRWM PLAN PROCESS..... 4-1

FIGURE 4-2: SOUTH ORANGE COUNTY IRWM PLAN GOALS, STATEWIDE PRIORITIES, AND RESOURCE MANAGEMENT STRATEGIES. 4-4

FIGURE 4-3: SOUTH ORANGE COUNTY IRWM PLAN GOALS..... 4-6

FIGURE 6-1: PROJECT REVIEW PROCESS..... 6-2

FIGURE 7-1: DATA MANAGEMENT..... 7-29

FIGURE 10-1: LAND USE..... 10-2

FIGURE 12-1: ZOOMED-IN AREA OF SOUTH OC COASTLINE 12-6

FIGURE 12-2: LIKELIHOOD OF SPECIFIC LEVELS OF WATER DELIVERY UNDER 2015 CONDITIONS (SOURCE: DWR, 2015). 12-10

FIGURE 12-3: HISTORICAL AND PROJECTED WATER SUPPLY AND DEMAND ON THE COLORADO RIVER (SOURCE: BUREAU OF RECLAMATION, 2012)..... 12-12

CONTENTS

1 INTRODUCTION..... 1-1

2 GOVERNANCE 2-1

2.1 SOUTH ORANGE COUNTY IRWM GROUP 2-1

2.1.1 *Governance Model for the County of Orange* 2-1

2.1.2 *Formation of South Orange County WMA*..... 2-2

2.1.3 *South Orange County IRWM Plan Adoption Status* 2-3

2.2 SOUTH ORANGE COUNTY WMA STRUCTURE AND PROCESS 2-5

2.2.1 *Executive Committee* 2-5

2.2.2 *Management Committee*..... 2-6

2.2.3 *Other Standing Committees or AdHoc Committees*..... 2-8

2.2.4 *Overall Committee Structure and Support*..... 2-8

2.3 REGIONAL WATER MANAGEMENT RESPONSIBILITIES 2-8

2.3.1 *Jurisdictional IRWM Group Participants (City and County)*..... 2-8

2.3.2 *Special Districts and Agency Participants in IRWM Group*..... 2-11

2.3.3 *Other Participants in the South Orange County IRWM Activities* 2-14

2.4 STATUTORY AUTHORITY AND PLAN RELATIONSHIP 2-16

2.5 PUBLIC OUTREACH AND INVOLVEMENT PROCESS 2-21

2.5.1 *Summary of Outreach and Communication*..... 2-21

2.5.2 *Letters of Support from Non-Agency Stakeholders*..... 2-22

2.6 WORKING RELATIONSHIP OF SOUTH ORANGE COUNTY IRWM GROUP 2-23

2.6.1	<i>Regional Participation and Project Coordination</i>	2-23
2.6.2	<i>IRWM Plan Updates and Sharing of Information</i>	2-27
2.6.3	<i>Native American Tribe & Stakeholder Coordination</i>	2-31
2.7	ADDING NEW MEMBERS	2-32
2.8	WORKING RELATIONSHIP OF TRI-COUNTY FACC.....	2-32
2.8.1	<i>Coordination within San Diego Funding Area</i>	2-32
2.8.2	<i>Evolution of Inter-Regional Planning</i>	2-36
2.8.3	<i>Committed Inter-Regional Process</i>	2-37
2.8.4	<i>Memorandum of Understanding</i>	2-39
2.8.5	<i>Water Management Differences</i>	2-39
2.8.6	<i>Relationship and Coordination with Watershed Management Areas</i>	2-41
2.8.7	<i>Overlapping and Void Areas</i>	2-44
2.9	TRI-COUNTY FACC STRUCTURE AND GOVERNANCE	2-44
2.9.1	<i>History and Background</i>	2-44
2.9.2	<i>Summary of the Governance MOU</i>	2-44
2.9.3	<i>Future Efforts and Cooperation</i>	2-45
3	REGIONAL DESCRIPTION	3-1
3.1	SOUTH ORANGE COUNTY IRWM AREA.....	3-1
3.2	CITIES AND SPECIAL DISTRICTS	3-7
3.3	WATER RELATED COMPONENTS OF WMA	3-4
3.3.1	<i>Watersheds and Biological Significant Units</i>	3-4
3.3.2	<i>Groundwater Basins</i>	3-23
3.3.3	<i>Surface Water Impoundments</i>	3-27
3.3.4	<i>Water Quality</i>	3-29
3.3.5	<i>Imported and Local Supply</i>	3-50
3.3.6	<i>Water Supply Infrastructure</i>	3-57
3.3.7	<i>Wastewater and Recycled Water Systems</i>	3-61
3.3.8	<i>Flood Control Infrastructure</i>	3-66
3.3.9	<i>Recharge Facilities</i>	3-69
3.4	POLITICAL/JURISDICTIONAL BOUNDARIES	3-69

3.5	REGIONAL DEMOGRAPHICS	3-71
3.6	DISADVANTAGED COMMUNITIES AND ECONOMICALLY DISTRESSED AREAS.....	3-77
3.7	WATER MANAGEMENT ISSUES.....	3-80
3.7.1	<i>History of South Orange County IRWM Efforts</i>	3-80
3.7.2	<i>Regional Water Management</i>	3-81
3.7.3	<i>Competing Interests of IRWM Group</i>	3-98
3.8	POTENTIAL CLIMATE CHANGE IMPACTS TO WMA	3-100
3.8.1	<i>Sea Level Rise</i>	3-100
3.8.2	<i>Changing Mountain Snowpack Runoff</i>	3-101
3.8.3	<i>Changes in Precipitation and Temperature</i>	3-101
3.8.4	<i>Changes in Drought Persistence</i>	3-101
3.8.5	<i>High Stream and Reservoir Temperatures</i>	3-102
3.8.6	<i>Increased Water Demands</i>	3-102
3.8.7	<i>Increased Flood Flows and Flood Frequencies</i>	3-102
3.8.8	<i>Tree Damage and Increased Wildfire and Erosion Risk</i>	3-102
3.8.9	<i>Summary of Climate Change Impacts</i>	3-103
4	OBJECTIVES	4-1
4.1	REGIONAL VISION.....	4-1
4.1.1	<i>Statewide Priorities</i>	4-2
4.1.2	<i>Regional Goals</i>	4-6
4.2	DEVELOPMENT OF WMA OBJECTIVES	4-7
4.2.1	<i>Regional Issues/Challenges</i>	4-7
4.2.2	<i>Tri-County FACC Issues/Conflicts</i>	4-8
4.2.3	<i>Basin Plan Objectives & WMA Water Quality Concerns</i>	4-8
4.2.4	<i>Water Efficiency Goals</i>	4-8
4.2.5	<i>Water Priorities for the WMA</i>	4-10
4.3	WMA OBJECTIVES	4-10
4.3.1	<i>Integrate Flood Management Objectives and Strategies</i>	4-11
4.3.2	<i>Objectives and Strategies to Improve Water Quality</i>	4-12
4.3.3	<i>Increase Water Supply, Reliability, and Efficiency Objectives and Strategies</i>	4-14

4.3.4	<i>Protect Natural Resources Objectives and Strategies</i>	4-20
4.3.5	<i>Objectives and Multiple Priorities</i>	4-22
4.4	OBJECTIVE WEIGHTING.....	4-23
5	RESOURCE MANAGEMENT STRATEGIES	5-1
5.1	PROCESS TO CONSIDER RESOURCE MANAGEMENT STRATEGIES	5-1
5.2	RESOURCE MANAGEMENT STRATEGIES APPLICABILITY TO REGION	5-1
5.3	RESOURCE MANAGEMENT STRATEGIES (RMS) NOT APPLICABLE TO REGION	5-8
5.4	REGIONAL STRATEGIES.....	5-9
5.4.1	<i>Integrate Flood Management Strategies</i>	5-9
5.4.2	<i>Improve Water Quality Strategies</i>	5-10
5.4.3	<i>Increase Water Supply, Reliability, and Efficiency Strategies</i>	5-11
5.4.4	<i>Protect Natural Resources Strategies</i>	5-14
5.5	REGIONAL AND INTER-REGIONAL BENEFITS.....	5-15
5.6	DAC / ENVIRONMENTAL JUSTICE BENEFITS	5-16
5.7	ENVIRONMENTAL IMPACTS / BENEFITS TO OTHER RESOURCES	5-19
6	PROJECTS	6-1
6.1	PROJECT REVIEW PROCESS	6-1
6.1.1	<i>Phase 1: Project Solicitation</i>	6-2
6.1.2	<i>Phase 2: Evaluation and Prioritization for IRWM Grant Funding</i>	6-5
6.1.3	<i>Contribution to Statewide Priorities</i>	6-6
6.1.4	<i>Project Integration of Regional Strategies</i>	6-6
6.2	IMPACTS AND BENEFITS	6-7
6.2.1	<i>Impacts on WMA Watersheds</i>	6-12
6.2.2	<i>Inter-regional Impacts</i>	6-20
6.2.3	<i>DAC, Environmental Justice, Tribal Communities</i>	6-20
6.3	COMPLETED/FUNDED PROJECTS.....	6-23
6.4	PLAN PERFORMANCE AND MONITORING.....	6-24
7	DATA MANAGEMENT	7-26
7.1	DATA COLLECTION & NEEDS WITHIN THE REGION.....	7-26

7.2 DATA MANAGEMENT SYSTEM AND DISSEMINATION..... 7-28

 7.2.1 State Data Management Programs..... 7-30

8 FINANCE 8-1

 8.1 TRI-COUNTY FACC ONGOING FUNDING 8-1

 8.2 SOUTH OC WMA COOPERATIVE AGREEMENT ONGOING FUNDING 8-3

 8.3 SOUTH ORANGE COUNTY WMA COSTS 8-4

 8.4 SOURCES OF FUNDING..... 8-4

 8.4.1 Capital Improvements Program Funding 8-6

 8.4.2 Federal, State, and Local Funding 8-6

 8.4.3 Operation and Maintenance Funding 8-8

9 TECHNICAL ANALYSIS 9-1

 9.1 TECHNICAL INFORMATION 9-1

 9.2 TECHNICAL ANALYSES AND METHODS..... 9-10

 9.3 DATA GAPS 9-14

10 COORDINATION WITH EXISTING LOCAL/REGIONAL PLANS 10-1

 10.1 LOCAL WATER PLANNING 10-1

 10.2 LOCAL LAND USE PLANNING 10-11

11 STAKEHOLDER INVOLVEMENT 11-1

 11.1 PROCESS TO IDENTIFY AND INVOLVE STAKEHOLDERS 11-1

 11.2 DISADVANTAGED COMMUNITIES 11-2

12 CLIMATE CHANGE 12-1

 12.1 CONSIDERATION OF EFFECTS OF CLIMATE CHANGE TO REGION 12-1

 12.2 RELATIONSHIP OF CLIMATE CHANGE ANALYSIS TO IRWM PLAN STANDARDS 12-2

 12.3 KEY ELEMENTS OF CLIMATE CHANGE IN IRWM REGION 12-3

 12.4 VULNERABILITY ASSESSMENT 12-7

 12.5 ADAPTATION TO ADDRESS CLIMATE CHANGE CONCERNS 12-8

 12.6 LEGISLATIVE AND POLICY CONTEXT 12-13

13 SALT AND NUTRIENT MANAGEMENT PLAN 13-1

13.1	PLAN FOCUS.....	13-1
13.2	HYDROLOGIC / HYDROGEOLOGICAL.....	13-3
13.3	ISSUES	13-4
13.4	WATER QUALITY	13-5
13.5	PLAN ANALYSES	13-5
13.6	PLAN OUTCOME –BASIN PLAN REFINEMENTS	13-8
13.7	ALIGNMENT WITH THE SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD’S STRATEGIC VISION	13-9

APPENDICES

APPENDIX A	A-1
APPENDIX	A-2
APPENDIX C.....	A-3
APPENDIX D	A-4
APPENDIX E	A-5
APPENDIX F	A-6
APPENDIX G	A-7
APPENDIX H.....	A-8
APPENDIX I	A-10
APPENDIX J	A-10
APPENDIX K	A-11
APPENDIX L	A-12

LIST OF ACRONYMS

§	subsection
AB	Assembly Bill
ABBRA	American Boat Builders & Repairers Association
AFY	Acre Feet per Year
ALERT	Automatic Local Evaluation on Real Time
AMP	Allen-McColloch Pipeline
AOGCM	Atmosphere Ocean General Circulation Models
ASBS	Areas of Special Biological Significance
ATM	Aufdenkamp Transmission Main
BLRP	Bacteria Load Reduction Plans
BMP	Best Management Practice
BOS	Board of Supervisors
CARB	California Air Resources Board
CBP	Clean Beach Project
CCA	Critical Coastal Area
CDFW	California Department of Fish and Wildlife
CDP	Census Designated Place
CEC	Constituents of Emerging Concern
CEDEN	California Environmental Data Exchange Network
CEFCAC	City Engineers Flood Control Advisory Committee
CEIC	California Environmental Information Catalog
CEQA	California Environmental Quality Act
CERES	California Environmental Resources Evaluation System
cfs	Cubic Feet per Second
CIP	Capital Improvement Program
CLRP	Comprehensive Load Reduction Plan
CLWC	California Latino Water Coalition
CRA	Colorado River Aqueduct
CSRM	Constantly Stirred Reactor Model
CTP	Coastal Treatment Plan
CWA	Clean Water Act
CWC	California Water Code
CWP	California Water Plan
CWRP	Chiquita Water Reclamation Plant
CUWCC	California Urban Water Conservation Council
DAC	Disadvantaged Communities
DAMP	Drainage Area Management Plan
DMS	Data Management System
DRPP	Demand, Runoff, and Pollution Prevention
DWR	Department of Water Resources
EC	Executive Committee
EDA	Economically Distressed Areas

LIST OF ACRONYMS

EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
ET	Evapotranspiration
ETWD	El Toro Water District
FACC	Funding Area Coordination Committee
FEMA	Federal Emergency Management Agency
FEIR	Final Environmental Impact Report
FIB	Fecal Indicator Bacteria
FOG	Fats, Oil and Grease
GAC	Granular Activated Carbon
GAMA	Groundwater Ambient Monitoring and Assessment
GCM	Global Climate Model
GERA	Gobernadora Ecological Resource Area
GIS	Geographic Information System
GHG	Greenhouse Gas
GPCD	Gallons per Capita Daily
GPM	Gallons per Minute
GRF	Groundwater Recovery Facility
GSWC	Golden State Water Company
GWFMP	Groundwater and Facilities Management Plan
GWRP	Groundwater Recovery Project
HCP	Habitat Conservation Plan
HECW	High Efficiency Clothes Washer
HET	High Efficiency Toilet
HMP	Hydromodification Management Plan
HPWQC	Highest Priority Water Quality Conditions
HRMP	Habitat Reserve Management Program
HSA	Hydrologic Subarea
IRP	Integrated Water Resources Plan
IRWD	Irvine Ranch Water District
IRWM	Integrated Regional Water Management
JRTM	Joint Regional Tri-Cities Transmission Main
JRTP	Joint Regional Treatment Plant
LAWRP	Los Alisos Water Reclamation Plant
LBCWD	Laguna Beach County Water District
LHA	Latino Health Access
LIP	Local Implementation Plan
LRP	Local Resources Program
MEP	Maximum Extent Practicable
MC	Management Committee
MCL	Maximum Contaminant Level

LIST OF ACRONYMS

MGD	Million gallons per day
MHI	Median Household Income
MNWD	Moulton Niguel Water District
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
MSHCP	Multi-Species Habitat Conservation Plan
MST	Microbial Source Tracking
MTBE	Methyl Tert-Butyl Ether
MET	Metropolitan Water District of Southern California
MWDOC	Municipal Water District of Orange County
MWRP	Michelson Water Reclamation Plant
NCC	Natural Communities Coalition
NCCP	Natural Communities Conservation Plan
NCI	North Coast Interceptor
NFIP	National Flood Insurance Program
NGO	Non-Government Organization
NHEC	National Hispanic Environmental Council
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NROC	Nature Reserve of Orange County
OCFD	Orange County Flood Control District
OCHCA	Orange County Health Care Agency
OCSD	Orange County Sanitation District
OCSP	Orange County Stormwater Program
OCTA	Orange County Transportation Authority
OCWD	Orange County Water District
OPR	Office of Planning and Research
PEA	Program Effective Assessment
POTWs	Publicly Owned Treatment Works
QA/QC	Quality Assurance/Quality Control
RAC	Regional Action Committee
RAP	Regional Action Project
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCWD	Rancho California Water District
RMS	Resource Management Strategies
RMV	Rancho Mission Viejo, LLC
RO	Reverse Osmosis
ROWD	Report of Wastewater Discharge
RRWRP	Robinson Ranch Water Reclamation Plant

LIST OF ACRONYMS

RTP	Regional Treatment Plant
RWVG	Regional Watershed Management Group
RWQCB	Regional Water Quality Control Board
SAMP	Special Area Management Plan
SANDAG	San Diego Association of Governments
SARWQCB	Santa Ana Regional Water Quality Control Board
SB	Senate Bill
SBPAT	Structural BMP Prioritization and Analysis Tool
SCAG	Southern California Association of Governments
SCCWRP	Southern California Coastal Water Research Project
SCCWRRS	Southern California Comprehensive Water Reclamation and Reuse Study
SCWD	South Coast Water District
SDCWA	San Diego County Water Authority
SDGE	San Diego Gas and Electric
SDP	Seawater Desalination Program
SDRWQCB	San Diego Regional Water Quality Control Board
SEP	Supplemental Environmental Project
SERRA	South East Regional Reclamation Authority
SFHA	Special Flood Hazard Area
SIPP	Source Identification Protocol Project
SJBA	San Juan Basin Authority
SJHU	San Juan Hydrologic Unit
SJVGB	San Juan Valley Groundwater Basin
SmarTimer	Weather-Based Irrigation Controller
SMC	Stormwater Monitoring Coalition
SMWD	Santa Margarita Water District
SNMP	Salt and Nutrient Management Plan
SOCWA	South Orange County Wastewater Authority
SOCWRS	South Orange County Water Reliability Study
SWAMP	Surface Water Ambient Monitoring Program
SWRCB	State Water Resources Quality Control Board
SWRP	Stormwater Resource Plan
TAF	Thousand-Acre-Feet
TBA	Tert Butyl Alcohol
TCE	Trichloroethylene
TCWD	Trabuco Canyon Water District
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
USACE	United States Army Corps of Engineers (The Corps)
USBOR	United States Bureau of Reclamation
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

LIST OF ACRONYMS

USGS	United States Geological Survey
UST	Underground Storage Tanks
UV	Ultraviolet
UWMP	Urban Water Management Plan
VOC	Volatile Organic Compound
WAP	Watershed Action Plan
WDL	Water Data Library
WEI	Wildermuth Environmental, Inc.
WMA	Watershed Management Area
WSL	Water Smart Landscape
WQIP	Water Quality Improvement Plan
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WUE	Water Use Efficiency

**SOUTH ORANGE COUNTY WATERSHED MANAGEMENT AREA
2017 INTEGRATED REGIONAL WATER MANAGEMENT PLAN
*An Integrated, Healthy and Balanced Watershed***

The South Orange County Integrated Regional Water Management (IRWM) Plan has been developed from, and coordinates with, existing plans and research documents provided by the participating agencies in a manner that identifies and integrates regional projects to improve water supply, protect water quality, enhance the environment, and provide flood risk management. This Plan establishes a priority ranking to help further regional efforts to investigate the feasibility of, and identify funding for, these projects. Individual projects, however will go through the appropriate environmental review and permitting process as funding is secured.

1 INTRODUCTION

Located along the scenic and temperate southern coast of California, South Orange County is rich with history. Legacies passed on from native societies, once expansive cattle ranches, and twentieth-century entrepreneurial farmers remain a part of the area's culture today. From the landmark Mission San Juan Capistrano near the stunning western coastline to the United States Department of Agriculture (USDA), Forest Service, Cleveland National Forest in the east, South Orange County continues to be a destination known for beauty and a high quality of life.

Following the national migration trends after World War II that drew citizens to Sunbelt cities, the region transitioned into one of the newest areas of urban development in the early 1960's. Several cities have been incorporated over the subsequent decades during which population increased to approximately 600,000 residents. Most of the coastline is developed and additional urbanization is anticipated in the backcountry ranch land over the next 20- years. Today, the region's social and cultural makeup includes a unique mix of equestrian lifestyle, authentic Mexican/Hispanic culture, and a progressive business industry.

The Juaneño Band of Mission Indians traditionally known as the Acjachemen nation is the indigenous Native American Indian tribe of the lands now known as Orange and San Diego Counties. The Acjachemen territory extended from Las Pulgas Creek in northern San Diego County, up into the San Joaquin Hills along the Orange County's central coast, and inland from the Pacific Ocean up into the Santa Ana Mountains. The bulk of the population occupied the outlets of two large creeks, San Juan Creek and San Mateo Creek. The Juaneño Band of Mission Indians is on the contact list maintained by the Native American Heritage Commission and they are included in this Plan as a South Orange County stakeholder; however, the Juaneño Band is not federally recognized, nor is the tribe land owning. They are headquartered in the City of San Juan Capistrano.

The region's economy has come into its own from the shadows of Los Angeles to the north and San Diego to the south with a unique technological and business infrastructure. This is demonstrated by the diversity of industries represented – from medical devices to construction – as well as intellectual resources to support this diversity. Stakeholders in the area are comprised of residents, businesses, and water agencies/Cities as described in **Section 2.3 Regional Water Management Responsibilities**. **Figure 1-1** on the following page shows a map of South Orange County.



Figure 1-1: South Orange County Map

Water is the key element for sustaining the South Orange County economy, allowing the region to thrive. Significant local investments in water, sewer, and flood infrastructure have been made in the past to serve the area on a reliable basis. Planning and associated investments to carry the region through the next 25-year planning horizon are central to preserving the quality of life in South Orange County. Planning for flood management; surface runoff management; watershed management; water use efficiency (WUE); water supply and reliability; recycled water; habitat preservation, conservation and restoration; water quality protection and improvement; resource stewardship; and related water resource management strategies (RMSs) is critical. **Figure 1-2** shows the South Orange County IRWM Plan Goals, which are discussed in further detail below and in **Section 4 Objectives**.

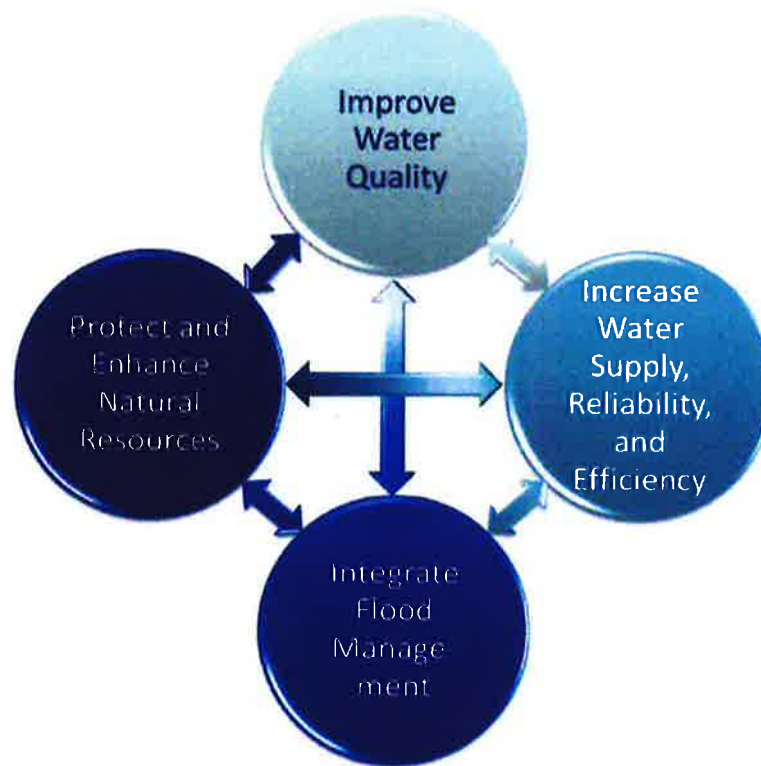


Figure 1-2: South Orange County IRWM Plan Goals

Water Resource Planning in South Orange County

Water quality improvement efforts over the last decade have resulted in significant improvements in coastal water quality along the County's beaches. The Heal the Bay Annual Report (2016) states that the County grades for year-round dry weather were excellent and wet weather grades fair, besting the five-year average for dry weather. Coastal and surface water quality remains an important component of the region's IRWM planning. Key goals for the region include reducing runoff and improving the water quality in streams and along beaches.

Another key goal of the region is expansion, protection and efficient use of local and regional water supplies, as described in **Section 4.1.2**. As a whole, South Orange County water supply is predominately from imported sources, making the region subject to outside conditions and agencies. The South Orange County IRWM Plan is aimed at diversifying water sources by developing a variety of local opportunities to decrease reliance on imported sources. For example, the local San Juan Groundwater Basin¹ has been the subject of multiple management programs for treating brackish waters and managing wet year supplies for use during dry year conditions. South Orange County agencies are leaders in implementing water recycling projects to turn wastewater into a resource. Urban water reuse projects are being developed to reduce runoff and utilize local resources. Additionally, water use efficiency projects have become a standard for water management, including Weather-Based Irrigation Controllers (SmarTimer), drip irrigation, rain barrel and landscape retrofit programs. Indeed, a clear nexus exists between projects needs for water quality and water supply. Protection of surface water quality beneficial uses can align with opportunities to enhance local supply through water reclamation, conservation, stormwater capture/treatment, and groundwater and seawater desalination.

South Orange County agencies and stakeholders place a strong emphasis on watershed planning and integration. Over the past decade, the County, cities, water and wastewater agencies and public stakeholders have participated in watershed-level studies and plans to assess and develop projects to enhance the overall health of South Orange County watersheds (Aliso Creek, Dana Point Coastal Streams, Laguna Coastal Streams, San Juan Creek, San Clemente Coastal Streams, and San Mateo Creek). Water quality efforts are described in **Sections 3.3.4, 4.3.2, 5.4.2, and 13.4**. These efforts include, but are not limited to:

- Watershed Management Plans were completed for the Aliso Creek, and San Juan Creek watersheds. These were among the first efforts to study overall watershed health and included recommendations and actions for implementation on a collective basis among the many watershed partners. Watershed Workplans² were developed and updated through 2014 for the watersheds in the San Diego Region to comply with Directive G of the San Diego Regional Water Quality Control Board's (SDRWQCB) Order (Regional Board Order No. R9-2009-0002). The Watershed Workplans described the Watershed Permittees' development and implementation of a collective watershed strategy to assess and prioritize the water quality challenges within the watershed's receiving waters, identify and model sources of the highest priority water quality problem(s), develop a watershed-wide Best Management Practices (BMP) implementation strategy to abate highest priority water quality problems, and a monitoring strategy to evaluate BMP effectiveness and changing water quality prioritization in the watershed.

¹ State Department of Water Resources California's Groundwater Bulletin 118 refers to the "San Juan Valley Groundwater Basin" for the South Coast Hydrologic Region.

² OC Watersheds, Watershed Workplans, available online 6/28/16:
<http://prg.ocpublicworks.com/DocmgmtInternet/Search.aspx>

- Comprehensive water quality analyses for South Orange County watersheds, including annual water quality analyses for Aliso Creek watershed³, a San Juan Creek Watershed Bacterial Study⁴, and the 2014 Report of Waste Discharge State of the Environment Report⁵ which provided a comprehensive watershed-based review of TMDL and NPDES compliance over several years and utilized indices of watershed health apart from water quality exceedances.
- Watershed Infiltration Hydromodification Management Plan (WIHMP) mapping tools developed in 2014-15 provided an initial GIS screening tool for infiltration BMP site suitability at a watershed and sub-watershed level; analysis considered land use, soils, slope, ownership, channel morphology and drainage⁶.
- A Water Quality Improvement Plan (WQIP) was developed by the County and South Orange County cities for all watersheds in South Orange County (the San Juan Hydrologic Unit) and submitted in April 2017 to comply with SDRWQCB Order No. R9-2013-0001 as amended by R9-2015-0001 and R9-2015-0100 (CAS0109266, also referred to as the Fifth Term MS4 NPDES Permit). The WQIP establishes water quality priorities for the watershed area based upon a comprehensive watershed-based geospatial and index-based analysis of water quality, geomorphic and hydrologic data⁷. The WQIP development process provided for extensive stakeholder and public input and review; WQIP implementation will continue to involve stakeholders.
- An Orange County Stormwater Resource Plan (OC SWRP) was produced to meet functional equivalency for SB 985 and to provide watershed-based planning for stormwater projects in Orange County. The OC SWRP aligns with the South Orange County IRWM Plan in many ways, including watershed planning, identification and prioritization of projects and establishing watershed-based priorities inclusive of water quality, water supply, natural resources and flood management. The OC SWRP has been included in the IRWM Plan as **Appendix L**. For more information about the OC SWRP, please visit the [webpage](#).

Another example of the region's progressive approach to water management is the Municipal Water District of Orange County (MWDOC) and the South Orange County water districts' ongoing commitment to water supply system reliability. MWDOC completed a new Orange County Reliability Study in December 2016. Phase 1 of the study completed in December 2015 estimated supply and system gaps between forecasted water demands and existing/planned water supplies, with water demand forecast and supply gap analysis, Orange County supply simulation modeling, and Orange County basin simulation modeling. Phase 2 of the study

³ Annual water quality assessments for [Aliso Creek](#)

⁴ [San Juan Creek Watershed Bacterial Study](#)

⁵ [2014 Report of Waste Discharge – San Diego Region State of the Environment](#)

⁶ WIHMP mapping data available at [OC Environmental Resources GIS Portal](#)

⁷ The [WQIP](#) was submitted to the SDRWQCB on April 1, 2017; the WQIP will not be in effect until receipt of SDRWQCB approval. Stakeholder and public involvement is described [here](#).

develops and evaluates illustrative portfolios of additional supply projects that could be implemented by the Metropolitan Water District of Southern California (MET) and MET member agencies, which includes all Orange County agencies. Phase 2 was completed in August 2016 and the final report completed in December 2016. The study is highly collaborative, involving over 25 meetings of a workgroup made up of managers from MWDOC, MWDOC member agencies, Orange County Water District (OCWD), and the cities of Anaheim, Fullerton, and Santa Ana.

IRWM Planning in South Orange County & Protection of Water Resources

The region embraced the IRWM Planning Act of 2002 to enhance forward planning in an even more coordinated fashion. In 2008, SBX2-1 (Perata) repealed and replaced the IRWM Planning Act and appropriated funding from two initiatives passed by voters in 2006 - Proposition 84 and Proposition 1E.

The County of Orange, cities, and water and wastewater agencies of South Orange County formed the South Orange County IRWM Group in 2004 and subsequently developed and adopted the South Orange County IRWM Plan in 2005. The IRWM Group established the South Orange County IRWM region as a cooperative framework for planning and implementing water management strategies in the region.

The South Orange County IRWM Group was recognized as a region during the Proposition 50 IRWM Program Implementation Grant effort in 2005. In 2007, the South Orange County IRWM Region was awarded Proposition 50 funding. Subsequently in 2009 the South Orange County Watershed Management Area (WMA) was recognized as a region during Department of Water Resources (DWR) Regional Acceptance Process.

The South Orange County IRWM Group embraces the IRWM model because it brings together short term and long term management strategies that will protect and enhance water resources in the WMA. The South Orange County agencies maintain the belief that water management strategies can, and should be, integrated to provide a reliable water supply, protect and improve water quality, and achieve other objectives.

The IRWM Plan is designed to help local agencies and governments manage their water, wastewater, and ecological resources. The purpose of the IRWM Group in developing this Plan is to identify potential projects intended to improve water quality and supply in order to investigate their feasibility, engage in long range water planning, establish priorities among the proposals of the member entities and obtain potential funding. As the IRWM Plan is implemented, the County, as agent of the State of California, will serve as a conduit for funding to the individual agencies proposing the projects. This IRWM Plan does not commit any resources to implementation of any project nor does its creation constitute a commitment by the County or any member entity to carry out any of the proposed projects. Determinations to proceed with individual projects and required environmental review under the California Environmental Quality Act (CEQA) will be performed by the individual agencies prior to approval of funding.

Agencies within the coastal zone of South Orange County face unique environmental challenges relative to inland areas, including the protection of millions of visitors who utilize the ocean for recreation each year, as well as protection of the unique marine resources from polluted runoff. This IRWM Plan includes strategies to comply with the Porter-Cologne Act and Clean Water Act (CWA), and protect beneficial uses of receiving waters to improve water quality of the coastline. Within the South Orange County WMA, the County coastline includes one Area of Special Biological Significance (ASBS) and Heisler Park Ecological Reserve. In addition, there are three locations within the South Orange County WMA that are on the California's Critical Coastal Areas (CCA) list – San Juan Creek, Aliso Creek, and Heisler Park Ecological Reserve.

This IRWM Plan supports the state priorities that relate to the California Water Plan (CWP) Update 2013, the Delta Stewardship Council, the DWR Water Recycling Task Force Recommendations, the State Water Resources Control Board (SWRCB) Recycled Water Policy, Governor Schwarzenegger's 20x2020 Water Conservation Plan of 2010, Greenhouse Gas (GHG) emissions reduction goals of AB 32, the Water Desalination Task Force Recommendations, the California Ocean Plan, the California Watershed Action Plan, the TMDL List, the comprehensive Orange County Drainage Area Management Plan (DAMP) and subsequent Reports of Wastewater Discharge (ROWD), and the Regional Water Boards Watershed Management Initiative Chapters.

The 2018 IRWM Plan update further addresses updated Climate Change Standards, CEQA Tribal Consultation changes, amendments to the IRWM Planning Act related to IRWMs with nitrate, arsenic, perchlorate, or hexavalent chromium contamination (AB 1249), incorporation of the Orange County Stormwater Resource Plan (OC SWRP) per SB 985, and amended standards for determining Economically Distressed Areas (EDAs). The Plan considers IRWM planning concepts and aforementioned State standards/legislation through the integration of projects and programs that incorporate a wide range of water management strategies. Beneficial effects from implementation of proposed projects and programs will contribute to the goals and objectives of the local, regional and statewide priorities.

In addition to State Standards and goals, this IRWM Plan incorporates the 2016 South Orange County WMA regional priorities developed by the Executive Committee through an extensive strategic visioning process to: 1) Develop sustainable water supplies, 2) Cultivate storage for potable and recycled water, and stormwater/low flow capture, and 3) Foster regional projects to maximize water resources. These regional priorities support the Region's IRWM Plan Goals by closely aligning with the Statewide Priorities discussed in **Section 4.1.1** and the RMS discussed in **Section 5**. IRWM Plan Objectives discussed in **Section 4** also support these priorities. As the strategic visioning process was intended to capture priorities based upon known current conditions, the priorities will be updated as needs shift within WMA.

December 10, 2018

Prepared by: Eileen Lin *EL*

Submitted by: Clary Clary *CC*

Approved by: Paul A. Cook *PA Cook*

CONSENT CALENDAR

FY 2017-18 COMPREHENSIVE ANNUAL FINANCIAL REPORT

SUMMARY:

The District's auditor, Davis Farr LLP has completed its annual audit of the District's financial statements for the Fiscal Year (FY) ended June 30, 2018. As stated in its report, Davis Farr concluded that in all material aspects, the statements fairly present the District's financial position as of June 30, 2018 and conform with generally accepted accounting principles.

A draft of the Comprehensive Annual Financial Report (CAFR), including the Introductory Section, audited financial statements, accompanying auditor's report, Management's Discussion and Analysis, and Statistical Section is attached as Exhibit "A".

BACKGROUND:

At the Committee meeting, Davis Farr will present its required Auditor Communication pursuant to Statement on Auditing Standards 114 *The Auditor's Communication with Those Charged with Governance*. This letter, attached as Exhibit "B", reflects the auditor's understanding of key management assumptions and practices and indicates that there were no disagreements with management during the scope of the audit. The auditors have also provided a *Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards*, attached as Exhibit "C", which states that the audit did not identify any material weakness deficiencies in internal control. In addition, the report states that the result of the audit disclosed no instances of noncompliance or other matters that were required to be reported under government auditing standards.

The IRWD Comprehensive Annual Financial Report:

The FY 2017-18 CAFR is being prepared for the fifteenth consecutive year by the District. All of IRWD's previous CAFRs have won awards from the Government Finance Officers Association (GFOA), which encourages state and local governments to prepare and publish expanded financial reports in conformity with generally accepted accounting principles (GAAP) and provides awards to recognize contributions to the practice of government finance that exemplify outstanding financial management. The awards stress practical, documented work that offers leadership to the profession and promotes improved public finance.

Staff will continue to produce an enhanced electronic version with key references hyperlinked throughout the document. The CAFR will be made available on the IRWD website.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on November 6, 2018.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit "A" – Draft FY 2017-18 Comprehensive Annual Financial Report

Exhibit "B" – SAS 114 Auditor's Communication with Those Charged with Governance from
Davis Farr LLP

Exhibit "C" – Report on Internal Control over Financial Reporting and on Compliance and Other
Matters Based on an Audit of Financial Statements Performed in Accordance with
Government Auditing Standards from Davis Farr LLP

EXHIBIT "A"

COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR FISCAL YEAR ENDED JUNE 30, 2018

See District Secretary to obtain a copy
(document is 136 pages)

Exhibit “B”



Davis Farr LLP
2301 Dupont Drive | Suite 200 | Irvine, CA 92612
Main: 949.474.2020 | Fax: 949.263.5520

Board of Directors
Irvine Ranch Water District
Irvine, California

Communication with Those Charged with Governance at the Conclusion of the Audit

We have audited the financial statements of Irvine Ranch Water District (the “District”) for the year ended June 30, 2018. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated June 18, 2018. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by Irvine Ranch Water District are described in Note 1 to the financial statements. As described in Note 18 to the financial statements, the District implemented Governmental Accounting Standards Board (GASB) Statement No. 75 related to Other Post Employment Benefit (OPEB) obligations and GASB Implementation Guide 2017-1 related to reporting of the net pension liability and Pension Benefit Trust. The cumulative effect of the Implementation of GASB Statement No. 75 and Implementation Guide 2017-1 as of the beginning of the year is described further in Note 18 to the financial statements. Also, as described in Note 6 to the financial statements, the District implemented GASB 89 related to capitalized interest costs. We noted no transactions entered into by Irvine Ranch Water District during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management’s knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

Examples of significant judgments and estimates reflected in the District’s financial statements include:

- Judgments concerning which capital project expenditures should be capitalized and depreciated versus expensed in the financial statements and judgments concerning which projects should be placed in service.
- Judgements regarding the fair value of real estate investments.
- Judgments regarding the fair value of interest rate swap agreements.
- Judgements involving the estimated net pension liability

- Judgements involving the estimated OPEB liability

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. An immaterial adjustment to reclassify a project from Construction in Process to in service was not recorded. Management has determined that the effect is immaterial, both individually and in the aggregate, to the financial statement taken as a whole.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated November 12, 2018.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to Irvine Ranch Water District's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as Irvine Ranch Water District's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We applied certain limited procedures to *Management's Discussion and Analysis, Schedule of Changes in the Net Pension Liability and Related Ratio, Schedule of Contributions – Defined Benefit Pension Plan, Schedule of Changes in the OPEB Liability and Related Ratio, Schedule of Contributions – OPEB*, which are required supplementary information (RSI) that supplements the

basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were not engaged to report on the Introduction and Statistical Section, which accompany the financial statements but are not RSI. We did not audit or perform other procedures on this other information and we do not express an opinion or provide any assurance on it.

Restriction on Use

This information is intended solely for the use of Board of Directors and management of Irvine Ranch Water District and is not intended to be, and should not be, used by anyone other than these specified parties.

A handwritten signature in blue ink that reads "David Fenwick".

Irvine, California
November 12, 2018

Exhibit “C”



Davis Farr LLP

2301 Dupont Drive | Suite 200 | Irvine, CA 92612
Main: 949.474.2020 | Fax: 949.263.5520

Finance Personnel Committee
Irvine Ranch Water District
Irvine, California

Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With Government Auditing Standards

Independent Auditor’s Report

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States the financial statements of Irvine Ranch Water District (the “District”) as of and for the year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise the District’s basic financial statements, and have issued our report thereon dated November 12, 2018.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the District’s internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District’s internal control. Accordingly, we do not express an opinion on the effectiveness of the District’s internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity’s financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the District’s financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances




of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in blue ink that reads "David Kim CP". The signature is written in a cursive style.

Irvine, California
November 12, 2018

December 10, 2018
Prepared by: C. Smithson 
Submitted by: C. Clary 
Approved by: Paul A. Cook 

CONSENT CALENDAR

IRWD TWO-YEAR OPERATING BUDGET AND RATES SETTING CYCLE

SUMMARY:

Historically, the District has utilized a single year operating budget and rate setting cycle, accompanied by the required Proposition 218 noticing. This year, staff is recommending that the District implement a two-year operating budget and rate setting cycle which aligns the appropriate level of detail with a strategic policy oriented approach. This change will save time and effort and it will also save on costs associated with the annual Proposition 218 noticing.

BACKGROUND:

For the past several years, the Board has approved an annual operating budget and a single-year rate setting cycle. The District has recently completed or will soon complete several significant projects, such as major new facilities and administrative improvements. For example, the Oracle Financial System has provided increased analytical capabilities and visibility into the District's cost structure. These changes caused staff to consider options for increasing the length of the operating budget and rate setting cycles such that efficiencies can be increase while maintaining significant budgetary oversight and transparency.

To preserve the existing level of transparency and oversight, staff will continue to prepare the following reports for the Board's review:

- Quarterly operating results;
- Forecast budgets for quarters two through four; and
- Analysis of budgeted rates versus actual results.

Staff recommends the Board approve moving to a two year operating budget and rate setting process.

FISCAL IMPACTS:

A two-year budget and rate setting practice will reduce staff, Committee, and Board time as well as costs associated with the mailing and noticing of the Proposition 218 notices.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 5, 2018.

RECOMMENDATION:

THAT THE BOARD APPROVE UTILIZING A TWO-YEAR BUDGET RATE SETTING CYCLE, STARTING WITH FISCAL YEAR 2019-20 AND 2020-21 PERIOD.

LIST OF EXHIBITS:

None

December 10, 2018 *PKM*
Prepared by: S. Toland/R. Mori
Submitted by: K. Burton *(KLB)*
Approved by: Paul A. Cook *[Signature]*

ACTION CALENDAR

MICHELSON WATER RECYCLING PLANT EMERGENCY RECYCLED WATER DIVERSION TO SAN DIEGO CREEK CONSTRUCTION AWARD

SUMMARY:

The Michelson Water Recycling Plant (MWRP) Emergency Recycled Water Diversion to San Diego Creek project includes construction of a dechlorination facility, 24-inch steel pipeline to convey dechlorinated tertiary effluent to San Diego Creek, and associated instrumentation and controls. Staff recommends that the Board authorize the General Manager to execute a construction contract with PCL Construction, in the amount of \$981,465 for the MWRP Emergency Recycled Water Diversion to San Diego Creek project.

BACKGROUND:

In September 2018, the Regional Water Quality Control Board approved an MWRP permit amendment allowing the emergency discharge of dechlorinated tertiary effluent to San Diego Creek under certain emergency conditions. This project will construct the facilities needed to accomplish the emergency diversion to the creek. Facilities include a sodium bisulfite storage and feed system for dechlorination, concrete chemical containment structure, flow metering, conveyance piping and valving, and associated chlorine analyzers and instrumentation. The design utilizes the existing MWRP effluent pumps to deliver tertiary recycled water to the new dechlorination facility prior to its discharge into San Diego Creek through the existing 24-inch stormwater pump station outlet pipeline. The dechlorination facilities are sized to accommodate the 33 million gallons per day (MGD) anticipated maximum production capacity of MWRP, but the existing discharge piping to San Diego Creek may require upsizing to deliver that amount of flow should high velocities in the existing pipeline become problematic. However, with the expected infrequent operation of this facility, staff anticipates that the existing discharge piping can adequately accommodate the high velocities associated with the anticipated maximum flow of 33 MGD for short periods of time. Construction is estimated to be complete in summer of 2019 allowing the facilities to be ready for service in the winter of 2019-20.

Construction Award:

The project was advertised for construction bids on September 18, 2018 to a select list of nine contractors including Gateway Pacific Contractors, GSE Construction Company, Olsson Construction, Pacific Hydrotech Corporation, Pascal & Ludwig Constructors, PCL Construction, R.C. Foster Corporation, Schuler Constructors, and SS Mechanical Construction.

The bid opening was held November 29, 2018 with bids received from Pacific Hydrotech Corporation, PCL Construction, and R.C. Foster Corporation. PCL Construction is the apparent low bidder with a bid amount of \$981,465. The remaining bids were \$1,044,072.70 and \$1,550,722.70. The engineer's estimate, prepared by HDR, was \$830,000. Although all three

bids were higher than the engineer's estimate, with only a difference of six percent between the apparent low bid and the second low bid, staff believes that the bid costs are reasonable given the current construction climate. The bid summary is attached as Exhibit "A".

Staff reviewed PCL's bid and has determined that it is responsive. Staff recommends that the Board authorize the General Manager to award a construction contract to PCL Construction Inc., in the amount of \$981,465.

FISCAL IMPACTS:

The MWRP Emergency Recycled Water Diversion to San Diego Creek, Project 10093, is included in the FY 2018-19 Capital Budget and will be funded through regional sewer funds. The existing budget is sufficient to fund the recommendation presented herein.

ENVIRONMENTAL COMPLIANCE:

The IRWD Board of Directors approved the Michelson Water Recycling Plant Final Environmental Impact Report (FEIR) on February 27, 2006. Section 15164 of the CEQA Guidelines provides for the preparation of an addendum to a previously certified EIR if some changes or additions to the project are necessary but none of the conditions described in CEQA call for preparation of a subsequent EIR have occurred. IRWD Board of Directors approved Addendum No. 1 to the FEIR in March 2008, Addendum No. 2 to the FEIR was approved in August 2009, and Addendum No. 3 to the FEIR was approved in June 2010. Addendum No. 4 to the EIR, which evaluated the environmental effects of the emergency recycled water diversion to San Diego Creek, was approved by IRWD's Board on March 26, 2018. A Notice of Determination was filed with the County of Orange and the State Clearinghouse on March 27, 2018.

COMMITTEE STATUS:

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

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH PCL CONSTRUCTION INC., IN THE AMOUNT OF \$981,465, FOR THE MICHELSON WATER RECYCLING PLANT EMERGENCY RECYCLED WATER DIVERSION TO SAN DIEGO CREEK, PROJECT 10093.

LIST OF EXHIBITS:

Exhibit "A" – Bid Summary

Irvine Ranch Water District
 Bid Summary
 For

Michelson Water Recycling Plant Emergency Recycled Water Diversion to the San Diego Creek
 Project Number 10093

				Engineer's Estimate		1 PCL Construction, Inc. Long Beach, CA		2 Pacific Hydrotech Corporation Perris, CA		3 R C Foster Corporation Corona, CA	
Item No.	Description	Qty	Unit	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount
Base Bid Items											
1	Furnish all labor, materials, equipment, services and appurtenant work, except for items 2 through 7 below, for the construction of the MWRP Emergency RW Discharge to the San Diego Creek Project.	1	LS	\$592,077.30	\$592,077.30	\$730,482.30	\$730,482.30	\$802,100.00	\$802,100.00	\$1,295,000.00	\$1,295,000.00
2	Payment and performance bonds and insurance	1	LS	\$13,000.00	\$13,000.00	\$10,000.00	\$10,000.00	\$17,000.00	\$17,000.00	\$25,000.00	\$25,000.00
3	Mobilization, demobilization and clean up (Not to exceed 4% of total amount of bid)	1	LS	\$33,200.00	\$33,200.00	\$39,260.00	\$39,260.00	\$40,000.00	\$40,000.00	\$37,000.00	\$37,000.00
4	Pre-negotiated vendor package: Superior Water Technologies	1	LS	\$166,722.70	\$166,722.70	\$166,722.70	\$166,722.70	\$166,722.70	\$166,722.70	\$166,722.70	\$166,722.70
5	Trench Safety Measures	1	LS	\$5,000.00	\$5,000.00	\$10,000.00	\$10,000.00	\$250.00	\$250.00	\$5,000.00	\$5,000.00
6	Startup & Testing	1	LS	\$10,000.00	\$10,000.00	\$15,000.00	\$15,000.00	\$8,000.00	\$8,000.00	\$12,000.00	\$12,000.00
7	Final Record Drawings	1	LS	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
SUBTOTAL, Base Bid Items (1 through 7)					\$830,000.00		\$981,465.00		\$1,044,072.70		\$1,550,722.70
Adjustment (+ or -)					\$0.00		\$0.00		\$0.00		\$0.00
TOTAL AMOUNT OF BID					\$830,000.00		\$981,465.00		\$1,044,072.70		\$1,550,722.70
NOTES:						Subcontractors:		Subcontractors:		Subcontractors:	
1 - PCL Construction's bid amount of \$981,515.00 contained a mathematical error in the summation of the bid items. The corrected bid amount of \$981,465.00 is reflected herein.						Painting - Parada Painting, Inc.		Coatings - Parada Painting, Inc.		Painting - Parada Painting, Inc.	
						Electrical - ACS Electrical, Inc.		Electrical & Instrumentation - Hydrotech Electric		Electrical - Hydrotech Electric	
						Rebar - CMC Commercial Metals		Rebar - Zuko Steel Reinforcing			
						Asphalt - Hardy & Harper, Inc.		Landscape - Zuniga Scapes			

December 10, 2018
Prepared by: Tony Mossbarger
Submitted by: Cheryl Clary
Approved by: Paul Cook

ACTION CALENDAR

ENTERPRISE SERVER AND STORAGE REPLACEMENT

SUMMARY:

Staff requested proposals from three firms for enterprise server and storage replacement equipment. Based on a thorough evaluation of the proposals, staff recommends Board approval of a General Plant budget increase and expenditure of \$340,000 with Sirius Computer Solutions for the purchase, installation, and configuration of enterprise server and storage replacement equipment.

BACKGROUND:

The current enterprise server and storage equipment, purchased and installed in 2012 provides server processing and storage for the District’s enterprise applications and files is nearing the end of service life. The applications on this server include Oracle Financials, Oracle Business Intelligence, Oracle Customer Care and Billing, Maximo, Micro Focus file storage services, and several others.

The Board approved a general plant expenditure in August 2018 for enterprise server and storage equipment for \$335,000 to replace end of life equipment purchased in 2011. Due to reliability issues recently experienced with the remaining equipment, staff recommends replacement sooner than originally expected in FY 2019-20. Early replacement will also reduce the amount of time staff spends dealing with repairs and prevent future outages.

Staff requested proposals for enterprise server and storage equipment from three pre-qualified vendors that are certified providers of Nutanix server and storage equipment. Nutanix is a leader in hyper-converged systems which provide both virtual memory processing and storage services. The District currently uses virtualized servers as part of its existing infrastructure and hyper-converged systems and are the newest enterprise technology. Proposals were received from Carahsoft Technology Corp, Sirius Computer Solutions, and Nutanix Inc. The results were as follows:

<u>Vendor</u>	<u>Proposal Amount</u>
Sirius Computer Solutions	\$340,000
Carahsoft Technology Corp	\$690,000
Nutanix Inc	\$727,000

Sirius Computer Solutions had the best overall pricing for the enterprise server and storage replacement equipment, providing the District significant discounts from list pricing and has extensive experience providing equipment installation and implementation services to the District.

FISCAL IMPACTS:

Funds for the enterprise server and storage replacement included in the FY 2018-19 Capital Budget for General Plant replacement are not sufficient and a budget increase of \$340,000 is requested.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:


This item was reviewed by the Finance and Personnel Committee on December 5, 2018.

RECOMMENDATION:

THAT THE BOARD APPROVE A GENERAL PLANT BUDGET INCREASE AND EXPENDITURE OF \$340,000 WITH SIRIUS COMPUTER SOLUTIONS TO PURCHASE AND IMPLEMENT THE ENTERPRISE SERVER AND STORAGE REPLACEMENT EQUIPMENT.

EXHIBITS:

None.

December 10, 2018
Prepared and
Submitted by: L. Bonkowski
Approved by: Paul Cook 

ACTION CALENDAR

ELECTION OF OFFICERS FOR 2019

SUMMARY:

The Bylaws of the District provide that the President and Vice President shall be elected by the Board from among its members. The term of office of the President and Vice President is one year, or until the election and qualification of their successors. On December 11, 2017, Director Douglas Reinhart was elected to the office of President and Director Steve LaMar was elected to the office of Vice President for calendar year 2018.

While there are no formal election procedures set forth in the Bylaws, it is suggested that the General Manager be appointed temporary Chairman to conduct the election of President. The temporary Chairman would open nominations, accept nominations which need not be seconded, accept a motion to close the nominations, and conduct the balloting by voice vote. The President would then conduct the election of the Vice President in a similar manner.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT AN ELECTION BE CONDUCTED OF THE PRESIDENT AND VICE PRESIDENT OF THE BOARD OF DIRECTORS OF THE IRVINE RANCH WATER DISTRICT.

LIST OF EXHIBITS:

None.