

LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT
MINUTES OF SPECIAL MEETING OF THE BOARD OF DIRECTORS
LAKE ARROWHEAD TRACER STUDY PUBLIC WORKSHOP

DATE: August 27, 2019

TIME: 4:00 p.m.

PLACE: LACSD Blue Jay Board Room
27307 St. Hwy. 189, Ste. 104
Blue Jay, CA 92317

ATTENDANCE: ***Board Members Present:***
Steve Boydston, Vice President
Ryan Gross, Director
John Wurm, President

Board Members Absent:
Steve Keefe, Director
Robert Morris, Director

Others Present:
Catherine Cerri, General Manager
Matt Brooks, Operations Manager
Kathleen Field, Board Secretary
Matt O'Kelly, Operations Supervisor-Wastewater
Sergio Loza, Laboratory Analyst
Natalie Potter, Human Resources Manager
David James, PhD, University of Nevada, Las Vegas
Members of the Public - One

The Meeting was called to Order at 4:03 p.m. by John Wurm, President, who led those present in the Pledge of Allegiance to the Flag of the United States of America. Board Secretary Field certified the proper posting of the Agenda and called the roll.

APPROVAL OF AGENDA

The Board by general consensus approved the August 27, 2019 Special Board Meeting agenda as presented.

PUBLIC COMMENT

There was no Public Comment.

DISCUSSION ITEMS

1. Methods of Conducting a Tracer Study

President Wurm introduced David James, Ph.D., from the University of Las Vegas. Mr. James presented a PowerPoint presentation on the Lake Arrowhead Tracer Study, which covered the following:

Background

- The historic drought in US Southwest since 2000, population has continued to grow
- Water agencies need to find and develop alternative sources of supply to maintain quality of life, and resiliency of water supply system
- One future option is mixing and dilution of recycled water into lakes called Surface Water Augmentation by Indirect Potable Reuse (IPR)
- Surface Water Augmentation potential for Lake Arrowhead one foot of Lake level
- Evaluation of travel time and mixing of water in the Lake
- US Bureau of Reclamation mission includes partnerships with Western water agencies to assist with the conservation and management of their water resources
- US Bureau of Reclamation Mission
 - Develop a user “how-to” manual of best practices for monitoring and modeling lake water movement
 - The benefit to community: information generated about Arrowhead could support follow-on studies if ALA and LACSD were to evaluate future feasibility of IPR
- Monitoring Sites
 - Lake water quality weekly at five locations
 - Measurement of Lake winds at McKay Park, Lollipop Park, Tavern Bay, and Meadow Bay
 - US Bureau of Reclamation measures vertical lake water movement in Meadow Bay and center channel

- Measure lake inflow properties at Little Bear Creek and Grass Valley tunnel/channel
- What are the steps?
 - Select non-toxic tracers that can be detected at low concentrations
 - Monitor lake water and winds to anticipate rage and directions of water movement and determine background concentrations
 - Select lake location and depth based on monitoring
 - Build a tracer addition system to safely put tracer in the lake at intended location and depth
 - Develop the plan to monitor added tracer
 - Submit the plan to Water Quality Control Board requesting permission
 - Hold public comment workshops, forward information to Board
 - Receive results of the review by Water Quality Board
 - If approved, conduct the study. Add tracer, monitor movement and concentration, calculate travel time and dilution and calibrate model
 - October 8, 2019, proposed date to add tracer
 - Use the calibrated model to run scenarios for recycled water release at different dates throughout at least one annual cycle
- Proposed Tracer
 - Rhodamine WT – fluorescent dye
 - Sucralose – artificial sweetener

Mr. James responded to questions.

ADJOURNMENT

Vice President Boydston **MOVED** and Director Gross **SECONDED** to adjourn the meeting. The meeting adjourned at approximately 4:49 p.m.

CARRIED: **AYES:** **Boydston, Gross, and Wurm**
 NOES: **None**
 ABSTAIN: **None**
 ABSENT: **Keefe and Morris**


 Kathleen Field, Board Secretary