



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

AGENDA NO. 26

AUGUST 13, 2009 – Water Resources

Little (Chair), Gray

AUGUST 24, 2009 – Board Meeting

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Approved by: Rich Nagel

INFORMATION CALENDAR

CAPITAL IMPLEMENTATION MASTER PLAN

SUMMARY:

In June 2009, the West Basin Recycled Water Capital Implementation Master Plan (Master Plan) was completed. The Master Plan outlines a roadmap through the year 2020 and beyond to meet the West Basin's Infrastructure Goals within the Strategic Business Plan and to achieve the Water Reliability 2020 goal of supplying up to 70,000 acre-feet per year (AFY) of recycled water by year 2020. The Master Plan establishes the basis of long-range financial planning for phased capital improvement projects, provides a comprehensive repair, replacement, and rehabilitation plan, and identifies potential future recycled water customers. The Master Plan will also continue to serve as a tool for staff and consultants for future analysis of West Basin's numerous recycled water systems as new customers and opportunities are identified. It is anticipated that the Master Plan will be updated every several years to accommodate planning and customer development changes.

The comprehensive Master Plan effort involved:

- Updating the customer database to identify current and potential future customers inside and outside West Basin's service area;
- Development and calibration of 10 independent hydraulic computer models for evaluating existing and potential future recycled water distribution system and water quality conditions;
- Performing a condition assessment of existing capital facilities to develop a preliminary asset management database detailing useful service life for major equipment;
- Establishing a comprehensive repair, replacement, and rehabilitation program for long-range capital planning;
- Development of a detailed phased Capital Improvement Program and schedule for potential future capital facility improvements; and
- Development of a hydraulic model handbook for use in evaluating future supply scenarios.

West Basin is currently serving about 32,000 AFY of recycled water to 175 customers at over 200 recycled water customer sites. The projected 2020 future recycled water demands and the associated capital cost through year 2020 are presented in Table 1 and Table 2, respectively.

Table 1 - Existing and Projected Future Recycled Water Demand

Usage Type	2008	2020
	Average Annual Demand (AFY)	Average Annual Demand (AFY)
Irrigation	3,257	6,766
Industrial	17,018	43,522
Mixed Use	205	305
Barrier	11,380	16,980
Total	31,860 (25,036)*	67,573 (50,862)*

* Total AFY within West Basin Service Area

Table 2 - Projected Capital Cost by Phase

Planning Phase (FY)	Present Day Capital Cost (\$ Million)
2009/2010	\$15.1
2010/2011	\$68.9
2011/2012	251.9
2012/2013	\$16.7
2013/2014	\$25.5
2014/2015	\$10.0
Subtotal FY 2010-2015	\$388.1
Subtotal FY 2015-2020	\$226.8
Total thru FY 2020	\$614.9

The Master Plan also identified the following major capital improvement projects anticipated through year 2020:

- Edward C. Little Water Recycling Facility Phase V Expansion
- Juanita Millender-McDonald Carson Regional Water Recycling Facility Phase II Expansion
- Hyperion Secondary Effluent Pump Station Expansion
- New Treatment Facility at County Sanitation Districts of Los Angeles County's Joint Water Pollution Control Plant (JWPCP)
- Back-up Power and Potable Water Upgrades
- Booster Station and Pump Upgrades
- Disinfection Station
- Pipeline Conveyance Projects

The over 850-page, 17-section Master Plan consists of a Final Report, Technical Appendices, and maps detailing the existing recycled water system, existing and future customer database, and recycled water supply. It also outlines methodology and assumptions for existing and future system analysis, along with results and findings from hydraulic analysis, model calibrations, and conditional assessment.

STRATEGIC BUSINESS PLAN IMPLEMENTATION:

Goal 1, Reliability – Maintain a level of local water reliability that supports the regional economy, our community and customer agency needs.

Goal 3, Water Quality – Provide high quality water that meets the needs of our customers.

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

COMMITMENT STATEMENT:

Water Reliability – West Basin is committed to innovative planning and investments to provide water supply reliability and drought protection.

FISCAL IMPACTS:

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

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on August 13, 2009 and agendized to the August 24, 2009 Board meeting as information for discussion.

RECOMMENDED MOTION:

This item is for information only.

LIST OF EXHIBITS:

None.