

## COOL SCHOOLS - eCO<sub>2</sub>mmute Project



Educate, Engage and Empower Youth  
to take action in their schools and communities in response to the climate crisis

**Goal of eCO<sub>2</sub>mmute:** To introduce students to concepts of global climate change and its relation to transportation and to engage them in taking action through practical science-based solutions for immediate green-house gas reductions.

**What is eCO<sub>2</sub>mmute?** It is a program that:

- Promotes walking, biking, riding transit and carpooling among high school students through awareness, incentives and, where possible, systemic changes to reduce greenhouse gas (GHG) emissions from student commute.
- Contributes towards achieving Sonoma County's GHG reduction target set by the community in May 2005, which is 25% below 1990 levels by 2015.

**What do students do?**

- Administer a commute survey among students to measure the related greenhouse gas emissions
- Set targets for emission reductions based on an analysis of the survey data
- Conduct activities, contests, etc. in the school to build awareness and motivate peers to take action
- Reach out to local businesses to offer incentives to students choosing to "eCO<sub>2</sub>mmute" to school
- Determine the GHG reductions and impact of their campaign through a survey, conducted at the end
- Present the results of their project to the School Board, City Council and at community forums

### Analy High School, Sebastopol, CA

In fall 2005 the AP Statistics teacher at Analy High School in Sebastopol, CA, initiated a project with his students to find out the carbon footprint of students commuting to school, predominantly by car. Results showed that the student body of 1400 commutes over **42,000 miles every week, consuming about 2100 gallons of gas and producing over 40,000 pounds of greenhouse gas emissions weekly.** To offset the impact of their emissions on the planet, they found out they would have to plant and preserve about 13 acres of trees annually! As the students were shocked to discover this, they decided to do something about it. With support from Cool Schools, a program of the Climate Protection Campaign, they set out to reduce their commute emissions. This was the beginning of the eCO<sub>2</sub>mmute project.



Following the baseline survey students implemented several awareness-building activities and a 3-week incentive-based campaign to reduce single passenger commutes to school and promote walking, biking, riding transit and carpooling to school!. By the end of the year they achieved a **21% reduction in single passenger commutes, reducing greenhouse gas emissions by 5 tons weekly!**

This project received the **2006 Outstanding Environmental Project of the Year** award from the Sierra Club and the Sonoma County Conservation Council.

### Other achievements of the project team:

- The eCO<sub>2</sub>mmute team proposed that the school increase its car-parking fee from \$5 to \$30 to better reflect the true cost of driving to school!
- Sonoma County Transit used the student's survey results to identify a critical need following which they were able to re-schedule a specific bus route from an area with a critical number of students, to coincide with the start of the school day. The school principal sent letters to families in that area before the start of the school year to let them know about this transportation option.
- Students presented the results of their project to the City Council of Sebastopol, which later helped improve traffic flow and pedestrian crossings around the school.
- With the help of Sonoma County Bicycle Coalition Analy High School became the first high school in Sonoma County to participate in "Walk and Roll to School Day" in October 2006.

## Windsor High School, Windsor, CA

The student commute project expanded to Windsor High School in fall 2006. The students and teachers of the "Environmental Studies Core" implemented the project in fall 2006.

**Their survey found that the student body of about 1200 commutes about 35,000 miles consuming 1,750 gallons of gas per week, emitting over 33,000 pounds of CO<sub>2</sub>. They learnt that even a trip around the earth along the equator is about 24,000 miles!**



The students wanted to challenge the target set by Analy High School and aimed for a 25% reduction by spring 2007. They began their eCO<sub>2</sub>mmute campaign with a school-wide assembly, followed by several educational activities and incentives donated by local businesses. Though they couldn't meet their aggressive target, **they achieved a 7% reduction in their student commute emissions.**

**We are grateful to the Bay Area Air Quality Management District for supporting this project and the development of the project manual.**

---

Cool Schools has expanded the eCO<sub>2</sub>mmute project to other high schools in Sonoma County in Healdsburg, Santa Rosa and Rohnert Park. While students are taking leadership in their schools to address commute related emissions, there are many cultural and systemic challenges that influence student commute behavior and transportation facilities to schools. Cool Schools aims to address some of these challenges while continuing to educate, engage and empower more students to take action in their schools and communities in response to climate change.

### Resources for students and teachers:

- With the help of student interns who led this project in their schools, Cool Schools has developed an **eCO<sub>2</sub>mmute project manual** for high school students, available on our website [www.climateprotectioncampaign.org](http://www.climateprotectioncampaign.org) to download.
- "How Big Is Your Footprint?" - A simple lesson plan developed by the teacher at Analy High School for grade levels 8<sup>th</sup> thru 12<sup>th</sup>, to increase student awareness of the impact of their choices on the Earth by studying the ecological footprint concept and also learning how to calculate the mean, median, mode, and standard deviation of a set of data. <http://ase.org/images/lib/educators/How%20Big%20Is%20Your%20Footprint.pdf>

# Healdsburg High School students achieve 18% reduction in greenhouse gas emissions from student commute

Students from the eCO<sub>2</sub>mmute project team talk about climate change and announce the results of the first student commute survey and the team's greenhouse gas reduction target at a school-wide assembly: 07 March, 2008



Teachers offer their parking space to create space for "preferred parking" for carpoolers during the campaign months: March, April and May 2008. (Right) Student gives 'eCO<sub>2</sub>mmuters' a stamp on their stamp card during the campaign month: April, May 2008 (5 stamps make them eligible for coupons from a local store)



eCO<sub>2</sub>mmute project team organizes an **Earth Day Celebration**: 09 May, 2008  
**Highlights of the celebration:** Results of the post-campaign student commute survey are announced, Councilmember Mike McGuire addresses students about climate change, Spoke Folk bike store donates a bike for the Grand Raffle, Youth band Secret Cat provides Live Music, and Healdsburg Lumber donates compact fluorescent lamps for give-away!



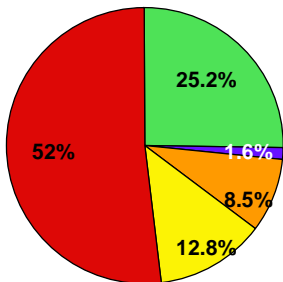
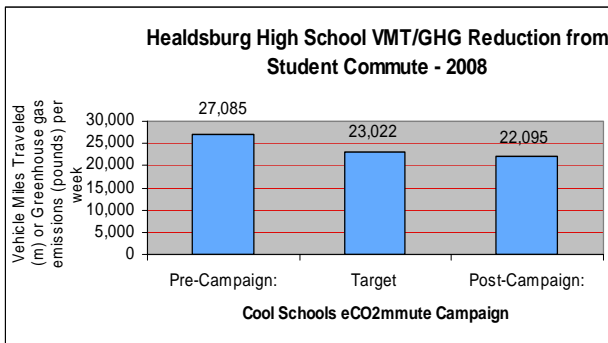
COOL SCHOOLS - CLIMATE PROTECTION CAMPAIGN

Parents of the school sponsor and participate in setting up an Energizer Station at the school for Bike to Work Day giving away cookies and juice to students walking and biking to school!

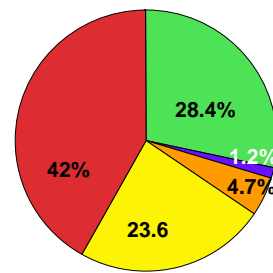
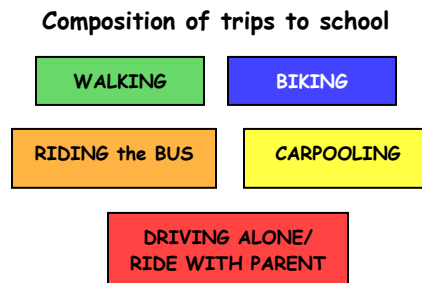


Student speaker from Healdsburg High School gives an inspiring speech, including a report on the eCO<sub>2</sub>mmute project at the Climate Protection Everybody Profits IV Annual Conference held in Healdsburg: 16 May, 2008

### RESULTS OF THE COMMUTE SURVEYS



Pre-Campaign Survey



Post-Campaign Survey

**Thank You for making the Healdsburg High School eCO<sub>2</sub>mmute project a success!**

**Funding support**

- Kismet Foundation
- The Lipton Family
- Tony Crabb & Barbara Grasseschi
- Northern Sonoma County Air Pollution Control District

**Incentives for eCO<sub>2</sub>mmuters**

- Powell's Sweet Shoppe
- Downtown Bakery
- Flying Goat

**Grand Raffle and Earth Day**

- Spoke Folk Bike Shop
- Starbucks
- Center Street Sweet Memory
- Raven
- Healdsburg Lumber Co.

**Project Team and Support**

- Healdsburg High School: Progressive Club and Associated Students Body, Staff & Administration, Parent Information Network
- Healdsburg Tribune/SW/WT
- Healdsburg City Council
- Sonoma County Bicycle Coalition

# Orange & Black Goes Green!

## SRHS students aim for 25% reduction in greenhouse gases from Santa Rosa High School's student commute



Santa Rosa High School's Science Symposium group is leading the effort on reducing greenhouse gas emissions from their student commute through the Cool Schools - eCO<sub>2</sub>mmute project, coordinated by the Climate Protection Campaign. They started their project in fall 2008 surveying the greenhouse gas impact of student commute and are now on their way to making an impact on their school's emission reductions!

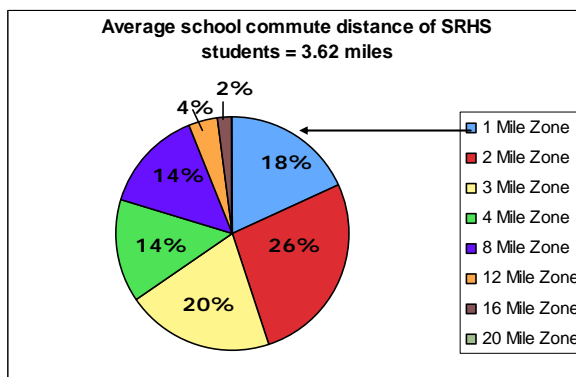
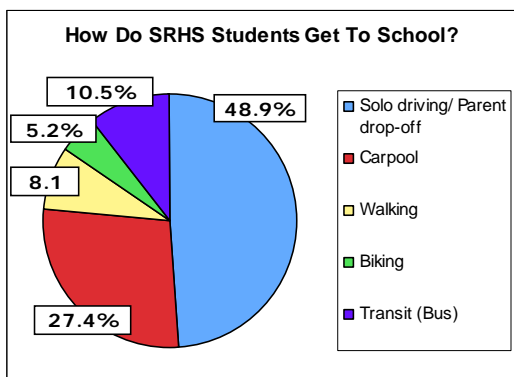
### Green Spirit Week!

In January 2009, the students held a "Green Spirit Week". Working in partnership with the Sonoma County Bicycle Coalition, Santa Rosa Police Department's Bike and Pedestrian Safety program and Santa Rosa Transit they organized lunch-time activities every day of the week. The week started off with live music by a school band named "Blyss", followed by a "Fix-a-flat" bike workshop, a "Jeopardy" game show emphasizing climate protection, bike safety and alternative transportation and finally a Bike-Decorating contest!



swald's blog on Bike Monkey: <http://www.bikemonkey.net/?p=2873#more-2873> ]

### Results of the baseline commute survey



About 40,000 pounds of greenhouse gases are emitted per week from SRHS student commute.

## SRHS wins Bike to School contest!

**Raising consciousness, reducing emissions and having fun!**

In the first week of February '09, SRHS and Montgomery High Schools challenged each other in a bike to school contest, sponsored by the Climate Protection Campaign, the Sonoma County Bicycle Coalition, the City of Santa Rosa and Nor Cal Bike Sport/The Bike Peddler (who donated all the prizes). The objective of the contest was to encourage biking to reduce greenhouse gas emissions, highlight safe cycling and safe routes and promote the Amgen Tour of California.

Student teams in both schools promoted the contest, serving as bike monitors each morning along with support from teacher advisors. A record 35 kids rode their bike to school on one of the days and on the last two rainy days, when normally, bicycling would be almost nonexistent, there were still more than a dozen kids biking to school. Following this, **SRHS emerged as the winner!**



All contest participants received a coupon for a free bike tube or water bottle, and all 100% participants received a \$10.00 gift certificate. Gracie Burroughs (MHS) won a \$100.00 gift certificate and Kevin Miller (SRHS), a brand new Specialized commuter bike!

[Read more on Kerry Benefield's blog on Press Democrat: <http://extracredit.pressdemocrat.com>]

*"I live 6 miles away. I usually bike to school only once a week, and never in the rain. I biked every day this week. One less car!" --- Nik Kronick, an 11th grader at Santa Rosa High School*

## Education, Leadership and Action

The SRHS team is currently reaching out to local businesses requesting them for incentives that can be offered to students. In April '09, they will be tracking student commute for 3 weeks using "eCO<sub>2</sub>mmute stamp cards". They plan to offer incentives to students who participate by walking, biking, riding transit or carpooling to school at least 5 times during the month. For every 5 "eCO<sub>2</sub>mmute trips" to school a student can redeem their stamp card for a coupon donated by local stores and for every 10 such trips they can enter a Grand Raffle with great prizes to be drawn at the end of the month. Following this they will administer a final survey to measure the impact of their campaign on reducing greenhouse gas emissions from student commute and then present their results.

**Thank you to all who are supporting Santa Rosa High School's eCO<sub>2</sub>mmute project!**

### **Funding support**

Community Foundation Sonoma  
County Schulz Fund,  
Donald & Maureen Green Foundation,

### **School Support**

Santa Rosa High School Foundation  
SRHS - Associated Students Body,  
Staff & Administration

### **Local Businesses**

2<sup>nd</sup> Wind Printing (T-shirts)  
NorCal Bike Sport/ the Bike Peddler

### **Community Partners**

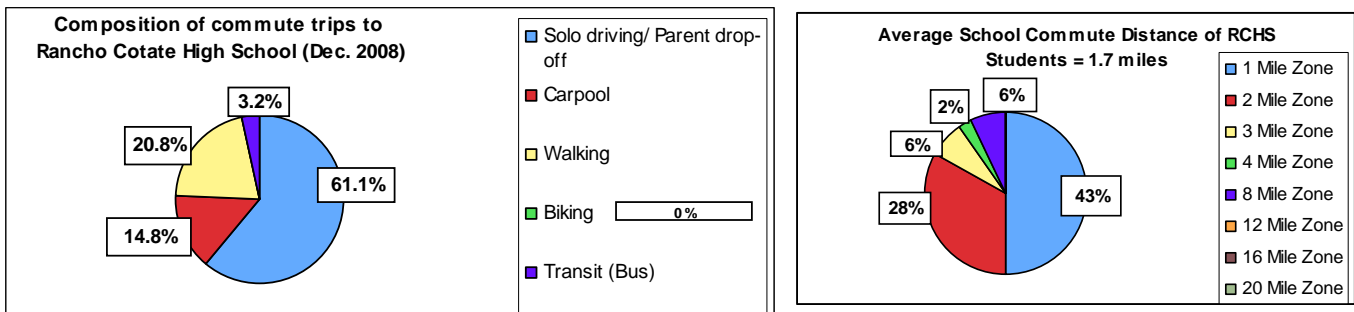
Sonoma County Bicycle Coalition,  
Santa Rosa Police Bike and  
Pedestrian Safety Program,  
Santa Rosa Transit,  
City of Santa Rosa

## RCHS students aim for 25% reduction in greenhouse gases from Rancho Cotate High School's student commute



Students from Rancho-Cotate High School's Future Business Leaders of America (FBLA) Club are leading the effort on reducing greenhouse gas emissions from student commute through the Cool Schools - eCO<sub>2</sub>mmute project, coordinated by the Climate Protection Campaign. They started the project in December 2009 by surveying the greenhouse gas impact of student commute and are currently planning activities to raise awareness on campus and move towards meeting their target.

### Results of the baseline commute survey



About 20,000 pounds of greenhouse gases are emitted per week from RCHS student commute.

### Education, Leadership and Action

In March 2009, the eCO<sub>2</sub>mmute team will be holding an event in partnership with another student club called SAVE (Students Against Violated Earth), which is leading the recycling project on campus. They will create a unique exhibit and display it in the school's central quad area. The goal of this exhibit is to depict - **a. the amount of CO<sub>2</sub> emitted from RCHS student commute and b. the importance of Reducing, Re-using and Recycling waste on campus.** They will use one week's collection of bottles and cans from the waste generated on campus to build this model.

The RCHS team is currently reaching out to local businesses requesting for incentives that can be offered to students. During April/May 2009, the eCO<sub>2</sub>mmute team will be tracking student commute for 3 weeks using "eCO<sub>2</sub>mmute stamp cards". They will offer incentives to students who participate by walking, biking, riding transit or carpooling to school at least 5 times during the month. For every 5 "eCO<sub>2</sub>mmute trips" to school a student can redeem their stamp card for a coupon donated by local stores and for every 10 such trips they can enter a Grand Raffle with great prizes to be drawn at the end of the month. A final survey at the end of their project will determine the impact of their campaign on reducing greenhouse gas emissions from student commute.

Thank you to the Federated Indians of Graton Rancheria and Coddling Enterprises for supporting this project.

**Cool Schools is grateful to the generous support of the following Donors, Foundation Grants, Sponsors and Partners who have contributed towards the success of this project.**

<ul style="list-style-type: none"><li>▪ Several individual donors from the community</li><li>▪ Teachers and students of all participating high schools in Sonoma County</li><li>▪ Several local businesses in Sonoma County who offer incentives to students as part of the project.</li><li>▪ Local print media and radio stations</li><li>▪ Bay Area Air Quality Management District</li><li>▪ City of Sebastopol</li><li>▪ Coddling Enterprises</li><li>▪ Community Foundation Sonoma County Schulz Fund</li><li>▪ Cool Agents Alliance</li><li>▪ Donald &amp; Maureen Green Foundation</li><li>▪ Flex Your Power Campaign</li></ul>	<ul style="list-style-type: none"><li>▪ Kismet Foundation</li><li>▪ Lipton family</li><li>▪ LITE initiatives, Sebastopol</li><li>▪ Safe Routes To School</li><li>▪ Santa Rosa Police Department</li><li>▪ Santa Rosa Transit</li><li>▪ State Farm Insurance Co.</li><li>▪ Sonoma County Air Quality Resource Team</li><li>▪ Sonoma County Bicycle Coalition</li><li>▪ Sonoma County Office of Education</li><li>▪ Sonoma County Transit Agency</li><li>▪ The Federated Indians of Graton Rancheria</li><li>▪ Town of Windsor</li><li>▪ Wells Fargo, Sebastopol</li><li>▪ West Sonoma County Transit</li><li>▪ West Sonoma County Union High School District</li></ul>
---	---

**We all have a role to play!**

- Students, teachers, parents, schools, business, media, government and the community at large - we all have a role to play in inspiring action in response to the climate crisis.
- Make your school a part of the transportation challenge.
- Initiate eCO<sub>2</sub>mmute in your school. This project can help reduce greenhouse gas emissions, save costs on transportation, as well as promote healthy living, safe commutes, biking and transit ridership, traffic decongestion and improved air quality for the entire community.
- You can begin teaching climate change through innovative methods in classrooms. eCO<sub>2</sub>mmute provides multidisciplinary learning opportunities in subjects such as statistics, maths, science, environmental studies, language arts, fine art and leadership.
- Get involved and take action now!



For further details please contact Cool Schools Program Coordinator, Climate Protection Campaign Maitreyi Siruguri - [maitreyi@climateprotectioncampaign.org](mailto:maitreyi@climateprotectioncampaign.org), 707-525-1665 (ext: 115)  
Visit our website: [www.climateprotectioncampaign.org](http://www.climateprotectioncampaign.org)