

**SONOMA
STATE
UNIVERSITY**

**CENTER FOR
ENVIRONMENTAL
INQUIRY**



2020



Environmentally Ready



Our well-being is intimately tied to the health of our planet. The last few years have shown us the consequences of placing too much pressure on the natural world.

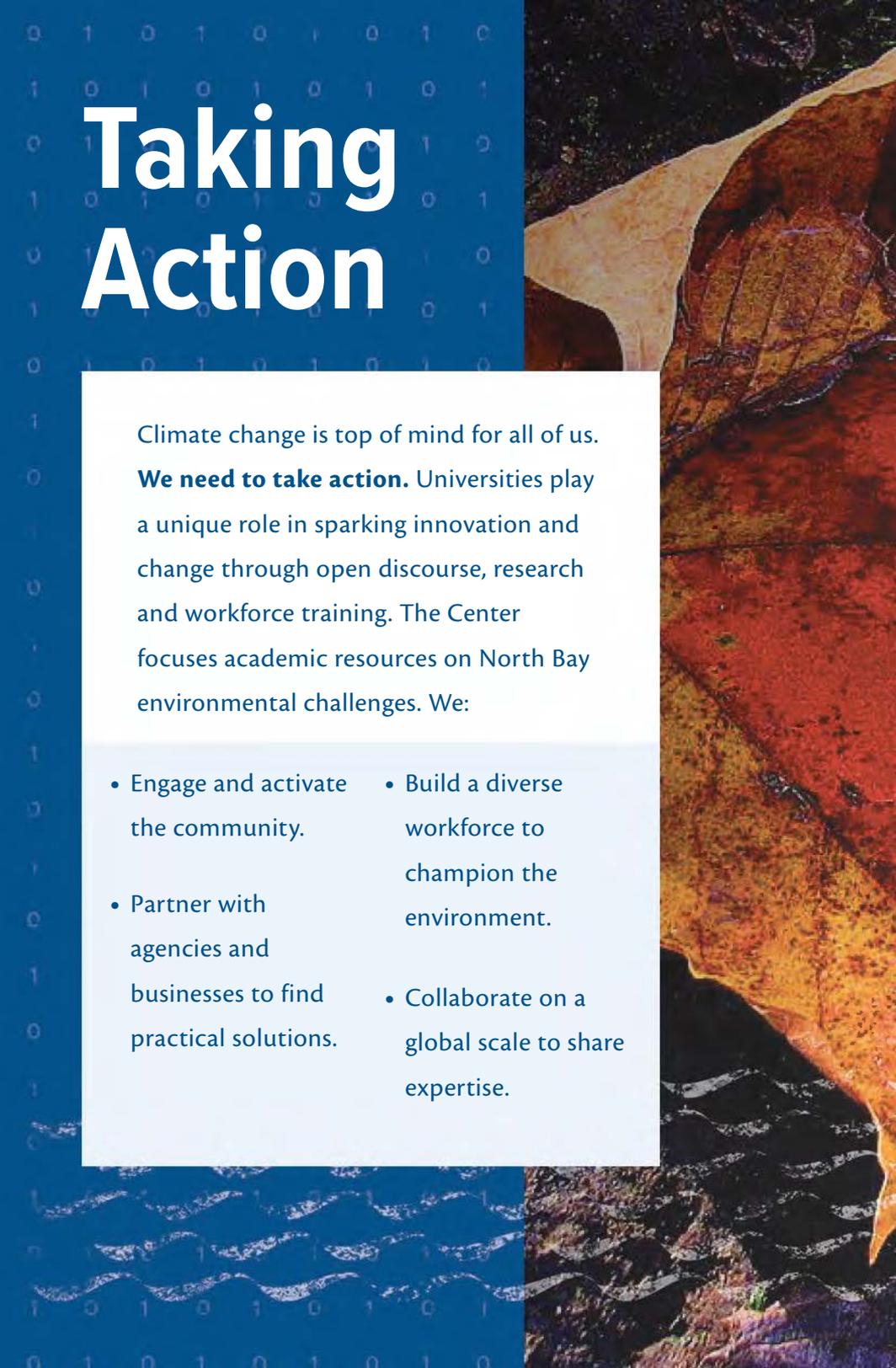
To build the healthy future we want, we need rapid transformational change.

This report shows how the Center is turning education into concrete action. We envision a North Bay working together to find sustainable solutions.

Get environmentally ready with us!

Claudia Kuler

Taking Action



Climate change is top of mind for all of us. **We need to take action.** Universities play a unique role in sparking innovation and change through open discourse, research and workforce training. The Center focuses academic resources on North Bay environmental challenges. We:

- Engage and activate the community.
- Partner with agencies and businesses to find practical solutions.
- Build a diverse workforce to champion the environment.
- Collaborate on a global scale to share expertise.

A large graphic of the number '33K'. The '33' is filled with a white wood-grain pattern, and the 'K' is a solid light blue color.

Americans dying from
excessive heat 2012-2050

A large graphic of the number '1M'. The '1' is filled with a white wood-grain pattern, and the 'M' is a solid light blue color.

Animal and plant
species threatened with
extinction worldwide

A large graphic of the number '35K'. The '35' is filled with a white wood-grain pattern, and the 'K' is a solid light blue color.

Structures damaged or destroyed
in CA wildfires 2017-2019

A large graphic of the number '7M'. The '7' is filled with a white wood-grain pattern, and the 'M' is a solid light blue color.

Californians at risk
of flooding today

A large graphic of the number '6M'. The '6' is filled with a white wood-grain pattern, and the 'M' is a solid light blue color.

Californians affected
by power shutdowns
2017-2019

Active Leaders

Elias Lopez entered our Naturalist Training program as a timid student and emerged as a highly competent leader.

In 2018, he co-founded “Creceer ConCiencia,” a non-profit that teaches Spanish-speaking families the value of getting involved in environmental projects.

We need leaders like Elias. Historically, Latinx - 39% of California’s population - have not been fully engaged in climate planning. Elias is leading the way.



A man wearing a dark blue jacket and a grey cap is crouching in a field of tall grass and small white and yellow flowers. He is holding a clipboard with papers and looking down at it. His right hand is resting on the grass.

“The Center inspired
me to **mobilize my
community** to action.”
- Elias Lopez



A person wearing a dark jacket and blue jeans is working on a wooden table. A yellow and orange tool is visible on the table. The background is a blue gradient with a pattern of white binary code (0s and 1s) and a white tree-like pattern at the bottom.

Practical Solutions

The Center connects public and private sectors with academic expertise to find practical solutions to real-world problems.

Working with Nick Bennett, Rohnert Park's Environmental Coordinator, we forged a partnership to identify key challenges facing the city and how the university can help.

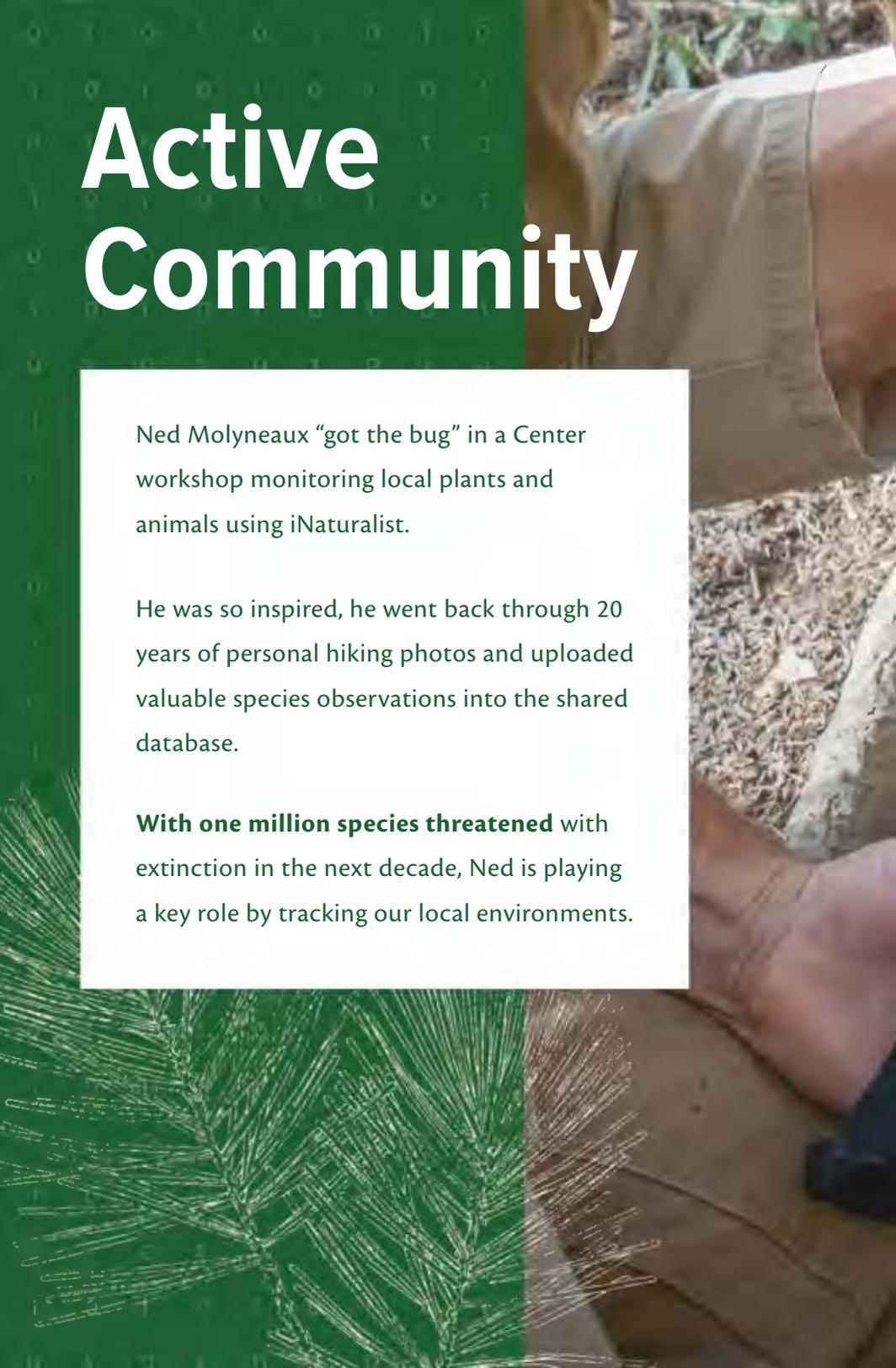
Faculty and students are now working on a range of sustainability issues such as water pollution, alternative transportation and native plant restoration.



“Partnering with the university helped us **address our environmental challenges** in creative new ways.”
- **Nick Bennett**



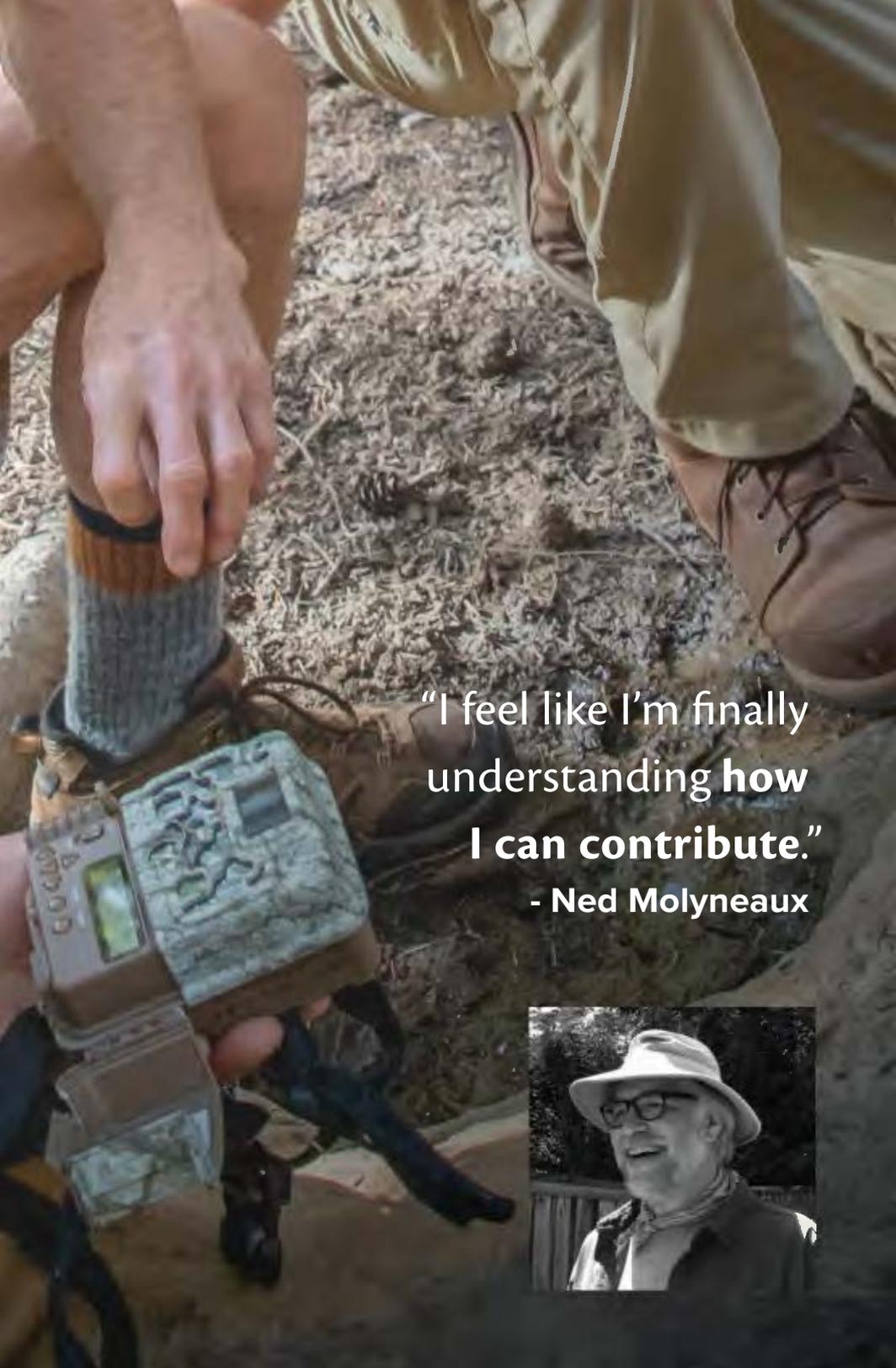
Active Community



Ned Molyneaux “got the bug” in a Center workshop monitoring local plants and animals using iNaturalist.

He was so inspired, he went back through 20 years of personal hiking photos and uploaded valuable species observations into the shared database.

With one million species threatened with extinction in the next decade, Ned is playing a key role by tracking our local environments.

A close-up photograph of a person's hands holding a GoPro camera. The person is wearing tan pants and brown boots. The background is a field of dry grass and pine needles. The GoPro camera is silver and has a small screen on the front.

“I feel like I’m finally
understanding **how**
I can contribute.”

- Ned Molyneux



Global Reach

When the pandemic hit, university students lost access to the natural world. No field research. No collaborative problem solving. No first-hand studies of global environmental issues.

The Center brought together 50 international field stations to secure a \$200K National Science Foundation grant to develop virtual field trips.

Global ecosystems are now accessible to students sheltering-in-place and to those who wouldn't normally be able to travel to the field.



“I am pleased to see CARES
Act investments resulting
in novel solutions that
sustain **critical field
learning opportunities**”

- **Peter McCartney**

*National Science Foundation
Program Director*

Projects

Faculty, students and partners work together to solve complex environmental challenges. The pandemic hit these efforts hard, challenging us to find news ways to support their work. As a result, **we broadened our reach to include those who wouldn't normally participate.**

Participation

Students

1,024

Faculty

40

**Partnering
Organizations**

141

**Community
Members**

3264

Departments

17

Fire

4 projects

Understanding and reducing fire risk in natural systems.

Researchers: Bentley, Goman, Halle, Hernandez, Jackson, Tom, Wojcik, Loffland

Water

19 projects

Improving water quality, conservation and storage.

Researchers: Bennett, Glas, Goman, Guilford, Mookerjee, Olney, Rank, Shaw, St. John

Air & Climate

3 projects

Monitoring local climate change with new technologies.

Researchers: Fernandez, Halle, Leal, Shott

Biodiversity

41 projects

Preserving ecosystem health and biodiversity with new techniques.

Researchers: Bravo, Clark, Farahmand, Frangioso, Fritz, Goshgarian, Guilford, Gill, Halle, Kozanitas, Meentemeyer, Olsen, Serpa, St. John, Winingier

Environmental Awareness

12 projects

Building environmental connections in innovative ways.

Researchers: Goman, Hongisto, Leal, Luke, Kassis, Myers, Peterson, Winingier

Impact 2021

Healthy planet. Healthy you. It's urgent that we each contribute to the challenges before us.

By working together, we can create a healthy future for planet and people.

The background is a dark blue gradient with a faint, repeating pattern of binary code (0s and 1s). A large, semi-transparent image of a fish, possibly a salmon, is positioned in the upper right quadrant, facing left. The fish's scales and fins are visible, though slightly faded to blend with the background.

Targeting



**The key issues facing
the North Bay**

Transforming



**Education into
concrete action**

Mobilizing



**People to work together
locally and globally**

Donors

Thank you for investing in
environmental readiness for all.

VISIONARIES (LIFETIME)

\$100,000 & above

The Federated Indians of
Graton Rancheria Tribal
Council

Fred & Jean Galbreath

Robert & Sue Johnson

Marthe & Stephen Norwick
and the Stephen Norwick
Memorial Fund

William & Joan Roth

Daphne Smith

BENEFACTORS

\$20,000–99,000

Alexander Leff

Carol Cole Mitchel & Clark
Mitchel

EXPLORERS

\$1,000–4,999

Mike & Paula Aja

Susan Norwick Horrocks &
Keith Horrocks

Johanna & Richard
Luke

Milo Mitchel

Terri & David Yost

Chuck & Cathy Williamson

GUIDES

\$25–999

Philip & Mary Beard

Paul Bouchard

John Branscome

Vina & Jon Breyfogle

Ruth Burke

Tom Cavers & Sol Garay

Philippe Cohen & Cynthia
Stead

Jan & Robert DeWitt

Footloose Forays

Robert & Michelle
Friend

Robert K. Girling

Judith E. Ochs Giampoli

Susan & Joseph
Gorin

Bryant & Diane
Hichwa

Michael Knappman

William & Susan
Krawetz

Howard Liebman

Claudia Luke

Sandy Maillard

Gordon & Katie McDougall

Kevin Munroe

Ray Peterson

John Sheehy & Laurie
Szujewska

M. Shimokochi & Anne
Reeves

Sarah Reid

Robbie Johnson Rhodes &
Dan Rhodes

Edward & Gayle
Stephens

Hugh Stevenson & Diane
Paleczny-Stevenson

Kirsten & Steve Tellez

Janis & Warren Watkins

Richard Whitkus

Janice Wilson

LEGACY & ENDOWED GIFTS

Fred & Jean Galbreath

Marthe Norwick

Georgette Skellenger

Daphne Smith

Based on gifts received between July 1, 2018 and June 30, 2020

VOLUNTEERS

GALBREATH PRESERVE

Nancy Armstrong-Frost
Lisa Bauer
Mary Blair
Curtis Frost
Peter Gordon
Jill Hannum
Kit Lee
Elias Lopez
Mark Rawlins
Sherrie Smith-Ferri

OSBORN PRESERVE

Angelica Aguirre
Katie Alden
Claire Anderson
Jacob Andrews
Dominic Antenucci
Gabriela Arango
Samantha Arenas
Sarah Arroyo-Chavez
Natalie Ausili
Siah Baakoi
Susan Backer
Judy Barcelon
Kellen Barton
Gordon Beebe
Maxwell Belote-Brassard
Camille Bernard
Brianna Bertoli
Sally Bolger
Kirin Booth
John Branscome
Amanda Brewer
Angela Brierly
Junco Bullick
Emily Burns
Laila Cameron
Ellyse Cappellano
Charles Carvalho
Maxwell Church
Molly Clemons
Jim Coleman
Quinn Concannon

Greg Damron
Amy D'Auria
Cassady Davis
Maureen DeSantis
Shasha Duenas
Marlina Eckel
Susan Edwards
Elizabeth Ezell
Peter Forte
Patty Jane Foster
Makayla Freed
Jennifer Ganeles
Alexandre Garcia
Havana Garcia
Logan Green
Lauren Gunning
Beda Guzman
Sage Harmon
Allison Hawkins
Raegan Hensley
Linnzi Hodel
Lance Hohensorter
Kangi Hopkins
Kaytlin Jacobs-Whitton
Matthew Johnson
Lakin Kahn
Laura Kamradt
Haley Kara
Lena Kara
Arlo Karpelevitch
Nancy Kelley
Lou Lacson
Zach Landau
Laura Lavender
Sarah Lay
Emily Ledford
Christina Leport
Sophia Leveque-Eichhorn
Wyatt Lewis
Ayana Liles
Derek Lindsey
Anh Loc
Bob Long
Allyson Longo
Elias Lopez
Nayeli Lozano

Eric Lynch
John Lynch
Rhiannon Macias
Emma Madden-Carpenter
Jenna Mann
Camille Marinier
Mikayla Martin
Stormi Martin
Karen Martinez
Mikailah Martinez
Celine Mason
Shannon McEntee
Buffy McQuillen
Ned Molyneaux
Luis Morales
Katie Morgan
Ian Olney
Peri Olsson
Suzanne Olyarnik
April Owens
Rachel Parker
Tim Parker
Evelina Perez
Bri Perkins
Darren Peterie
Thomas Peterschmidt
Davi Peterson
James Peterson
Devin Pho
Sophia Pruden
Steven Quiroz
Kyle Rabellino
Sarah Reid
Nicholas Rice
Sierra Rodante
Jesica Rodriguez
Andrea Rossi
Tom Russert
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Eri Sawairi
Christy Schauer
Manon Schlemmer
Harry Shaw
Ann Shippey
Julianne Skai Arbor
Debbie Skolnik

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Clayton Smithson
Azine Spalding
Shay Stalnakker
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Trish Tatarian
Becky Thomas
Victoria Thorn
Nick Tipon
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Isabella Traylor
Noa Umbaugh
Luke VanderKar
Jeanette Villegas
Asusena Viramontes Alba
Lorelle W.B. Ross
Maria Wacker
Delaney Watson
Jeff Wilcox
Aileen Winkler

CAMPUS

Irene Barnard
Alan Chesterman
Christine Elder
Patty Foster
Makayla Freed
Steven Hammerich
Sage Harmon
Michael Jones
Chris Lee
John Lynch
Jessica McCready
Kevin Munroe
Nicole Myers
James Peterson
Eri Sawairi
Michelle Sixta
Julianne Skai Arbor
Ted Swiecki
Kate Symonds
Yana Valachovich
Rick Waller
Jeree Waller

REVENUE: \$690K

56% SSU/CSU Funding
21% Corporate Partners & Agencies
18% Individual Donations
5% Endowments

EXPENDITURES: \$722K

75% Programs
12% Communications
7% Operations
6% Lands & Facilities

Partners

Faculty, organizations and staff partnered on finding sustainable solutions.

ORGANIZATIONS

AboutDisability
Alameda County
Anderson Valley USD
Archbold Biological Station
Ashland University
Audubon Canyon Ranch
Bay Nature Institute
Bradford Creek Studios
CalFlora
California Department of Forestry and Fire Protection
California Native Plant Society, Milo Baker Chapter
California State University Channel Islands
California State University East Bay
California State University Fullerton
California State Water Resources Control Board
Cary Institute of Ecosystem Studies
City of American Canyon
City of Hayward
City of Napa
City of Oakland
City of Rohnert Park
City of Santa Rosa
Climate Corps
Climate Resolve
Coastal Bend Bays & Estuaries Program
Concordia College
Conservation Corps North Bay
Conservation Works
Cotati-Rohnert Park Unified School District
County of Marin
Crecer ConCiencia
Dartmouth College
Department of Fish and Wildlife
Disability Services & Legal Center
Earth Team
Eldorado National Forest
Emerald Earth
Environmental Discovery Center at Spring Lake Environmental Volunteers
Federated Indians of Graton Rancheria
Fire Forward
Florida Gulf Coast University
Foothill College
Forest Ecotherapy
Georgia College & State University
Georgia Military College Fayetteville Campus
Gold Rush Nursery
Grace Hudson Museum
Grant Elementary
Grassroots Ecology
Greenbelt Alliance
Hahn Elementary
Healdsburg Center for the Arts
HeartWork Accessible Nature Photography
Hidden Valley Elementary
Institute for Bird Populations
John Reed Elementary
Laguna de Santa Rosa Foundation
LandPaths
Los Angeles Community College District
Mendocino County Fire Safe Council
Mendocino County Resource Conservation District
Mendocino Unified School District
Michigan State University, Kellogg Biological Station
Mohonk Preserve
Murrieta Valley Unified School District
Napa County Resource Conservation District
National Resource Conservation Service
New Jersey Institute of Technology
North Bay - ALERTWildfire
North Bay Children's Center
North Bay Forward
North Coast Regional Water Quality Control Board
Occidental Arts and Ecology Center
Old Adobe Union School District
Orchard View School
Organization of Biological Field Stations
Pacific Gas & Electric Company
Pacific Watershed Associates
Pepperwood Preserve
Phytosphere Research
Pollinator Partnership
Prospect Silicon Valley
Rancho Adobe Fire District
R colte Energy
Redwood Forest Foundation Inc
Richard Crane Elementary
Rider University / Princeton University
Rincon Valley Union School District
Russian River Watershed Association

Sacramento Municipal Utility District
San Francisco Estuary Institute
San Mateo County Community College District
Santa Rosa City Schools
Saved by Nature
Skukuza Research Station-Organization for Tropical Studies
So Co Agricultural & Open Space District Silicon Valley Clean Energy
So Co Fire & Emergency Services
So Co Office of Recovery and Resiliency
So Co Regional Parks
So Co Sheriff's Office
So Co Technical Services
Sonoma Birding
Sonoma Mountain Preservation
Sonoma Water
Sons in Retirement
Southern Nazarene University, Quetzal Education Research Center
State University of New York
State Water Resources Control Board
Sustainable North Bay
The Energy Coalition
The Nature Conservancy
Trione-Annadel State Park
UC California Naturalist Program
UC Davis
UC Davis John Muir Institute of the Environment
UC Davis-Bodega Marine Reserve
UC Master Gardener Program of Sonoma County
UC San Diego
UC San Francisco
UC Santa Barbara, Marine Science Institute
UC Santa Cruz
UCCE, Humboldt and Del Norte Counties
UCCE, Mendocino County

UCCE, Sonoma County
Ukiah Unified School District
Undergraduate Field Experiences Research Network
United States Department of Agriculture
University Elementary at La Fiesta
University Nevada Reno
University of Houston
University of North Carolina
University of Richmond
University of San Francisco
University of Wisconsin Oshkosh
Valor Classical Christian Academy
Virginia Eastern Shore Land Trust
Watsonville Wetlands Watch
Weber State University
West Side Elementary
Yorkville Community Benefits Association

FACULTY

Akif Eskalen, Plant Pathology
Anamary Leal, Computer Science
Brianna Shaw, Biology
Carmen Works, Chemistry
Chris Feldman, Biology
Daniel Fernandez, Meteorology
David Rizzo, Plant Pathology
Derek Girman, Biology
Eric Hongisto, Photography
Erica Tom, Native American Studies
Farid Farahmand, Engineering Science
Gillian Parker, Philosophy
Gurman Gill, Computer Science
Heidi Herrmann, GEP
Jackie Guilford, GEP
Jeff Baldwin, Geography, Environment and Planning (GEP)
Joe Whittaker, Biology
Kiyoko Yokota, Biology

Laura Watt, GEP
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Lynne Lyle, Education
Martha Shott, Math & Stats
Matthew Clark, GEP
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Nathan Rank, Biology
Nicholas Geist, Biology
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Owen Afinson, Geology
Patty Saunders, Biology
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Tom Whitley, Anthropology
Wendy St. John, GEP

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Kerry Wininger, Outreach Lead

Healthy planet.

Healthy you.

To build a healthy future
for planet and people, we
need to make some big
changes.



**Let's turn education into
action.**

Your contribution helps
build a healthy North Bay
for everyone.

Galbreath Preserve
3,670 acres

Osborn Preserve
450 acres

Los Guillicos Preserve
40 acres

Environmental readiness for all



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Director

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