

# Watsonville Area Teens Conserving Habitats (WATCH)

Each year, the Watsonville Area Teens Conserving Habitats program (WATCH) provides experiential learning activities for 72 Pajaro Valley High School, Aptos High and Watsonville High School students to complement their integrated school curriculum, build leadership and job skills, and participate in conservation action. WATCH students enroll in an intensive two-week program during the summer and a project-based environmental science class during the school year, for which they receive academic credit.

During the two-week **summer program** the students focus on local environmental issues, career awareness and community service through a series of field excursions to the various ecosystems in their community. They participate in team building activities, including a ropes course and rock climbing, and are challenged to connect with nature and set personal goals. They learn and practice key scientific skills—observation, exploration, data collection, communication—as they learn to operate some of the scientific and technological tools they will use throughout the year. They explore the Pajaro River Watershed—from the top of nearby Mount Madonna through the wetlands, over the dunes and to the Monterey Bay. Along the way, they meet scientific researchers and experts and learn about environmental issues and the problems and potential solutions associated with each system. As they are introduced to the concept of stakeholders, the students learn about the historical uses of the watershed by Native Americans, as well as the current uses and management of the area.

The second week of the summer sees students forming teams and exploring each of the habitats in depth—river, wetlands, dunes—learning more about the stresses on these environments, such as human impacts or invasive species, conservation efforts to preserve the



habitat and how the health of each habitat is connected to the health of the entire watershed. They are introduced to a stakeholder scenario in which a developer is proposing to build a golf course on a wetlands habitat. Students assume the role of a community stakeholder and present their case to the “Land Use Board.” This experience helps them learn how to convey science content effectively, practice their public speaking skills and work as a team.

During the **academic year**, students work in teams to select, design and implement a project around an environmental issue with support from Aquarium staff, high school faculty and/or community mentors from the Monterey Bay Aquarium Research Institute, UC Santa Cruz, and others. In class, students learn environmental science content from guest speakers and teachers, engage in group discussions and work on their projects. After school and on the weekends, students visit their research sites to collect and analyze data. Class work is

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supplemented with field trips and meetings with key local stakeholders. At the end of the school year, students present their research projects to their peers, families and the public. On completion of this demanding program, graduation and enrollment in higher education, students are awarded a \$1,000 college scholarship. Since 2006, over 300 students have participated in WATCH, and nearly all successfully graduated high school.



Despite Watsonville's environmental richness, many of the community residents, particularly teens, are unaware of the rare habitat they encounter on a daily basis or what their role is in its sustainability. These unique ecosystems are threatened by a number of complex factors.

Environmental issues in the Watsonville area can become contentious, as the main livelihood for many residents is large scale, commercial agriculture. In addition, the area population is growing and questions of economic development are of key importance to community leaders and elected officials. Dialogue about conservation,

wetlands protection, pesticide and fertilizer use, and other watershed/ocean related issues can be divisive. Developing community science literacy is a strategy to foster more productive dialogue and action.

Our **goal** for WATCH and all our education programs is to develop a diverse group of young adults who are ocean literate, inspired, confident and ready to act on behalf of the oceans. By the end of the program, WATCH students will have an improved understanding of ocean systems and ocean conservation issues. They will have a stronger personal connection to the ocean and a commitment to conservation. They will feel confident in their ability to make informed, environmentally sound choices. And the intensity and frequency of their personal conservation behaviors and activities will have increased.

The WATCH program has five key elements that contribute to the high impact on participants and the potential for development of long term interest in environmental science and stewardship behaviors. These program elements include:

- 1) A project-based science experience that requires students to develop a testable question and a field-based environmental research project that will impact their community in a tangible way.
- 2) Opportunities for student collaboration in groups to design scientific protocols and interact with professional science mentors in ways that mimic the workplace.
- 3) Support and training to adult mentors so that they effectively scaffold student development of professional skills over the course of the year-long program.

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- 4) A stakeholder approach in which students learn about issues in their community from multiple, diverse perspectives, forming their own conclusions. These include elected officials, farmers and farm workers, environmentalists, developers, media specialists and others.
- 5) A place-based focus that emphasizes local issues and ecosystems that students encounter on a regular basis.

A **committed group of teachers** work to recommend students to the WATCH program, identifying those who would benefit most from the hands-on, project based format. Many of these students respond well to WATCH because it provides an alternative to traditional classroom experiences and a powerful motivator for engagement through meaningful environmental and conservation projects. Because of the intensity of the program and the resources needed to ensure its success, participation in the WATCH program is limited to 72 students per year. Teachers, Aquarium staff and community mentors serve as positive adult role models and provide regular support to the students' ambitious projects. WATCH students are exposed to rare habitats and are provided with a safe and supportive learning environment in which to develop science skills, environmental understanding and critical life skills. Many students have described their WATCH experience as "life-changing."

WATCH participants lead numerous conservation activities in their community. These activities include habitat restorations and coastal cleanups, Earth Day, World Wetlands Day activities in Watsonville. In addition, teens provide valuable service at the Aquarium for special promotional days, such as Shark Days, Dia del Niño, Fiesta del Mar and World Oceans Day. The teens reach as many as 150 people for habitat restoration projects and coastal cleanups and many of the thousands of people who attend the Earth Day event in Watsonville and special promotional days at the Aquarium. For example, in the spring of 2011 and also 2012, teens reached over 4,000 Watsonville community members through an Earth Day celebration. Students shared their research projects and created hands-on activities to teach important conservation concepts to children.

## **When asked "What is the biggest impact WATCH had alumni said..."**

*WATCH has really been the catalyst to all of my accomplishments. It gave me the confidence that has taken me places after WATCH. At a very crucial point in my life, the program showed me that you can really do anything no matter the obstacles and fears you may have. That is why I was able to accomplish so much in my high school career and the reason why I'm so solid in college now with my career goals, semi-figured out. Well at least more than most people since I know what I love doing and what I don't. It's like if the program nurtured me and taught me how to fly so that when the day came that I had to jump off the tree, I was able to fly with confidence. I will always be grateful for the opportunity to be a part of this program and thankful for all that it has given me.*

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*WATCH gave me the opportunity to enhance my presentation skills. It also tested my time management big time. I felt that the assigned group was a small family that you were attached to and I enjoyed the factor of team building, group work and pressure that was given to us along the way. I experienced working with a variety of different ages and enjoyed giving back and teaching my knowledge to the community. Overall although stress was developed i have to say that it was a bittersweet experience. (In a good way)*



*You don't have to major or find a career related to environmental sciences to help save the planet. One can always take part in preserving the environment by being an active citizen in finding free time to devote to conservation efforts.*

*Because of WATCH I really became aware of my leadership qualities and because of it I am a better student and presenter. I already cared for the environment but joining WATCH also helped me learn how to become a leader in my community and my surroundings by educating others about their impact on the Earth. I really appreciate everything that the WATCH program did for me because it may not seem like a lot but looking back on my time in high school, this was the most influential program I was involved in.*

*I dream of achieving a goal to study environmental studies and journalism and combine them into one major. Yeah it's sounds crazy I know. I also find myself so concerned about conserving natural resources that I constantly advertise recycling or reducing the use if resources. And that's all because of WATCH. I never knew how to recycle or what goes where. WATCH taught me that. My classes to have been influenced by WATCH. For example, in the spring I will be taking an Ecology class and furthering my knowledge about the study of ecosystems, trying to learn the best I can about habitats and how I can help to conserve them. And that I owe to WATCH*

*WATCH has definitely influenced conservation issues that I care about because learning so much about our local wetlands and community, made me want to conserve what we have in our community*

*Everything i know now about the environment and it's importance, I learned from WATCH.*

*It is an outstanding program! I never thought that one single program could teach me so much. The skills I acquired have stuck with me and are present in everything I do. I know WATCH has made a huge impact in my life and in the lives of many others!*

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*Media Clips*

<http://www.eco-company.tv/video/name-science>

<https://vimeo.com/104676583>