THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
ACTION AGENDA SUMMARY

DEPT: ENVIRONMENTAL RESOURCES **BOARD AGENDA #** *B-7

Urgent ☐ **Routine** ■ **AGENDA DATE** November 6, 2007

CEO Concurs with Recommendation YES ☒ **NO** ☐ **4/5 Vote Required YES** ☐ **NO** ■
(Information Attached)

SUBJECT:

Approval to Fund the Development of Phase V of the Modesto Groundwater Basin Models for the Stanislaus and Tuolumne Rivers Groundwater Basin Association

STAFF RECOMMENDATIONS:

Approve funding not to exceed $21,000 for the development of Phase V of the groundwater models for the Stanislaus and Tuolumne Rivers Groundwater Basin Association.

FISCAL IMPACT:

A maximum of $21,000 will be paid to the Stanislaus and Tuolumne Rivers Groundwater Basin Association for costs associated with the Phase V groundwater modeling work for the Modesto Groundwater Basin. The Department of Environmental Resources has accounted for this cost in its existing budget.

BOARD ACTION AS FOLLOWS:

No. 2007-872

On motion of Supervisor Mayfield , **Seconded by Supervisor** Grover
and approved by the following vote,
Ayes: Supervisors: Mayfield, Grover, Monteith, DeMartini, and Chairman O'Brien
Noes: Supervisors: None
Excused or Absent: Supervisors: None
Abstaining: Supervisor: None

1) X **Approved as recommended**
2) _____ **Denied**
3) _____ **Approved as amended**
4) _____ **Other:**
MOTION:

Christine Ferraro Tallman

ATTEST: **CHRISTINE FERRARO TALLMAN, Clerk** **File No.**

DISCUSSION:

The Modesto Groundwater Basin (Basin) lies between the Stanislaus River to the north and the Tuolumne River to the south, and between the San Joaquin River on the west and the base of the Sierra Nevada foothills on the east (See Map Attachment 1). The groundwater within the Basin plays a vital role in meeting the needs of many different uses and it contributes to the overall economy of the area.

Groundwater use is expected to increase in the Basin as a result of population growth. To efficiently manage water resources to ensure an adequate water supply during drought conditions and in anticipation of increased urbanization, optimization of water resources, including both groundwater and surface water, is needed.

On February 28, 2006, the Board of Supervisors authorized the signing and execution of a Memorandum of Understanding (MOU) allowing Stanislaus County to continue membership with the Stanislaus and Tuolumne Rivers Groundwater Basin Association (Association). This MOU extends through December 31, 2011. The cities of Modesto, Oakdale, and Riverbank, along with Modesto and Oakdale Irrigation Districts have also joined the Association. The Modesto Irrigation District (MID) serves as the coordinator of Association activities.

One of the primary purposes of the Association is to provide information and guidance for the management, preservation, protection, and enhancement of both quality and quantity of groundwater in the Basin. In order to achieve this goal, the Association has partnered with the United States Geological Survey (USGS) in developing multiple groundwater models.

Due to the extensive nature of developing these groundwater models, the project was to be completed in phases over a several year period. Phases one through four of the project included the development a geologic model and a steady state regional groundwater flow model. The project is currently in the fifth year of development where the objective is to complete a transient groundwater flow and optimization model (transient flow model).

The transient flow model will allow local agencies to run potential water management scenarios and to assist in the management of the Basin. Two primary tasks are planned for Fiscal Year 2007-2008: (1) the development and calibration of the 1960 – 2004 groundwater flow model will be completed; and (2) water management objectives and constraints will be identified and formulated into an optimization framework. These activities will primarily involve calibration

of the transient flow model as it exists thus far, and identification of objectives and constraints for optimization of the model. Preliminary interpretations will be shared with members at quarterly Association meetings.

Association members, as well as Basin water users not directly represented by agencies, will benefit from the efficiency in water planning that will come from the data incorporated into the transient flow model. MID, as the Association Coordinator, has requested that Association members pay a pro rata share for the cost of developing the models. Stanislaus County's share for the current phase of work is estimated to not exceed $21,000.

The high cost of conducting these types of studies and data collection, along with the development of the intricate groundwater models, would be cost prohibitive for any one agency. By working together and sharing the cost of developing the models and by structuring the development in a phased approach, the cost per agency is greatly reduced.

Participation in the development and future application of the groundwater models will allow Stanislaus County access to valuable information related to groundwater in the Modesto Basin. It will also allow for informed decisions to be made that address current and future uses of groundwater within the Basin.

POLICY ISSUE:

The Board of Supervisors should determine if approving staff's recommendations are consistent with the Board's priorities of effective partnerships, a strong agricultural economy/heritage, and a well-planned infrastructure system.

STAFFING IMPACT:

There is no staffing impact associated with this item.

ATTACHMENT # 1

STANISLAUS COUNTY

GROUNDWATER SUB - BASINS & Groundwater Management Plans

Modesto Groundwater Sub - Basin - November 2004