

FINAL REPORT

CENTRAL COAST VINEYARD TEAM

NON POINT SOURCE PROJECT-

CENTRAL COAST, CALIFORNIA

PREPARED FOR:

The Regional Water Quality Control Board

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EXECUTIVE SUMMARY

INTRODUCTION

In 2002, as part of its mission to promote sustainable agricultural practices, the Central Coast Vineyard Team (CCVT) received a three-year 319(h) grant from the State Water Resources Control Board (SWRCB) to assess and reduce Non Point Source (NPS) pollution from Central Coast Vineyards through the implementation of Best Management Practices (BMPs).

The primary goal of the project was to reduce off-site movement of soil and water in local vineyards within the Salinas, Santa Maria, and Santa Ynez watersheds. These watersheds were selected because they are listed on the SWRCB's total maximum daily load (TMDL) 303(d) list. Reducing off-site runoff improves water quality by reducing sedimentation, nutrient, and pesticide pollution of surface and ground waters.

As part of the project, 12 demonstration sites were selected from existing Central Coast vineyards that were within the Salinas, Santa Maria, and Santa Ynez watersheds. The demonstration sites were selected primarily based on their areas of sensitivity and proximity to water bodies. Specific projects of interest to growers included: grading and grassing dirt roads, planting cover crops under the vine rows, incorporating cover onto barren areas, and minimizing nitrogen applications. While the demonstration sites range from 2 to 50 acres, the acreage affected from the BMPs was much larger than the actual sites.

During the course of the project 12 demonstration sites were developed. In year one nine demonstration sites were selected for the project. During year two one of the demonstration growers dropped out of the project. However, two sites were added to the project during year two, bringing the total number of demonstration sites to 10. During year three, one additional site was added to the project, for a total of 11 active sites.

Detailed plans for BMP implementation were developed and revised for each site in the spring of 2002, 2003, and 2004 with help from staff at the Natural Resource Conservation Service, Cachuma Resource Conservation District, University of California Extension, and California Polytechnic State University of San Luis Obispo. The plans included the types of vegetation to be planted, soil or petiole sampling required, equipment for implementation, surface protection (*i.e.* jute netting, straw), watering requirements, and monitoring methods. BMP implementation took place at the sites prior to winter in 2002, 2003, and 2004.

Various monitoring methods were used throughout the project. These included: Photo documentation, use of the Positive Points System (PPS), and use of the Revised Universal Soil Loss Equation (RUSLE) 2. Photo documentation was conducted at each demonstration site following the protocols set forth by the SWRCB. At each site, photos were taken prior to the implementation of the BMPs, during the implementation process, and after. Photos were also taken at each site on a quarterly basis and after heavy storm events. Photo documentation showed an increase in coverage of bare areas from **15% to 85%** with implemented BMPs. PPS evaluations were completed by each grower prior to, and after, implementation of selected BMPs to evaluate the extent of sustainable vineyard practices and BMPs currently being used on the farm. PPS evaluations were analyzed and summarized on a yearly basis. During the first year of the project the average total PPS score was 801 out of 1,000. During the second year, the average score was 859, showing an increase of **58 points** over the year. RUSLE 2 scores were generated from each site, with assistance from staff at the local NRCS. Scores were generated for each site prior to and after the implementation of the BMPs. The scores gave an approximate value of soil lost in tons/per acre/year for each site. Prior to the implementation of BMPs, the average RUSLE 2 score for the demonstration sites was 16.91 tons/acre/year. After BMP implementation, the average score was 1.67 tons/acre/year. A decrease of **15.25 tons/acre/year** after BMPs were implemented.

This report presents a summary of the project and the results of the tasks associated with the project. These tasks include the following:

1. Project Management and Administration;
2. California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) Documentation/Permits;
3. Quality Assurance Project Plan (QAPP);
4. Development of NPS Prevention Demonstration Sites;
5. PPS Evaluations;
6. Educational Outreach; and
7. Development of Geographic Information System (GIS) for PPS Practices.