CA Green Schools

An Exploration of their Distribution, Sustainable Practices, and Transformative Potential

“It’s not easy being green”
- Kermit the Frog

What is a “Green School”?

“One that utilizes ecological awareness in their architectural design and infrastructure, as well as having an effective way to teach students how to conserve and think more eco-friendly.”

Common green school practices among our researched programs

Infrastructure - Schoolyard gardens, sustainable buildings

Systems - Water, energy, waste, food, ecological, health

Pedagogy - School curriculum, collaboration

Benefits

- Promotion of human/ecological health
- Creativity and student agency
- Community and increased collaboration
- Increased attention
- Reduces negative environmental impacts

Project Introduction

We sought to understand how green schools succeed in implementing sustainable practices and impact their student body.

“Kids in continuation school, they’ve been pruned too much, they don’t really grow. [They’ve had] adverse childhood experiences. A lot of times it has to do with their ability to grow, their self-esteem. Once you poke through, [it’s] like a hole in a dam: they’ve been contained for so long; it’s joyful to them.

It’s like they are flying for the first time.”

Guiding Questions:

- How do award frameworks support the integration of “green school” features into CA schools?
- How are “green schools” used as sites for teaching and learning?
- How do these programs and practices foster equity and inclusion?

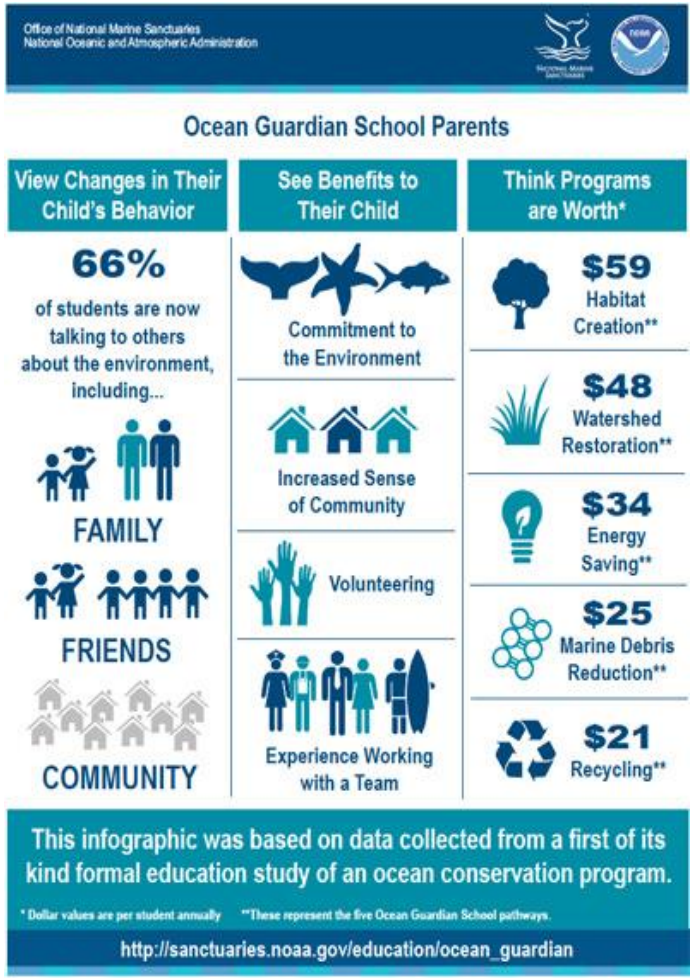
To answer these questions we ...

Literature Review	Program Review	Education Analysis
A deeper understanding of Green Schools *2 weeks*	LEED for Schools, Green Ribbon, NOAA Ocean Guardian School, & NWF Eco School *5 weeks*	Deep Dive through interviews *6 weeks*

Section 2: Distribution

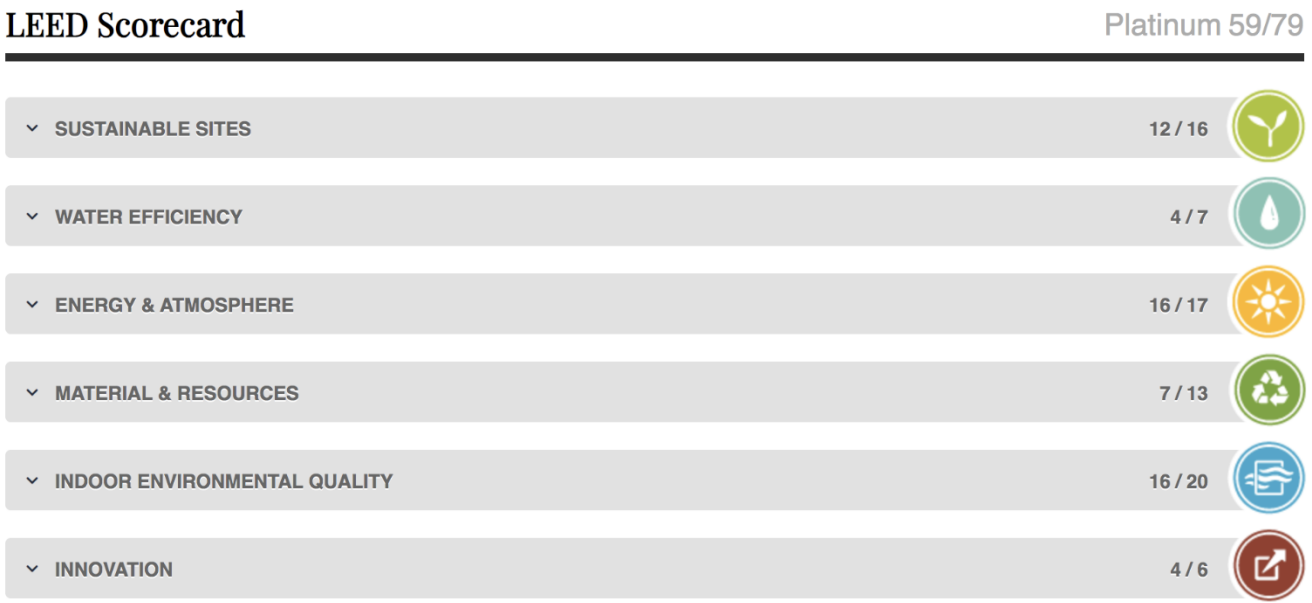
NOAA Ocean Guardian School Program

- *"To propose and implement a school or community-based conservation project"*
- California, Oregon, Washington, Texas, Florida, and Hawaii can receive up to $4,000 the first 3 years.
- The 5 R's: Refuse, Reduce, Reuse, Recycle, and Rot



Leadership in Energy & Environmental Design (LEED)

"To transform buildings to promote sustainability, ecological health, and a healthy environment that improves quality of life"

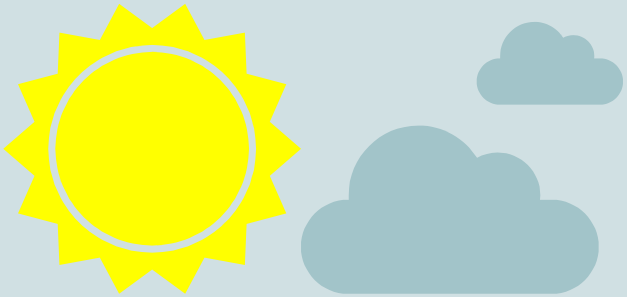


Green Ribbon Schools

"To inspire schools, districts and institutions of higher education to strive for 21st century excellence by highlighting promising school sustainability practices and resources that all can employ"

National Wildlife Federation (NFW) Eco-Schools

- Combines hands-on experiences and environment-based learning with a “Seven Step Framework”
- Aligned with UN Sustainable Development Goals: address systemic barriers and encourage equity, justice, diversity, and inclusion

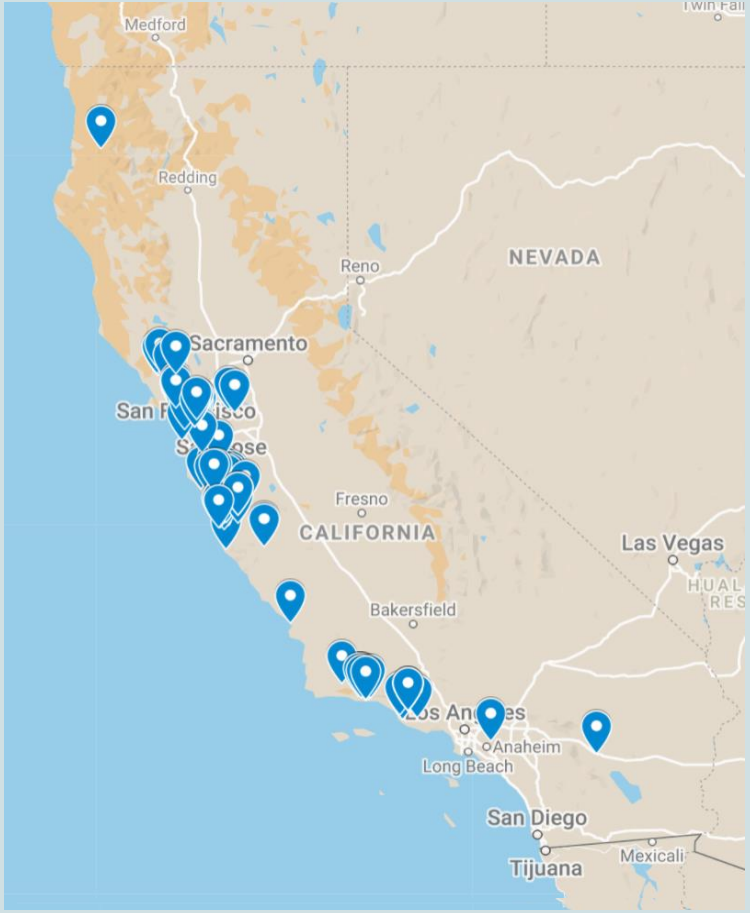


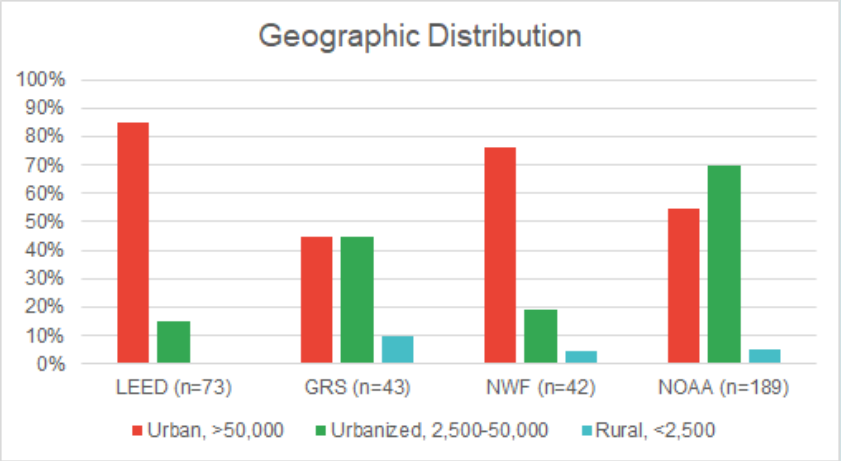
7 Steps to Success

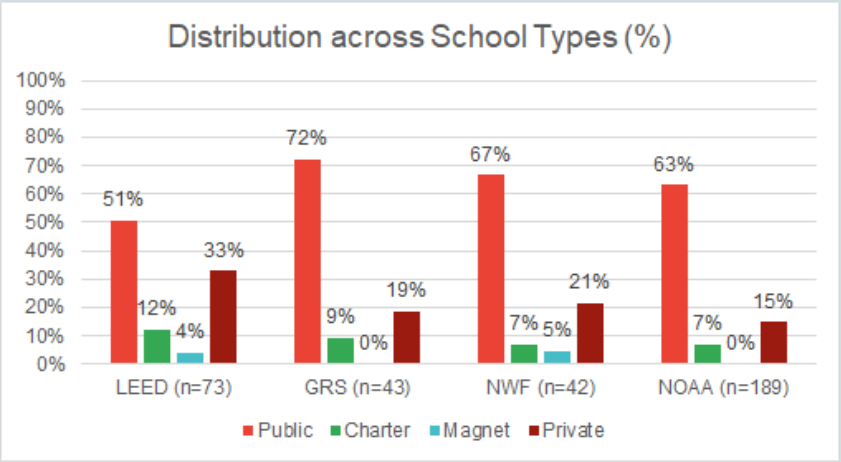
1. Form an eco-action team
2. Conduct a pathway audit
3. Create an eco-action plan
4. Monitor and evaluate progress
5. Link to existing curriculum
6. Involve the community
7. Create an eco-code

EARTHS Magnet School

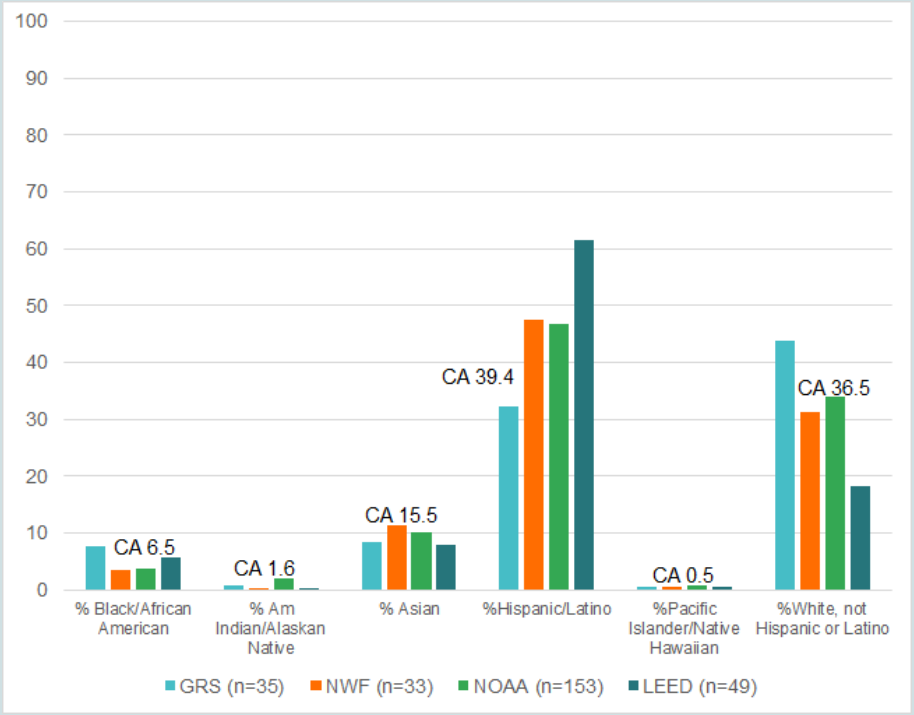
How Programs are Distributed



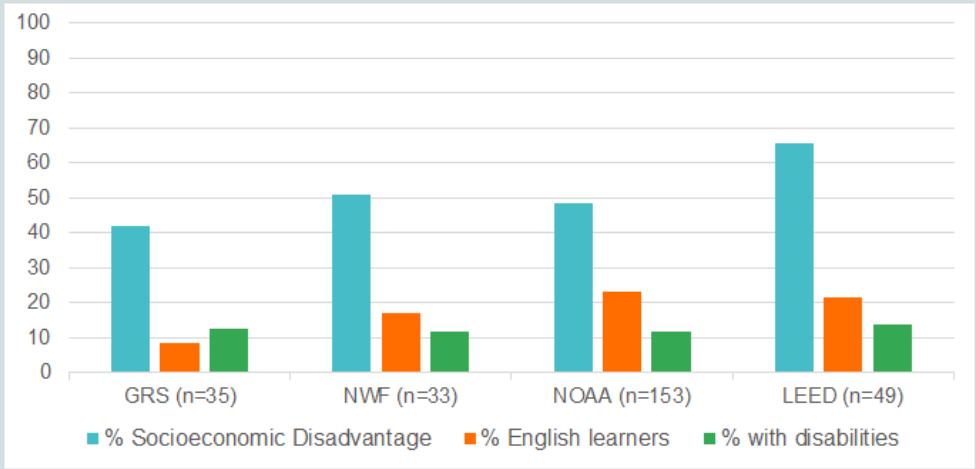




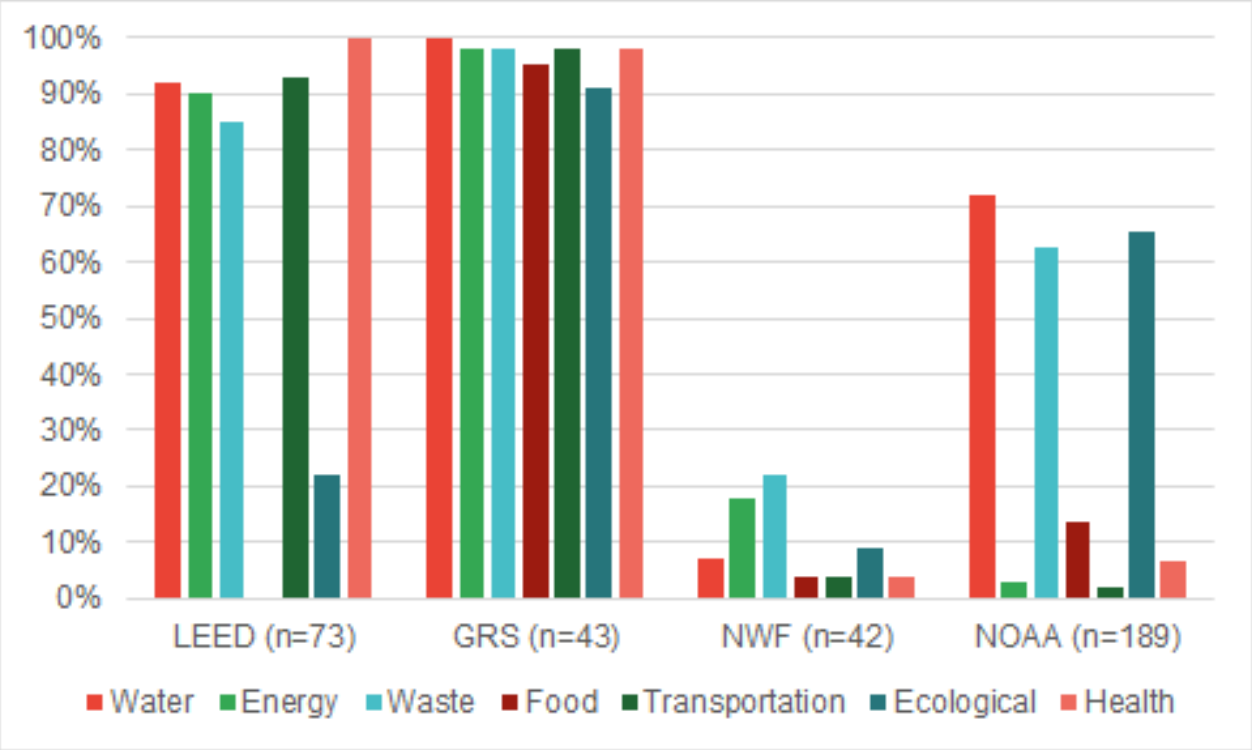
Sociodemographic Distribution
(Public Schools Only)



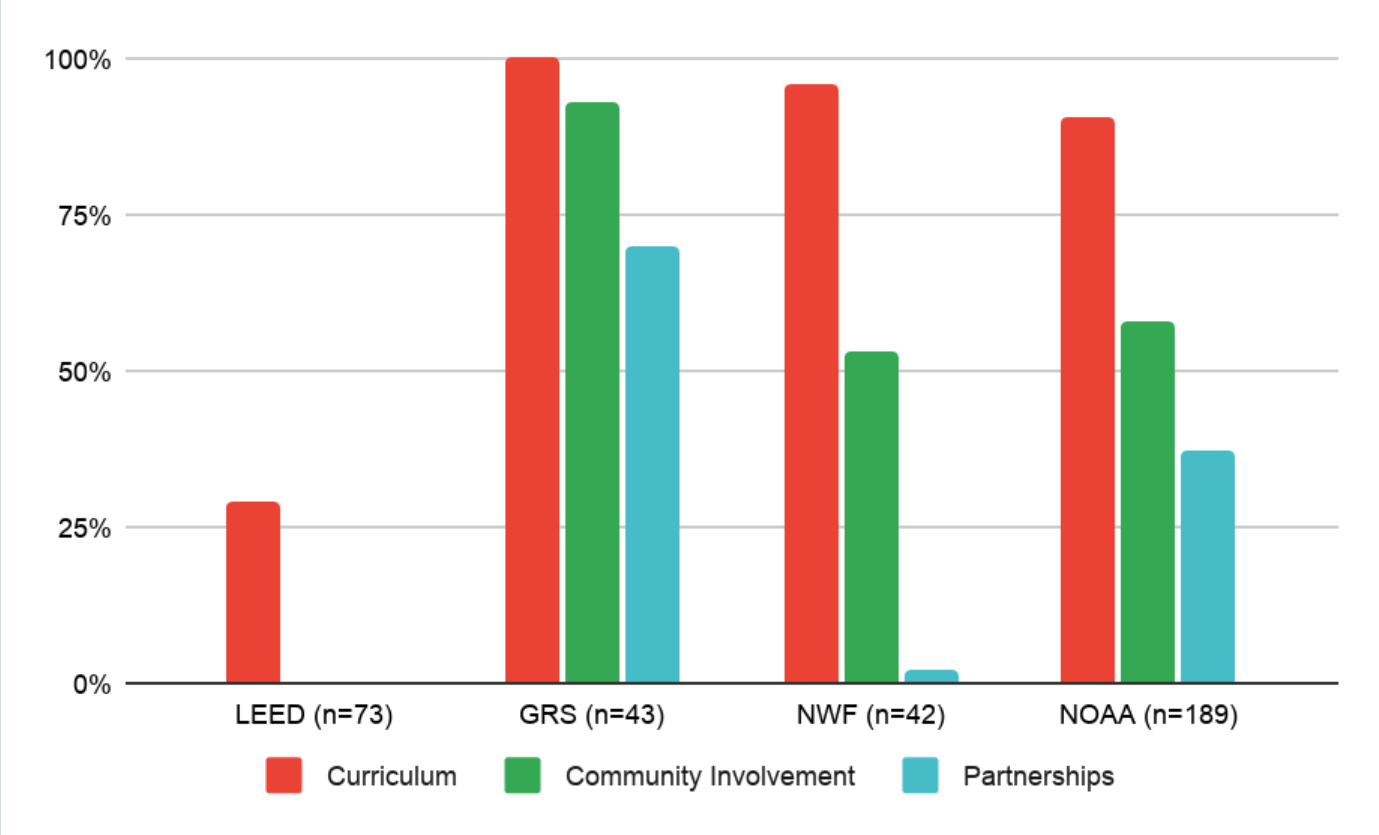
All CA Public School Averages:
63% SD, 18% EL, and 13% with disabilities



Programs Practicing Sustainability



Programs Practicing Pedagogy



Summary

- All programs integrate green practices into their curriculum, and see that as their top priority in terms of pedagogical practices
- Green schools are not just available in higher income areas

90%

Sustainable Practices in GRS

25%

Sustainable Practices in NWF

42%

Socioeconomic Disadvantage - minimum program average

Section 3: Sustainable Practices

Overview of Programs

Ecological/Environmental Sustainability	Health	Pedagogy
+++ Strong across programs But some variability across regions	++ Variable by program	+++ Strong across programs But some variability across regions
GRS, NOAA, NWF	GRS, NOAA	GRS, NOAA, NWF

NWF

24 schools

2 school interviews

8% response rate

Provides schools with curriculum & infrastructure

Introduces students to “pathways”

Strong pedagogy/systems
Infrastructure

NOAA

Focus Areas
-Monterey & Santa Cruz County
-Overall program effectiveness
-Reach marginalized communities

Outreach
-36 schools
-11 responded
-7 interviews conducted
-Response rate 19%

Big Picture/Highlights
-Student engagement
-Community outreach
-Strong curriculum with sustainability

Leading to strong pedagogy, environmental/ecological sustainability, student impacts & strong ecological & environmental health

Challenges:
-Program continuation & staff participation
-Campus culture

GRS

"Most of these people that are doing this work are so eager to share what they are doing with others because once you start this work you're engaged in something that's more than just an application but it's a global movement and you can feel that this is their tribe now"

-GRS Coordinator

GRS

7 Responses
5 School Interviews

Big Picture Findings

- Effective three pillar framework for transdisciplinary learning and sustainability
- Creates community across awardees “Tribe”

Highlights

- Gardens for literacy and wellness
- Student run waste audits in math class
- Student run research
- Kindness Challenge

Challenges & Lessons

- Keeping green practices going and expanding post award
- Addressing sustainability “backslide” from Covid
- Not having the resources to start

Regional Analysis

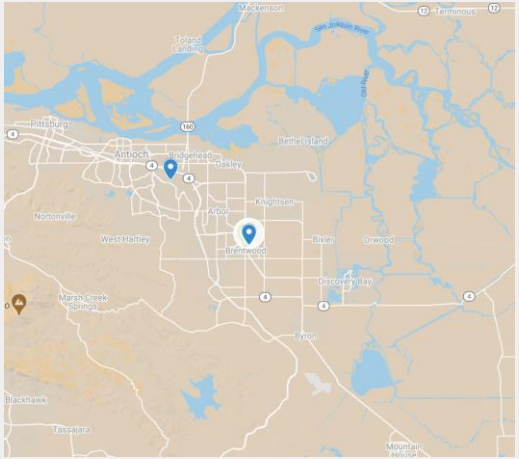
23 schools contacted throughout the state

Did Not Respond	57%
Successfully interviewed	24%
Declined Interview	19%

Southern California	50%
Central California	33%
Northern California	17%

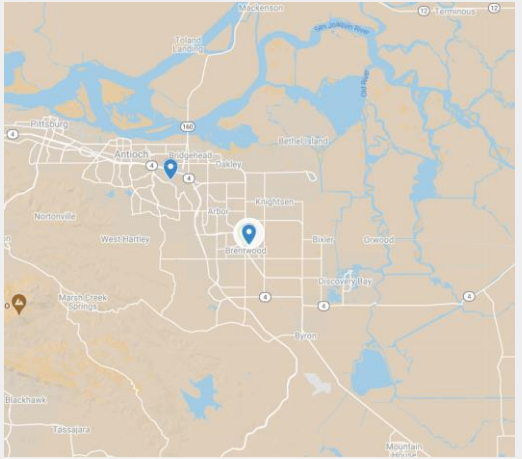
Southern California	3
Central California	2
Northern California	1

Map of green certified schools in California



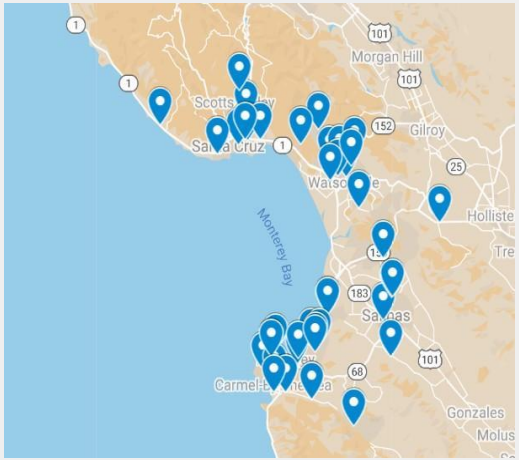
Northern region

Central region



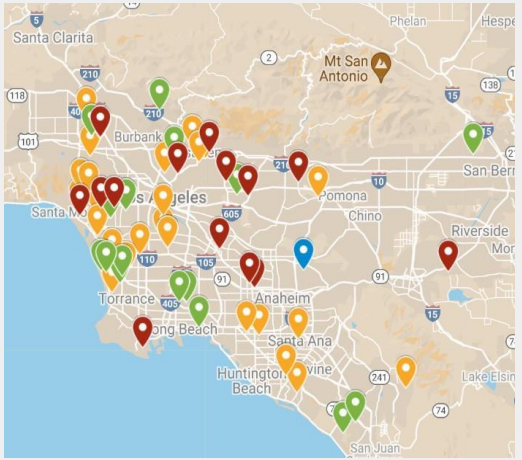
Barriers to green school practices

- Population
- Income
- Funding
- Travel distance



Central coast region

Southern region



Section 4: Transformative Potential

Transformative Potential

- Emphasis on long term student involvement
- Changes in school culture
- Emphasis on faculty support
- Growing in environmental practices

- No one way to be green!
- Impacts on individual students

"'He spent fifteen minutes with me? He was asking me questions?' It transformed his whole life, he used to be a recluse, after that he'd be in class, trying to be a leader working with students."

Challenges in Funding and Culture

Regional

Contra Costa County, Southern California, and the Central Valley

~ Program had different funding, NOAA, Green Ribbon, NWF

"[Implementing green practices] has been a rather slow process because we live in the eastern Contra Costa County, and although we are only about a half hour from San Francisco, there seems to be a large disconnect in the mentality of people in this community. It's been a lot just to get people to consider recycling….Putting locks and gates and security cameras everywhere instead of investing in mental health and environmental sustainability. I'm constantly swimming upstream." - Contra Costa County

"*We're in the middle of a red area which is the Central San Joaquin Valley, so people don't really… I shouldn't say people but there's a large percentage of our population that doesn't consider green as important as another portion of our population, so I just didn't know how [getting the Green Ribbon Award] was gonna float, but it turned out pretty good*." - Yosemite High School

Challenges in Equity

Calabasas Elementary team: *"The support of the community, is the support of trying to make changes to the environment in a below poverty level community."*

Supports

Collaboration

"Going around to conferences… pick up all different types of ideas and bring them back to my campus."

Partnerships

"I have had experience with Marina Tree Garden Club. Where they have been supportive with their time, some of their members have done presentations."

Supportive school culture

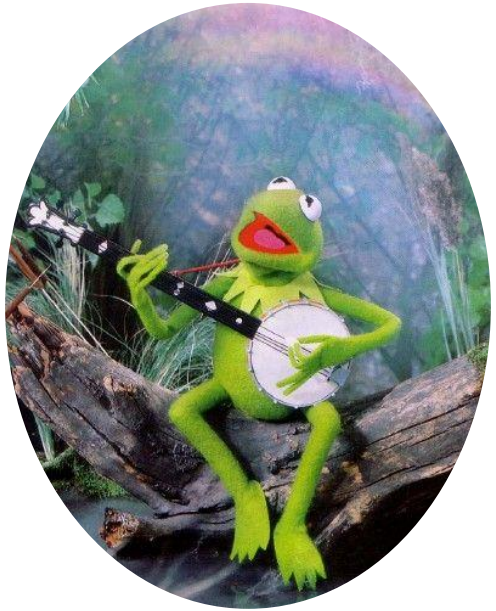
"The idea of 'we are this and we want to be this' is very strong. I think the kids still see it as really important."

Recommendations

- Find ways that programs can promote and support collaborations
  - Incentives among many levels
- Finding a way to extend programs into higher education, such as the GRS award

Ocean Guardian School Projects

“I'm green and it'll do fine. It's beautiful.
And I think it's what I want to be.”
-Kermit the Frog



Acknowledgements

GRS	NWF	NOAA	CA Regions
George Garcia, California Department of Education, Education Programs Consultant	Courtney Sullivan, National Wildlife Federation Eco School program	Naomi Pollack, Program Coordinator, NOAA Ocean Guardian School program	Yosemite High School
Yosemite High School	Happy Valley Primary	Los Arboles Middle School	Watsonville Charter School of the Arts
Bay Farm School	Wildflower Open Classroom	Santa Catalina School	Sonora High School
Anderson W. Clark Magnet High School		Buena Vista Middle School	Environmental Charter High School
Environmental Charter High School		Captain Cooper Elementary School	Freedom High School
Maple Village Waldorf School		Carmel River School	Mark Keppel High School
		Calabasas Elementary School	
		Seaside High School	

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