**About ECO2school:**

The Center for Climate Protection's Youth Leadership program, ECO2school, inspires young people to take action for immediate greenhouse gas emission reductions while promoting long-term personal and community environmental action.

ECO2school has been working in high schools across Sonoma County since 2006 engaging clubs and classes in hands-on service learning projects that support healthy living, safe low carbon commutes, traffic decongestion, and improved air quality for the entire community.

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**2017-2018 Program Results**

Throughout the 2017-2018 school year, ECO2school leaders encouraged peers to use active (walking, biking, or skating) modes of transportation for their school commutes. The Tubbs and Nuns fires had a serious impact on program this year. They affected our ability to collect pre-program data in some cases and the implement of projects scheduled for October and early November. Two Youth Advisory Board members were personally impacted by the fires and some student leaders chose to focus their volunteer efforts on fire recovery projects. Despite these setbacks ECO2school worked in 12 Sonoma County schools and reached **10,084** students, of which **7,201** participated in at least one behavior change action.

The regional program wrapped up the pilot partnerships with Silicon Valley Bicycle Coalition in the South Bay, and Hunter’s Point Family in San Francisco. We are now partnered with Alta Planning and Design and the Metropolitan Transportation Commission on a Spare the Air Youth Grant to reach all nine Bay Area Counties with a micro grant program which will support active transportation and greenhouse gas reduction. This year was spent on grant development with the intention to launch programs in three to five additional counties in fall of 2018.

ECO2school supports student leaders in implementing school activities to encourage peers to try active or shared transportation.
The following data demonstrates the impact of the single-day events and the multi-week ECO2school Challenge:

**Overall Impact**

» 25 fewer tons of CO₂ were emitted

**Single Day Events**

» 9.4 fewer tons of CO₂ were emitted
» 1,3578 fewer miles were driven
» 643.5 fewer gallons of gas were consumed, thus saving $2,406.65

**The ECO2school Challenge**

» 15.6 fewer tons of CO₂ were emitted
» 32,215 fewer miles were driven
» 1,527 fewer gallons of gas were consumed, thus saving $5,710.98

**Student Transportation Behavior**

When adjusted data from the fall and spring are compared, it shows that overall, active forms of transportation stayed the same. However, a large portion of CO₂ emissions savings in events comes from students’ participation walking and biking. We saw multiple changes in driving behavior. There were 6% fewer students being dropped off - the most resource intensive driving behavior. The number of students carpooling increased by 3%.

Casa Grande was the top school this year on all counts. Their ‘get the word out’ efforts were rewarded with 45 percent participation of the total student body in their school’s ECO2school Challenge. In total, they saved 3.7 tons of CO₂ from being emitted during the two-week challenge. They also saw the greatest shifts in behavior change over the course of the year as quantified in the graph.

Although the overall shift in student behavior in all schools appears minimal, it represents a 0.6 ton weekly CO₂ reduction per school. Students’ participation in and exposure to the ECO2school program positively impacted their transportation choices, and resulted in emission reductions in Sonoma County.

**Sonoma County Program Highlights**

71 percent of participating students took part in at least one behavior change activity, a four percent increase from the previous school year. Leadership teams wanted greater autonomy over the marketing of their encouragement events. We were able to create some ‘fill in the blank’ outreach materials to support their creativity.

Two schools identified parking lot and afterschool pick up time idling as a serious concern this year. Santa Rosa High School’s Climate Club created an afterschool climate café where students could hang out instead
of idling in the parking lot. Windsor High School had 56 students participate in their efforts to reduce parking lot idling.

Walking audits were conducted at 11 schools. Students, school officials, community members, and industry specialists came together to review the infrastructure around the school campuses and provide input on improvements that will positively impact walk and bike safety in the school communities. The town of Windsor is already using the information collected to support their Active Transportation Planning Grant proposal.

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**The leadership, communication, and commitment skills we developed has given us the confidence to enter the real world where we can begin to affect entire communities. ~ Emily Gassaway, Windsor High School**

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**Student Leadership**

ECO2school equips student leaders with the tools and confidence to coordinate campus transportation projects. In the process, these students are empowered to become effective climate leaders. 166 students volunteered over the course of the year. 31 students engaged as active campus and community leaders and 29 participated in our Youth Leadership Development Trainings. A separate training was conducted for the 45 students in the Windsor school leadership (ASB) class, 12 of those students continued to volunteer with us and participate in other ECO2school activities.

**World Changers:**

ECO2school introduced a new program this year - the World Changers Career Pathway. World Changers aims to support youth in making climate central to their educational, career, and lifestyle choices. It provided paid internships to nine Youth Advisory Board members, two paid college climate fellows, and three competitive $1,000 scholarships to students to acknowledge additional carbon reduction projects they accomplished. The two Climate Fellows were Tess Caldwell and Maddie Maffia. The World Changers Scholarship winners were Geena Espinoza, Delaney Miller and Emily Gassaway.

**The Youth Advisory Board**

The Youth Advisory Board (YAB) consists of student leaders passionate about making positive change. Thirty students representing 75 percent of participating schools joined the board. All of graduating YAB members got into their first-choice college. These youth leaders helped shape the program, organized events, spoke at political and community venues, and provided a youth perspective to the larger community of climate activists.

Windsor High School's World Changers lead a Walking School Bus.
Over the course of the 2017-18 school year, YAB members implemented the following actions:

» Green Teen Gathering: 53 participants representing 12 schools and 9 different community organizations gathered to network and exchange information on how to improve sustainability on their school campuses. This event took place one week after schools resumed post-fires. It is a tribute to the students’ dedication.

» Care for the Planet: 33 students at the regional Youth for Environment and Sustainability Conference came together to discuss the intersection between climate health and personal health, with a focus on self-care.

» Meal and Heal: YAB brought family and friends together to break bread in the aftermath of the fires.

» YAB members attended Credo High School’s One Planet Living Conference on sustainable living.

» One YAB member attended multiple Santa Rosa School Board meetings and spoke passionately about the need for the continuation of environmental education in the face of budget cuts.

Regional Pilot
ECO2school facilitates a regional work group. The regional work group met five times over the course of the year with representation from all nine Bay Area counties. The group discusses best practice, strategizes for long term program viability and participants receive additional training.

In partnership with Hunter’s Point Family in the Bay View/Hunter’s Point area of San Francisco we supported 24 participants and 10 paid interns with climate education and leadership training. The students planned and implemented a Climate Carnival for their community. In addition, we provided an education program to Lincoln High School reaching 90 students with Climate Literacy Education.

In the South Bay, we worked with two schools through the Silicon Valley Bicycle Coalition reaching 86 students.

Survey methodology
Student commute behavior surveys were administered at ten schools in the fall and end of the school year. Spring data is used to quantify behavior change over the course of the year. Of a total student population of 10,622, a representative sample of 2,726 students were surveyed in the fall, and 2,335 students were surveyed in the spring, for an average 24 percent sample size. This gave us a 95 percent confidence interval for our results. Classes were chosen to survey based on grade and ability level to ensure that a broad range of students were represented. As much as possible the same classes were surveyed in the fall and the spring.

Schools provided anonymous student address data to determine the average distance traveled during school commutes. Students reported the transportation mode(s) they used for the five-day school week, or 10 one-way trips to and from school. From this information, the estimated pounds of CO₂ emitted for each surveyed student were calculated. The data sets from each school were then extrapolated to reflect the entire student body at each individual school.

For single-day events, teachers collect transportation tallies. In classrooms, posters were used to calculate the ECO2school Challenge participation. The carbon savings were calculated based on these tallies, in conjunction with school transportation data.