LandSmart for Kids & STRAW

A partnership between Napa County RCD and Point Blue Conservation Science's STRAW Program funded by the North Bay Watershed Association

Goals of our collaboration

Napa County RCD in partnership with Point Blue's STRAW program was awarded $30,000 from the North Bay Watershed Association to:

- Implement projects in Napa and Sonoma counties in school year 2015/16 and
- Support collaboration between program staff implementing STRAW and LandSmart for Kids

STRAW Deliverables

Exchange information and best practices
Host two school classes and 15 parent volunteers at restorations
Conduct lessons for students to focus on restoration science and climate change adaptation
Invite NCRCD staff to observe lessons
Share climate smart restoration techniques and research with NCRCD staff.
NCRCD staff invited to attend to attend the partner portion of STRAW's Watershed Week in August, 2015, "Restoring Biodiversity"
Observe and learn from NCRCD's LandSmart program

LandSmart/Napa Co RCD Deliverables

Conduct outreach to Napa Valley Unified, Calistoga Joint Unified, and St. Helena Unified School Districts for class participation

Conduct outreach to landowners and land managers for relevant project sites

Recruit technical staff and professionals to serve as role models and mentors for students during field days

Develop and adapt climate education program curricula

Conduct 1 in-class presentation and up to 5 field trips per participating group, for 2 - 3 groups

Encourage students to explore natural resource career opportunities on field days

Collaborate with STRAW Program staff to build capacity through field day participation and collaborative meetings

Work completed: Timeline

August 2015 - Napa RCD Program Coordinator attends STRAW Watershed Week

August 2015 - RCD/ STRAW collaborative planning meeting #1 joined by Sonoma RCD

September 2015 - RCD/ STRAW collaborative planning meeting #2 joined by Sonoma RCD

November 2015 - STRAW hosts Teacher networking event (RCD attends)

January 2016 - STRAW hosts restoration field day with Napa RCD attending

February 2016 - RCD LandSmart for Kids restoration field day with STRAW staff attending

March 2016 - RCD/ STRAW collaborative planning meeting #3

Advancing Nature-based solutions for wildlife &people through science &partnerships

Founded in 1965 as Point Reyes Bird Observatory

140+ staff and seasonal scientists

Manage >1 billion ecological observations

CA to Antarctica

2016 budget: ~$14 million

STRAW (Students & Teachers Restoring A Watershed)

- Started by Laurette Roger's 4th graders in 1992
- Have restored over 30 miles of riparian habitat and worked with over 40,000 students
- Place-based, inquiry-based education
- Climate-smart restoration

STRAW 2015-2016

- Multi-Visit Program
- K-12 Environmental Literacy
- Curricula fully aligned with the Next Generation Science Standards
- STRAW Intern program
- Worked to integrate stormdrain runoff into lessons
- Worked on 16 riparian and wetland restoration sites

Restoration Sites 2015-2016

2015-2016 Restoration Season	
Total Students	3023
Restoration Days	50
Total Plants	5193
Total Volunteers	703
Total Volunteer hours	703
Total Planting Area (sqft)	2214772.98
Unique Schools	34
Total Counties (students)	11
Total Counties (restorations)	5
Total Linear Feet	16899.1

LandSmart Youth Stewards Program

Students gather around mentors at Sheehy Creek in Napa for riparian restoration

Environmental Science - Environmental literacy and linkages NGSS

Service - Tangible conservation practices and improvements, as recommended by NRCS

Careers - Utilizing role model mentors in related fields

NCRCD Supported Activities

2011-2012: RCD/ SLEWS collaboration and environmental education program

2012-2013: Slow It! Spread It! Sink It! Stormwater Management Guide

2013-15: RCD LandSmart for Kids environmental education program

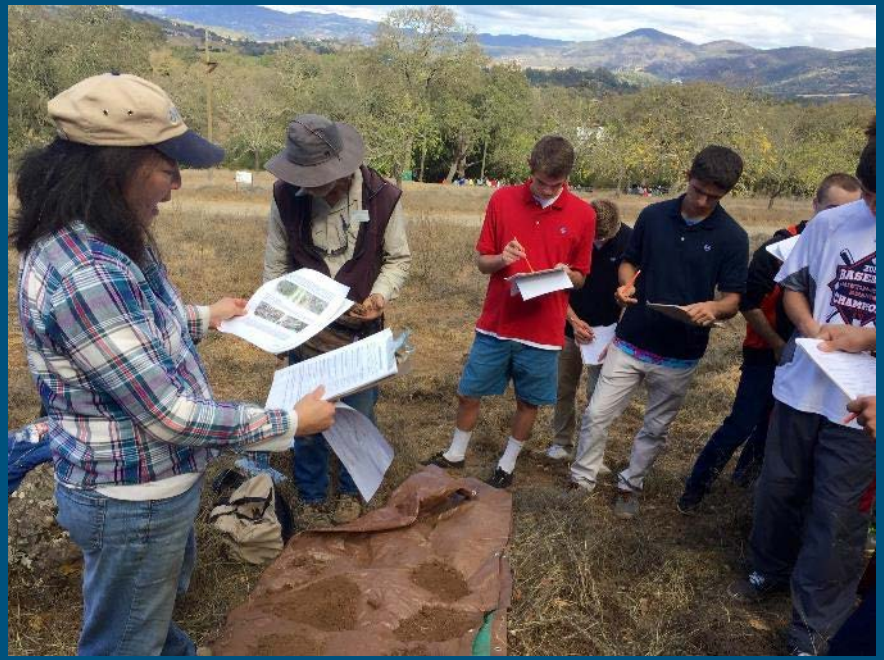
2014-15: Napa/ Sonoma RCD LandSmart On-the-Ground Workshop Series

2015-16: RCD/ STRAW collaboration and environmental education program

2015-16 School Year Summary

- 4 classes from 3 high schools 101 students served
- In-class and 3 Field Trips each
- 190 native trees, shrubs, forbs, and grasses installed
- 14 Western bluebird nesting boxes installed, 6 native bee shelters installed
- 12 mentor role models from conservation science and resource management fields

Career in Conservation



Students test soils to inform land use and planning with Kelly Gin and Chip Bouril at Skyline Park (NRCS)

Students try out beekeeping gear with Sola Bee Farms at Sheehy Creek

LandSmart Youth Stewards

(Clockwise from top-left) Weeding at Trubody Ranch, Monitoring oaks at Skyline Park, planting natives at Sheehy Creek, (Right) Integrated Pest Management at Sheehy Creek

Learning from our partnership

STRAW:

- FARMS Leadership Program, Sonoma RCD
- Learning alongside teachers
- Projects in vineyard landscapes
- Involving partners during restoration day
- Formalizing career development for students

Learning from our partnership

Napa RCD/ LSK:

Climate-Smart Planting Design Tool to guide restoration planning

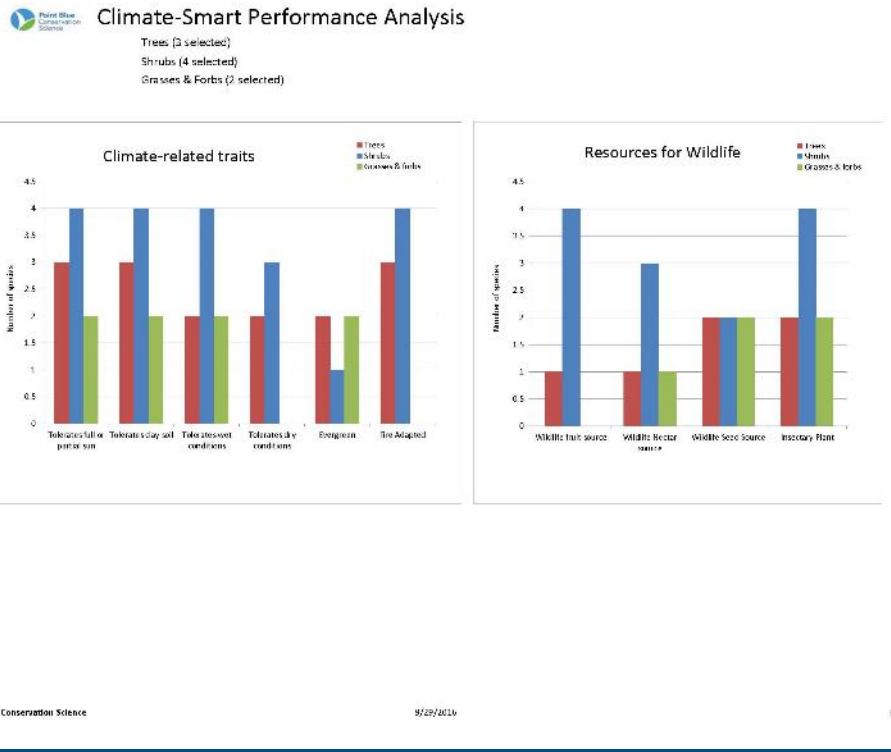
adaptation of inquiry and critical thinking during field days and class presentations

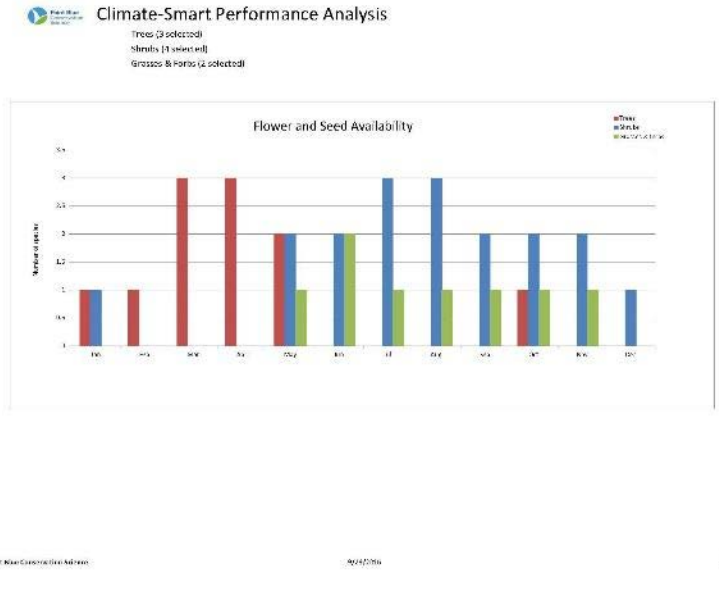
Bundling Life Science & Earth and Human Activity curricular standards

Using the NV Historical Ecology Atlas as a guiding resource

Planting procedure efficiency - site prep

Using Point Blue Climate-Smart Planting Tool





Promoting Inquiry & Critical Thinking

Guiding Questions:

Compare 1800's Napa Valley to 2010

Compare Historical Ecology to Santa Clara Valley

How does land use affect biodiversity and resilience?

How can human impact be negotiated to conserve ecosystem structure and function?

How will climate change impact the seasonality of the water cycle?

How does climate change affect phenology and natural resource availability?

What will be the impact of climate change on vegetation types

Students test soils to inform land use and planning with Kelly Gin (NRCS)

Thank You

Questions?

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