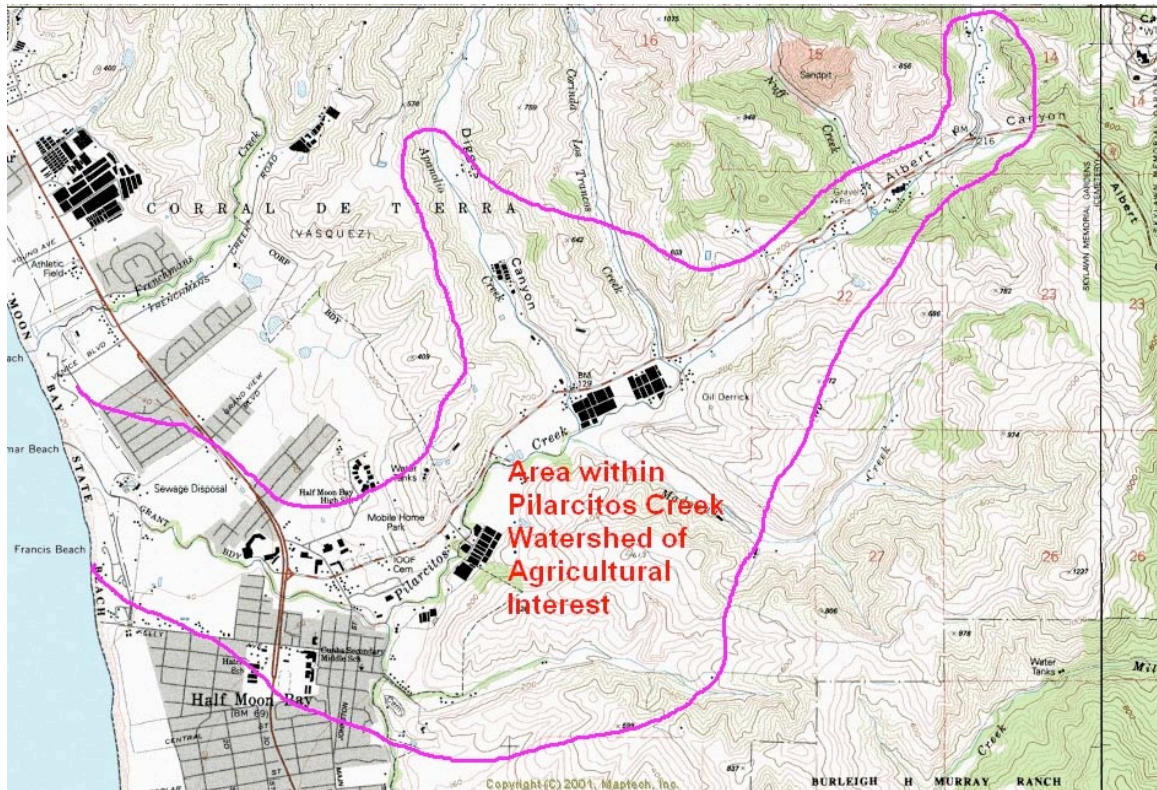


# Pilarcitos Creek Watershed Working Group San Mateo County

## *Annual Watershed Report*

January 1, 2005 – December 31, 2005



<b>Watershed-Level Summary Statistics</b>	
Name of Watershed	Pilarcitos Creek
Square miles of land the watershed drains	29.8
Total acreage of watershed	19,063
Total agricultural acreage in watershed	1333
Rangeland acres	800
Row crop acres	533
Percent watershed land use in ag production	7%
Number of ag operations in watershed	15
Number of ag operations in Program	13
<b>Percent participation (by operation)</b>	<b>86%</b>
Acres of ag in program	
<b>Percent participation (by acreage)</b>	
# of operations through short course	7
# of operations with completed farm plan	7

**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:**

The Pilarcitos Creek Watershed is located in the central portion of coastal San Mateo County approximately 20 miles south of San Francisco. The watershed is comprised of Pilarcitos Creek and its associated tributaries which include Aponolio Creek, Corinda Los Trancos Creek, Nuff Creek, Madonna Creek, Arroyo Leon Creek and Mill Creek. The Pilarcitos Creek empties into the Pacific Ocean at Francis State Beach (part of the Monterey Bay National Marine Sanctuary). The City of Half Moon Bay is located in the lower reaches of the watershed.

The Pilarcitos Creek Watershed is a part of the USGS Cataloging Unit Basin Name; San Francisco Coastal South. The Hydrologic Unit Name is Pilarcitos Creek. Its Calwater Unit number is 202.320. This watershed is a part of Region 2 of the California Regional Water Quality Control Board.

### **Description of Watershed:**

The Pilarcitos Creek watershed includes approximately 28 square miles of land. Elevations rise from sea level at the mouth to 1500 feet at the headwaters. The natural plants community types found in the watershed range from coastal strand vegetation near the Pacific Ocean, to redwood forest in the upper watershed. Most of the upland areas of the watershed area are a mosaic of grassland, chaparral, oak woodland and coniferous forest typical of the western slope of the Coast Range. The riparian forest is a mix of alders and a variety of willow species. 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. In recent history, much of the agricultural land in the lower watershed has been converted to urban uses.

The Pilarcitos Creek watershed provides essential habitat for a diverse population of wildlife, including rare, threatened and endangered species such as the red-legged frog, the San Francisco garter snake, snowy plover, the tidewater goby, and the steelhead trout.

The watershed is currently not listed as impaired under Sections 303(D) for impaired water bodies. However, it has been characterized as "Threatened" for impairment by the Regional Water Quality Control Board. Sediment is the noted source of possible impairment. Additionally, because of human health concerns at the State Beach (mouth of the creek), e coli bacteria has also been recognized as a contaminant in some reaches of the creek.

Precipitation within the watershed areas range from approximately twenty-six inches annually on the coast to 42 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) and privately owned property.

The upper reaches of Pilarcitos Creek are owned by San Francisco PUC / Water Co. which impounds the creek and diverts the entire flow through a tunnel to the eastern side of the Coast Range into Crystal Springs Reservoir where it is utilized as a domestic drinking water supply source. The effect of this diversion is an impaired natural flow hydrograph in the Pilarcitos Creek.

Principal land uses include recreational open space (State Parks), rural homes and subdivisions, urban areas (City of Half Moon Bay), privately owned open space tracts (Peninsula Open Space Trust), State Game and Watershed Reserve (owned by San Francisco Water Co) and agriculture. The primary sanitary landfill operated in San Mateo County occupies a major portion of the Corinda Los Trancos tributary.

Agricultural uses include irrigated row crops (vegetables, field flowers), non irrigated crops (Christmas Trees, peas, beans, grains), rangeland grazing and floriculture (cut flower green-house and shade-house operations).

The main stem of Pilarcitos Creek flows parallel to the Highway 92, the main transportation corridor over the Coast Mountains to the Half Moon Bay area. The major tributary, Arroyo Leon, lies parallel to the County maintained Higgins Canyon Road. The creek is impacted by storm runoff from the State maintained highway and urban residential storm runoff directed into the creek.

## **Watershed Working Group**

The Pilarcitos Creek 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 Farm Bureau Building in Half Moon Bay. Dates and times are announced by notice mailed to all cooperators and all growers in the watershed.

At the invitation of the watershed group, representatives of local, state and federal agencies attend meetings. Representatives from the National Marine Fishery and San Mateo County Environmental Health Dept. have been present at working group meetings discussion projects and issues of common interest.

At this time, a total of 7 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 are represented.

The manager of the county landfill which is located in the watershed is invited to participate with the working group and is an active member.

There are approximately 8 growers who have not yet signed "Notice of Intents" but who attend meetings.

In June of 2001, the UC Cooperative Extension Agricultural Water Quality Short Course was offered in Half Moon Bay. At that time 7 farming operations represented in the working group participated. Farm Self Assessments have been prepared by those participants and Farm Plans are completed or are under way.

## **Watershed Projects:**

1. The WWG is currently working in cooperation National Marine Fisheries Service, the San Francisco Water Dept. and the Coastside County Water District seeking ways to increase summer flows in the Pilarcitos Creek. To that end, the WWG has taken a strong stand encouraging the agencies involved with sewer treatment on the coast to look into tertiary treatment of the sewer effluent.
2. EQIP contracts with several of the WWG members
3. One of the conventional 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.
4. The Pilarcitos Creek WWG is represented on and is an active member of the Pilarcitos Creek Advisory Committee, a local citizen's stakeholder group which meets monthly to advocate for "restoration projects" within the watershed.
5. The WWG is actively participating with San Mateo Co. Dept. of Environmental Health with an effort to monitor and remediate sources of e coli contamination in the watershed.
6. Cover Crop Demonstration Projects
  - a. Three projects (multiple sites) –sponsored thru the FB
7. Grassed Waterway Project
  - a. A constructed Grassed Waterway project built in conjunction with NRCS input was selected as a Demonstration Project for this practice, in this watershed.
8. Base line water quality monitoring conducted approximately monthly in conjunction with NRCS

## **Conservation Practices currently in use:**

1. Cover crops are utilized (weather permitting).
2. Green house operations utilize drip irrigation and tail water recycling to reduce runoff and conserve water
3. Riparian corridors are left intact
4. Interior dirt farm access roads are planted with perennial grasses and mowed to provide winter access and in field filter strips.
5. Raptor perches have been installed as a demonstration project
6. Grassed Waterways

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 Annual Goals which had been set in 2005 and activities accomplished during 2005 to achieve those goals:**

- Continue outreach to cooperators who have not yet signed “Notice of Intent”
  1. *Ongoing*
- Continue to participate in Continuing Education opportunities
  1. *This WWG continues to actively participate in workshops and field days. Attendance by WWG members included Cover Crop Workshops, Nutrient Management Workshops, and continuing education workshops provided by the Ag Commissioner. Additionally, this WWG has participated in educational activities related to use of reclaimed water (tertiary treatment) with local, state and federal agencies.*
- Seek funding to assist in the implementation of beneficial conservation practices
  - a. Status;
    - i. Members of this WWG now have contracts with the NRCS re; EQIP.
    - ii. Grant participation which helps with the costs associated with conservation practices; Cover Crop Program and Mobile Lab Program
- Encourage cooperators who have not yet attended the UC Cooperative Extension Short Course to do so when it is offered this year
  1. *Due to scheduling challenges, the Short Course which was scheduled for Half Moon Bay during year 2005, was not offered by UC Coop Ext. It has been rescheduled for June 2005*
- Encourage cooperators to complete their Farm Plans
  1. *Ongoing*
- Continue to participate with the Pilarcitos Creek Advisory Committee
  1. *The PCAC continues to be a multi stake holder advisory committee in this watershed, advocating for and recommending restoration activities. The agricultural community is represented on this committee by the Farm Bureau and by the participation of the Chairman of the Pilarcitos WWG.*
- Continue the monthly Base Line Water Quality Monitoring
  1. *Farm Bureau and the NRCS continue their monthly base line surface water monitoring activities Pilarcitos Creek. Parameters include Temperature, pH, Conductivity, Nitrates, Orthophosphates, Ammonia, Turbidity and Dissolved Oxygen.*
- Continue to develop strategies for alternative water supplies
  1. *Co Sponsor and participated in the Half Moon Bay Water Summit held in conjunction with multiple agencies and stakeholders to look at ways to achieve enhanced water quality, alternative water supplies for all beneficial users including irrigated agriculture.*
  2. *Sponsored a City Ballot initiative which promoted a recycled water project. The initiative won the endorsement of 85% of the voters in the Nov ballot.*

**Watershed-Specific Challenges**

- Pilarcitos Creek has not been included in the 303D listing, but it has been noted as a watershed to “watch” for impairments (sediment and coliform). No change in status has been recommended by the Regional Board at this time.
- Conversion of agricultural lands to other land uses is a challenge for the WWG.
- Drainage public roadway and urban storm water onto agricultural lands and into the creek
- Water supply for irrigation will continue to be a big challenge. Participation in water conservation practices, investigation into recycled water and use of tertiary treated water will offer challenges and opportunities.
- High persistence of e coli bacteria in the lower watershed
- Invasive plant species
- Follow up on the recently completed coliform studies will be a continuing challenge for this watershed.

**Water Quality Data Report (summary)**

- Farm Bureau and the NRCS continue their monthly base line surface water monitoring activities Pilarcitos Creek. Two monitoring sites were established to create a “base line” approach to water quality. Parameters include Temperature, pH, Conductivity, Nitrates, Orthophosphates, Ammonia, Turbidity and Dissolved Oxygen.