



Marin County Stormwater Pollution Prevention Program
www.mctoppp.org

Students and Teachers Restoring a Watershed
http://www.bay.org/watershed_education.htm

2006-2007 MCSTOPPP/STRAW Collaboration

In-Class presentations: MCSTOPPP and STRAW staff gave in-class presentations to approximately 20 classes on stormwater pollution prevention and riparian restoration. The presentation prepares students for their restoration day and connects riparian restoration concepts to stormwater pollution prevention and to creek habitat protection. The MCSTOPPP presentation stresses the importance of maintaining a healthy and diverse riparian corridor. We also focus on helping students to understand that they all live in a watershed by teaching the anatomy of the watershed (headwaters, valley floor, estuary/wetland, and bay/ocean) and by pointing out the connection between rain water, storm drains, creeks, and pollutants. We try to help students understand the importance of preventing excessive erosion and we introduce the concept that sediment can be a surface water quality pollutant.

06-07 MCSTOPPP-STRAW RESTORATIONS	TOTALS
Number of Major East Marin Watersheds	4
Number of Restoration Sites	6
Number of Restoration Days	9
Number of Teachers	20
Number of Students	660
Number of Parents	90
Number of Volunteers	47
Square Feet (pulled and/or planted)	67,625
Width (Feet)	215
Linear Feet	1835
Total Number Native Riparian Species Planted	19
Total Containers Planted (native plants)	376
Total cubic yards of non-native plants removes	26.5

2006-2007 Arroyo Corte Madera del Presidio Watershed

In the Arroyo Corte Madera del Presidio Watershed the MCSTOPPP/STRAW team participated in 3 restoration days, 2 in Old Mill Park at Old Mill Creek and 1 in Boyle Park at Warner Creek. The MCSTOPPP/STRAW team supervises and leads students in restoration activities including pulling invasive non-native plants and planting native plants.

At the Old Mill Park site students installed fascines (bundles) made of dogwood cuttings to help repair areas of the bank that are eroding and creating gullies. The dogwood fascines have started to grow and are trapping sediment and debris. The gullies carry runoff to the creek from Cascade Drive in Mill Valley. The dogwood fascines will reduce the input of sediment to the creek and will allow for some filtration of road runoff pollutants. Other activities included non-

native invasive plant removal (mainly English and Cape Ivy) and removal of deer cages and weed mats from established native plants.

Gully before dogwood fascines were installed.



Bene' DaSilva (MCSTOPPP staff) demonstrating fascine installation technique to students.



Dogwood fascines taking root 3 months after the restoration in January 2007.

At the Boyle Park/Warner Creek restoration site students pulled invasive plants and planted 6 different species of native plants (a total of 47 individual containers were planted including native sedge, native rush, flowering currant, coffeeberry, ceanothus, and coyote bush).

Participating schools included Old Mill and Bel Aire at the Old Mill Creek site and Park School at the Warner Creek site. Rick Misuraca with the Parks and Recreation Department of the City of Mill Valley participated by arranging to have city workers remove and dispose of the plant material removed by students.



Corte Madera Creek

The MCSTOPPP/STRAW project along Kittle Creek at the Marin Art and Garden Center (MAGC) continued for its 5th year. MCSTOPPP and STRAW staff collaborated with MAGC Garden Educator Charlotte Torgovitsky and the MAGC Head Gardener Alan Good to plan this restoration. Students planted 23 native plants including coffeeberry (*Rhamnus californica*), flowering currant (*Ribes sanguineum*), Snowberry (*Symphoricarpos albus*), and Juncus spp. This site required patient detail work by very young students.

Participating schools included Manor School (Fairfax) and Laurel Dell School (San Rafael).

Miller Creek Watershed

In Miller Creek we held student restorations at 2 sites: at Dixie School and in Marinwood Park adjacent Miller Creek Middle School (MCMS). The Dixie School District and the Marinwood Community Services District granted access so that students could maintain the MCSTOPPP/STRAW restoration sites. This was the 5th year of restoration at these sites.

At the Marinwood/MCMS site students removed non-native ivy, spiderwort and Himalayan blackberry and planted native riparian species such as flowering currant (*Ribes sanguineum*), and Snowberry (*Symphoricarpos albus*). Students also thinned stands of *Carex barbarae* and transplanted it in bare areas in order to encourage the spread of this native sedge. The MCSTOPPP/STRAW team completed 3 days of student restorations at this site.

We conducted a 1-day restoration at the Dixie School site where students pulled English ivy, Himalayan blackberry, and a non-native species of radish. Students also planted 55 plants, including Juncus, coyote bush (*Baccharis pilularis*), ceanothus (*Ceanothus Spp*), coffeeberry (*Rhamnus californica*) and currant (*Ribes sanguineum*). District 1 Marin County Supervisor Susan L. Adams joined the students and helped with the restoration project.

Novato Creek

MCSTOPPP, STRAW and Rancho School assisted with the Novato Creek Phase VIII Capital Improvement Project. Students planted native plants on both banks within a short reach of the Phase VIII project. The county contracted with Shelterbelt Builders to obtain the planting plan. Students were included in a big flood control/creek restoration project. Environmental educators from Point Reyes Bird Observatory (PRBO) taught the students about bird monitoring at riparian restoration sites. Such monitoring is used to measure restoration success. This was a collaborative project between STRAW, MCSTOPPP, PRBO and the Marin County Flood Control and Water Conservation District.