

**GREEN SCHOOLS COMMITTEE  
TENTH ANNUAL REPORT  
JUNE 19, 2019**

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**I. 2018-19 GREEN SCHOOLS COMMITTEE ATTENDEES**

***Community Experts & Parents***

Abra Allen	Parent
Bill Henry	Groundswell Coastal Ecology
Dan Lazarus	Santa Cruz County Parks, Quail Hollow Park
Mary Ann LoBalboa	Santa Cruz County
Leslie O'Malley	City of Santa Cruz Waste Reduction
Amity Sandage	SC County Office of Education, CREEC Network
Pauline Seales	Santa Cruz Climate Action Network
Tiffany Wise-West	City of Santa Cruz Climate Action Program

***District Staff***

Patrick Gaffney	Assistant Superintendent, Business Services
Amy Hedrick-Farr	Director, Food Services
Catherine Meyer-Johnson	Executive Assistant, Business Services
Trevor Miller	Director, Maintenance, Operations & Transportation

***Classified and Teachers***

Stu Branoff	Bay View teacher
Joanne Brown	AFE consulting teacher and parent
Susan Dahlgren	Gault Life Lab Teacher
Kerasha Durham	Greater Santa Cruz Federation of Teachers rep, AFE teacher
Elnora Lewis	Harbor High Special Day Class teacher
Heather Murphy	Curriculum Dept. Science Coach
Julie Yanggen	Gault Teacher

***SCCS School Board***

Jeremy Shonick	SCCS Trustee
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***Students***

Gray	Cabrillo College Student, former AFE Student
Juan	Gault 3 <sup>rd</sup> Grade Student
Riley	Gault 3 <sup>rd</sup> Grade Student

## **II. EXECUTIVE SUMMARY**

The committee met on 11/14/18, 1/29/19 and 4/9/19. The highlights include:

- Student visits were high points at this year's meetings. Former AFE Student Gray Jameson shared his video portraying a future high speed rail system in Santa Cruz County. Gault third grade students Juan and Riley presented their work on restoration of coastal ecosystems at Seabright Beach.
- The DROPS (Drought Response Outreach Program for Schools) project to increase rainwater catchment and reduce runoff at Bay View was re-bid to obtain better pricing.
- Science Coach Heather Murphy reported on her work with science leads at the schools and promoted multiple opportunities for professional development in support of Next Generation Science Standards for K-12 education.
- Funding and groundwork permitting advanced plans for a mural to be painted on Bay View's Mission Street sound wall, which will depict marine life and concerns about plastic pollutants in the ocean.
- The fourth or fifth grade classes, depending on school, went through the Watershed Education Program to the San Lorenzo River and to Loch Lomond with bus transportation funded by the City of Santa Cruz.
- District schools partnered with Ecology Action, co-hosting the 2018-19 Bike/Walk to School Days in the fall and in the spring events.
- SCCS students participated in the annual Teen Fashion Show, featuring recycled materials, and in the Santa Cruz Recycles poster contest, both sponsored by SC City Public Works.
- City of Santa Cruz Climate Action Manager Tiffany Wise West invited the District to participate in an Anti-Idling Campaign, to reduce emissions from parents' vehicles waiting to pick up students. She also provided information on an opportunity to obtain free trees while the supply lasts through the end of 2019 through a grant received by the City.
- Santa Cruz City Public Works Waste Reduction representative Leslie O'Malley updated the Committee on the annual "Santa Cruz Recycles" poster contest, on improvements to waste treatment tours for students and on Earth Day activities. She provided information on AB 1826, which requires business and public entities that generate four cubic yards or more of trash/recycling/organics to recycle or compost all organic waste.
- Director of Facility Services Trevor Miller provided updates to the Committee on bond projects in progress, and fielded questions regarding specific concerns. He also reported on a grant received for the purchase of an electric bus and installation of a charging station.

What follows is a report on specific activities of the Committee during the 2018-19 school year.

### **III. STUDENT PROJECTS**

#### **Mass Transit Model – Gray Jameson**

Former AFE student Gray Jameson presented the fully developed video that he previewed with the Green Schools Committee last year of a future high speed rail system running from downtown Santa Cruz to Watsonville. Using a game platform, Gray imported Santa Cruz locations and landmarks from an aerial map, showing 14 stations along the tracks, with pedestrian and auto traffic. The County now owns a rail line that could be retrofitted for a battery electric light rail system. Gray's video can be viewed at <https://www.youtube.com/watch?v=hePsaohaa-U>. Gray presented his video to the Watsonville City Council, who voted unanimously to endorse this model. He also presented to the Santa Cruz Regional Transportation Commission (RTC) and to the County Supervisors in Santa Cruz. Gray will continue to work on this project and produce more videos on the subject that will be shared with the community.

#### **Ocean Guardian Program – Gault School 3<sup>rd</sup> Grade & Groundswell Coastal Ecology**

Students in Julie Yanggen's 3<sup>rd</sup> Grade worked with Lifelab teacher Susan Dahlgren and Bill Henry of Groundswell Coastal Ecology on restoring the coastal ecosystems at Seabright Beach. This National Oceanic and Atmospheric Administration program has been ongoing for five years. Gault students Riley Angell St. Clair and Juan Salazar Pinto presented a report of their work to the Green Schools Committee on 4/9/19. Students started native plants in the Gault Lifelab in the fall, and later transplanted them to the dunes at Seabright Beach near the harbor. These plants replace the non-native invasive ice plant. Students observed plant growth as well as increases in the pollinators and seabirds who live in the native coastal habitat. This project incorporates core standards, teaching students to use data to make qualitative observations. Students are excited to make positive changes, and pass their interest along to their families.

### **IV. DISTRICT OPERATIONS**

Facility Services Director Trevor Miller and Asst. Supt. Patrick Gaffney gave updates to the Committee on modernization projects at the sites. Although the popular perception is that modernization is taking a long time to actualize, the planning process is complex and driven by many factors. Over the summer, many new roofs were installed on District schools, using non-PVC materials, with an expected life of five to six decades. At Delaveaga, the parking lot has been enlarged and reconfigured, LED lighting installed, and a rain shelter built for students at the pick-up point. A bioswale was created to collect run-off from the parking lot that will prevent parking lot pollutants from entering storm drains. An area of permeable concrete was added where the new parking stalls are for groundwater recharging. This type of work will be happening at several other District sites, including upgrading utility systems and creation of new fire lines for better protection. At the Small Schools campus a new inclusionary playground was installed with a permeable rubber surface. Students were very excited at the ribbon cutting. A new ADA ramp has been installed at Small Schools to gain access to exterior restrooms and the lower floor of the building.

The first bond project, re-roofing at Bay View, is complete. Over the last year, Branciforte Middle School, Mission Hill Middle School, Harbor High, Santa Cruz High and Gault Elementary have had roofing projects. The Soquel High swimming pool was replaced, and the Harbor High swimming pool is under construction in a different location on campus. For the installation of an artificial athletic field and track at Harbor High, experts were engaged to assist with evaluating any potential negative effects in connection with the Arana Creek flood plain. A California Environmental Quality Act study was done and recommendations followed. Now all three District comprehensive high schools and middle schools have artificial turf fields, which conserve water.

### **DISTRICT CONSERVATION PROJECTS**

Funding and groundwork permitting advanced plans for a mural to be painted on Bay View's Mission Street sound wall, which will depict marine life and concerns about plastic pollutions in the ocean. This project is being jointly funded by Santa Cruz City Schools, a City of Santa Cruz mural grant, the artist Taylor Reinhold the Clean Oceans Initiative and others.

Prop 39 (Clean Energy Jobs Act) work has continued at the sites, including installation of LED lighting and replacement of some of the schools' HVAC units. This work was coordinated by Climatec.

### **TRANSPORTATION**

In partnership with the City of Santa Cruz and Ecology Action, the District encourages students and staff to participate in "Bike to School" day, held in the fall and spring. Breakfast treats and other goodies are given to all who participate.

A grant was received for an electrical school bus and a charging station at Harbor High. Plans are in motion to purchase two large buses and two smaller buses. The Facilities Department purchased two transit vans to replace older trucks. The new vehicles are more fuel-efficient.

### **CURRICULUM**

Heather Murphy, Science Coach for SCCS, informed Members of many opportunities and resources for teachers' professional development. A workshop on developing lesson plans compliant with NGSS standards was held during June, 2018 and was funded by an State Educator Effectiveness Grant. This workshop will be repeated during summer, 2019, and will be funded by the Santa Cruz County Office of education. AFE teacher Joanne Brown reported that science leads are carrying forward lessons learned during the workshop. Renowned artist/naturalist/educator John Muir Laws presented his science illustration concepts. Dan Lazarus, Santa Cruz County Parks ranger at Quail Hollow Ranch Park worked with Joanne to plan five lessons using NGSS standards for grades 3-5. The 3rd lesson is held at the Park. Pauline Seales attended the summer professional development and offered to share many lessons she had developed that deal with climate change.

A STEAM (Science, Technology, Engineering, Art and Math) conference for educators was held in February, 2019 at UCSC with twenty sections and many presenters. A Phenomena Summit is being planned for October, 2019, at which scientists will collaborate with teachers on topics that will excite students.

Joanne Brown presented a summary of the District vision for TK-12 Science, emphasizing hands-on multi-sensory curricula to engage students, give them environmental literacy and teach them practices like what scientists and engineers do. Instruction is designed to incorporate real world phenomena which has local and global significance. The goal is to make science relevant and real.

### **PARTNERSHIPS WITH LOCAL AGENCIES AND ENVIRONMENTAL GROUPS**

Through a partnership with the Santa Cruz City Water Department, 4th and 5th grade students once again took part in the watershed field trips to Loch Lomond. This year the program added a boat, and took students out on the lake. School assemblies introduce concepts and info on the field trips, and classroom materials are available which depict the source of water and how it is treated. Students learn how to read a topographic map, and carry out experiments on water run-off, comparing turbidity and how trash ends up in the reservoir. The City of Santa Cruz Water department provides the funding for the buses, a significant cost of the project.

The City of Santa Cruz School Recycling and Waste Reduction program continues to offer 3rd -5th grade students trips to the City Resource Recovery Facility, with the City providing transportation. They have placed recycling containers on campuses and visited schools to make in-class presentations on waste reduction, recycling and composting. Since China no longer accepts the recycled materials sent to them previously, the new emphasis is on “reduce and re-use”. The City offers the Santa Cruz Recycles poster contest, the Earth Day Class Project Challenge and the Earth Day Teen Recycled Fashion Show as other opportunities for students to participate.

Leslie O’Malley of Santa Cruz City Waste Reduction called on schools to increase efforts to recycle their organic waste, per AB 1826. Leslie offered to provide resources and education to promote shared food tables at schools. The City’s goal is to have half the elementary schools participate. Both the City and the County are working on collection of compost/organic waste. SCCS Food Services Director Amy Hedrick-Farr is working with the City on the food recycling program. SCCS has made changes, including compostable goods on the Food Services bid lists this year. The challenge is to find an economical alternative. Food safety standards, allergies and how to make shared tables work outside are considerations. It was suggested that shared food tables be introduced at the beginning of the year, and that parent advocates be engaged.

Santa Cruz City Climate Action Program Director Tiffany Wise-West invited the District to participate in an “Anti-Idling” program, with the goal of reducing carbon emissions by encouraging parents to turn off their motors while waiting for their children at school. A 2015 City ordinance restricts idling to 90 seconds when in a public right of way. The City will install a limited number of signs advising of this ordinance in public right of ways adjacent to school campuses, and will make more signs available to the District to install in parking lots. The City requests that the District help with an outreach campaign to inform parents and school staff of the program.

The City of Santa Cruz received a grant for 300 trees to be planted by the end of 2019. Tiffany offered to share these trees with the District, if locations could be found for them.

Groundswell Coastal Ecology has worked with students at Gault Elementary School for the past five years in the Ocean Guardians Program, on plantings at Seabright Beach to restore the native coastal habitat. Their efforts were integrated into the Lifelab program. Students start in the lab, visit the coast to observe, return to check on restoration. Metrics include observations of insects and birds.

#### **PLANS FOR THE FUTURE**

\*\*\* Continue to reduce the District’s carbon footprint by including environmental choices as the District’s modernization projects are actualized over the coming years.

\*\*\* Continue support of students in their environment-related projects.

\*\*\* Keep working with the city and county governments, the COE, the City Museum of Natural History, Ecology Action, the US Green Building Council, UCSC and other interested organizations that want to contribute to the District.

\*\*\* Keep the flexibility of the committee that enables local organizations to participate and make contributions to the District.