**ECO2school Program Impact**  
**2015-2016**

**About ECO2school:**
The Center for Climate Protection’s Youth Leadership program 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 to bring real life learning applications to schools that support healthy living, safe low carbon commutes, traffic decongestion, and improved air quality for the entire community.

**2015-2016 Program Results**
Throughout the 2015-2016 school year, ECO2school leaders encouraged peers to use active and alternative modes of transportation for their school commutes. ECO2school worked with 12 Sonoma County schools and reached 14,801 students, of which 10,617 participated in at least one behavior change action.

This year ECO2school partnered with the Silicon Valley Bicycle Coalition (SVBC) to pilot a regional partner based program expansion. SVBC reached 914 students who participated in behavior change activity at three south bay schools.

The following data reports the impact of ECO2school’s single-day events and the multi-week ECO2school Challenge:

**Overall Impact**
- 38.85 fewer tons of CO₂ were emitted

**Single Day Events**
- 6.83 fewer tons of CO₂ were emitted

**The ECO2school Challenge**
- 32.02 fewer tons of CO₂ were emitted
- 41,137 fewer miles were driven
- 1,923 fewer gallons of gas were consumed, thus saving $7,594.19

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Changes in Student Transportation Behavior
When adjusted data from the fall and spring are compared, it shows students increased their use of active and alternative modes of transportation, resulting in a 14 percent reduction in vehicles miles traveled (VMT), carbon dioxide emissions, and gas consumption.

Students' use of active and alternative modes of transportation to get to and from school increased by 8 percent and 15 percent respectively throughout the school year. The chart, below, depicts the percent change in students' transportation modes between fall and spring.

Similar to years past we saw a corresponding increase and respective decrease in students driving alone and being dropped off. This mirrored divergence is likely due to the number of students acquiring their driver's license. The increase in alternative modes of transportation, which include carpools, could be influenced by students gaining permission to drive their peers, something not permitted with a provisional license.

Students' participation in and exposure to the ECO² school program positively impacted students' transportation choices, and the resulting emission reductions in Sonoma County.

Evaluating the ECO² school Program
Participation: The surveys evaluated participation in all school events that are designed to encourage active and low carbon commute choices. While cocoa for carpools is sited by student as the favorite event it received the lowest participation rate with a 16 percent participation rate for the school year. The ECO² school Challenge received the highest participation rating at 18 percent. Additionally, we saw a 20 percent increase in participation in schools that participated in both the 2015 and 2016 challenge. Three new schools participated in the Challenge this year.

“ECO² school not only provides information it provides a sense of unity and action. It is great to be with other young people who are as passionate about climate change solutions as I am”
Jasmine Jolly WHS
Behavior Change:
Eighteen percent of participating students reported that they reduced driving as a result of encouragement activities and 31 percent said they would continue to use active or low carbon commutes after the ECO₂ school Challenge.

Bicycle Use:
Students were asked a number of questions to ascertain bicycle use habits. 79 percent of students reported owning a working bicycle with 14 percent of respondents not reporting. Only 47 percent of students use helmets with 19 percent not responding. 23 percent of students use their bicycle for transportation while 62 percent use their bicycle for fun or sport with 22 and 24 percent of students respectively did not respond to the question.

“Our generation is the future, but more importantly we are the present and we must decide what kind of world we want to live in. It is time we start to live like the future matters” Quiana Stodder AHS

Student Leadership
ECO₂ school works with student leaders to equip them with the tools and confidence to coordinate campus transportation projects. In the process, these students are supported and empowered to be effective climate leaders. 156 students volunteered to lead activities on their high school campuses. These student leaders are winning awards and scholarships for their work and embarking on educational and professional careers with an environmental focus.

The Youth Advisory Board
The Youth Advisory Board consists of student leaders passionate about making positive change. Twelve students representing 42 percent of participating schools joined the board. 75 percent of graduating YAB members got into their first choice college. These youth leaders help shape the program, organize events, speak at political and community venues and provide a youth perspective to the larger community of climate activists. Over the course of the 2015-16 YAB implemented the following actions:

• Green Teen Gathering: 54 students and 24 adults representing twelve schools and ten different community organizations came together to network and exchange information on how to improve sustainability on their school campuses.
• Climate Café: 84 students at the regional Youth for Environment and Sustainability Conference came together to discuss innovation climate solutions
• Youth Presenter North American Environmental Educators Conference
• Provided a youth voice and perspective at the Sustainable Enterprise Conference
• Presented to the Bay Area Air Quality Management District Board of Directors Climate Protection Committee
Student Awards:
• Press Democrat Youth Environmental Science Service Award and Scholarship Recipient
• Two students awarded US Department of Education and Cultural Affairs American Youth Leadership Project China tour
• Finalist Clean the Air Film Festival.

The ECO₂school manual will be translated into Korean in partnership with Dr. Choi of Gwangju National University of Education.

Survey methodology
For single-day events, teachers collect transportation tallies. The carbon savings were calculated based on these tallies, in conjunction with school transportation data. Posters were used to calculate Challenge participation while surveys collected additional information.

Student leaders at seven schools surveyed peers about their school commute behavior at the beginning and end of the school year and collected general feedback regarding education and encouragement programs. One school’s data sample was too small to be usable. Of a total student population of 7,223 in the six usable schools, a random sample of 1,049 students were surveyed in the fall, and 1,244 students were surveyed in the spring, for a combined 16% representative sample.

Students provided their home address to determine the vehicle miles traveled (VMT) during their school commute. They also 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 representative samples of student responses from each school were then extrapolated to reflect the entire student body at each individual school.