THE OCEAN GUARDIAN SCHOOL PROGRAM...

Engages schools in the protection of local watersheds, the ocean and special ocean areas like national marine sanctuaries

HANDS-ON projects on school campus and/or in the local community

Through these hands-on projects, students experience how they can effect real change to help protect the health of our marine environments.

School communities include teachers, staff, parents, partner organizations and surrounding neighborhoods.
Schools propose *hands-on* projects that connect to one of the 5 project pathways

**Refuse/Reuse/Reduce/Rot/Recycle/RETHINK**
- School-wide recycling/composting programs,
- School-wide green purchasing program,
- Zero waste lunch programs

**Watershed Restoration**
- Watershed/wetland restoration,
- Fish habitat creation,
- Shoreline/bank stabilization

**Schoolyard Habitats/Gardens**
- Creating or improving school gardens/schoolyard habitats with an emphasis on native plants, low water use, rain catchment systems, etc. while clearly connecting these activities to the health and preservation of the local watershed and/or the ocean.

**Marine Debris**
- Reducing single-use plastics in school/community, promoting reusable items in local community

**Energy & Ocean Health**
- Reducing energy use/carbon footprint such as school energy audits/carbon footprint calculations resulting in energy saving plans (i.e., "power down" campaign, "no idling" campaign, bike to school days, light bulb/computer energy saving plans, etc.), clean energy alternatives (i.e., wind/solar projects), tree planting projects.
Grant award will fund…

- Grants are awarded for up to $4,000 per school depending on the level of the project and funding year.
- Schools may re-apply for funding for a single project for up to 5 successive years. Funding steps down in years 4 and 5 to encourage project sustainability.
- Schools may submit applications for projects that DO NOT require funding.
Program Requirements

SCHOOL PRESENTATIONS

Project introduction

Project wrap-up

OUTREACH

Internal Outreach

External Outreach

LIFE OF WETLANDS

Water flows in Estuary Full of Fish
Tidal Waves Roar
Life is Every where
Animals Roaming
Nature is Light
Deep in the Marshes
Shorebirds are fishing

6th grade student,
Will C. Wood Middle School, Alameda, CA

"What a Wonderful Creek"
Original Lyric by 3rd Grade Class,
Willow Creek Academy 2012

I see broken fences, missing trees too
Wild strawberries for me and you
And I think to myself, what a wonderful creek
Willows and hemlock blow in the wind
I hear the song of the red breasted robin
And I think to myself, what a wonderful creek

This is the landscape where the deer like to play
And salmon and birds before they were chased away
The Miccos used paper cups to make tubes
And boy leaves to knit, even on their shoes
I saw strimmers and raccoons
Newts, mayflies and woodpeckers, too
And I think to myself, what a wonderful creek

Let’s clean up the trash, make sure we do our part
There’s so much history here, there’s so much heart
We want the fish to come back, the birds to sing
The humans to love without hurting anything
I hear water run, I watch it flow
I’ve learned much more than I thought I’d know
And I think to myself, what a wonderful creek
Internal Outreach
External Outreach

June 3, 2011

Alameda Sue
32157 Emotal Ave
Alameda, CA 94501

Dear Alameda Sue,

If people are throwing the bay, then they are hurting the sea animals. When we eat the sea animals, it can hurt our body systems. So, if we don’t litter, then it won’t go to the ocean and won’t hurt ocean animals. If we use the 3-stream recycling, then it’s better for our health and the ocean. It’s less trash in the landfill. With summer coming, let’s all use the 3-stream recycle.

Sincerely,

Kathy Tran
6th grade S/L/R/W (Service, Learning, Waste, Reduction, Project)
Will C. Wood Middle School

We Love the Sea! Be Idle Free!

Idling for more than 30 seconds wastes more fuel than restarting
Measurable Data

Data Collection Sheet for Trash Blitz Fieldwork:

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Type of Waste</th>
<th>Plastic</th>
<th>Glass</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

ICA Trash Audits

- January
- February
- March
- April

First Grade: What’s in Your Lunch?

<table>
<thead>
<tr>
<th>Date</th>
<th>Plastic bags</th>
<th>Beverage bottles</th>
<th>Straws</th>
<th>Individually wrapped</th>
<th>Plastic cups</th>
<th>Straws</th>
</tr>
</thead>
<tbody>
<tr>
<td>before</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/15</td>
<td>11</td>
<td>1</td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>1/16</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>after</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/12</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>9</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>1/13</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>1/14</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>1/15</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>1/22</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>1/23</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>1/24</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>1/25</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Total:
- Plastic bags: 33
- Beverage bottles: 16
- Straws: 20
- Individually wrapped: 20
- Plastic cups: 12
- Straws: 23
**Grant award will fund…**

- Grants are awarded for up to $4,000 per school depending on the level of the project and funding year.
- Schools may re-apply for funding for a single project for up to 5 successive years.
- Funding steps down in years 4 and 5 to encourage project sustainability.
- Schools may submit applications for projects that DO NOT require funding.

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**Ocean Guardian Schools 2010-2019**

<table>
<thead>
<tr>
<th>Awarded Grants</th>
<th>$1,674,367</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Participating Schools</td>
<td>134</td>
</tr>
<tr>
<td><em>Schools that received more than one grant are only counted one time</em></td>
<td></td>
</tr>
<tr>
<td>Number of Participating Students</td>
<td>61,938</td>
</tr>
<tr>
<td><em>Number reported from participating schools, not school districts</em></td>
<td></td>
</tr>
<tr>
<td>Number of Participating School Districts</td>
<td>2</td>
</tr>
<tr>
<td>Number of recycle bins installed</td>
<td>1070</td>
</tr>
<tr>
<td>Number of compost bins installed</td>
<td>530</td>
</tr>
<tr>
<td>Kilograms of compost made from school food/garden waste</td>
<td>927.14</td>
</tr>
<tr>
<td>Kilograms of recycled e-waste</td>
<td>2,322.05</td>
</tr>
<tr>
<td>Kilograms of reused oyster and clam shells</td>
<td>2,721.59</td>
</tr>
<tr>
<td>Kilograms of trash/debris removed from campus and/or from out in the community</td>
<td>149,051.14</td>
</tr>
<tr>
<td>Number of reusable bags (grocery bags, snack bags, etc.) distributed</td>
<td>12,929</td>
</tr>
<tr>
<td>Number of reusable bottles distributed</td>
<td>23,601</td>
</tr>
<tr>
<td>Number of single-use plastic bottles NOT used due to use of reusable bottles at filtration station</td>
<td>726,544</td>
</tr>
<tr>
<td>Number of rain barrels installed</td>
<td>107</td>
</tr>
<tr>
<td>Liters of water reclaimed from use of water catchment system</td>
<td>86,126.13</td>
</tr>
<tr>
<td>Number of native trees planted</td>
<td>5142</td>
</tr>
<tr>
<td>Number of native perennials/herbs/annuals planted</td>
<td>41,302</td>
</tr>
<tr>
<td>Square meters of native plants planted</td>
<td>65,818.89</td>
</tr>
<tr>
<td>Square meters of non-native invasive plants removed</td>
<td>51,055.81</td>
</tr>
<tr>
<td>Square meters of turf removed</td>
<td>3,875.42</td>
</tr>
<tr>
<td>Linear meters of bank stabilization</td>
<td>1,230.94</td>
</tr>
<tr>
<td>Number of wildlife habitat structures installed</td>
<td>198</td>
</tr>
<tr>
<td>Number of LED or energy saving bulbs installed</td>
<td>46</td>
</tr>
<tr>
<td>Number of bike-to-school days</td>
<td>173</td>
</tr>
<tr>
<td>Number of stenciled storm drains</td>
<td>63</td>
</tr>
</tbody>
</table>

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**Ocean Guardian School**

*Protecting the Ocean One School at A Time*

**PROGRAM REACH • 2018 - 2019**

- **10,060 students**
- **53 schools**
- **361 teachers/staff**
- **176 COMMUNITY PARTNERS**
- **$162,777 GRANTS**

**TOTAL IMPACT • 2010-2019**

- **149,651 KILOGRAMS OF TRASH COLLECTED**
- **36,730 REUSABLE BAGS & BOTTLES DISTRIBUTED**
- **1,600 RECYCLE & COMPOST BINS INSTALLED**
- **726,544 SINGLE USE PLASTIC BOTTLES NOT USED**
- **55,819 SQ. METERS OF NATIVE PLANTS PLANTED**
- **51,656 SQ. METERS OF NON-NATIVE PLANTS REMOVED**

http://sanctuaries.noaa.gov/education/ocean.guardian
NOAA Ocean Guardian School Recognition

California
Florida Keys
Texas
Washington and Oregon
Maryland
Alaska
North Carolina
Santa Cruz, CA

Project Pathway: Restoration
2014-2019

Community Partner:
Groundswell Coastal Ecology
9,000 nurdles collected
Correlitos, CA
2016-2019

Project Pathway:
Schoolyard habitat/garden
Year 1:
Raised Garden Boxes, Rainwater Collection System, Soil Bins, Garden Tables, and Orchard
Year 2:
Orchard Expansion and Native Demonstration Garden
Year 3:
Oak Woodland
Coast Live Oak Woodland

Why Oak Woodlands Matter:
Oak woodlands help clean water and build healthy soils. They offer ecological niches for an array of plants, animals, birds, and insects. They also clean the atmosphere of carbon and release oxygen.

Coast Live Oaks are adapted to dry summers and mild winters. They can live for 250 years or more. Much of the Central Coast was dominated by Coast Live Oaks before woodland removal began for agriculture and urbanization.

Oaks are highly resistant to fire and can even sprout new growth from a burned stump, trunk, or branch. Prior to colonial times, Native Americans managed oak trees with fire to control pests and invasive species and clear understory for gathering acorns. Acorn flour became a reliable food staple, enabling California tribes to establish the densest population of any non-agricultural people in the world.

Planting the Oak Woodland:
The oak woodland project started with a lot of demolition in the form of ice plant removal. Students pulled and dug up almost 1,000 square feet of ice plant that filled three truck and trailer loads to be removed from the site. After preparing the ground, students planted twenty-two Coast Live Oaks from #5 containers. All trees were purchased from Rana Creek Native Nursery. Along with these larger oaks, students planted forty-five more Coast Line Oaks and forty-two California Buckeyes that were propagated and grown from seeds here on campus. For the larger oaks, students installed deer-proof cages around each tree to protect them from being destroyed by young bucks looking to put their antlers. Almost twenty-five cubic yards of mulch were spread over the site and around the remote trees to prevent weed growth, retain soil moisture, and make saplings more visible. All irrigation to the newly planted trees and woodland is done by hand from rainwater harvested from the greenhouse roof.
Off Campus Restoration Projects:
Year 1-Del Monte Beach
Year 2-Quarry Park
Year 3-Del Monte Beach
Watsonville, CA

Project Pathway: 6Rs
2016-present
Are you taking a Spork packet today?

Choose:

Why are you taking a Spork packet?

☐ Can't eat with hands.

☐ Messy with all the ketchup and sauce.

☐ Need a napkin

☐ Need a spork

☐ Need a straw

☐ I just like to

☐ Worried about germs

☐ Other:

Why do you think kids sneak snacks outside? Choose the three most important reasons.

☐ They don't want to eat inside at the brown table if they didn't finish.

☐ They like to eat it in their classroom.

☐ They are hungry during the day.

☐ They want to make a club or a party.

☐ They want to do trades for stuff kids bring from home.

☐ They want to eat their food in peace.

☐ They want to take it home.

How could we stop the snack wrapper trash? Choose the three best ideas.

☐ Have kids volunteer to tell kids not to eat snacks outside.

☐ Wrap every piece of litter, no matter how small, but do not count wrapped items such as milk, juice, great, dirt, rocks.
We are the Calabasas Green Team

- We worked with PVUSD to replace spork packets with a dispenser.
- We gave everyone a reusable water bottle, using our Ocean Guardians grant.
- Last year we did research on why kids snuck out snack wrappers, and this year we are researching the effect of plastic on the ocean and soil.
- We are going to the Alpaca Youth POPS Summit for the first time, as well as the Monterey Bay Aquarium Ocean Plastic Pollution Summit for the fourth time.
- We made a worm bin for composting scraps from our cafeteria and fruit snacks.
Scotts Valley High School
2018-present

Project Pathway:
School habitat/garden
Spring 2017
Marine Debris Ocean Stewardship Program:
an International Pilot Project
Funded by Scotts Valley Rotary Sustainability Committee
in partnership with NOAA and the Tampa Bay Community Foundation
SCOTTS VALLEY CHAMBER OF COMMERCE

2018
BEAUTIFICATION AWARD
AWARDED TO
MARK ANDREWS &
THE SVHS GREEN TEAM

Certificate of Special
Congressional Recognition
Presented to
Mark Andrews & SVHS Green Team
in recognition of outstanding and invaluable service to the community.
January 10, 2019

Mark Andrews & SVHS Green Team
in recognition of outstanding and invaluable service to the community.
Scotts Valley High School

GREEN TEAM

ORGANIC WEED KILLER

Students approved.
QUESTIONS?