



**WEST BASIN MUNICIPAL WATER DISTRICT**  
17140 S. Avalon Blvd., Suite 210  
Carson, CA 90746

**AGENDA NO.** 6

**NOVEMBER 12, 2009 – Water Resources**  
Little (Chair), Gray  
**NOVEMBER 23, 2009 – Board Meeting**  
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Submitted by: Wyatt Won  
Approved by: Rich Nagel

## INFORMATION CALENDAR

### HYPERION WATER QUALITY IMPROVEMENT PROJECTS

#### SUMMARY:

In May, the Board approved moving forward with six projects to try to improve the water quality of the plant influent from Hyperion. Three of the projects involved changes at Hyperion:

- The first was to add more oxygen to Modules 1 and 2 to get better treatment of the secondary effluent we receive. This test has been started and is on-going.
- The second was to add ferric chloride to the secondary clarifiers to see if turbidity and total suspended solids concentrations could be reduced. The Board approved hiring a consultant to develop the test protocol and design the temporary facilities at Hyperion earlier this month.
- The third project at Hyperion was to automate the slide gates. This project is pending the on-going testing of adding more oxygen to Modules 1 and 2.

There were also three projects to move forward with at the Edward C. Little Water Recycling Facility to try to improve microfiltration performance:

- The first was to try to implement maintenance wash cycles for the microfilters. Maintenance washes are done everyday using a mild caustic solution versus the current cleaning protocol that requires a chemical clean every one to two weeks. Maintenance washes were piloted by United Water Services this past August. Performance of the tested microfilter unit did not improve with the maintenance washes and actually performed worse than some units that were chemically cleaned every week.
- The second project was to test ferric chloride addition upstream of the microfilters to see if that would improve performance. The test equipment is being set up by United Water Services. The test is anticipated to start by the end of the month.
- The third project at the Edward C. Little Water Recycling Facility is to inject ozone upstream of the microfilters to improve microfilter performance. In order to expedite the project, staff is negotiating with the current Phase V consultant, HDR, to develop testing protocols and implement the pilot program. If the piloting verifies that ozone would improve microfilter performance, it could be added as part of the Phase V Expansion Scope. The HDR team is exceptionally qualified for this effort due to their knowledge of membrane fouling mechanisms and West Basin's membrane systems in particular, their familiarity with Hyperion, and their experience with ozonation systems.

Staff is planning to bring a proposal on ozonation piloting efforts for the Board to consider next month.

STRATEGIC BUSINESS PLAN IMPLEMENTATION:

Goal 7, Infrastructure – Manage infrastructure to ensure reliability, manage risk, and maximize the useful life of facilities.

Goal 8, Finance – Manage finances to optimize the public’s investment return and minimize risk.

COMMITMENT STATEMENT:

Sound Financial and Resource Management – West Basin is committed to efficient business operations, financial planning, and asset management.

FISCAL IMPACTS:

Funds are available in the Fiscal Year 2009-10 Capital Budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on November 12, 2009 and agendaized to the November 23, 2009 Board meeting under Hyperion Water Quality Update.

RECOMMENDED MOTION:

This item is for information only.

LIST OF EXHIBITS:

None.