

- **Board of Directors**  
**Engineering and Operations Committee**

January 10, 2006 Board Meeting

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## Supplement to 8-2

### Subject

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Supplemental Information on the Orange County Cross Feeder Program (Approp. 15428)

### Description

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#### Background

The objectives of the Orange County Cross Feeder are to: (1) Improve operational flexibility within the Central Pool portion of Metropolitan's service area; (2) Assist in the achievement of water quality objectives and regulations; and (3) Improve long-term system reliability within the Diemer service area.

Metropolitan staff has worked with the Municipal Water District of Orange County to address the need to increase the reliability of deliveries to the Diemer service area, given planned maintenance and rehabilitation activities and the future availability of State project water (SPW) supplies. Planned maintenance of the Diemer plant and associated feeders is performed regularly, requiring scheduled shutdowns. Major construction work is also planned under the Diemer Improvements Program and the Oxidation Retrofit Program (ORP). Over the next four years, four shutdowns of 5- to 7-day durations are planned at the Diemer plant to construct the ORP. A fifth shutdown is planned to rehabilitate Diemer plant basins that will require taking two or more basins out of service over the course of one year. Because the Diemer plant is a primary source of treated water for the Central Pool of Metropolitan's service area, shutdowns of any significant duration impact Metropolitan's ability to meet member agency demands. During these planned shutdowns, demands in the Diemer service area will be met through deliveries from the conjunctive use and supplemental storage programs in the Orange County groundwater basin, deliveries from the Jensen plant via the proposed Orange County Cross Feeder, local storage, and conservation measures.

In order to meet resource management and water quality objectives, Metropolitan needs greater system flexibility to deliver higher blends of SPW to the Central Pool. Addition of the Orange County Cross Feeder will allow delivery of Jensen treated water, which contains substantially lower levels of Disinfection By-Products, into the Diemer service area. Finally, this interconnection will provide operational flexibility and improve long-term system reliability by augmenting and backing up the Diemer plant. In addition, by providing multiple sources of treated water into the Diemer service area, Metropolitan will enhance the reliability of water deliveries following earthquakes or other service interruptions.

#### Initial Phase of Orange County Cross Feeder

The Orange County Cross Feeder will add a new pipeline to interconnect the Second Lower Feeder and the East Orange County Feeder No. 2 (EOCF2), which will be capable of delivering up to 100 cfs of treated water from the Jensen plant to EOCF2. The initial phase of the Orange County Cross Feeder will construct an 84-inch diameter pipeline with a length of approximately 2.4 miles, and does not include a pump station for any future extension. The pipeline will connect to the Second Lower Feeder near Red Gum Avenue in the city of Anaheim, follow public rights-of-way along Miraloma Avenue through primarily industrial areas within Anaheim and Placentia, and connect to the EOCF2 pipeline at Richfield Road in Placentia. Construction of this initial phase of the Orange County Cross Feeder is scheduled for completion by early 2008.

A potential future extension of the feeder could connect the EOCF2 to the Allen McColloch Pipe line. The need for this extension in the future will be assessed under the Distribution System Overview Study and Integrated Area Studies in conjunction with Metropolitan's member agencies. Any ensuing project to extend the Orange

County Feeder would be evaluated through Metropolitan's annual budget process and Capital Investment Plan evaluation process before incorporation into the CIP.

The recommended action in January 2006 is to authorize final design of the initial phase only of the Orange County Cross Feeder. No work activities are proposed on any potential future extensions, or on enhancements to accommodate a future extension.

  
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Roy L. Wolfe  
Manager, Corporate Resources

1/9/2006  
Date

  
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Debra C. Man  
Interim CEO/General Manager

1/9/2006  
Date