

EXECUTIVE SUMMARY SHEET
CITY OF SAN DIEGO

DATE ISSUED:
ATTENTION: Natural Resources & Culture Committee,
Agenda of October 11, 2006

ORIGINATING DEPARTMENT: Water Department

SUBJECT: Obtain Professional Services from RBF Consulting for Developing
The San Pasqual Brackish Groundwater Desalination
Demonstration Project

COUNCIL DISTRICT(S): 5 (Maienschein)

CONTACT/PHONE NUMBER: Marsi Steirer 619-533-4112/Surraya Rashid 619-533-5306

REQUESTED ACTION:

Authorization for a professional services agreement with RBF Consulting for the development of the San Pasqual Brackish Groundwater Desalination Demonstration Project and authorization of the expenditure of \$3,075,000.

STAFF RECOMMENDATION:

Staff recommends authorization to obtain professional services from RBF Consulting a qualified consultant with expertise in conducting demonstration/pilot studies to treat brackish groundwater to potable standards and designing and operating other desalination facilities.

EXECUTIVE SUMMARY:

In December 2002, the City Council adopted the Long-Range Water Resources Plan 2002-2030 (LRWRP) which evaluated water supply alternatives for meeting the City's current and future water needs. The initial phase of the LRWRP is to develop and implement, by 2010, a water resources strategy that includes water conservation, recycled water, groundwater storage, groundwater desalination and water transfers.

One of the priority groundwater desalination projects is a Brackish Groundwater Desalination Demonstration Project in the San Pasqual Valley basin. The San Pasqual basin has a high potential for both desalination and conjunctive use projects based on preliminary evaluations of the basin. Brackish groundwater desalination consists of extracting and desalinating native groundwater via reverse osmosis (RO) treatment for potable uses. Conjunctive use is the concept of recharging imported water to the aquifer during periods of high availability and less expensive supply, for recovery during dry periods or emergency conditions.

The up to 250 acre-foot a year (AFY) San Pasqual Brackish Groundwater Desalination Demonstration Project will test the use of brackish groundwater from the San Pasqual Basin. The proposed location for the project is the decommissioned San Pasqual Water Reclamation Plant (SPWRP) on Highland Valley Road. The proposed timeline for the design, construction, and operation of the Demonstration Project is up to four (4) years. The purpose of this project is to demonstrate, at the 250 AFY scale, that the basin is capable of producing potable quality water, and to determine the feasibility of ultimately implementing an approximately 5,000 AFY desalination facility. The project shall address issues impacting feasibility such as: basin sustainability, environmental constraints/issues, well configuration, and connection to the City's potable water system.

The City of San Diego has conducted several desalination research projects, and has been active in the Desalination Research and Innovation Partnership (DRIP) program administered by the Metropolitan

Water District of Southern California (MWD). Past research conducted by the City includes investigation of a new generation of membranes for groundwater desalination, development of costs for groundwater desalination and reclamation plants, use of desalting membranes for reclamation, and seawater desalination using membranes.

FISCAL CONSIDERATIONS:

The total amount of this project is \$3,075,000. This project will be reimbursed in part by a Department of Water Resources Prop. 50, Chapter 6(a) Grant for the San Pasqual Brackish Groundwater Desalination Project in the amount of \$1,500,000. The amount required for Fiscal Year 2007 of \$900,000 is available in Water Fund 41500, CIP No. 75-932.0 - Groundwater Asset Development Program. This is a phase funded project. Funding for future phases will be available upon receipt of financing proceeds.

PREVIOUS COUNCIL and/or COMMITTEE ACTION:

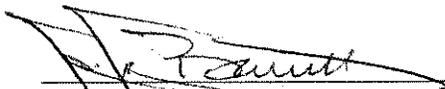
On December 9, 2002, the City of San Diego adopted the Long-Range Water Resources Plan (LRWRP) by resolution R-2003-657 in which the San Pasqual Basin was identified as a potential groundwater supply. The Council adopted policy 600-45 (R-300588) on June 27, 2005, by unanimous vote with all present, to comprehensively protect the water, agricultural, biological and cultural resources within the San Pasqual Valley. On May 16, 2006, the council adopted resolution R-2006-933 authorizing the execution of the Proposition 50 grant agreement for San Pasqual and San Diego Formation Brackish Water Desalination projects.

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS:

The Water Department has been actively involved in the San Pasqual/Lake Hodges Planning Group for the past three years. In addition, the City will conduct regular stakeholder meetings consistent with the San Pasqual Valley Vision Plan.

KEY STAKEHOLDERS AND PROJECTED IMPACTS (if applicable):

There are local, intergovernmental, and industry/regulatory agency stakeholders within the San Pasqual Valley. Local stakeholders include the City lessees who practice agriculture within the Valley, San Pasqual/Lake Hodges Community Planning Board, San Diego Wild Animal Park, Rancho Bernardo Community Planning Board, Rancho Bernardo Chamber of Commerce, San Diego County Farm Bureau, and San Dieguito River Park Citizens Advisory Board. Intergovernmental stakeholders include the Cities of Escondido and Poway, the City of San Diego Council District 5, the City of San Diego Agricultural Board, the Rancho Bernardo Community Council, and the San Dieguito River Valley Regional Open Space Park Joint Powers Authority. Industry/regulatory agency stakeholders include the Regional Water Quality Control Board, the Industrial Environmental Association, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the U.S. Army Corps of Engineers.


10/9/06

J. M. Barrett
Water Department Director



R. F. Haas
Deputy Chief of Public Works