

**AGENDA**  
**SANTA MARGARITA WATER DISTRICT**  
**WATER QUALITY AND INNOVATION COMMITTEE MEETING**  
**January 17, 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 Board 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. ACTION ITEMS**

- 2.1 Consideration and Action on Providing Support to Rancho Santa Margarita Landscape and Recreation Corporation (SAMLARC) to Address the Ongoing Golden Algae Issue in Lago Santa Margarita .....**Page 3**

**Recommendation:** Authorize the District to participate in development of a research project to treat Golden Algae and appoint a representative to serve on the SAMLARC Lago Santa Margarita Lake Ad Hoc Committee.

**3. DISCUSSION ITEMS**

- 3.1 Oral Update on Lake Mission Viejo Pilot Project for an Innovative Process for Removal of Constituents of Emerging Concerns for Direct Potable Reuse of Recycled Water.
- 3.2 Re-Cap of the November 28, 2016 Water Quality and Innovation Committee Meeting and Future Anticipated Agenda Items.....**Page 6**

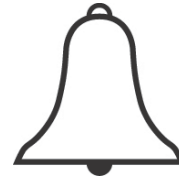
President, Charles T. Gibson  
Vice President, Justin McCusker  
Engineering and Operations Committee Chair, Sandra F. Jacobs  
Water Quality and Innovation Committee Chair, Betty H. Olson  
Finance and Administration Committee Chair, Charley Wilson  
General Manager, Daniel R. Ferons

**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.*

# Santa Margarita Water District



## MEMORANDUM

**TO:** Water Quality and Innovation Committee **DATE:** January 17, 2017

**FROM:** Dan Ferons and Don Bunts

**SUBJECT:** Consideration and Action on Providing Support to Santa Margarita Landscape and Recreation Corporation (SAMLARC) to Address the Ongoing Golden Algae Issue in Lago Santa Margarita

### SUMMARY

**Issue:** SAMLARC owns and operates Lago Santa Margarita, a recreational lake that is a centerpiece to Rancho Santa Margarita. It has been experiencing a severe outbreak of Golden Algae that has decimated the fish population in the lake. SAMLARC approached the District per the attached letter to discuss if we could provide support or any expertise in addressing the problem. Several options were considered including development of a research project since Golden Algae is a growing concern in the western States.

**Recommendation:** Authorize the District to participate in development of a research project to treat Golden Algae and appoint a representative to serve on the SAMLARC Lago Santa Margarita Lake Ad Hoc Committee.

**Fiscal Impact:** The District would provide staff time for meeting with SAMLARC to develop alternatives. SAMLARC would be responsible for any direct costs.

**Previously Related Action:** There has not been any previous Board action, the District has discussed water quality issues and Golden Algae in the past with both SAMLARC and Lake Mission Viejo.

**Adherence to Policy:** This project is consistent with the District's policy for providing customer service and also may impact our strategic plan policies for development of water supplies. Additionally, it may provide opportunity for development of innovative treatment processes that may be applicable in other areas.

**Anticipated Board Action:** It is anticipated that this item will be presented to the Board for action and approval on February 1, 2017.

## **DISCUSSION:**

Golden Algae are a large group of algae, found mostly in freshwater which causes fish kills. It has been spreading across the southern United States and has been found in Southern California over the last couple of years. Both Lake Mission Viejo and Lago Santa Margarita have been infested with a resulting devastation of the fish populations. Lake Mission Viejo is deeper and larger than Lago Santa Margarita and has been able to sustain a recovery of the fish population while Lago Santa Margarita with its more uniform temperature is still impacted.

Don Bunts, Rich Kisse and I met with SAMLARC to discuss what we knew about the problem and to see if we could offer any solutions. The discussions ranged from draining the lake and dredging to various treatments that other areas have tried. Currently there are not any clear cut solutions. We recommended they approach, as a research project, enlisting the help of the local universities including University of California Riverside which provided assistance with Upper Oso Reservoir. We also suggested that the Water Research Foundation may be interested in development of a project since the lake is small and self-contained with a controlled source of water (imported domestic water).

Based on the discussion, SAMLARC President Robert Dickson sent the attached letter to formally request that we participate and provide technical assistance to allow the lake to recover and support a healthy fish population. The effort would include:

- Assignment of a liaison between the organizations, we are proposing that Don Bunts be appointed along with regular participation by the WQI Committee members.
- Work with the Water Research Foundation to determine if any research has been previously conducted and if any is ongoing.
- Coordinate development of a research project.

The potential benefits to the District for participation are:

- Support for one of the District's community partners and major customers.
- Solutions may support goal of recycled water use at the lake and in the community.
- Development of an innovative treatment process may be a potential opportunity for the District.



January 6, 2017

Mr. Dan Ferons  
General Manager  
Santa Margarita Water District  
26111 Antonio Pkwy  
Rancho Santa Margarita, CA 92688

Dear Mr. Ferons,

Thank you, and members of your team, for meeting with us last month to discuss SAMLARC's ongoing issue with Golden Algae in Lago Santa Margarita. Golden Algae is a relatively new issue in California affecting the fish population in lakes, ponds and other bodies of water. Golden Algae releases a toxin that affects fish by striking their gills, causing them to suffocate. As a result, due to the ongoing high Golden Algae count in Lago Santa Margarita and no known effective and lasting treatment, SAMLARC's once live and thriving lake now is unable to sustain fish life.

At this point, there is no know permanent treatment to completely eradicate Golden Algae. However, we believe there may be strategy to treat Golden Algae as a chronic condition that could allow fish to thrive with its presence at a lower level. As I understand, there could be an opportunity to find a sustainable level and treatment by partnering with SMWD to conduct pilot treatment alternatives.

We respectfully request assistance from the SMWD Board of Directors to help us address this situation with the goal to bring Lago Santa Margarita back to life with fish! As mentioned during the meeting, there may be an opportunity to work with your team, the University of Riverside and through SMWD with the Water Research Foundation for possible grant funding.

Should the SMWD Board of Directors grant assistance, we also request a representative to serve on the SAMLARC Lago Santa Margarita Lake Ad Hoc Committee whose purpose is to research strategies and options to address Golden Algae in Lago Santa Margarita. We ask that the SWMD representative also serve as a liaison to SAMLARC staff and Board of Directors in developing a pilot program and seeking available grant funding related to water treatment.

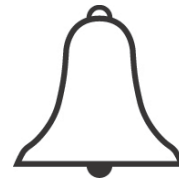
We are available in the event you have questions or wish additional information, and thank you for your consideration. We look forward to hearing from you and the possibility of partnering SMWD to develop an effective and lasting treatment.

Sincerely,

A handwritten signature in black ink that reads "Robert Dickson". The signature is written in a cursive style with a large, sweeping "R" and "D".

Robert Dickson, President  
Board of Directors

# Santa Margarita Water District



## MEMORANDUM

**TO:** Water Quality and Innovation Committee

**DATE:** January 17, 2017

**FROM:** Stacey Bruno

**SUBJECT:** Re-Cap of the November 28, 2016 Water Quality and Innovation Committee Meeting and Future Anticipated Agenda Items

### SUMMARY

At the November 28<sup>th</sup> Water Quality and Innovation Committee meeting the following items were considered:

Item No.	Item Description	Status
2.1	Consideration and Action on Policy for Development of Energy Storage	<b>Action:</b> Approved <b>Status:</b> Recommended to be placed on the consent calendar for the December 7 <sup>th</sup> board meeting.
2.2	Consideration and Action on State Water Resources Control Board Drinking Water Division Waiver Applications for the Third Period of the Third Compliance Cycle for Drinking Water Permits held by the District	<b>Action:</b> Approved <b>Status:</b> Recommended to be placed on consent calendar for the December 7, 2016 meeting.
2.3	Consideration and Action on Purchase of ICS 5000 Ion Chromatography System	<b>Action:</b> Approved <b>Status:</b> Committee members agreed with the recommendation to revise district practices to perform ion chromatography analysis in house instead of through contract services and that no further Board action is required.
3.1	Update on 3A Plant Upgrade Proposed Water Quality Improvements	<b>Action:</b> None; Information Item.

Item No.	Item Description	Status
3.2	Vehicle Management Innovation Update	<b>Action:</b> None; Information item.
3.3	Oral Update on Lake Mission Viejo Pilot Project for an Innovative Process for Removal of Constituents of Emerging Concerns for Direct Potable Reuse of Recycled Water.	<b>Action:</b> None, Information Item