



2008-2009 Education Program Report

WHALES: Watershed Heroes- Actions Linking Education to Stewardship

It's been another exciting year for the WHALES program! Thanks to adequate funding and high community interest, Coastkeeper reached **829 students from 10 schools**. We had a total of 30 classes participate in our field trips and in-class activities; 5 classes went through our full WHALES program, and other classes took part in 1 or 2 modules. Students participated in water testing, biological assessment, marine life surveys, habitat restoration, beach cleanup projects, and community action projects. WHALES students also met local watershed professionals who provided real-world experiences and career development resources. We continue to be the only non-profit organization providing environmental field trips and bus transportation to junior high and high school students in Orange County.



Description of Audience

Our WHALES students were from various cities in Orange County, including: Costa Mesa, Garden Grove, Orange, Santa Ana, and Fountain Valley. Students ranged from 14 to 18 years of age and tended to be juniors and seniors. The demographics vary between schools, but were approximately: 62% Hispanic, 15% Caucasian, 15% Asian, and 8% other. Excluding Fulton Middle School and Talbert Middle School in Fountain Valley, all were Title I schools with an average of 65% of students enrolled in the free or reduced lunch program.

Launching Our New Program: The Watershed Career Network

In an effort to expand our reach to classes that cannot attend field trips, Coastkeeper launched the Watershed Career Network this year. Coastkeeper visited classrooms to expose local junior high and high school students to environmental career opportunities. In our first year, we reached 240 students from 9 AVID (Advancement Via Individual Determination) classes. During these interactions, students learned about specific fields and related environmental issues.

Looking Ahead: 2009-2010

It's hard to believe that we're approaching our 5th year of the WHALES Program. During the next school year, we will continue to provide field trips and class activities, and always look for new ways to engage local students. Coastkeeper will focus new recruitment efforts on junior high schools, especially AVID classes. We also plan to launch the Watershed Career Network website, and begin coordinating classroom interactions with environmental professionals. As part of our new Eelgrass Project with the Department of Fish & Game, we will be able to offer our students hands-on research experiences at the Back Bay Science Center. There has never been a more critical time to train and inspire new Watershed Heroes, and Coastkeeper is proud to be a key player in this effort.



2008-2009 Evaluations

- Pre-Post Test: WHALES students improved an average of 37.7 percentage points between the pre and post tests.
- Reflection Sheets: Students had an average score of 76.44%.
- Student Program Evaluations: Average score of 81.5%.
- Teacher Program Evaluations: Average score of 91.0%.
- Partner Program Evaluations: Average score of 92.4%

WHALES 2008-2009 Pictures



Module 1: Understanding Your Watershed
Tour of OC Sanitation District



Module 5: Wetland Ecosystems
Marine Life Inventory at the Back Bay Science Center



Sage Hill Service Learning Group giving public comment at a
Marine Life Protection Act (MLPA) Meeting



Costa Mesa HS- Community Action Project

WHALES Participating Schools: 2008-2009

Coastkeeper expanded our 2008-2009 WHALES Program to reach over 820 students from seven high schools and three middle schools. The varying number of WHALES trips reflects adjustments to fit the needs and availability of each teacher.

School City	Class	# of Students	# of Trips
WHALES: Field Trips			
Costa Mesa High School Costa Mesa	Advanced Placement Environmental Science 2 classes	48	11
Santiago High School Garden Grove	Advanced Placement Environmental Science 2 classes	46	7
Orange High School Orange	Advanced Placement Environmental Science	38	6
Costa Mesa High School Costa Mesa	Marine Science 2 classes	66	2
Chavez High School Santa Ana	Earth Science and Chemistry 8 classes	160	2
Rancho Alamitos High School Garden Grove	A.P. Environmental Science	36	2
Garden Grove High School	AVID: Advancement Via Individual Determination 6 classes	150	3
Lathrop Intermediate School Santa Ana	AVID: Advancement Via Individual Determination 3 classes for in-class lesson	90	1
Sage Hill School Newport Beach	Service Learning	15	6
Total		649	41
WHALES: In-class Presentations & Activities			
Fulton Middle School Fountain Valley	Science Class In-class lecture: 4 classes	120	N/A
Talbert Middle School Fountain Valley	Science Class Water Quality Activity	60	N/A
Total		180	N/A
FINAL TOTAL		829	41

WHALES Field Trips/ Presentations: 2008-2009

September 2008

Sept. 30 – CMHS APES Water Quality

October 2008

Oct. 1 – Sage Hill Community Service
Oct. 2 – CMHS APES Water Quality
Oct. 16 – OHS Watershed
Oct. 21 – CMHS APES Biodiversity
Oct. 23 – CMHS APES Biodiversity
Oct. 28 – SHS Watershed

November 2008

Nov. 6 – CMHS MS Water Quality
Nov. 7 – CMHS MS Water Quality
Nov. 12 – Sage Hill School
Nov. 19 – OHS Water Quality

December 2008

Dec. 2 – SHS Water Quality
Dec. 5 – CMHS APES Coastal Habitats
Dec. 9 – Chavez HS Coastal Habitats
Dec. 17 – Sage Hill Community Service
Dec. 18 – Chavez HS Watershed/ Water Quality

January 2009

Jan. 7 – Rancho Alamitos HS Watershed
Jan. 14 – Orange HS Coastal Habitat
Jan. 21 – SHS Coastal Habitat

February 2009

Feb. 10 – OHS MLI
Feb. 11 – Sage Hill Community Service
Feb. 26, 28 – SHS MLI

March 2009

Mar. 2 – GGHS Water Quality
Mar. 4 – Sage Hill Community Service
Mar. 5 – GGHS Coastal Habitat
Mar. 10 – CMHS MLI
Mar. 11 – CMHS MLI
Mar. 18 – GGHS Marine Life & Pollution
Mar. 25 – RAHS Water Quality
Mar. 26 – SHS Biodiversity
Mar. 28 – Lathrop MS Coastal Habitat

April 2008

April 1 – Sage Hill Community Service
April 14 – OHS ML & P
April 16 – SHS ML & P
April 24 – CMHS Earth Week
April 27 – CMHS ML & P

May 2008

May 26th & 27th – CMHS Final Presentations

June 2008

June 2nd – OHS Final Presentations
June 8th & 9th – SHS Final Presentations



WHALES Partnering Agencies: 2008-2009

At Orange County Coastkeeper we recognize the value of partnering with watershed-related agencies to expose our students to the best possible facilities, equipment, and professionals. Throughout our 2008-2009 WHALES program, we were fortunate to have the involvement of several private and public agencies, providing expertise as guest speakers, field activity leaders and final presentation panelists.

<p><u>Module 1</u></p> <p>Understanding Your Watershed</p>	<p><u>Partnering Agencies</u></p> <p>Irvine Ranch Water District- San Joaquin Wildlife Sanctuary Orange County Sanitation District</p>
<p><u>Module 2</u></p> <p>Water Quality</p>	<p>Cities of Costa Mesa, Garden Grove and Orange County of Orange Stormwater Program</p>
<p><u>Module 3</u></p> <p>Biodiversity</p>	<p>Orange County Parks- Mason Regional Park Cambridge Elementary School Andersen Elementary School</p>
<p><u>Module 4</u></p> <p>Coastal Habitats</p>	<p>California Coastal Commission - Upper Newport Bay Restoration Education Program Peter and Mary Muth Interpretive Center Tucker Wildlife Sanctuary Bolsa Chica Conservancy</p>
<p><u>Module 5</u></p> <p>Wetland Ecosystems</p>	<p>California Department of Fish and Game - Back Bay Science Center at Upper Newport Bay</p>
<p><u>Module 6</u></p> <p>Marine Life and Pollution</p>	<p>California State Parks- Crystal Cove State Beach Pacific Marine Mammal Center Cities of Laguna Beach and Newport Beach</p>
<p><u>Module 7</u></p> <p>Community in Action</p>	<p><u>Panelists:</u> Orange County Sanitation District Orange County Water District Orange County Watersheds Cities of Costa Mesa, Newport, Garden Grove and Orange Mesa Consolidated Water District Costa Mesa Sanitary District CSU Fullerton; Tucker Wildlife Sanctuary Chapman University RBF Consulting Bolsa Chica Conservancy</p>