

CENTRAL BASIN MUNICIPAL WATER DISTRICT

JULY 7, 2004 - Water Resources

Morse, Apodaca

JULY 26, 2004 - Board Meeting

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INFORMATION CALENDAR

POLICIES AND PROCEDURES FOR RECYCLED WATER PIPELINE
EXPANSION AND DEVELOPMENT

SUMMARY:

The District has been diligently engaged in promoting and developing recycled water use. To date, the District has constructed approximately 50 miles of pipeline and connected nearly 200 sites. Staff continues to look for opportunities to expand the system by constructing new water main laterals and connecting new customers.

The Ten-Step Process - When New Infrastructure is Constructed by the District

To ensure a sensible and orderly development of the recycled water system, staff has developed a "Ten-Step Process" of procedures and protocol as described in the "Recycled Water Customer Development Process" (Exhibit "A"). The Ten-Step Process evaluates each water main lateral extension and connection as a project in itself. It ensures that each project is:

- Economically justifiable;
- Hydraulically feasible;
- Fosters a level of commitment from the new user;
- Obtains Department of Health Services' preliminary project approval; and
- Secures District-user agreements where necessary.

Agreements - When New Infrastructure is Constructed by another Entity

The Ten-Step Process applies to all situations where the District constructs and retains ownership of the pipeline. However in some cases, the purveyor has taken the initiative to build their own pipeline and connect to the District's system. In such cases, the District has entered into agreements with the purveyor. The agreements address the following questions:

- Is the District able to accommodate the purveyor's flow and pressure needs;
- Which entity will provide operations and maintenance responsibilities;
- Who will bear the burden for capital and operations and maintenance costs;
- If the District pays for all or a portion of the pipeline, is the project economically justifiable;
- Does the constructed pipeline meet District construction standards; and
- Does the pipeline meet the needs of the customers it serves hydraulically in the present and for the future?

This policy has been effective in connecting Upper San Gabriel Valley MWD and the City of Vernon to the District's system.

Overview of Current Activity

It has come to staff's attention that the Cities of Downey and Santa Fe Springs are planning to construct recycled water pipelines and connect to the District's system. While the District encourages recycled water use, staff is concerned that the existing recycled water distribution system is nearing hydraulic capacity. Any additional demands placed on the system will need to be evaluated with respect to system hydraulic capacity and economic viability. Staff will work with the Cities of Downey and Santa Fe Springs to evaluate hydraulic, economic, and other issues to assess if the new connections are feasible.

City of Santa Fe Springs

Staff met with the City on July 13, 2004 to discuss the recycled water system in which two items were identified:

- The City has some concern about the change in system pressure. The irrigation system of the medians in the City was designed with a certain pressure expectation. With currently lower system pressures than in years past, the irrigation system has not been able to provide adequate coverage of all of the turf areas. The change in system pressure over the years is due to the effect of the loss of Santa Fe Springs Reservoir and the addition of new users to the system.
- The City communicated their plans to expand the recycled water system and connect several new irrigational recycled water users. The City also stated that the new users will require 71 psi at the point of connection, a pressure the District can not currently meet. Staff informed the City that the District has plans to implement a reservoir and reservoir pump station that will increase system pressure in the region.

City of Downey

The City is planning to construct an 8,165-foot recycled water pipeline along Lakewood Boulevard from Donovan Street (point of connection to the District's system) to Cecilia Street. A future phase will include extending the Lakewood Boulevard Pipeline 8,600 feet from Cecilia Street to the north City Border. Staff has been corresponding with the City (Exhibit "B") and has drafted an agreement to address this connection. The key points of the draft agreement are as follows:

A) City will:

- Design and construct recycled water facilities and future improvements as needed (e.g. booster pump station, on-site pumps, etc.);
- Obtain District's signatory approval on design plans before advertising plans for construction bids if the recycled water facilities are to operated and maintained by the District;
- Provide full-time inspection during construction;
- Allow full inspection access to the District's inspection representative if the recycled water facilities are to operated and maintained by the District; and
- Obtain State DHS approval on designs prior to construction.

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B) District will:

- Assist in identifying new customers and their peak demand;
- Provide engineering review of City's design plans if the recycled water facilities are to be operated and maintained by the District;
- Assist with obtaining DHS approval on designs prior to construction;
- Provide hydraulic analysis of proposed systems; and
- Have a presence at the project site during construction and provide input on change orders if the recycled water facilities are to be operated and maintained by the District.

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Hydraulic Impact of the Lakewood Boulevard Pipeline

The estimated new demand on the Lakewood Boulevard Pipeline is 295 to 445 AFY, depending on which customers will be served. A hydraulic analysis was performed to evaluate the impact of the new demand. The analysis forecasts low pressures along the portions of new pipeline peak demand conditions. With such low pressures, the City will be required to design, construct, and pay for additional enhancements to increase pressure. The enhancement will likely be a booster pump station, a series of on-site pumps, or a new, larger connection to the District's 24-inch pipeline.

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Recycled Water System Pressure Guarantees

The District has entered into two agreements where a specific recycled water system pressure is guaranteed. Beside those two exceptional cases, the District at this time does not have a policy to guarantee any minimum pressure to our users. However, staff has been conforming to the unofficial water industry standard to provide all users a minimum of 40 psi on a 24/7 basis. Water delivered in the 60-80 psi range is ideal.

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FISCAL IMPACTS:

Not applicable.

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ENVIRONMENTAL COMPLIANCE:

Not applicable.

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COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on July 7, 2004 and agendized to the July 26, 2004 Board meeting as information for discussion.

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RECOMMENDED MOTIONS:

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EXHIBITS:

- Exhibit "A" - Recycled Water Customer Development Process
- Exhibit "B" - Letters to Downey, June 8, June 25, July 15

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