

Growing the leaders  
of tomorrow with the  
environmental challenges  
of today



Galbreath Wildlands Preserve –  
3,670 acres  
Fairfield Osborn Preserve –  
450 acres  
Los Guillicos Preserve –  
40 acres

Center for Environmental Inquiry  
Sonoma State University  
1801 East Cotati Avenue  
Rohnert Park, CA 94928

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Peter Gordon, Center staff

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**SONOMA**  
STATE UNIVERSITY  
Center for  
Environmental Inquiry

 Center for  
Environmental Inquiry

**2017 ANNUAL REPORT**



## CREATING AN ENVIRONMENTALLY READY GENERATION



*"We believe the Center serves as a model for a 21st century education. We want to give our students more than just a degree. We want to give them hands-on experiences working with our community to solve its toughest challenges."*

**Dr. Judy Sakaki**  
President, SSU



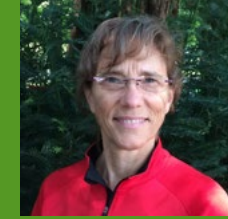
*"The Center provides unparalleled opportunities for our students to develop skills and knowledge about sustainability and the environment."*

**Dr. Lisa Vollendorf**  
Provost, SSU



*"Supporting the Center means our students will grow. The Center brings the resources, information, and logistic support our faculty needs to get students working on pressing environmental issues."*

**Dr. Lynn Stauffer**  
Dean of Science and Technology, SSU



**Dr. Claudia Luke**  
Center Director

Today, we face the biggest environmental challenges in history. Sonoma State is tackling that challenge head on by training a new generation of leaders – leaders who learn their craft by working in their communities on environmental solutions.

This year at the Center, over 900 students investigated real-world environmental challenges – a 22% increase over last year. These experiences were made possible by partnerships between 47 faculty and 52 community partners. And we laid the foundation for future growth with new overnight facilities and community educational programs.

Join us in taking a bold new approach to creating a positive future. With the enthusiastic support of our new president, Judy Sakaki, we are working hard to reach all students on campus.

We couldn't achieve these results without the support of our corporate partners, donors and community. Please consider a donation this year to make a real difference in growing a sustainable future.

The Center's Land Management interns worked with partners on restoration projects across Sonoma County.






# ACADEMIC ACHIEVEMENT

Students learn better

## 2017 Student Engagement

- 1,460 Students outdoors
- 906 Students on projects
- 105 Projects



Geography students studied how remote sensing can be used to estimate the amount of carbon stored in oak woodlands at the Osborn Preserve.

**105 Projects** The Center collaborates with and supports faculty from schools across campus to get students working on environmental projects.

### Water

- Flood warning systems
- Climate characterization
- Water- and land-use planning tools
- Water quality monitoring
- Community perspectives on water
- Antibiotics in waste water
- Erosion and flooding
- Rainwater collection systems

### Environmental Technology

- Electricity production from wastewater
- Above- and below-ground environmental sensor networks
- Wildlife image processing
- Drones for measuring landscape changes
- Mobile data harvester
- Environmental data sharing

### Environmental Education

- Social robots that teach children
- Elementary school tours and curriculum development

### Arts

- Environmental sculpture
- Natural materials art
- Photography

### Habitat Restoration

- West county habitat restoration
- Sudden Oak Death transmission
- Invasive animals and plants
- Threats to oak woodlands
- Utility line effects on native plants
- Effects of grazing on native plants and animals
- Habitat quality of protected species



## FROM OUR STUDENTS



**Rafael Diaz**  
Engineering Science  
Visicon Tech

*"The image-processing work helped me land the job. Thank you for teaching and guiding me through the internship."*



**Ana Torres**  
Environmental Studies  
California Fish and Wildlife

*"The program gave me a new perspective on science and helped steer me toward my future career."*



**Garrett Shipway**  
Naturalist & Student Land  
Steward

*"I gained valuable problem solving, management and resource prioritization skills that give me a competitive edge in my career as a marine biologist."*



**Makayla Freed**  
Naturalist & Student Land  
Steward

*"The Center's internship programs have opened more doors for me on a professional and personal level than I had ever thought possible."*



Students certified in the Center's Naturalist Training Program led educational tours for over 900 3rd graders.



## A TRAINED WORKFORCE

Graduates have desirable real-world skills



### 2017 Partnerships

- 49 Faculty
- 52 Organizations
- 26 Disciplines



**Dr. Farid Farahmand**  
Professor Engineering  
Science

*"With the Center, we are providing students the opportunity to work on cutting edge technologies."*



**Dr. Nathan Rank**  
Professor Biology

*"Working with the Center as an educator, I am able to help students learn the things they can't learn in the classroom."*

Engineering and philosophy students develop automated vehicles that collect environmental data.

**Participating Faculty** The Center supports faculty to give their students valuable skills and experience working with partners.

**Anthropology:** Thomas Whitley **Art:** Nathan Haenlein, Mads Lynnerup, Greg Stimac **Biology:** Lisa Bentley, Mike Cohen, Hall Cushman, Nick Geist, Derek Girman, Fran Keller, Melina Kozanitas, Nathan Rank, Tamas Torok **Chemistry:** Mark Perri **Communications:** Emily Acosta Lewis **Engineering**

**Science:** Farid Farahmand, Gurman Gill **Environmental Studies and Planning:** Jeff Baldwin, Caroline Christian, Jacquelyn Guilford, Heidi Herrmann, Mike Moore, Wendy St. John, Karna Wong **Extended Education:** Alejandra Warden **Geography:** Matt Clark, Michelle Goman **Geology:** Owen Anfinson,

Nicole Myers **History:** Kathleen Noonan **Hutchins Liberal Arts:** Russ Scarola **International Education:** Roberta Hodges **Math & Statistics:** Grace Brown, Martha Shott **Philosophy:** Gillian Parker, John Sullins **Political Science:** Emily Ray **Physics and Astronomy:** Jeremy Qualls, Scott Severson **Psychology:**

Scott Eberle **Sociology:** Wendy Brown **Theatre Arts & Dance:** Scott Horstein **University Studies:** Bruce Peterson **Women & Gender Studies:** Laurel Holmstrom-Keyes **Other Universities:** Ross Meentemeyer, Charles Mitchell, David Rizzo



## FROM OUR PARTNERS



Students helped professionals solve the environmental challenges they are facing.



**Keenan Foster**  
Principal Environmental  
Specialist  
Sonoma County Water  
Agency

*"Students are coming out of Sonoma State with a skill set that is above and beyond the skill sets we are seeing coming out of other schools."*



**Dr. Victoria Wojcik**  
Research Director  
Pollinator Partnership

*"We have been able to teach SSU students specialized skills needed to understand the complexities of vegetation management and pollinator response."*



**Eric Brown**  
Electric Transmission &  
Distribution Manager  
Sacramento Municipal  
Utility District

*"We are thrilled to partner with the Center to train the environmental industry leaders of tomorrow."*



### **Partnering Organizations** The Center helps to maintain long-term partnerships with community partners

AeroTestra, Americorps NCCC, Annadel State Park, Analytical Sciences, Anderson Valley Unified School District, Anderson Valley Land Trust, Animal Control Mendocino County, Bellevue Elementary, Boonville Garden and Elder Home, Brook Haven Elementary, California Department of Fish & Wildlife, California Department of Water Resources, California Lichen Society, City of Rohnert Park, Cloverdale High School, Conservation Corps

North Bay, Crescent Montessori Elementary, D'Argenzio Winery, Daily Acts, Drought Net, Gold Ridge Resource Conservation District, Grant Elementary, Hidden Valley Elementary, Hopland Research Extension Center, Jack London Elementary, James Monroe Elementary, La Tercera Elementary, Madrone Audubon Society, Mark West Elementary, Mendocino County Resource Conservation District, Mill Valley Elementary, Miwok Valley Elementary,

National Resource Conservation Service, Oak Grove Elementary, Occidental Arts & Ecology Center, Outward Bound California, Pacific Gas & Electric Company, Pacific Watershed Associates, Pepperwood Preserve, Pollinator Partnership, Proctor Terrace Elementary, Real Good Designs, Richmond College Prep, Sacramento Municipal Utility District, Social Advocates for Youth, Sonoma County Agricultural Preservation & Open Space District, Sonoma

County Water Agency, Sonoma County Trails Council, Sonoma County Youth Ecology Corps, Sonoma Land Trust, Sonoma Mountain Ranch Preserve, Sonoma Resource Conservation District, Sonoma State Facilities, SSU Garden Classroom, SSU Join Us Making Progress, TREE Fund, UC Davis Bodega Marine Reserve, UC Cooperative Extension, US Fish & Wildlife, US Forest Service, United Arborists Association



## A LEARNING COMMUNITY

Communities benefit from participation



**Dr. George Lee**  
Mendocino County  
Community Member

*"Our high school students are motivated to pursue college by working with SSU students."*



**Dr. Jake Mackenzie**  
Mayor  
City of Rohnert Park

*"We are excited to be working with CEI to increase ties between SSU and the City of Rohnert Park. Collaborations such as this not only benefit students but also can help foster truly collaborative solutions to local environmental challenges."*

### 2017 Community Participants

- 961 K-12 students
- 665 Program participants
- 251 Volunteers
- 125 Workshops and retreats



Plein-air class at the Galbreath Preserve was one of five community classes offered this year by the Center's Curiosity Corps Program.



# THANK YOU VOLUNTEERS

Volunteers make an impact



**Sean Headrick**  
Principal  
AeroTestra

*"Volunteering AeroTestra's expertise and technological capability allows us to engage the curiosity and passion of students as we all work together to shape our future."*



**Peter Gordon**  
Mendocino County  
Community Member

*"We created a valuable citizen-science project that tracks mammal movements with wildlife cameras at the Galbreath Preserve."*



**Clockwise:** Volunteers hosted dignitaries, built a new campground, led elementary school tours, and controlled invasive species.



**2017 Volunteers** Thank you to our volunteers who made Center programs a success.

**Galbreath Preserve:** Andy Balestracci, Lisa Bauer, Alice Bonner, Ric Bonner, Pam Callaghan, Johanna Cummings, Lori Dudzik, Nancy Armstrong-Frost, Curtis Frost, Peter Gordon, Jill Hannum, Bob Keiffer, Doug Labat, George Lee, Kit Lee,

Debby Mefferd, Linda Naves, Xavier Neher, Mark Rawlins, Lisa Walsh, Tina Walter

**Osborn Preserve:** John Branscome, Diane Fritz, Kara Haley, Janet Henker, Michael Knappman, Bruce Linscott, Luke

Linton, Elias Lopez, John Lynch, Laurie Marshall, Jessica McCready, Nicole McGloin, Becky Olsen, Jesica Rodriguez, Garrett Shipway, David Stark, Virginia Hotz-Steenhoven, Jon D. Steenhoven, Claire Sugihara, Kate Symonds, Ana

Torres, Stream Tuss, Valerie Vallentyne, Danielle Wagoner, Mike Weihman, Ryan Williamson, Megan Wilson

**Campus:** Juli Brode, Annemarie Brown, Vic Liptak, Tania Montes



## THANK YOU DONORS

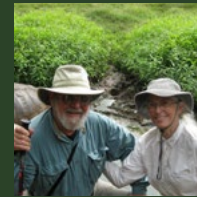
Donors invest in the next generation of leaders

Touring the proposed field station site at the Galbreath Preserve: Center Director Claudia Luke with donor, Bob Johnson, and SSU President Judy Sakaki



**Dr. Bob Johnson**  
Donor

*"I support the Center to raise student awareness of their connections with the land, sea, and air, and give them the skills to care for such irreplaceable resources."*



**Marthe Norwick**  
Donor  
Founding member  
of the Steve Norwick  
Memorial Fund

*"Steve Norwick was dedicated to environmental education and preparing students for careers in water resources management. The Norwick family is proud to provide research scholarships to Sonoma State students in his memory."*



### 2017 Donors Thank you to our donors for funding Center programs!

*\*Legacy or planned gift or endowment*

#### **Visionaries \$500,000 & above**

Fred & Jean Galbreath\*, Bob & Sue Johnson\*, Marthe & Stephen Norwick\*, William & Joan Roth

#### **Benefactors \$20,000 - \$499,999**

Pacific Gas & Electric Company, Ana Roth, Jessica Roth, Maggie Roth, Georgette Skellenger\*, Daphne Smith\*, Terri & David Yost

#### **Pioneers \$5,000 - \$19,999**

Jim & Linda Kuhns, Dan & Robbie Rhodes, Jean Schulz

#### **Explorers \$1,000 - \$4,999**

Mike & Paula Aja, Thomas H. Birdsall, Joe & Judy Brumbaugh, Patricia F. Clothier, Community Foundation Sonoma County, Bill Imada, Nancy Galbreath Johnson, Gerbrand Kroon, Jake & Barbara Mackenzie, Milo Mitchel, Susan Norwick Horrocks & Keith Horrocks, Lynn & John Schiek, Jacques & Barbara Schlumberger, John Sheehy & Laurie Szujewska, Catherine Tornabene, David Walls & Lucia Gattone, Warren Watkins, Chuck & Cathy Williamson

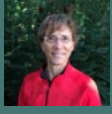
#### **Guides \$25 - \$999**

Nathan L. Adams, Harold & Christine Alderman, David Ammerman, Leonard Anable, Susan Barnes, Philip Beard, Yael & Paul Bernier, John & Brenda Blom, Alice Bonner, John Branscome, Jon & Vina Breyfogle, Ruth Burke, California Rare Fruit Growers Inc. – Redwood Empire Chapter, Sahara Chaldean, Michelle & Kim Covington, Robert & Jan DeWitt, Nirmal & Gwen Dhesi, Nancy Dougherty, Scott Eberle, Jean Falbo, Yvette Fallandy, Norman & Beverly Sue Feldman, Dorothy Freidel, Paul & Dorothea Geiger, Paula Hammett & Bruce Hope, Ronald Hayes & Jo Ann Puglisi, Bryant & Diane Hichwa, Vin & Margot Hoagland, Judith Hunt,

Sharon & Al Janulaw, Richard Karas, Judith L. Koehler, Lucy Kortum, Bill & Sue Krawetz, Laguna de Santa Rosa Foundation, Betty LeDonne, George & Kit Lee, Stephen Lewis, Butch & Vivien Lindley, Lynn Lozier, Ann Brody & Gary Marker, William McMillan, Kristi & Brian McWilliams, Frances & Glenn Minervini-Zick, Cynthia Morrow, Cazeauyes Nordstrum, Rebecca Olsen, Laura B. Owens, Hugh & Diane Paleczny-Stevenson, Bruce & Cynthia Peterson, Charles Quibell, Raymond Rapp, Margot & Mark Rawlins, Bruce Reink, Mike & Sue Riley, Jo-Ann Smith, William Sterling, Joe & Eileen Tenn, Raye Lynn Thomas, Susan Warner, Janice L. Wilson



## Center Staff



**Dr. Claudia Luke**  
Director  
WATERS Lead



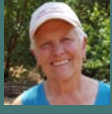
**Dr. Chris Halle**  
Nature!Tech Lead



**Suzanne DeCoursey**  
Education Manager



**Anne Reeves**  
Director of  
Communications



**Margot Rawlins**  
Galbreath Preserve  
Program Coordinator



**Kerry Winger**  
Osborn Preserve  
Program Coordinator

## Student Employees

Terris Becker, Sebastian Carranza, Makayla Freed, Caitlin Harvey, Manuel Hernandez, Brian Meyer, Kyle Peel, Jacob Probst, Garrett Shipway, Ryan Yu

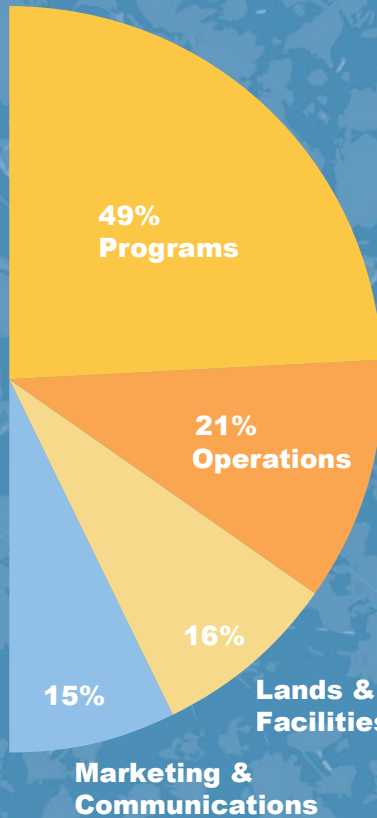
## SSU Advisory Committee

Julie Barnes, Annemarie Brown, Caroline Christian, Michelle Covington, Christopher Dinno, Ben Ford, Paula Hammett, Bob Johnson, Will McCauley, Kristi McWilliams, Adrian Praetzellis, Nathan Rank, Robbie Rhodes, Lynn Stauffer, Terri Yost

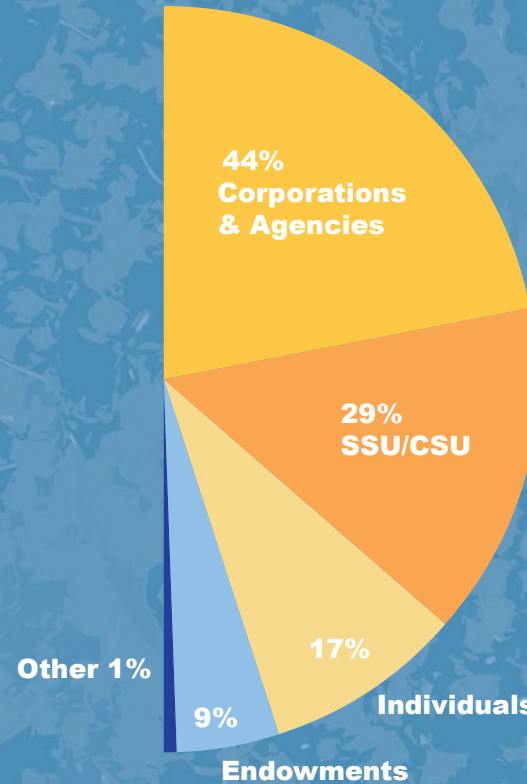
## Curiosity Corps Ed Program

Alice Bonner, Johanna Cummings, Jill Hannum, Laurie Marshall, Jessica McCready, Virginia Hotz-Steenhoven, Jon D. Steenhoven

## EXPENDITURE \$570K



## REVENUE \$700K



## CENTER AT A GLANCE

Sixty-one percent of Center revenues are from donors and partner grants and contracts. These funds go directly toward the support of programs, lands and facilities.

## 2017 Summary

- 1,840 Students
- 47 Faculty
- 52 Partners
- 26 Disciplines
- 619 Community members