

AGENDA
SANTA MARGARITA WATER DISTRICT
WATER QUALITY AND INNOVATION COMMITTEE MEETING
February 14, 2017

CALL TO ORDER: 8:30 a.m., Conference Room, District Office
26111 Antonio Parkway, Rancho Santa Margarita, California

COMMITTEE MEMBERS: Director Charles T. Gibson and Director Betty H. Olson

1. PUBLIC FORUM

Persons wishing to address the Board of Directors on matters not listed on the Agenda may do so at this time. "Request To Be Heard" forms are available at the entrance to the Conference Room. Comments are limited to three minutes, unless further time is granted by the Presiding Officer. Please submit the form to the Recording Secretary or Committee Chair prior to the beginning of the meeting.

Those wishing to address the Board of Directors on any item listed on the Agenda should submit a "Request To Be Heard" form to the Recording Secretary or Committee Chair before the Presiding Officer announces that agenda item. Your name will be called to speak at that time.

2. DISCUSSION ITEMS

- 2.1 Discussion Concerning Source Water Quality of Irvine Lake for use at the Baker Treatment Plant.....**Page 2**
- 2.2 Discussion Concerning District Automated Metering Infrastructure Program.
- 2.3 Reservoir Management System Pilot Testing Oral Update.

ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING

Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 26111 Antonio Parkway, Rancho Santa Margarita, California 92688, during regular business hours. When practical, these public records will also be made available on the District's Internet Web Site, accessible at <http://www.smwd.com>.

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, as required by Section 202 of the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Kelly Radvansky Secretary, Board of Directors, at (949) 459-6642 at least 48 hours before the meeting if possible.

President, Charles T. Gibson
Vice President, Justin McCusker
Engineering and Operations Committee Chair, Sandra F. Jacobs
Water Quality and Innovation Committee Chair, Betty H. Olson
Finance and Administration Committee Chair, Charley Wilson
General Manager, Daniel R. Ferons

Santa Margarita Water District



MEMORANDUM

TO: Water Quality and Innovation Committee **DATE:** February 14, 2017
FROM: Daniel Ferons
SUBJECT: Discussion Concerning Source Water Quality of Irvine Lake for Use at the Baker Treatment Plant

SUMMARY

Issue: The Baker Treatment Plant was designed to treat a variety of water sources including 100% Colorado River, 100% State Water Project and 100% Irvine Lake. The Irvine Lake Water is generally an emergency source for the District, however, Irvine Ranch Water District (IRWD) may utilize it as a regular source during years it has local water. As part of the start-up testing protocol, IRWD will be providing Irvine Lake Water to the Plant in the near future. The primary sources of water to Irvine Lake are imported water from the Santiago Aqueduct and local runoff. Attached is a source water report.

Recommendation: Discussion of water quality and reporting requirements for the District's Consumer Confidence Report.

Fiscal Impact: No fiscal impact.

Previous Related Action: No previous committee action on Irvine Lake Water Quality.

Anticipated Board Action: It is anticipated that this item will only be a committee discussion. The Committee and Board will consider the Consumer Confidence Report in the future.

DISCUSSION

The Baker Treatment Plant was designed to accept water from Irvine Lake (IL) and Irvine Ranch Water District provided the attached water quality report in anticipation of providing water from IL during the start-up testing of the plant. The only significant treatment process change at the plant is the use of chlorine dioxide for iron and manganese treatment. Other than having iron and manganese (and slightly more turbidity) than untreated MET water, the two water supplies are comparable.



IRVINE RANCH WATER DISTRICT
WATER QUALITY ANALYSIS DEPARTMENT
 CA ELAP Certificate Number 1101

Michelson Water Reclamation Plant
 3512 Michelson Drive
 Irvine, CA 92612-1799
 TEL: (949) 453-5800 FAX: (949) 476-1187

LABORATORY REPORT

METHOD REFERENCE	ANALYTE	UNITS	MDL	DLR	START DATE	END DATE
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AE27026 ILP1 ILP Irvine Park **Sample Type: GRAB**
Collection: Start 12/01/2016 End 12/01/2016@ 09:30 By: STONTZ, A. **Submitted:** 12/01/2016 @ 10:15

Analytical Department: SUB

ML/EPA 100.1/2	Asbestos - Chrysotile Fibers >10um	ND	MFL	0.19	0.19	12/29/17	12/29/17
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Sample Comments:

AE27317 ILP1 ILP Irvine Park **Sample Type: GRAB**
Collection: Start 12/05/2016 End 12/05/2016@ 12:50 By: OROZCO, L. **Submitted:** 12/05/2016 @ 13:39

Analytical Department: FIELD

SM2550 B	Temperature (field)	11.6	degrees C	0.0	0.0	12/5/16	12/5/16
SM4500-CL G	Chlorine Residual - Free (field)	0.11	mg/L	0.03	0.05	12/5/16	12/5/16
SM4500-CL G	Chlorine Residual - Total (field)	0.15	mg/L	0.03	0.05	12/5/16	12/5/16

Analytical Department: METALS

ASTM D6919-03	Calcium - Ion Chromatography	72.9	mg/L	0.32	2.0	12/6/16	12/6/16
ASTM D6919-03	Potassium - Ion Chromatography	5.3	mg/L	0.022	0.20	12/6/16	12/6/16
ASTM D6919-03	Magnesium - Ion Chromatography	29.5	mg/L	0.025	0.50	12/6/16	12/6/16
ASTM D6919-03	Sodium - Ion Chromatography	102	mg/L	0.22	2.0	12/6/16	12/6/16
EPA 200.8 DRC	Iron	331	ug/L	0.402	2.50	12/14/16	12/19/16
EPA 200.8/6020	Manganese	47.8	ug/L	0.258	2.00	12/14/16	12/19/16

Analytical Department: WETCHEM

EPA 300.0	Chloride	100	mg/L	0.0434	4.000	12/13/16	12/13/16
EPA 300.0	Fluoride - Ion Chromatography	0.34	mg/L	0.0024	0.10	12/12/16	12/13/16
EPA 300.0	Sulfate	255	mg/L	0.13	8.00	12/13/16	12/13/16
SM2340 B	Total Hardness as CaCO3 (Calculated)	304	mg/L as CaCO3	0.50	2.9	12/7/16	12/7/16
SM2340B	Calcium Hardness as CaCO3 (Calculation)	182	mg/L as CaCO3	0.40	2.5	12/7/16	12/7/16
SM2510 B	Electrical Conductivity	1059	umhos/cm			12/6/16	12/6/16
USGS I-1750-85	Total Dissolved (Filterable) Solids	692	mg/L	1.0	10	12/5/16	12/6/16

Sample Comments:

AE27403 ILP1 ILP Irvine Park **Sample Type: GRAB**
Collection: Start 12/06/2016 End 12/06/2016@ 09:00 By: STONTZ, A. **Submitted:** 12/06/2016 @ 11:37

Analytical Department: FIELD

SM2510 B	Electrical Conductivity (Field)	Not Analyzed	umhos/cm			12/6/16	12/6/16
SM2550 B	Temperature (field)	13.9	degrees C	0.0	0.0	12/6/16	12/6/16
SM4500-CL G	Chlorine Residual - Total (field)	ND	mg/L	0.03	0.05	12/6/16	12/6/16
SM4500-H* B	pH (Field)	8.27	SU	0.0	0.0	12/6/16	12/6/16
SM4500-O G	Dissolved Oxygen (field)	Not Analyzed	mg/L	0.05	0.1	12/6/16	12/6/16

Analytical Department: METALS

EPA 200.8 DRC	Iron (Dissolved)	207	ug/l	0.40	2.50	12/14/16	12/19/16
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METHOD REFERENCE	ANALYTE		UNITS	MDL	DLR	START DATE	END DATE
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AE27403	ILP1	ILP Irvine Park					
Collection: Start 12/06/2016 End 12/06/2016@ 09:00			By: STONTZ, A.		Sample Type: GRAB		
			Submitted: 12/06/2016 @ 11:37				
EPA 200.8 DRC	Iron		761	ug/L	0.402	2.50	12/12/16 12/19/16
EPA 200.8/6020	Manganese		11.5	ug/L	0.258	2.00	12/12/16 12/19/16
EPA 200.8/6020	Manganese (Dissolved)		9.99	ug/L	0.258	2.00	12/14/16 12/19/16

Analytical Department: WETCHEM

SM 5310C	Total Organic Carbon		3.5	mg/L	0.05	0.30	12/15/16 12/15/16
SM(21)2120C	Color, True - Spec 455		9	APHAColorUnits	2	4	12/7/16 12/7/16
SM(21)2120C	Color, Apparent - Spec 455		16	APHAColorUnits	2	4	12/7/16 12/7/16
SM2130 B	Turbidity		1.1	NTU	0.03	0.10	12/7/16 12/7/16
SM2510 B	Electrical Conductivity		1070	umhos/cm			12/7/16 12/7/16
SM2540 D	Total Suspended Solids		2.4	mg/L	1.0	1.0	12/6/16 12/8/16
USGS I-1750-85	Total Dissolved (Filterable) Solids		686	mg/L	1.0	10	12/8/16 12/9/16

Sample Comments:

AE27901	ILP1	ILP Irvine Park (3010092-082)					
Collection: Start 12/13/2016 End 12/13/2016@ 10:19			By: OROZCO, L.		Sample Type: GRAB		
			Submitted: 12/13/2016 @ 10:53				

Analytical Department: FIELD

SM2550 B	Temperature (field)		14.6	degrees C	0.0	0.0	12/13/16 12/13/16
SM4500-CL G	Chlorine Residual - Total (field)		0.07	mg/L	0.03	0.05	12/13/16 12/13/16
SM4500-H* B	pH (Field)		6.90	SU	0.0	0.0	12/13/16 12/13/16

Analytical Department: SUB

EPA 245.1	Mercury		ND	ug/L	0.10	0.20	12/21/16 12/21/16
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Sample Comments:

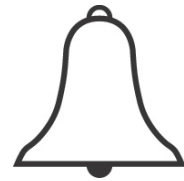
Report Comments: NA = Not Analyzed, ND = Not Detected J = Result below reporting limit, but above the MDL , value is an estimate

Report Prepared By: _____

Lars D. Oldewage, Water Quality Department Manager

Santa Margarita Water District

MEMORANDUM



Agenda Items 2.2 & 2.3

Both items for discussion, no report included.