

EXECUTIVE OFFICER SUMMARY REPORT  
February 11, 2015

- ITEM: 8
- SUBJECT: Information Item: Meeting Statewide Recycled Water Goals by 2020 – Progress and Challenges in the San Diego Region (*Julie Chan and Fisayo Osibodu*)
- PURPOSE: Provide timely information to board members on actions affecting the Region with respect to meeting the State’s recycled water use goals.
- RECOMMENDATION(S): There is no recommendation as this is an information item and the Board will take no action.
- KEY ISSUES:
1. Regulations for reservoir augmentation and direct potable reuse of recycled water must address a broad spectrum of complex issues concerning water quality and human health, ecological health, performance reliability of treatment systems, and financial, social and environmental factors corresponding to the proper level of treatment.
  2. Recycled water agencies are planning and implementing projects to increase recycled water use in the San Diego Region.
- PRACTICAL VISION:
- Proactive Public Outreach and Communication – The Practical Vision Community Outreach Strategy goal is to provide the public with information through a variety of platforms including discussions and meetings. This item brings together recycled water agencies, technical experts, staff, and board members to exchange information and insights on meeting the State’s recycled water use goals.
- Sustainable Local Water Supply – The Practical Vision calls for the San Diego Water Board to establish relationships with water suppliers and water agencies, and to partner with them on plans to increase local water supplies. This item contributes to the relationship-building process while giving board members insights into the progress toward and challenges to meeting the recycled water use goals.

## DISCUSSION:

The State *Recycled Water Policy* incorporates the following two goals; increase the use of recycled water over 2002 levels by at least one million acre-feet per year (afy) by 2020, and by at least two million afy by 2030. For reference, the average family of four uses 0.45 afy. The extreme drought of the last three years has made meeting this goal more critical as water supplies from the Sacramento-San Joaquin River Delta and Colorado River become less and less reliable.

Landscape irrigation with recycled water will continue to be an important component of a sustainable water supply in the San Diego Region. The biggest increases in recycled water use, however, will likely come from indirect potable reuse projects (i.e. groundwater recharge and surface water augmentation projects) and direct potable reuse projects. The State Water Resources Control Board, Division of Drinking Water has adopted regulations for groundwater recharge with recycled water and is in the process of developing draft regulations for surface water augmentation reuse. The Division of Drinking Water will also be developing regulations for direct potable reuse of recycled water. Representatives from the Division of Drinking Water will provide an update on the status of the draft regulations.

The issues to be addressed in the draft regulations are broad in scope and complex. The quality of recycled water must be protective of human health for drinking, and potentially for contact recreation in reservoirs. Thus, the regulations must control for microbial and chemical risks. Treatment systems must be effective and reliable, and be operated and monitored appropriately.

Increasing the use of recycled water can cause undesirable environmental effects. Stream flow is expected to decrease in effluent dominated streams, creating the potential for hydromodification and impacts to sensitive species. As less recycled water is disposed of through ocean outfalls, effluent plumes will likely be more concentrated, leading to changes in the mixing, dispersion and bouancy of the plumes, and potentially affecting the benthos and fish.

Financial, environmental, and social factors affecting water reuse must also be considered. A full accounting of costs and benefits of different water supply options is needed to

match the level of treatment to its intended use. Without this, organizations tend to default to a higher level of treatment to minimize perceived risks to the public or environment, driving up the cost without an offsetting benefit. Researchers are developing models with the goal of matching the level of treatment to its intended use without expending unnecessary funds, energy, greenhouse gas emissions, and other pollutants, while minimizing other environmental and social costs.

These issues were presented and discussed in November 2014 during a meeting at the Southern California Coastal Water Research Project. Technical and industry experts will summarize these issues at the Board meeting.

While the State Water Board works on the draft regulations, recycled water agencies in the region are advancing a number of different projects to increase recycled water use. Representatives from several agencies will brief the board on their respective projects.

**LEGAL CONCERNS:**

None.

**SUPPORTING DOCUMENTS**

None

**PUBLIC NOTICE:**

This item was noticed to the public in the Meeting Notice and Agenda for the board's February 11, 2015 meeting.