



[Marin County Stormwater Pollution Prevention Program \(MCSTOPPP\)](http://www.mctoppp.org) - (www.mctoppp.org)

[PRBO Conservation Science's Students and Teachers Restoring a Watershed \(STRAW\)](http://www.prbo.org/cms/192) - (<http://www.prbo.org/cms/192>)



2012-2013 MCSTOPPP/STRAW Collaboration

In-Class presentations: MCSTOPPP staff assisted members of the STRAW faculty (retired teachers and naturalists) in giving approximately 35 in-class presentations on stormwater pollution prevention and riparian restoration. The presentations prepared 859 students for their restoration days and connected riparian restoration concepts to stormwater pollution prevention and to creek habitat protection. A PowerPoint presentation focused on helping students understand that they all live in a watershed by teaching them the anatomy of the watershed (headwaters, valley floor, estuary/wetland, and bay/ocean); that there are storm drain networks through everyone's neighborhood and they all lead straight to a creek or bay; the types of pollutants that can get into a storm drain and what the students and community can do to prevent stormwater pollution; the importance of pollution free riparian habitat for native and endangered species and how pollutants diminish aquatic habitat; and how they will get to improve the riparian habitat with their creek restoration project.

2012-13 MCSTOPPP-STRAW RESTORATIONS	TOTALS
Number of Major East Marin Watersheds	3
Number of Major West Marin Watersheds	0
Number of Restoration Sites	3
Number of Restoration Days	6
Number of Schools	4
Number of Teachers	18
Number of Students	859
Number of Parents	67
Number of Volunteers	23
Square Feet (pulled and/or planted)	32,838
Total Number Planted (riparian native plants)	319
Total Square Feet of Seeded Area (native grasses)	2,750
Total cubic yards of non-native plants removed	40

2012-2013 Miller Creek Watershed

In the Miller Creek Watershed, students performed restorations and maintenance at Marinwood Park adjacent to Miller Creek Middle School (MCMS). The Marinwood Community Services District granted access so that students could maintain the MCSTOPPP/STRAW restoration sites. A special thanks to the Marinwood Community Services District who also provided assistance with hauling and mulching of the removed invasive vegetation. This was the 10th year of restoration at this site.

At the Marinwood Park/MCMS site approximately 630 students from Miller Creek Middle School's 6th, 7th, and 8th grade classes, were accompanied by 8 teachers, and 8 volunteers. They helped to remove approximately 19 cubic yards of Himalayan blackberry, English ivy, Cape ivy, fennel, and broom. They also planted 88 native riparian trees, shrubs, sedges and seeded 2200 square feet with native grasses. The MCSTOPPP/STRAW team completed 3 days of student restorations at this site.



Photos Above: Miller Creek Middle School students continue to remove non-native, invasive species from a floodplain.

Photo Below (left): Students learn how to install dri-water tubes that will be the primary water source for the newly planted natives. These slow release gel packs will keep the plants watered for up to 2 months.

Photo Below (right): A newly cleared floodplain area, once choked with non-native, invasive species is planted by students with native trees, shrubs, sedges, and grasses. Straw is used for temporary erosion control.



2012-2013 San Rafael Watershed

At Pickleweed Park, 90 students and 3 teachers from Bahia Vista Elementary School were joined by 11 parents and 10 volunteers, to complete a day of restoration along the tidal wetlands. The students removed 12 cubic yards of non-native vegetation. The students then planted 165 native wetland

plants. A special thanks to the City of San Rafael Department of Public Works for arranging the removal of the invasive vegetation.

Photos below: After removing invasive non-native species, students revegetate the bank with native wetland plants



2012-2013 Arroyo Corte Madera del Presidio Watershed

In the Arroyo Corte Madera del Presidio Watershed, students performed restorations and maintenance at Three Wells in Cascade Park. The City of Mill Valley's Parks Department granted access so that students could perform the riparian restoration. A special thanks to Mill Valley's Parks Department who also provided assistance with hauling and mulching of the removed invasive vegetation.

At the Three Wells site 136 students from Marin Horizon, Park Elementary, and Old Mill Elementary were accompanied by 7 teachers, 56 parents, and 5 volunteers. They helped to remove approximately 9 cubic yards of Himalayan blackberry, English ivy, and Cape ivy. They also planted 66 native riparian trees, shrubs, sedges, and rushes, and seeded 550 square feet with native grasses. The MCSTOPPP/STRAW team completed 2 days of student restorations at this site.



Photos Above: Students plant sedges and rushes along the bank of Old Mill Creek.

MCSTOPPP/STRAW Collaboration

MCSTOPPP is honored to partner with Point Reyes Bird Observatory (PRBO) Conservation Science's STRAW Project, as well as the teachers, students, parents, and volunteers who take part in these projects. The restorations are partially funded by MCSTOPPP (a partnership of all cities, towns and unincorporated areas of Marin) and by grants and other funding obtained by PRBO Conservation Science's STRAW Project. The members of the STRAW faculty help develop and organize the in-class presentations, and STRAW Restoration staff organizes restoration days, perform maintenance and site monitoring, and procure most of the supplies and plants needed to conduct the restorations. MCSTOPPP assists with the in-class presentations, restoration days, and select maintenance days, and also conducts the photo-monitoring for all of the partnered sites.