

SCWA FLOOD HAZARD WARNING SYSTEM

Introduction

The SCWA Board of Directors authorized a Flood Hazard Warning Program at their March 9, 2006 meeting. The purpose of this program is to provide timely information to public agencies and the general public on potential flooding in Solano County.

Program

SCWA has a system of stream and rain gages. These gages are strategically located to provide information on potential flooding to populated areas of Solano County. Data from these gages will be sent by radio telemetry to the SCWA office and put on SCWA's web page – **www.scwa2.com**. This data can be accessed remotely via the internet by SCWA employees, and at alternate locations if the SCWA office is flooded, including the County's Emergency Operation Center. Additionally, the data from gages from other public agencies in Solano County and outside of Solano County will be utilized.

Commercial weather forecasts and forecasts from the National Weather Service will also be used. Doppler radar and satellite images from the internet will also be used for forecasting.

SCWA staff will closely monitor any storm predicted to be one-inch over 24 hours. This monitoring will occur on a 24 hour per day, 7 day a week basis, as needed. The interval of monitoring will depend on conditions. The default condition (during the November through April) will be that forecasts will be done in the mornings on days when there is rain forecasted. The SCWA web page will be the main source of disseminating this information. During potential flood conditions forecasts will be made more frequently and the web page may state the frequency of upcoming forecasts.

The following level indicators will be used to characterize the risk of flooding in Solano County and the level of monitoring/warning to be done by SCWA staff.

Level 1. May through October. Not the rainy season. SCWA will watch daily forecasts for unusual events. It is possible that flooding can occur, but not likely.

Level 2. November through April (when not Level 3 or 4). This is the season where flooding is most likely to occur. Level 2 is when everyone should be prepared for flooding and watch for reports of impending large storms that would trigger level 3 or 4. SCWA will watch daily forecasts for predicted 1" or more storms that may trigger level 3 or 4.

Level 3. Whenever a 1" or greater storm over 24 hours (or less) is predicted. Storms over 1" in 24 hours have a potential for local flooding, especially if the 1" comes over 3-6 hours (or less). Generally if 1" of rain is spread evenly over 24 hours - there is no flooding. If the ground is not saturated, a 1" storm is unlikely to cause flooding. SCWA will monitor storm patterns regularly

(several times a day) during Level 3 to update short term forecast and to determine if Level 4 needs to be activated.

Level 4. Whenever a 2" or greater storm over 24 hours (or less) is predicted. Storms over 3" should result in a general warning to the public and public agencies. SCWA staff will monitor storms over a 24 hour basis (in staff shifts) as necessary to update short term forecasts. If County EOC is activated a trained SCWA staff member will be present linked to other staff in SCWA office to provide information to the EOC.

SCWA staff will analyze data to predict possible flooding. Relating rainfall data to flooding is not a precise process. A flooding forecast will need to be conservative and reflect our limited ability to actually predict flooding. Based on SCWA staff experience over the last several years, we have a general sense of what types of storms cause flooding in certain locations. Over time with a new, better data sources, we will be able to better document what amounts of rain can cause flooding in specific areas in the County, including consideration of antecedent conditions. We need to be careful not to convey over confidence in predicting flooding.

In Solano County there is a short warning period of floods. The streams coming out of the foothills from the western part of the County are extremely close to populated areas. In other areas of California, and in other states, there can be days of warning of an upcoming flood. In Solano County flood warnings can only be predicted in a matter of hours and minutes. This necessitates the need to provide both longer term and shorter term forecasting. The longer term forecasting can provide a general level of warning one to two days in advance. Short term forecasting can be several hours in advance of a flooding event. Both long term and short term forecasts can be updated as needed. Short term forecasting can be updated as frequently as 15 minutes in a major storm. The 15 minute interval is from the period Doppler radar is updated on the internet.

We also have a recorded telephone message for those who do not have access to the internet. This recorded message will be the same as the message on the internet and will be updated as the internet is updated. The recorded message will be available 24 hours per day. The telephone number is: 455-1115. This line handles 4 calls at a time.

We will also provide press releases as appropriate in coordination with the County Office of Emergency Services. This would occur in anticipation of a major storm (Level 4) and at the beginning of the rainy season as a general warning.

Any public warnings would be coordinated with the County Office of Emergency Services. For other public agencies in Solano County, we have contacted each of them and inform them of our forecasting capabilities and limitations. They can have access to our webpage with detailed information and we can also contact them directly if we have information about a severe, upcoming event.

The general public will be kept informed via the webpage, telephone recorded message and any press releases.

Based on our experience in dealing with flooding problems in unincorporated areas, we have developed a working map, from SCWA records and County records of past flooding, showing flood prone areas. In a level 4 situation, we will make recommendations to the County Office of Emergency Services on advising people who live in these areas, when appropriate, using the County's "reverse 911" system of warnings. This system allows a recorded message to be sent out to a specified, geographical area via the telephone system. Cities make their own decisions as to when to use this "911 reverse" system.

SCWA staff will be present in the County's Emergency Operations Center when the Center is activated during flood emergencies. That staff person will be linked to other SCWA staff and have real time data about flooding problems.