

SANTA BARBARA COUNTY BOARD AGENDA LETTER



Clerk of the Board of Supervisors
105 E. Anapamu Street, Suite 407
Santa Barbara, CA 93101
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Agenda Number:
Prepared on: 02/03/04
Department Name: Flood Control/Public Works
Department No.: 054-04-01
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If Yes, date from:
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TO: Board of Directors
Santa Barbara County Flood Control & Water Conservation District

FROM: Phillip M. Demery
Public Works Director

STAFF CONTACT: Thomas Fayram, Deputy Public Works Director
Matt Naftaly, Hydrologist, Ext. 3442

SUBJECT: **Program Rational XL, All Supervisorial Districts**

Recommendation(s):

That the Board of Directors:

Receive and file "Program Rational – XL", a computer hydrology program and documentation and authorize distribution of the program for County and public use.

Alignment with Board Strategic Plan:

The recommendation is primarily aligned with Goal No. 1. An Efficient Government Able to Respond Effectively to the Needs of the Community.

Executive Summary and Discussion:

The "Rational Method" of hydrology is widely used to estimate runoff from small watersheds. It provides determinations of peak discharge and has particular application in the design of drainage improvements. The Flood Control District developed Rainfall Intensity and Runoff Coefficient curves in the early 1960s in order to customize the Rational Method for local conditions. Since then, the District has used the customized method to determine peak discharges for certain applications. This program is primarily used to properly size drainage improvements and is generally distributed to the public through our development review staff for development and redevelopment projects. This program uses actual rainfall data from Santa Barbara County as measured for decades by the Flood Control District.

In the late 1980s, the Flood Control District developed Program Rational, a computer program written in Basic code to automate the Rational Method including the customized curves. Program Rational – XL modifies that program and updates it to run in Excel and is coded in Visual Basic for Applications. In addition, Program Rational – XL incorporates rainfall intensity data collected since the development of the original curves and divides the County into additional, more specific areas for calculation. Program Rational – XL will replace our existing Program Rational computer program that was developed in the 1980s.

Mandates and Service Levels:

There are no changes in mandates or service levels. This computer program updates an existing computer program that was becoming obsolete.

Fiscal and Facilities Impacts:

The program will be made available to the public for \$5.00 a copy to cover the reproduction cost of the program. The program will also be available by downloading it free of charge over the Internet at www.countyofsb.org/pwd/water.

Special Instructions:

Direct the Clerk of the Board to send a copy of the minute order of this action to the Flood Control District office, Attn: Christina Lopez.