



TulalipCares.org

## Tulalip Charitable Contributions Funds Distribution Report

**NAME OF AGENCY:** Whidbey Watershed Stewards

**DATE OF AWARD:** 2016 Q2

**ADDRESS:** P.O. Box 617 Langley, WA 98260

**CONTACT:** (949) 726-2713, <http://www.whidbeywatersheds.org>

**GENERAL GOALS:** We work with the Whidbey Island community to promote watershed stewardship, habitat enhancement, and environmental education for all ages. Whidbey Watershed Stewards promotes nearshore and watershed health by linking water, land, wildlife and people on Whidbey Island through education, research, and restoration.

### **SPECIFIC USE FOR THIS AWARD:**

This award went to supporting programs and operational expenses.

For more information please read the attached report from Whidbey Watershed Stewards..

# **Tulalip Charitable Fund Grant Report – Year 2016 – 2017 – Q2 2016 14.2**

## **Whidbey Watershed Stewards**

Rick Baker, Executive Director

Lori O'Brien, Director - Education

### **Overview**

For 20 years the Stewards have focused on salmon recovery. We attack this important issue on three fronts; research, restoration and environmental education. At our Outdoor Classroom in the Maxwellton Valley, our K-5 program focuses on watershed science and the role salmon play in the general health of the ecosystem. For our middle school students, 6 thru 8 grades, we focus on the bottom end of the watershed system, the ocean. Students participate in a study centered around general ocean health and its ability to support life.

### **Langley Middle School Oceanography Program**

We met with the 6<sup>th</sup> grade students for 6 months, once a month, from Dec – May for 2 consecutive days as part of a student led Water Quality Oceanographic Study conducted at the Langley Marina. Each of the six, two-day sessions broke down into, one day at the marina collecting plankton samples, analyzing water samples and exploring the ecosystem. The second day in the classroom we spent collating, graphing, interpreting the data we collected the previous day. Each day we met at the marina we collected a plankton sample, sea water and tested for nitrates, pH, water clarity, salinity and temperature. We also took note as to the hours of daylight, the time of year and tides. In addition, the students participated in activities that built their content background which allowed them to understand the concepts of the study. The activities included;

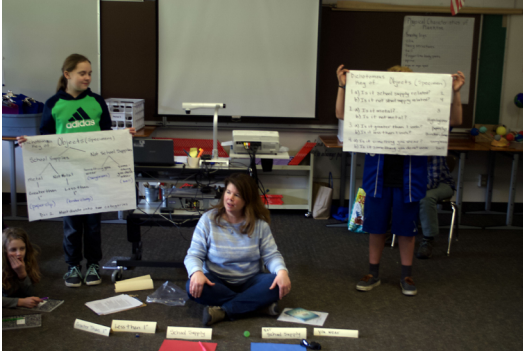
1. Food Web Activity: Plankton -- basis for the marine food web. How do plankton impact salmon, shellfish?
2. Plankton Identification -- Calculating percentage of zooplankton vs. phytoplankton.
3. Plankton Flash Cards -- Students learn how scientists classify, organize and identify organisms.
4. Construct Home-made Plankton Nets – Then collect plankton at dock to test their design.
5. Ocean Acidification Experiment -- Conduct an experiment to tests effects of solutions of varying pH on eggshells.  
Explore possible impacts on marine animals.
6. Environmental Contaminants Activity -- Mock beach in specimen tray – students find hidden pockets of baking soda as the pollutant, determine cost to clean-up contaminants.
7. Designing Plankton -- Students construct and test models of plankton, float them in tank to understand organisms survival strategy.

Our 7<sup>th</sup> graders participated in additional classroom activities including units on oysters and birds. In addition they study the interrelationship between the living and the non-living components of the ocean focusing on changes in the ocean winter to summer plus, surface to at depth.

### **Evaluation**

Anecdotal - All teachers, educators and volunteers involved in this program observed student develop a mastery of the subject matter and an increased sophistication in the level of questions students asked. Also observed was an elevated level of excitement of the students, adults and teachers who participated in the program. Yes, a subjective rubric but, none the less, seeing is believing. It was a testament to the power of this type of immersive education.

This Ocean Program raises environmental awareness to approximately 200- 6<sup>th</sup>, 7<sup>th</sup> graders, about two-dozen adult volunteers, teachers and chaperones. In addition, many of these students have come up through our environmental program at our Outdoor Classroom starting in kindergarten, attending every year, culminating as graduates of middle school ocean program.



## PROGRAM EXPENSES

Tulalip Charitable Fund Grant Report – Year 2016 – 2017				
Grant Amount: [REDACTED]				
Group Name: Whidbey Watershed Stewards				
ACTUAL EXPENSES	Amount		Proposed Budget	Submitted w/Proposal
Personnel	[REDACTED]		Personal	\$8000
Professional Services	\$0		Research Vessel	\$2000
	\$0		(2 days, 100 students)	<i>We were unable to include boat program at [REDACTED] funding level. Added more shore-based program.</i>
Rent & Utilities				
Postage	\$0			
Equipment	\$0			
Supplies	[REDACTED]			
Telephone/Internet				
Copying/Printing				
Transportation				
Other (please describe)				
TOTAL	[REDACTED]			\$10,000