

SANTA BARBARA COUNTY BOARD AGENDA LETTER



Clerk of the Board of Supervisors
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Agenda Number:
Prepared on:
Department Name: Water Agency
Department No.: 054-04-07
Agenda Date: 03/21/06
Placement: Admin
Estimate Time: N/A
Continued Item: NO
If Yes, date from:
Document File Name: Brdmar21.syr.doc

TO: Board of Directors
Santa Barbara County Water Agency

FROM: Phillip M. Demery, Director, Ext. 3010
Public Works Department

STAFF CONTACT: Thomas Fayram, Deputy Public Works Director, Ext. 3436
Water Resources Division

SUBJECT: **Santa Ynez River Hydrology Model
Third and Fourth Supervisorial Districts**

Recommendation(s):

That the Board of Directors:

- A. Approve and authorize the Public Works Director to execute the attached Letter Agreement among various water districts and cities regarding cost share and process for upgrading of the Santa Ynez River Hydrology Model; and
- B. Approve expenditure of up to \$8,625 for the subject project in FY 05-06.

Alignment with Board Strategic Plan:

The recommendations are primarily aligned with Goal No. 2. A Safe and Healthy Community in Which to Live, Work, and Visit.

Executive Summary and Discussion:

The original Santa Ynez Hydrology model was developed by the Santa Barbara County Water Agency under the guidance of the Santa Ynez River Hydrology Committee in the early 1980's in cooperation with various water districts and cities that have an interest in the river's water resources. The Model was originally developed to help optimize diversions of water from Lake Cachuma for water district and city users as well as downstream releases to protect water rights. Other uses (such as drought planning and water quality assessments) have been developed as computing capabilities increased and as additional management questions arose. The Model was based on a custom developed series of computations, was not "user friendly," and has proven a challenge to upgrade.

The entities who have been involved in the evolution of the original model have identified commercially available software that would serve a more flexible "framework" for the model and would make it easier to use. The proposed conversion would be done by a consulting firm (Stetson Engineers) under contract to the Santa Ynez River Water Conservation District and be paid through a

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cost share Letter Agreement (Attachment A). The County has been asked to join this effort in part due to its technical expertise and in part based on its historical role as custodian of the model.

The new framework would provide two key advantages to the current capability of the model: 1) the model would be a daily time step (rather than a monthly time step) and thus more accurately reflect measured conditions in the system, and 2) the downstream flow could more accurately be represented improving management of releases to satisfy downstream water rights. In short, the revised model would be easier to use and would give more accurate results for a wider range of uses.

Mandates and Service Levels:

This is an upgrade of the model used to cooperatively manage water resources in the Santa Ynez River. The use of this model underlies water rights decisions by the State Water Resources Control Board.

Fiscal and Facilities Impacts:

The County Water Agency is proposed to share approximately 7.5 % of the estimated \$115,000 cost. The other costs would be paid by Cachuma "Member Units" (water purveyors who take direct delivery for the reservoir) and various downstream interests who develop water from groundwater along the river. This project was not included in the Adopted 2005/06 budget. However, funds are available for this project and will be paid from Dept: 054, Acct: 7450, Fund: 3050, Program: 3012.

Special Instructions:

Direct the Clerk of the Board to send a copy of the minute order of these actions to the Water Agency office, attn: Christina Lopez.

Board letter authored by: Robert Almy, Water Agency Manager, Ext. 3542