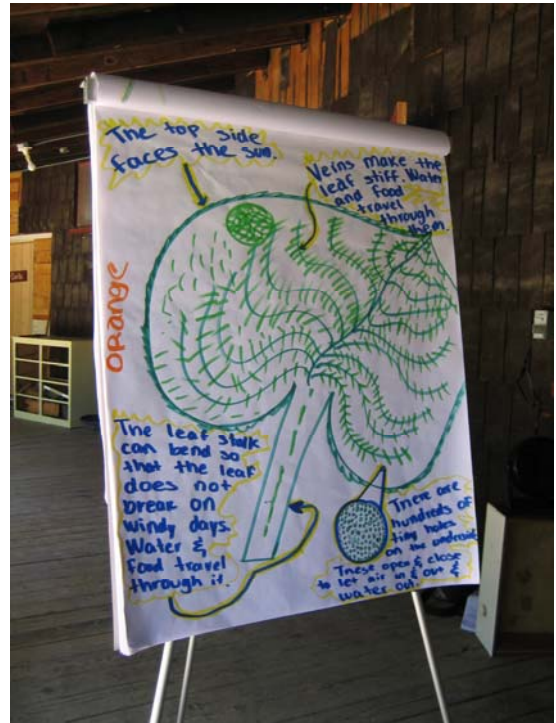


Sacramento County 4-H Youth Development Program

ON THE WILD SIDE
2009 Program Evaluation



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On the Wild Side 2009

Project Evaluation

INTRODUCTION

Since 1999, On the Wild Side has provided a service learning experience for teens and an environmental education experience for elementary school students. Teens and adult volunteers work together to plan and deliver an overnight camp program to children from underserved neighborhoods in Sacramento County. With the September 2008 launch of the California 4-H Science, Engineering and Technology (SET) initiative and of the Sacramento County 4-H Water Wizards after school science program, the theme for this year's On the Wild Side camp was **the role of water in the environment**. The emphasis for program delivery was **inquiry-based science education** for children ages 9 to 12.

OBJECTIVES

The intention for this year's camp was to increase the science content of the learning activities while keeping camp fun and highly interactive. Therefore, On the Wild Side 2009 had the following objectives:

For young participants:

- Expanded knowledge of the role of water in the environment
- Developed an interest in investigating the world around them
- Increased appreciation of the importance of conservation and environmental stewardship
- Participated in an enjoyable experience with new peers and staff in an outdoor setting

And for teen and young adult teachers:

- Enhanced awareness of the importance of civic engagement
- Developed an understanding of the process of inquiry-based learning
- Increased ability to interact with people of various ages and backgrounds
- Experienced a sense of satisfaction and pride in successful project completion

PROGRAM IMPLEMENTATION

On the Wild Side recruitment efforts were successful including new involvement from California State University Sacramento (11 students) and several fresh faces among the teens and other volunteers. Participation for this year is shown in Table 1.

Table 1: On the Wild Side Camp Participation by Camp Session

Participants	Session 1 (May 16-17)	Session 2 (May 30-31)
Children	51	83
Chaperones	10	13
Teen/young adult teachers	13	11
CSUS (Sacramento State students)	1	10
Other coaches and adult volunteers	10	12

Children rotated through six experiential learning activities, each with some relation to water. The watersheds, wetlands, and water cycle activities illustrated water’s role in the local and broader environment. The pond life and tree activities included taking samples and making drawings. Canoeing also provided an opportunity for first-hand observation of an aquatic habitat.

New this year was a water testing activity to complement the water-related learning of the other activities. Scientists from California State University, Sacramento, and the University of California, Davis, developed the water testing curriculum and facilitated the activity.

Groups of children were each asked to answer one of six questions about Lake Vera (the small lake at Camp Gold Hollow). Answering these questions involved testing a water sample and using testing equipment and/or reference samples. The testing equipment included hydrometers, thermometers, a Secchi disk, Petri films and pH testing strips.

The questions were as follows:

- Is Lake Vera salty? (salinity)
- Is Lake Vera cold in the morning? (temperature, morning)
- What is the temperature of Lake Vera when we go canoeing? (temperature, afternoon)
- Is Lake Vera water cloudy or clear? (turbidity)
- Is Lake Vera acidic or basic? (pH)
- Are there living things in Lake Vera that we cannot see? (microorganisms)

Each group of children presented their water testing findings during the closing ceremony.

POPULATION SERVED

A diverse group of youth attended the camp sessions this year (Figure 1). Particularly noteworthy, in view of the gender disparity among science professionals in our society today, was the high numbers of girls who attended the second session (Figure 2).

Figure 1: Youth Participation by Ethnicity for Both Camp Sessions

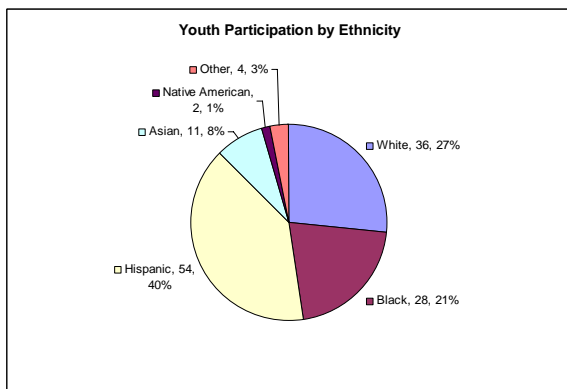
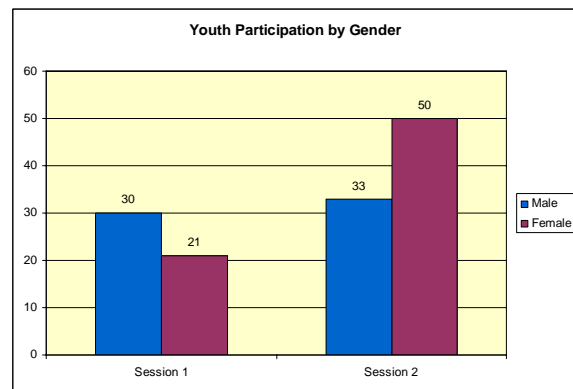
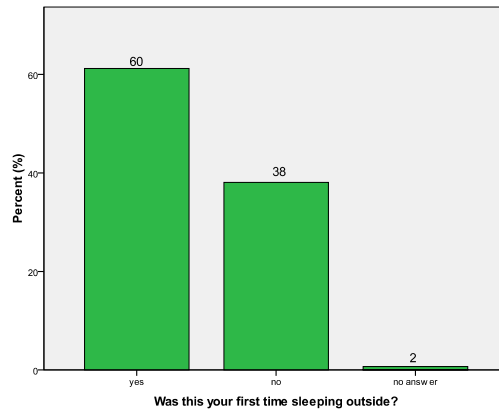


Figure 2: Youth Participation by Gender for Each Camp Session



Many of the youth participated in On the Wild Side camp for the first time. For sixty percent of youth and chaperones, sleeping under the stars was a novel experience (as illustrated in Figure 3).

Figure 3: Youth and Adult’s Prior Experience Sleeping Outside



PROGRAM IMPACTS

The impact of this year’s On the Wild Side Camp was assessed using a variety of methods.

Student Learning

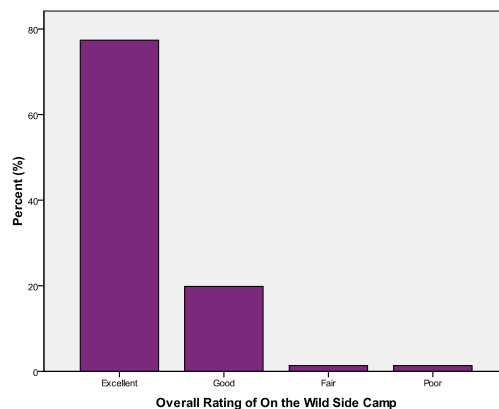
A total of 149 participants (134 children and 15 adult chaperones) completed the camp evaluation form. The majority of participants were able to list three new things they did while at camp and three things they learned. Canoeing, sleeping under the stars and the Sunday morning polar bear swim were new to campers and adults with no prior camp experience. Students listed the vocabulary terms introduced during the learning activities. Children used expressions such as “wetlands help the environment” and “I learned what a watershed is” and terms such as transpiration, water cycle, and microorganism. Campers learned many of these terms while using their bodies as plants during the wetlands game, signing the water cycle song, and by examining plants and animals in and near the water of Lake Vera.

The evaluation forms indicated that creative, interactive games reinforced lesson content from the water cycle and wetlands activities. Responses also indicated a certain mastery of the concepts presented.

I saw the children reciting some of the lessons after the [rotations ended]; all of this while they had giant smiles on their faces.

Both children and chaperones were generally pleased with their On the Wild Side experience as illustrated in Figure 4.

Figure 4: Children & Adult Chaperones’ Impressions of On the Wild Side Camp



Once again this year, the pre-and post-test results provide clear evidence that children acquired new knowledge during camp:

- Overall, the difference between participant's pre-test and post-test scores was statistically significant (Appendix 1, Figure A).
- Seventy-one percent of the participants scored better on the post-test than on the pre-test.
- Each of the seven sites for which results are available had better scores on the post-test than on the pre-test (Appendix 1, Figure B).
- The improvement in scores was significant for participants in Grades 3, 4, 5 and 7. The difference was not statistically significant for Grade 6 students. (Appendix 1, Figure C)

Impact on Teen and Young Adult Presenters

New this year was an anonymous online survey for camp staff (teen and young adult teachers, coaches and other adult volunteers). The online survey took the place of the paper survey used in prior years, in order to give staff more time for reflection and to ease survey completion and analysis. A total of 22 participants responded to the survey. All respondents considered On the Wild Side 2009 a success. Twenty-one indicated they felt they made an important contribution to the community by participating in OTWS 2009, and two-thirds felt their ideas were used during camp.

Several optional open ended questions gave respondents an opportunity to reflect further on their experience. For these questions, the comments were very positive overall. There were also suggestions on how to improve the program, summarized below.

- Encourage all adult volunteers and staff to model the behaviors expected of teens/young adults
- Increase online communication (meeting notices, coordinating schedules and locations, resources on curriculum development or group games)
- Engage college-aged and other adult volunteers who are not coaches more directly in camp activities
- Ensure new and returning teens feel welcome and appreciated by all adults

The online survey results offer insights into this year's youth-adult partnerships. Most comments were very positive with adults citing youth as responsible, fun to work with, and effective presenters. Overall, teens and young adults felt that their coaches were approachable and made helpful suggestions. However, one adult and two young people perceived that some adults were disrespectful towards the teens.

Other Impacts

Each child was given a journal in which to record their notes during the various camp activities and reflections on the camp experience. Like the evaluations, the journals provided evidence of learning. Some of the drawings, poetry, and reflections were particularly illustrative of the On the Wild Side experience (see Appendix 2).

During the staff evaluation meeting, young people and coaches had the opportunity to provide additional feedback on their experience. Some of the highlights they shared about the camp experience were:

- A wide range of volunteers (age, experience, background)

- Children asked a lot of questions both during and after the learning activities
- Teens spent a lot of times with the children
- School teachers have very positive things to say about the program and look forward to coming every year
- Campers had an experience that provided memories that will last a lifetime
- People were flexible, adapting to the situations at hand
- Having a theme that ran through all the learning activities was successful

During observations of the teens and young adult presenters, it seemed that some were particularly skilled at questioning—indicating that they had applied the information they received on inquiry-based learning during training. These teachers spent a lot of time with the children outside of the learning activities, which the children clearly enjoyed.

STRENGTHENING THE PROJECT

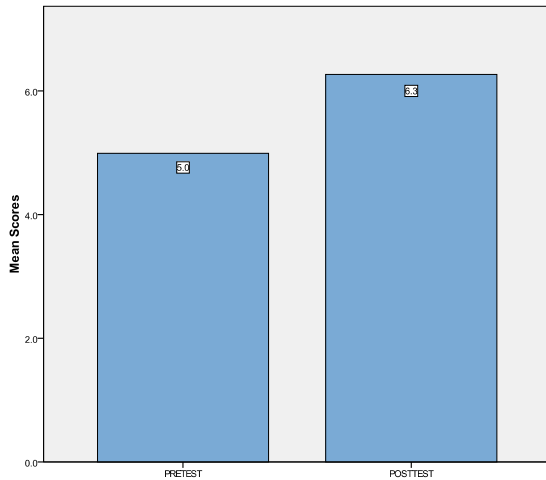
- ❖ Make way for new teens by invite the young adults who have taught at On the Wild Side camp for several consecutive years to assume a non-teaching role at camp
- ❖ Retain the water testing activity – it is valuable on site experience.
- ❖ Select activities that do not overlap with the learning activities for programs such as 4-H Water Wizards
- ❖ Encourage mutual respect between teens and adults during recruitment, planning, and delivery of the program
- ❖ Recruit sites early to cultivate program awareness in children at new school sites participating for the first time
- ❖ Ensure college-age volunteers all have clearly defined support roles at camp



APPENDIX 1: ON THE WILD SIDE 2009 STATISTICS

Knowledge gain: Children participating in On the Wild Side completed a pre-test before camp and the same test (post-test) directly before leaving camp. The test questions were based on the learning activities delivered during camp. A total of 127 pairs of pre- and post-tests were scored—the remainder of the tests had no matching pair or one of the tests was incomplete. The mean results were compared using a paired t-test. The latter ($p=.00$) indicates that, as in past years, the difference between the means for the pre-test and the post-test was statistically significant for the entire sample ($N=127$).

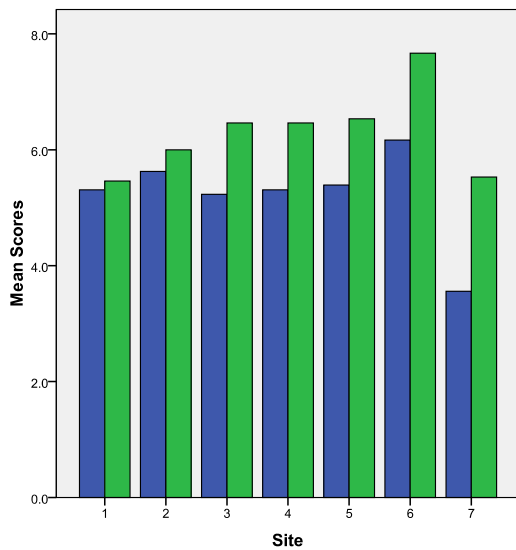
Figure A: Mean Pre-Test and Post-Test Scores for All Participants



	Pre-test	Post-test
Mean	5.0	6.3
Standard deviation	1.9	2.0
N	127	127

Comparison by Site: Each site had higher mean post-test scores as illustrated in the following graph and table. The differences between the mean pre-test and mean post-test scores differed by site and by session.

Figure B: Pre- and Post-Test Results by Site

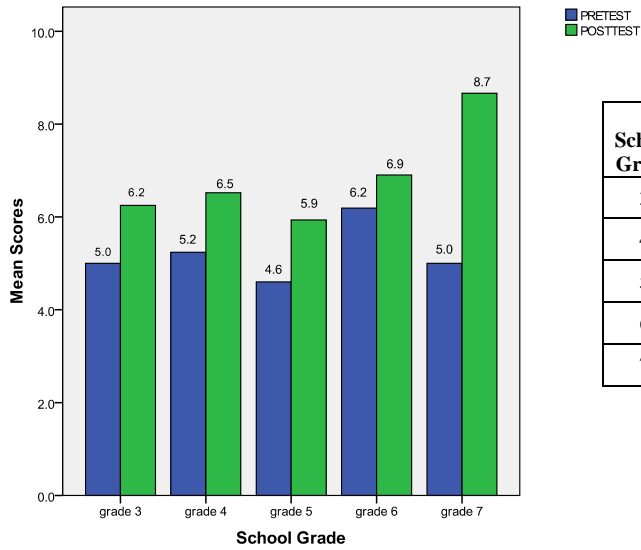


Session Site	N	Pre-test Mean	Post-test Mean	Difference	p value and is the difference significant
<i>First Session</i>	47				
1	13	5.3	5.5	0.16	.197 NO
2	8	5.6	6.0	0.38	.014 YES
3	13	5.2	6.4	1.23	.025 YES
4	13	5.3	6.4	1.15	.001 YES
<i>Second Session</i>	80				
5	28	5.4	6.5	1.14	.001 YES
6	18	6.2	7.7	1.50	.002 YES
7	34	3.6	5.2	1.97	.000 YES

Grade Level:

There was a significant difference in the pre- and post-test results for grades 3, 4, 5 and 7. For grade 6, the difference between scores was not statistically significant.

Figure C: Test Score Differences by Grade

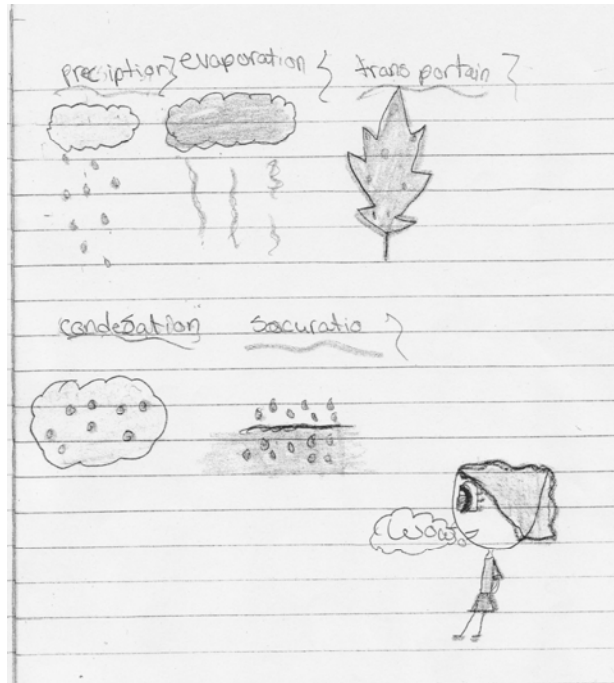


School Grade	N	Pre-test mean	Post test mean	Difference	p value and is the difference significant
3	4	5.0	6.3	1.3	.015 YES
4	21	5.2	6.5	1.3	.003 YES
5	78	4.6	5.9	1.3	.000 YES
6	21	6.2	6.9	0.7	.061 NO
7	3	5.0	8.7	3.7	.032 YES



APPENDIX 2: ON THE WILD SIDE 2009 IN PICTURES AND WORDS

What I learned was such bliss.
I hope you know
That this campsite will be missed
Precipitation is the rain
Perspiration is when you sweat
Evaporation is when the water becomes a gas
Transpiration is when flowers sweat
This is the water cycle just because I know it
I am saying it.



We found that vinegar is acid and that baking soda is basic and the lake water is neutral – not much basic or acid and it doesn't hurt the animals or plants.

I liked the tree walk. Some of the trees are oak, pine, and the refrigerator tree. They are important because they give us oxygen.

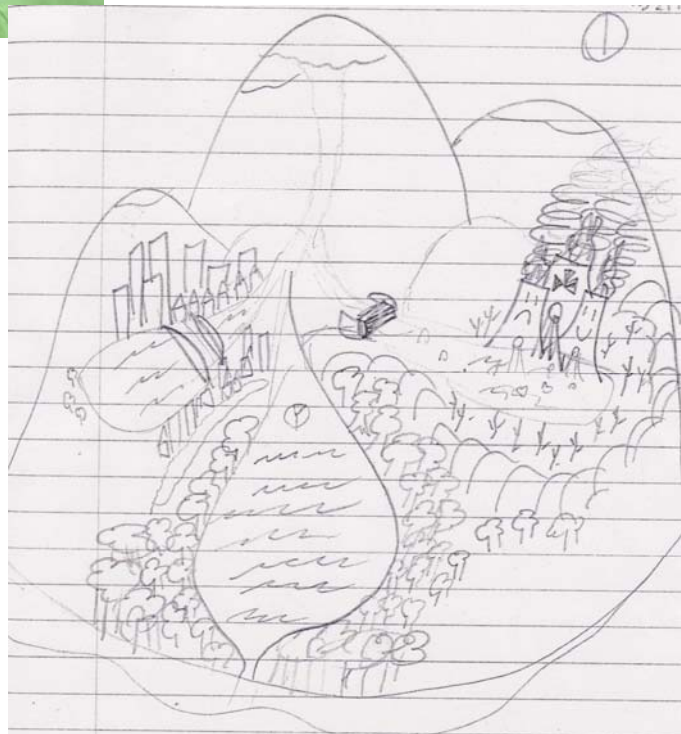


My favorite activity was the demonstration of pollutants. I learned that wetlands filter the water for us.



As I got off the bus, I could feel the love that everyone had for each other, as the day goes on, it only got stronger. We sang songs and boy did we laugh. We also had very good food.

All in all we had a lot of fun – at least I did. Thank you so much.



APPENDIX 3: ON THE WILD SIDE 2009 FINANCIAL REPORT

Category	Description	Budgeted	Actual
REVENUE			
Grants	4-H Service Learning Grant	1,500	1,500
	Toyota Foundation*	0	3,680
	Grant Advisory Board for Youth	500	500
	Service Organizations	1,000	1,750
	Rotary Club of Point West Sacramento \$1,500 Soroptimists International, Sacramento South \$ 250		
Fees	School Sites (2 @ \$600; 5 @ \$300)	2,700	2,700
	Staff Training Retreat	100	280
Donations	Serendipity	1,000	1,000
	Camp Watanda	0	175
2008 Overage		1,150	0
Reserves		300	0
Total Revenue		\$8,250	\$11,585
EXPENSES			
Personnel	Lifeguard for Camp Sessions	150	0
Program Supplies	Program Materials	250	227
Facility	Facility Rentals** (Camp Weekends, Retreat)	2,200	1,952
Food	Camp Weekends & Retreat	2,200	1,854
Transportation	2 Busses per camp session	2,600	3,343
	Vehicle Mileage (2 per weekend and retreat)	400	337
Recognition	Adult volunteers (12) and teens (20)	200	141
Program Evaluation	Both summative and formative	250	200
Total Expenses		\$8,250	\$8,054
Total			\$3,531

Note: * Unanticipated revenue from Toyota Foundation this year for water education.

** Unanticipated camp rental rate reduction for moving camp dates from June to May.

THANK YOU TO OUR FUNDERS:

California 4-H Youth Development Program

Rotary Club of Point West

Sacramento Region Community Foundation
Grant Advisory Board for Youth

Serendipity

Soroptimist International of Sacramento South, Inc.

Toyota Foundation

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