SWAMP
Surface Water
Ambient Monitoring
Program

CENTRAL COAST ASSESSMENT OF AGRICULTURAL IMPACTS

What is it?

Central Coast Ambient Monitoring Program (CCAMP) staff developed a regional assessment report on water quality conditions in agricultural areas of the Central Coast Region. This report integrates data from CCAMP and the Cooperative Monitoring Program for Agriculture (CMP), which is the monitoring program developed by the irrigated agricultural industry to comply with the conditions of the Central Coast agricultural waiver of waste discharge. This report shows high levels of invertebrate toxicity in water and sediment and very high nitrate concentrations in some agricultural areas, particularly the lower Salinas and Santa Maria areas. The report also evaluates data for long-term trends. Some declining nitrate trends were found in some areas, but in most polluted areas trends were more commonly found to be increasing. However, at some of these locations, loading was declining over time, which may be a result of reductions in application of irrigation water. The report also summarizes habitat and benthic invertebrate conditions in these areas, which are severely degraded. Finally, it assesses relative risk of agricultural chemical impacts to Marine Protected Areas and the nearshore marine environment.

Why is it important?

This report is important because it clearly describes the scale of the water quality problems in the Central Coast Region associated with intensive irrigated agricultural activities. In some agricultural areas excessive nitrate applications have contaminated both surface and groundwater to levels far above safe drinking water standards. Some of this water is a drinking water source for disadvantage communities and represents an important environmental justice issue for the Central Coast Region. The report and the associated data describe the conditions against which future data will be compared to assess the effectiveness of the 2012 Agricultural Order for Waste Discharge. This effort benefitted substantially because integrated study designs, standardized data reporting

and SWAMP quality assurance requirements allowed CCAMP and CMP data to be analyzed together with confidence.

How will this information be used?

This assessment report was used to support development of the 2012 Agricultural Order for Waste Discharge, which was adopted in March, 2012. The Order addresses the severe water quality problems identified in the report through new requirements that include groundwater monitoring for nitrate concentrations. For highest risk growers, new requirements include monitoring of nutrients, pesticides, and toxicity in discharges, reporting of the ratio of pounds of nitrate applied relative to crop nitrate requirements, and development of riparian buffer plans. This report pulls together data from two large and comparable data sets for a robust assessment that includes trend analysis.

For more information: Download the *Central Coast 2011 assessment of water quality in agricultural areas*.