

March 31, 1999

To: Board of Directors (Water Planning and Resources Committee--Action)

From: General Manager _____

Submitted by: Debra C. Man, Chief
Planning and Resources _____

Subject: Adoption of the Mitigated Negative Declaration for the Hayfield Basin
Groundwater Storage Project

Reference: Appropriation No. 15325

RECOMMENDATIONS

It is recommended that the Board:

1. Find, based on its independent judgment and analysis of the initial study and comments received, that there is no substantial evidence that the Hayfield Basin Groundwater Storage Project will have a significant effect on the environment;
2. Adopt the Mitigated Negative Declaration and mitigation monitoring program for the Hayfield Basin Groundwater Storage Project; and
3. Approve proceeding with the implementation of the demonstration portion of the Hayfield Basin Groundwater Storage Project.

EXECUTIVE SUMMARY

The Hayfield groundwater basin is located in the Mojave Desert between The Metropolitan Water District of Southern California (Metropolitan) Eagle Mountain and Julian Hinds Pumping plants. As currently proposed, Metropolitan could store approximately 500,000 to 800,000 acre-feet (AF) of available Colorado River Aqueduct water in the Hayfield groundwater basin. During years of shortage, the stored water would be recovered and placed in the Colorado River Aqueduct for use in Metropolitan's service area. The preliminary feasibility analysis indicates that the expected recharge and return capacity of the Hayfield groundwater basin is about 100,000 to 150,000 AF per year and that groundwater storage in these basins is feasible and cost effective.

In June 1998, the Board appropriated funds to develop a demonstration project, and authorized staff to proceed with technical studies and environmental review for the Hayfield/Chuckwalla Groundwater Storage Program. In accordance with the requirements of the California Environmental Quality Act (CEQA) and State CEQA Guidelines, a Mitigated Negative Declaration has been prepared for the Hayfield Basin Groundwater Storage Project. This CEQA

document covers the possible environmental effects of both the demonstration project and the full-scale groundwater storage program, if implemented.

DETAILED REPORT

As a part of the Phase I Resources Procurement Process for Colorado River Resources, three groundwater storage projects were approved for further technical study and environmental review by the Board in June 1998. These three projects are the Cadiz Groundwater Storage and Dry-Year Supply Program, the Hayfield/Chuckwalla Groundwater Storage Program and the Desert/Coachella Water Transfer and Groundwater Storage Program. Only the Hayfield Basin Groundwater Storage Project is addressed in this Board letter.

The Hayfield groundwater basin is located along the Colorado Aqueduct in the Mojave Desert between Metropolitan's Eagle Mountain and Julian Hinds Pumping Plants. As currently proposed, Metropolitan could store approximately 500,000 to 800,000 acre-feet (AF) of available Colorado River water in this groundwater basin. During shortage years, this stored water would be pumped out of the basin and placed into the Colorado River Aqueduct (CRA) for use in Metropolitan's service area. Preliminary feasibility analysis indicates that the expected recharge and return capacity of the Hayfield groundwater basin is approximately 100,000 to 150,000 AF per year with an indigenous water quality ranging from 270 to 460 total dissolved solids (TDS).

Technical studies of the Hayfield Groundwater Storage Program has been divided into two phases: (1) demonstration analysis of the groundwater basin; and (2) if approved, full-scale implementation of a groundwater storage program. In October 1998, the Board authorized the General Manager to enter into an agreement with Woodward Clyde International Americas, Inc. for the development of a feasibility plan and implementation of the demonstration project in Hayfield Valley. Implementation of the demonstration analysis will consist of infiltration and storing about 100,000 AF of Colorado River water in the groundwater basin underlying Metropolitan's property in the Hayfield Valley near the Hinds Pumping Plant. The water would be turned out from the CRA in two locations: (1) existing overflow structure into Hayfield Lake, where it will be impounded by low-retention dikes about two to three feet in height using on-site material, and (2) Cholla Wash between Hayfield Tunnel No. 1 and Hayfield Tunnel No. 2. One full-scale production well and several monitoring wells for aquifer testing will be constructed in the area considered most likely to be used for the full-scale well field. It is planned that the infiltration ponds, production well, and monitoring wells will become an integral part of any eventual full-scale project. In addition, the demonstration analysis will include evaporation, water quality and water level monitoring and measurements of the underlying aquifer to determine water losses, groundwater movement through the basin, and provide important data for refinement of the numerical model of the groundwater aquifer which will be employed in the design of the full-scale facilities. A comprehensive report will summarize results of the completed demonstration program and an update will be provided to the Board.

In June 1998, the Board appropriated funds to develop a demonstration project, and authorized staff to proceed with technical studies and environmental review for the Hayfield/Chuckwalla Groundwater Storage Program. In accordance with the requirements of the California Environmental Quality Act (CEQA) and State CEQA Guidelines, a Mitigated Negative Declaration has been prepared for the Hayfield Basin Groundwater Storage Project. This CEQA

document covers the possible environmental effects of both the demonstration project and the full scale groundwater storage program in Hayfield Valley, if implemented.

The CEQA process evaluated the possible impacts that both the demonstration and full scale projects might have on the environment and incorporated into the project measures to reduce to a less than significant level or eliminate all potential impacts. Mitigation measures adopted into the program include measures to avoid sensitive habitat, construction monitoring and habitat preservation.

During the public review process, Metropolitan mailed approximately 208 “Notice of Intent To Adopt a Mitigated Negative Declaration” to potentially affected property owners and interested resource agencies. In addition, a notification was placed in the Riverside Press Enterprise. On March 31, 1999 the 30-day review period for the Mitigated Negative Declaration closed. During this review period, Metropolitan received several letters from adjacent property owners and several telephone calls indicating support for the project and requesting updated information regarding the project implementation and property acquisition schedule. Copies of the Mitigated Negative Declaration and comment letters are available in the Office of the Secretary of the Board and are on file in the Planning and Resources Division.

CFS:cl