



HEADWATERS  
SCIENCE INSTITUTE

## 2017 Annual Report



Students from San Francisco University High School studying water quality and insect biodiversity in Van Norden Meadow. Photo by Megan Seifert

## Dear Headwaters Supporters,

2017 was a year of outstanding growth and experience for Headwaters. Thank you for supporting student curiosity and the pursuit of scientific discovery in the classroom.

This year saw a powerful new mission statement at Headwaters: Cultivating engaged curious citizens through transformative science education. Students who take part in a Headwaters program have a singular experience. They are prompted to ask questions to which instructors don't know the answers. By itself this is an unusual situation in today's science classrooms. Instead of pushing students to ask the "right" questions, Headwaters actively cultivates the skill of pursuing answers to the unknown. In this way students become comfortable researching and discovering. Instead of memorizing a known truth, they learn how to create it. This process transforms student thinking, and builds skills they can carry through classroom walls, and into their adult lives.

Just as you have continued to notice and support Headwaters, schools throughout the Sacramento, Reno and Tahoe regions have as well. In 2017 we again experienced significant growth, nearly doubling the number of 2016 student days. This year we added a formal professional development experience for teachers to all of our programs. Teachers engaging with our student programs for multiple years progress through Headwaters 101, 201 and 301; finishing with the confidence and skills to implement our strategies into their own curricula in their own classrooms.

These programs are only possible with the development of strong community partners who share in the vision that, when students are encouraged to pursue their own curiosities in science throughout their middle and high school experience, they are more likely to develop into scientists and contribute to the informed citizenry of the future. We'd like to thank all of our donors around the country and in our own communities for making these programs happen.

Thanks to you, our 2017 year-end fundraising campaign was a success. Our year-end push will allow us to continue providing the subsidies necessary to support local public school programs throughout our region. We deeply appreciate the efforts of our staff, board and committed donor base.

We are excited to continue our growth in 2018. As always we are looking to expand our school programming and add formal experiential summer programming. We are looking to develop more local and national partners to help us develop and subsidize public school programs. Please let us know if you are interested in bringing a Headwaters program to your community.

Look forward to an increase in small-scale events from us in 2018. From guided hikes to trivia nights, we are excited to expand our outreach and footprint for our donors, parents and students throughout our catchment area. Keep reading our newsletter for updates on activities and for chances to interact with the board and staff.

We are so pleased to have you as a member of our Headwaters family. Whether you are a first time donor or have considered us in your giving for multiple years, our success and growth wouldn't be possible without you. We appreciate your continued support of innovation in science education. With us, you are changing student expectations, changing teacher expectations and broadening the impact our youth can have on the world they are about to inherit.

Best,  
Andy Giordano  
Headwaters Science Institute Board President





Students studying how particulate moves through snow.  
Photo by Megan Seifert



## Mission Statement

To cultivate engaged curious citizens through transformative science education.

## 2017 Program Highlights

**Sacramento Schools** We doubled the number of Sacramento area schools we worked with last year. Students from Met Sacramento and the Sacramento Adventist Academy traveled to Donner Summit in the Spring to study a historically large Sierra snowpack. Several groups of students asked and answered questions about how patterns in snow melt affect water availability in California. Headwaters also had our largest ever field day with the Community Outreach Academy. Over 135 students collected data around plant and animal diversity in a park near their school.

**Truckee Schools** We began full implementation of a school district-wide 7th grade program. Beyond helping these students conduct their own scientific research, we supported their teachers with new tools and curriculum to implement the Next Generation Science Standards. We have continued our work at the elementary and high school levels with bird feeder experiments and investigations of local waterways. It has been incredibly rewarding to see teachers across our home district regularly using the skills and lessons we have shared with them.

**Washoe County School District** Headwaters has been busy planning programs the greater Reno area. Last Fall, we helped IB Biology students from Wooster High investigate the Truckee River near their school. Students from Incline Middle School inventoried natural resources, and the populations they support, around their campus. We already have plans to reach more schools in Washoe County in 2018 and are building community partnerships make these programs financially feasible.



Students gaining field research experience.  
Photos by Megan Seifert



Spencer guiding teaching students how to use water probes.  
Photo by Megan Seifert



MaryEllen teaching snow science.  
Photo by Megan Seifert

## 2018 and Beyond

We want to start by giving a HUGE THANK YOU to all of our donors for another great year. Once again, our supporters stepped up to help us win challenge grants from the Tahoe Truckee Community Foundation in December. Despite being one of the smallest organizations competing, we won an extra \$5,000 for science education with an extra big effort from our donors and board secretary Michelle. Thank you to our entire board and staff for their donations. Without everyone's support and enthusiasm we would not be able to accomplish as much this coming year.

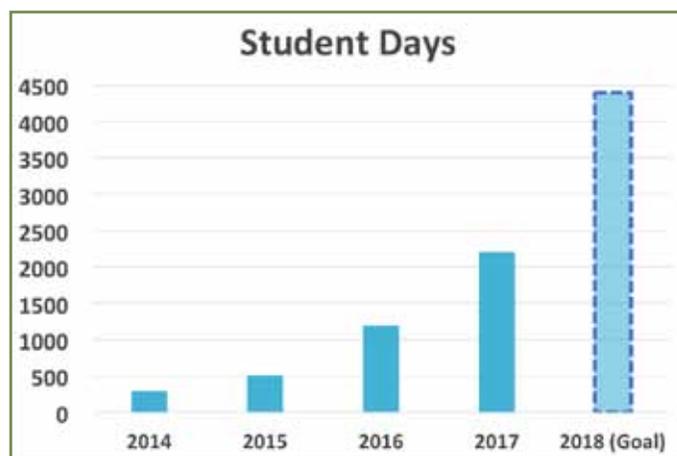
As a result of another successful year-end fundraising campaign, we will be able to offer more scholarship programs in Reno and Sacramento in 2018. We are also building more community partnerships in these areas to make these funds go even further.

This community-based growth extends beyond our neck of the woods. Through support from Nature's Way Market and The Tuscano Insurance Agency, Headwaters is excited to bring great educational opportunities to schools in Greensburg, PA, this May. These two great businesses and many individual donors from the area have allowed us to start a new program with the Greensburg Middle School. We hope some East Coast supporters will take the opportunity to join us during the program to learn more about what we do.

While we were able to double our student outreach for the 3rd year in a row in 2017, our largest gains came

in program marketing and building relationships to financially sustain this growth for years to come. This groundwork has already paid off in 2018 with many new school programs on the books. In fact, demand has piled up enough that we have passed the milestone of hiring our first employee outside of our three founders.

With all of this momentum Headwaters is set up for an incredible 2018. We are on track to double our program revenue, student outreach and professional development programs. We are excited to see all of our hard work from 2017 pay off this year.



A "student-day" is a full day of science instruction for one student. The working capital we have secured, along with support from our donors, has put Headwaters on track to achieve our outreach goals.





Meg, Griffin Tuscano, and Sue Mock accepting the ecochallenge grant for Donner Trail.  
Photo by Ambrose Tuscano

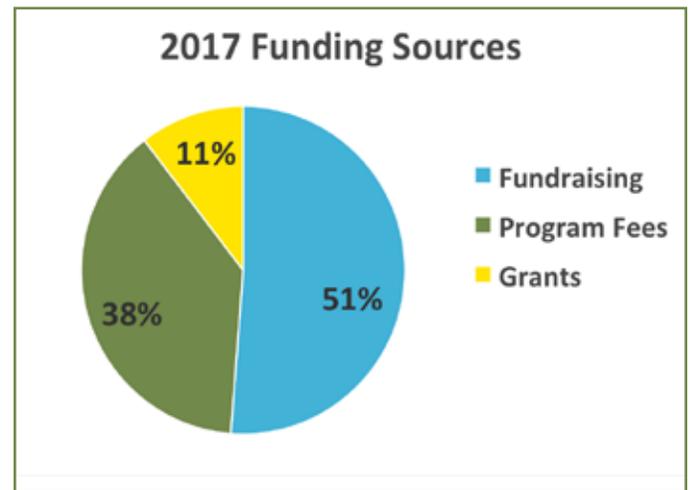


Students studying how soil type affects vegetation.  
Photo by Megan Seifert

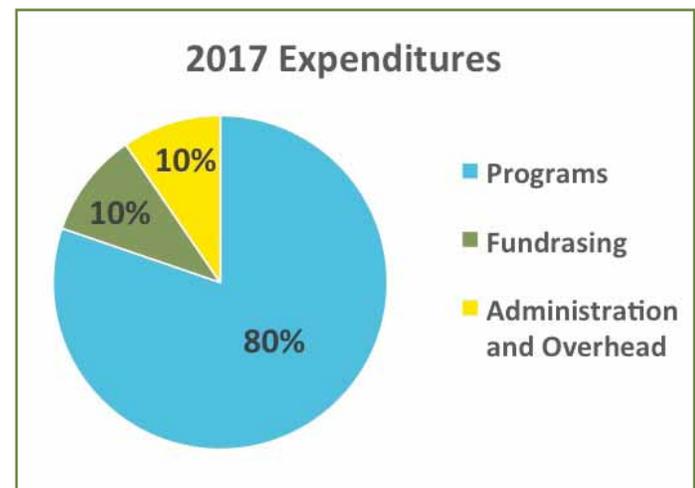
## Headwaters Financial Report At A Glance

- 80% of our expenditure goes towards providing great educational experiences.
- Low 10% overhead and fundraising.
- We doubled our student days, but only increased our expenditures by 25% in 2017.

-Fiscal Year ends December 31 <sup>st</sup>	2015	2016	2017
<b>Funding Sources</b>			
Donations	\$22,733	\$46,537	\$45,137
Program Fees	\$19,625	\$32,668	\$33,763
Grants		\$10,250	\$9,211
<b>Total Revenue</b>	<b>\$42,358</b>	<b>\$89,455</b>	<b>\$88,111</b>
<b>Expenditure</b>			
Programs			
Scholarships	\$4,233	\$8,566	\$18,313
Program Pay	\$5,097	\$26,628	\$23,160
Program Lodging	\$9,255	\$8,986	\$6,775
Program Materials	\$759	\$6,231	\$13,547
<b>Total Program Costs</b>	<b>\$19,343</b>	<b>\$40,411</b>	<b>\$61,795</b>
Fundraising	\$2,580	\$5,167	\$7,854
Administrative	\$1,367	\$3,748	\$7,353
<b>Total Expenditure</b>	<b>\$23,289</b>	<b>\$49,326</b>	<b>\$77,002</b>
<b>Increase in Net Assets</b>	<b>\$19,069</b>	<b>\$40,128</b>	<b>\$11,109</b>



We are able to heavily subsidize program costs through the generous support of our donors. These grants and generous donations will allow us provide great educational opportunities to even more students in 2018.



Headwaters works hard to keep overhead low and use the bulk of its funds to implement our mission.

# Headwaters Science Institute

## BOARD OF DIRECTORS & STAFF

### Board of Directors

MICHELLE FURBERSHAW, Secretary  
Menlo Park, CA

ANDY GIORDANO, President  
Truckee, CA

CRAIG ROWE  
Truckee, CA

ERICA SEIFERT  
Washington, DC

JERI ANN SMITH, Treasurer  
Santa Cruz, CA

### Staff

MEGAN SEIFERT, Executive Director  
Soda Springs, CA

SPENCER EUSDEN, Program Director  
Truckee, CA

MARYELLEN BENIER, Program Coordinator  
Truckee, CA

### Other Simple Ways to Support Headwaters

1. **Amazon Smile**- Headwaters is registered with Amazon, make sure to always start your Amazon shopping with Amazon smile!
2. **Escrip**- Signup with escrip with Headwaters group ID (500824550) and you can give back to Headwaters anytime you shop online or when you are dining out.

## 2017 Donors

### 1% FOR THE PLANET PARTNERS

**\$10,000+**

Nature's Way Market  
Greensburg, PA

**\$2,000+**

Silver Sage Center for  
Family Medicine  
Reno, NV

### COMMUNITY PARTNERS

**\$1,000+**

Apple  
Cupertino, CA

Martis Camp Community  
Foundation  
Truckee, CA

Tahoe Truckee Community  
Foundation  
Truckee, CA

Truckee Airport District  
Truckee, CA

Tuscano Agency  
Greensburg, PA

**\$200+**

Adobe  
San Jose, CA

Interflow Hydrology  
Truckee, CA

Rotary Club Truckee  
Truckee, CA

### INDIVIDUAL DONATIONS

**\$2,000+**

Charles Seufferlein  
Jeri Ann Smith and Tony Francis  
Kitty and Barry Tuscano

**\$1,000+**

Daniel and Andrea Elkort  
Michelle and Gerard Furbershaw  
Diana Seifert  
Bill and Jan Terry

**\$500+**

Mary Ellen Benier  
Spencer Eusden  
Meg Seifert & Ambrose Tuscano  
Mark Stanback

**\$200+**

Kristen Anderson  
Barney Drake  
Alan and Lynn Eusden  
Robert Gedekoh  
Andy and Kristen Giordano  
Barbara Hartley  
Nathaniel Herz  
Nancy Kinner  
Ross Libenson  
Dan Maurer  
Claire and Robert Miller  
Romek and Joanna Nowak  
Sara Perkovic  
Debra Plant  
Virginia Tuscano  
Erica Seifert and Nate Olson

**\$100+**

Jill Blackmer  
Steve Blackmer  
Juliet Bradley  
Maryanne Christoforou  
Jim and Ann Christol  
Kit and Edward Deglau  
Mitch Dion  
Dykstra Eusden  
Lydia Eusden



# 2017 Donors



Sarah Gallop  
Dianne Giordano  
Ralph Giordano  
Julie Gordon  
Team Halvorsen  
Caroline Hill  
Wayne and Cheryl Johnston  
Aly Kendall and Peyton Jobe  
Charles and Verona Kendall  
Joanie King  
Beverly and Peter Lipman  
Jack Maher  
Elizabeth Naylor  
Louise Nunan Taylor  
Jenny Rassuchine and  
Matt Purvance  
Lynn Richardson  
Eric Rosen  
Craig Rowe  
Sean Sekora  
Meredith and Lou Raso

## \$50+

---

Gerald Belden  
Emily Blackmer  
Stephen Blackmer  
Jennifer Blide  
Adam and Christine Boyd  
Ainsley Campbell  
Jessica Caron  
Bruce Cox  
Wilson Dippo

Deborah Espinola  
Will Eusden  
Erin Faulkner  
Nancy Fiddler  
Josie Furbershaw  
Sasha Galitzki  
Devin Gill  
Carley Goodnoe  
Patricia Haight  
Phyllis Hamblet  
Robert Hamblet  
Carolyn and Jeff Hamilton  
Sonja Harris  
Anne & Ken Hammer  
Patrick Johnson  
Karen Jorgensen  
Elena Kehres  
Ira King  
Anne Kuzyk  
MaryBeth and Eric Larusson  
Katrín Larusson  
Nathaniel Leachman  
Alice Lee  
Carl Lew  
Rebecca Linebaugh  
Mike Maher  
David Margolis  
Craig Nochajski  
Maya Nowak  
Shobha Pai  
Laurie Rogers  
Claudia and Joseph Sanchez

Gary Schmitt  
Gretchen Seifert  
David Tormey  
Jeff Weaver  
Elizabeth Wendt  
Anonymous

## \$25+

---

Daisy Aschehoug  
Christie Chandler  
Seth Dow  
Wyatt Fereday  
Rebecca and Rob Gallardo  
Krista Helmbolt  
Betsy Judge  
Kimberly King  
Ruth Lambert  
Geneva Lewis  
Valli Murnane  
Patrick Norton  
Kelley Carroll and Paige Derdowski  
Aaron Pomerantz  
Beth Soule  
Trevor Tanhoff  
Amanda and Chet Van Dellen  
Anonymous

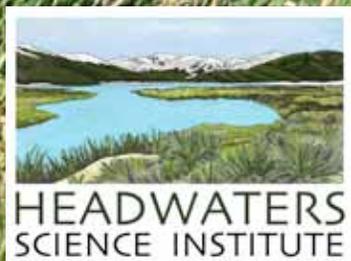
## \$10+

---

Bryan Walker

“Headwaters teaches things that are never taught in my classroom.”

-Quarry Lane student



Students collecting data in  
Van Norden Meadow  
Photo by Megan Seifert

[headwatersscienceinstitute.org](http://headwatersscienceinstitute.org)