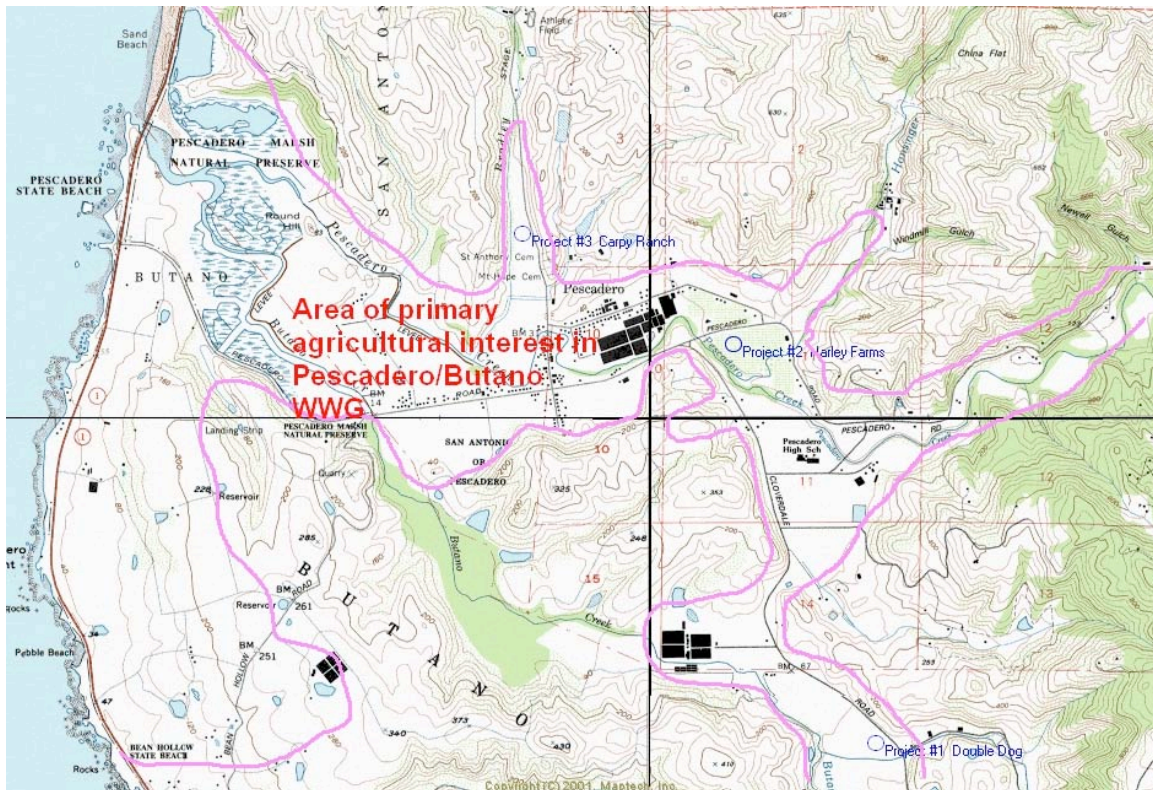


Pescadero/Butano Watershed Working Group San Mateo County

Annual Watershed Report

January 1, 2005– December 31, 2005



Watershed-Level Summary Statistics

Name of Watershed	Pescadero/Butano
Square miles of land the watershed drains	83
Total acreage of watershed	53374
Total agricultural acreage in watershed	2829
Rangeland acres	2259
Row crop acres	570
Percent watershed land use in ag production	5% total (only 1% in irrigated ag use)
Number of ag operations in watershed	20
Number of ag operations in Program	17
Percent participation (by operation)	85%
Acres of ag in program	2389
Percent participation (by acreage)	84%
# of operations through short course	13
# of operations with completed farm plan	

Note; Source of watershed acreage is UC Ag Extension Service report dated Jan 1956. Agricultural acreage shown is based on an estimate of this year's production.

Location of Watershed:

Pescadero and Butano Creeks and their respective tributaries make up the Pescadero/Butano Watershed which is located in the southern coastal part of San Mateo County, approximately thirty-five miles south of San Francisco. Butano Creek joins Pescadero Creek in the Pescadero Marsh Natural Preserve (State Parks) approximately ¼ mile upstream of the Highway 1 bridge. Together, these creeks then empty into the northern area of the Monterey Bay National Marine Sanctuary in Pacific coastal waters. The rural service centers of Pescadero and Loma Mar are within the watershed. The Town of Pescadero is located in the lower watershed, approximately two miles east of Highway 1. Loma Mar is approximately 3 mile upstream on the Pescadero Creek.

The Pescadero/Butano Watershed is a part of the USGS Cataloging Unit Basin Name; San Francisco Coastal South. The Hydrologic Area Name is Pescadero Creek. Its Calwater Unit number is 202.400.

This watershed is in Region 2 of the California Regional Water Quality Control Board.

Description of Watershed:

The Pescadero/Butano watershed includes approximately eighty-one square miles of land. Elevations rise from sea level at the mouth to 2,200 feet at the headwaters. The major portion of the Pescadero/Butano watersheds is extensively wooded, including large stands of redwoods and Douglas fir, willow-alder riparian corridors and willow sausals in the lower reaches. The watershed is characterized by steep slopes and canyons in the upper reaches and near level bottomlands. Lands adjacent to the lower reaches have historically been used for agriculture; much of it was reclaimed from marsh fifty years ago. The marsh area currently covers approximately 588 acres.

The Pescadero Marsh Natural Preserve contains a mix of salt, brackish and freshwater habitats. It is the largest remaining wetland system between Bolinas Lagoon to the north and Elkhorn Slough to the south (excluding San Francisco Bay). It provides essential habitat for a diverse population of wildlife, including rare, threatened and endangered species such as the brackish water snail, the red-legged frog, the San Francisco garter snake, black and clapper rails, the tidewater goby, the silver (coho) salmon and the steelhead trout.

The Pescadero/Butano watershed has been highlighted by the Federal Government in the recovery plans for both coho salmon and red-legged frogs.

The watershed is listed under Sections 303(D) for impaired water bodies and is slated for TMDL development. Sediment is the noted source of possible impairment.

Precipitation within the watershed areas range from approximately twenty-five inches annually on the coast to fifty-seven inches in the upper reaches. Approximately eighty percent of the total precipitation occurs between November and March.

Ownership of land includes a mosaic of publicly owned land (California State Parks, San Mateo County Parks) and privately owned property.

Principal land uses include recreational open space (State and County), commercial forestry, rural homes and subdivisions, urban areas (Town of Pescadero and Loma Mar), privately owned open space tracts (Peninsula Open Space Trust) and agriculture.

Agricultural uses include irrigated row crops (vegetables, field flowers), non irrigated crops (peas, beans, grains), rangeland grazing and floriculture (cut flower green-house and shade-house operations) and livestock production including cattle (cow-calf and stocker) and a goat dairy.

Pescadero/Butano Watershed Working Group:

The Pescadero/Butano Watershed Working Group (WWG) was established in April of 2001. At that time, By-Laws were created and adopted, a Mission Statement was agreed upon and officers (chairman and vice-chairman) were selected.

Meetings are held at the Native Sons Building in Pescadero. Dates and times are announced by notice mailed to the cooperators.

At the invitation of the watershed group, representatives of local, state and federal agencies attend meetings. Representatives from the Monterey Bay National Marine Sanctuary, the Regional Water Quality Control Board and the lead scientific consultant for the ongoing "Sediment Source and Transport" grant have been present at working group meetings discussion projects and issues of common interest.

This watershed group meets as needed to address local issues or to be updated on continuing efforts.

At this time, a total of 17 cooperators have signed "Notice of Intent" to participate with the working group. This total includes agricultural landowners, managers and operators. The diversity of crops and cropping systems represented in this watershed are also present in the group of cooperators. Field vegetables, field flowers, pumpkins, cut flower green house and shade house operations, a goat dairy and a specialty willow tree farm are represented. The owner of the largest privately owned timber harvest property in the upper watershed is invited to participate with the working group and is an active member.

In June of 2001, the UC Cooperative Extension Agricultural Water Quality Short Course was offered in Half Moon Bay. At that time 13 members of the working group participated. Farm Self Assessments have been prepared by those participants and Farm Plans are completed or are under way. Two additional members attended the Short Course offered in March 2004.

Watershed Projects:

1. Cover Crop Demonstration Projects
 - a. Four projects (multiple sites) –sponsored thru the FB
2. EQIP contracts with several of the WWG members
3. Four of the conventional growers participate with the Nutrient and Irrigation portions of the "Ag Mobile Lab" grant which conducts field work with the growers regarding irrigation efficiency and nutrient management and tracking throughout the growing season.
4. Gully Demonstration Project within watershed
5. Follow up on Riparian Fencing Demonstration Projects
6. Public outreach regarding demonstration projects

Conservation practices currently in use:

1. Cover crops widely used throughout this watershed (weather permitting).
2. Green house operations utilize drip irrigation and tail water recycling to reduce runoff and conserve water
3. Fields which are less productive but which have a high probability of erosion are being left fallow during the mid winter cropping season.
4. Riparian corridors are left intact
5. Cooperators within this watershed group utilize lab analysis of soil and leaf for efficient use and application of nutrients to the field.

All of the cooperators are regularly inspected by the County Ag Commissioner's office for proper storage and application of chemical products (pesticides or herbicides).

Summary of Accomplishments during the year 2005

- This WWG has advanced arguments and evidence to the State Water Bd to "de-list" the Pescadero Watershed from "Sediment" listing for impairment. The State Bd will review the information and make a recommendation this June.

- Cover Crop Demonstration Projects
 1. Four projects (multiple sites) –sponsored thru the FB
- The WWG sponsored a “Gully Workshop” this year. Techniques for hand labor and utilization of native willow material were presented to land owners and managers to remediate localized erosion/gully features.
- Four of the growers participated with the Nutrient and Irrigation portions of the “Ag Mobile Lab” grant which conducts field work with the growers regarding irrigation efficiency and nutrient management and tracking throughout the growing season.
- EQIP contracts with several of the WWG members

Summary of Annual Goals which had been set in 2004 and activities accomplished during 2005 to achieve those goals;

- Continue outreach to cooperators
 1. *This WWG was originally created on behalf of the irrigated agriculture industry. Last year, the Pescadero/Butano WWG was expanded to include rangeland activities. This year it was expanded to include “forest managers”.*
- Continue to participate in Continuing Education opportunities
 1. *This WWG continues to actively participate in workshops and field days. Additionally, this WWG sponsored and hosted a gully workshop entitled “Fixing Gullies with Picks, Shovels and Willows” in March 2005. This workshop focused on gullies common in this watershed which are contributing to the sediment loading of the Pescadero and Butano Creeks.*
- Encourage cooperators who have not yet attended the UC Cooperative Extension Short Course to do so when it is offered this year
 1. *No Short Course was offered in San Mateo County in year 2005. A course is planned for June 2006.*
- Encourage cooperators to complete their Farm Plans
 1. *Ongoing*
- Seek funding to assist in the implementation of beneficial conservation practices
 1. Status;
 - Members of this WWG now have contracts with the NRCS re; EQIP.
 - Grant participation which helps with the costs associated with conservation practices; Cover Crop Program and Mobile Lab Program
- Participate and complete the “demonstration project” which will reduce or remediate sediment sources in the watershed in conjunction with the ongoing Sediment Grant.
 1. *Farm Bureau and this WWG continue to monitor the results of previous demonstration projects completed in this watershed including over a mile of riparian fencing which was constructed to reduce access to the riparian corridor from cattle impacts.*
 2. *Members of this WWG participated in a third year of cover crop demonstration projects*
- Continue the monthly Base Line Water Quality Monitoring
 1. *Farm Bureau and the NRCS continue their monthly base line surface water monitoring activities in both Pescadero and Butano Creeks. Parameters include Temperature, pH, Conductivity, Nitrates, Orthophosphates, Ammonia, Turbidity and Dissolved Oxygen.*

Watershed-Specific Challenges

- The Pescadero and Butano watersheds are listed on the 303D list as impaired for sediment. The WWG and the FB petitioned the State Bd. to “delist” the Pescadero watershed. If successful, the Butano Watershed will still be subject to a pending TMDL for Sediment
- The Pescadero/Butano Lagoon continues to have an annual fish kill of juvenile steelhead. Although there is no evidence that the mortality is associated with agricultural activities, this WWG actively monitors the agency investigations into the causes of the fish kill.