

Credo High School

One Planet Action Plan



September 2017

## *Message from the Director of Credo High School*

**One Planet Living is the framework used to formalize Credo's intention to help our students develop into environmental leaders of the future. With its ten guiding principle helping to address the needs of our planet, One Planet Living helps students (and teachers and families) begin to take action on environmental and social challenges in a discrete, manageable and focused way. At Credo, we believe in climate change and contemporary threats to the survival of our Earth as we know it; One Planet Living is a manageable approach to reduce overwhelm and take specific actions towards securing the environmental (and social) health of our planet. Instilling One Planet understanding and values in our students over the four years of high school gives them the knowledge, agency and, hopefully, passion to disseminate those values as they go out into the world after high school**

**Credo High is a Public Waldorf school, and a core component of Waldorf education is the intention to develop students' understanding of their place in, and connection to, the world. This begins with family, extends to classmates, the school as a whole, the local community, the geographical region, political entities (state, federal), the world, galaxy and universe. A comprehensive history curriculum connects students to the past, and, by high school, Waldorf students are also looking actively toward the future. Connection extends beyond humanity to the natural world through nature stories, animal studies and farming in the early grades, to botany, environmental science, ocean ecology, astronomy and, hopefully, One Planet Principles in the Waldorf high school. Waldorf students are taught to be compassionate and care-giving, and One Planet Living helps to direct these qualities toward the environmental health of our planet. At Credo, we regard our students as leaders of the future; as such, they will need a depth of capacity, caring and confidence to address the pressing environmental needs of our planet.**

**Perhaps the greatest perceived challenge is the likely expectation that adopting One Planet Principles is an "add on" to an already full and comprehensive curriculum. In fact, One Planet Principles can become an organizing force for the many diverse activities that already occur in a Waldorf school. For example, festivals fit nicely into the Health and Happiness principle; farming curriculum fits naturally into Local and Sustainable Food.**

**Generally, teenagers, especially those who have grown up in Waldorf education, share a concern about the wellbeing of our planet. They have a direct connection to nature and wildlife, and they care deeply about the other human beings in their lives and humanity as a whole. They want to be helpful contributors to the environmental and social health of our planet and its variety of inhabitants. Their concerns can be daunting and overwhelming. Being a One Planet School gives them hope and the means to take action in a manageable, step-by-step way.**

# Credo at a Glance

Founding year	August 2011
Type of school	Public Waldorf, College-prep School
Current number of students	339
Founder and Director of School	Chip Romer
School website	<a href="http://www.credohigh.org">http://www.credohigh.org</a>
One Planet IG account	OP_credohigh

In March of 2016 Credo moved campus and is now located within the One Planet Community of SOMO Village in Rohnert Park. This is a major asset and will help Credo achieve the targets set out in this One Planet Action Plan. Students have the opportunity to connect with the wider SOMO Village community to make progress on their shared targets and key performance indicators. This will be beneficial, not only for Credo but also for SOMO Village.

From the school's inaugural day, Credo has held a strong belief and mission to prepare students as leaders of the future. Credo began in 2011 and has focused on educating students to use resources wisely and create healthy relationships with their surrounding communities. Credo cites five tenets of sustainability which have been integrated throughout the curriculum and school values.

- **agricultural sustainability** through science and yearly Farming and Food Literacy classes, including biodynamic farming;
- **environmental sustainability** through Environmental Science classes, our school Eco Council, partnerships with Sonoma Mountain Village and One Planet Communities, and designation as Sonoma County's only public school to have earned certification as a Green Business by the County Supervisors;
- **economic sustainability** through Financial Literacy classes and partnerships with Sonoma County GoLocal and social finance organizations;
- **social sustainability** through weekly classes that deliver a social-emotional learning curriculum, and through service learning locally and beyond; and
- **personal sustainability** through a weekly Personal Sustainability class that includes personal reflection and addresses the developmental needs of growing teens

*(Source: Credo High School Website)*

## Explicit challenges Credo faces in this action plan

As 2017-2018 will be the first year Credo completes at the new campus location within SOMO Village, there are no quantifiable benchmarks for water or energy use, nor waste or travel emissions. With this said, as a SOMO Village tenant, Credo must use the One Planet guidelines set out in their Action Plan. These guidelines ensure buildings are retrofitted to operate efficiently and sustainably.

### Demographic diversity

In the academic year of 2015-2016 there were 71,131 students in Sonoma County, kindergarten through 12th grade. Of these students, 44% came from economically disadvantaged backgrounds, and Hispanic/Latino students made up 45%, with white students making up the second largest group at 44%.

The demographics of Credo in 2014-2015 are shown in the table to the right and show a lack of diversity within the student body. The percentage of students coming from economically disadvantaged backgrounds is also well below the county average at 28%.

Student Group	Percent of Total Enrollment
Black or African American	4.7 %
American Indian or Alaska Native	3.1 %
Asian	1.5 %
Filipino	1.0 %
Hispanic or Latino	20.0 %
Native Hawaiian or Pacific Islander	0.0 %
White	69.8 %
Two or More Races	4.3 %
Socioeconomically Disadvantaged	28.0 %
English Learners	0.0 %
Students with Disabilities	1.0 %
Foster Youth	0.0 %

While Credo strives to increase its socioeconomically disadvantaged population, the school was founded to continue the Public Waldorf education of students from six specific regional K-8 Public Waldorf schools, and students from these schools receive priority admission. Credo will continue to work with its feeder schools to help them build ethnic, cultural and socioeconomic diversity.

### Commuting community

As mentioned above, the majority of Credo students come from six specific K-8 public Waldorf schools in the neighbouring communities. Parents send their children to Credo because it is the only way they can afford Waldorf high school education and this means that some students come from 50 miles away.

Students and staff that live close enough to walk or ride are often challenged by roads with no sidewalks or shoulder/bike lanes.

To address this challenge, Credo will be working closely with ECO2schools, a local organization who specializes in calculating schools carbon footprint from transportation specifically. The

organization also creates a visual map to help students find a carpool and analyses the infrastructure surrounding the school to help students find safe walking/biking routes.

Additionally, for the next two years, the whole school community will take a transportation survey at the beginning and end of each year. Further actions will be added to the travel and transport section of this action plan once the first survey is complete, a baseline has been documented, and behaviour patterns and incentives are better understood.

Overview

Year 1: 2017-2018	This will be the first complete year in the new campus at SOMO Village. The One Planet leadership team will connect with SOMO Village’s management team to better understand how the wider community operates. One Planet Captains, specifically zero waste, zero carbon, travel and transport and sustainable water, will work towards gathering baseline information, comparing results to regional data and will set quantifiable targets and actions to meet or improve upon them.
Year 2: 2018 - 2019	The One Planet Leadership team will work with SOMO Village and the Credo community to make progress towards meeting targets informed by regional data and baselines documented from findings in year 1 of Credo’s Action Plan.
Year 3: 2019 - onwards.	The One Planet Leadership team will continue to work with SOMO Village and the Credo community to make further progress towards meeting targets informed by regional data and baselines documented from findings in year 1 of the Action Plan. Activities, events and challenges will be reviewed by leadership team from year two with the goal of improving community engagement and participation to make a bigger impact.

## One Planet Leadership Team at Credo

### What is the One Planet Leadership team?

The students and staff listed below are passionate about One Planet Living and have chosen a principle to represent and strengthen for the whole school community. The students attend a One Planet class twice a week, help to organize events and make progress on Credo's Action Plan. For a full list of their responsibilities, please see appendix no 1.

Principle	Credo Teacher/Staff	Students
Health and Happiness	Paul Lambrecht, Kelley McNeal, George Welp, Vanessa Eyen	Davi Formato (12) Nevin Wolfe-Sallout (11) Zarah Saporito (12)
Equity and Local Economy	Chip Romer, Andrea Akmenkalns	Indika Halferty (11) Derek Bayless (12)
Culture and Community	Maria Bragonier, Robert Harrington	Audrey Hecker (12) Max Holden (11)
Land and Nature	Tiffany Roberts, John O'Mara	Elliot Overmeer(11) Zoe Stapp(11) Jasper Caddell (10) Max Keetch (12)
Sustainable Water	Tiffany Roberts, Julian Shaw	Bailey Holland (12) Brenna Stevens (11) Nolan Crichton (11) Chloe Madden (10)
Sustainable Materials	George Welp	Janelle Barraza (12) Amelia Malpas (12)
Local and Sustainable Food	Kelly McNeal, John O'Mara, John Hinkle	Noelle McCoy (12) Kevin Terlizzi-Bowes (12) Kamryn Conway (10) Shayla Rose-Brown (10) Sofia Stopeck (12)
Sustainable Travel	Emma Farais	Kaya Thunan (10) Coral Utnehmer (10)
Zero Waste	Brian Eberly	Kyle Conway (12) Amelia Stock Cummings (11)
Zero Carbon Energy	Julian Shaw	Julia Anderson (10) Fiona Jacobsen-Sarter

# Credo's One Planet Action Plan

Credo's One Planet Action Plan has been worked on by the school's leadership team listed above, the Director of Credo, Chip Romer, the Curriculum Director, Thom Schaefer, Karen Eggerman from SOMO Village and Marika Ramsden, the Bioregional representative for One Planet Schools. It follows the structure suggested in the [One Planet Goals and Guidance Document for Schools](#).

Each principle starts by listing the One Planet leaders, both staff and students, who are responsible for tracking progress and creating events for their chosen principle. The context is explained for each principle before setting three targets to ensure the principles live in the school's *community events*, *taught curriculum* and *campus operations*.

**\*Community events** Credo puts on numerous events for students and their families as well as the wider local community. By bringing the 10 principles into these events and activities Credo is raising social and environmental awareness for a population well beyond its 339 students.

(\*defining community - throughout this document, 'community' is used in two ways: school community and wider community. When 'school community' is used, it refers to students, teaching staff, administrations and maintenance staff. When the 'wider community' is referred to, this includes: families of the students, SOMO Village, local businesses and organizations and the general public).

**Taught curriculum** Credo understands that, as a school it has the responsibility to educate future generations to learn to live healthily within what this planet can naturally provide and to prepare students with the practical skills, awareness and knowledge to do so. Classes that help to do this are highlighted in this Action Plan.

**Campus Operations** School communities can be an influential example for students of how larger communities can function. If a school can help educate students to understand the importance of recycling, waste reduction, water and energy conservation and help the students get into the habit of practicing these, when the students graduate they will take these practice with them and have them for the rest of their lives.

By setting targets for these three aspects of the school, the One Planet initiative is less likely to be an 'add on' and can be deeply integrated into the school's foundation.

*Key Performance Indicators (KPI's)* are listed to show how progress will be measured to meet the targets. The *management process* further explains the tracking of the KPI's. The actions that contribute towards set targets are shown in table 1. in each principle section. Table 2. references the One Planet Action Plan from SOMO Village (published in 2016) to highlight potential collaborative events, actions and projects.

As 2017- 2018 will be the first complete year Credo will be in their new campus at SOMO Village, there will be a focus on collecting baseline measurements per student for the following key performance indicators: water use, energy use, CO2 emissions from transportation, waste and serving an increasing number of students coming from economically disadvantaged communities. By using these baselines and understanding the factors that contribute to them, further action items can be created to effectively meet the targets set.

Credo's One Planet Action Plan will be the first in the world written by and for a school. In September of 2017, Credo will send a postcard to 1,200 Waldorf schools around the world to celebrate 100 years of Waldorf education. The postcard will be decorated with the One Planet Principles and will explain what it means to be a One Planet School. Credo is leading the way with the hope that this will generate great interest and action from other schools to follow and create their own One Planet Action Plans.



### Management Team:

Students: Davi Formato, Nevin Wolfe-Sallout and Zarah Saporito

Staff: Paul Lambrecht, Kelley McNeal, George Welp, Vanessa Eyen, Administrators and Educational Director

### Context

Credo High School is located in Sonoma County, California, which is home to progressively minded communities who have contributed to declining waste sent to landfill, reduction of water use per capita and declining GHG emissions over the past 15 years.

The Environmental Protection Agency studies quality of life by examining commute time, good air quality and the percentage of high school graduates. The graph to the right shows Sonoma County above the State average and ranking high amongst other similar Californian counties.

Credo is a tuition-free public Waldorf high school. Waldorf schools have a strong emphasis on developing the whole child and teach classes that require engagement from the “head, heart and hands.” Students learn to garden, blacksmith, paint, and work with wood and fabrics alongside their college-prep academic classes and regular physical activity. At Credo, all students take Social Sustainability and Personal Sustainability classes, which help them understand topics like gender and racial inequalities and ask them to reflect on their own upbringing and opinions to understand themselves on a deeper level.



Credo has a population of 339 students; the teachers know the students well and can create strong supportive relations with them. The school is predicted to grow to an average of 600 students in the coming years, and the challenge will be to maintain teacher-student connections and the feeling of a small supportive school.

The Credo curriculum emphasizes the importance of healthy living by building movement classes into the student's daily schedule. The school also provides classes that address healthy nutrition and diets which complement the student's knowledge of growing their own food.

**Target 1 - Campus:** maintain and continuously improve a learning environment that is safe and promotes health and happiness for students and staff.

**Target 2 - Community:** create events that help to bring the community together, strengthening connections and support for one another.

**Target 3 - Curriculum:** ensure the curriculum promotes the development of the whole-being of the student, valuing diversity of individual ways of learning and giving students the opportunity to develop not just intellectually, but physically, spiritually and socially.

**Key Performance Indicators:**

- Analyse results of the Healthy Kids survey that will be taken annually by the student body.
- Take attendance for One Planet events that happen throughout the year.
- Read evaluations from curriculum courses to make sure the material is meeting and engaging the students, and connect course content to OPL Principles.

**Management Process:**

Administrators will track results from the Healthy Kids survey and share these with the rest of the faculty so that a healthy, happy and safe school experience and environment can be maintained. Special attention will be paid to questions that enquire about caring relationships between students and teachers, student opportunities will be presented for meaningful participation and high expectations will be set for students. These areas have been chosen by Thom Schaefer, Curriculum Director at Credo. The Healthy Kids survey also helps the school community gain insight and address the challenge of growth in the coming years. The Health and happiness captains on the One Planet Leadership Team will track attendance at One Planet events and make sure the action plan is kept up-to-date. The Health and happiness captains on the One Planet Leadership Team will also create their own survey to make sure the curriculum is engaging and meeting the students’ needs and interests.

**Action Plan**

Related Target (T)	Description of actions	Connecting principles
T2	<b>1. Counseling program:</b> Credo has developed a counseling program and students have access to speaking with a professional if they are in need of social and/or emotional support.	Culture and community
T2	<b>2. Personal sustainability:</b> Each year all students attending Credo take part in a weekly Personal Sustainability class. In these classes, students are invited to share their personal life experience as the curriculum touches on substances, relationships, social media addictions, stress and other personal topics.	
T2	<b>3. Social sustainability:</b> Each student is a part of a cohort with two mentors. Students stay with this cohort for the four years that they are at Credo and have weekly social sustainability class, in which inequalities in our society are discussed. Cohorts also do team challenges and go on annual adventure learning trips together so they can strengthen connections and friendships.	Culture and community
T2 and T3	<b>4. Mindfulness classes:</b> Credo will introduce Mindfulness-Based Stress Reduction classes to the senior class in 2017. It plans to expand this option to the whole school and staff in the future.	
T2	<b>5. Healthy Kids survey:</b> This survey is administered every year in social sustainability class. It gives staff members insight into the student experience at school and at home. The results are shared in a staff meeting, and teachers discuss how they can help improve the students’	Culture and community

	feeling of safety and general health and happiness.	
T1	<b>6. One Planet Community/SOMO Village:</b> Credo students and the SOMO management team will partner to improve the campus and community by removing lawns, planting native species and working together to create beautiful art displays.	Culture and community, Land and nature, Zero waste
T1 and T2	<b>7. Staff and student survey:</b> Health and happiness captains will explore the possibility of putting together their own survey for the students, staff and teachers. These questions will be created by the students but will focus on satisfaction with Credo as a whole.	
T2	<b>8. Student activity:</b> Health and happiness captains will put together at least one activity per month to bring joy to the community.	Culture and community
T3	<b>9. Movement classes:</b> All students take part in movement classes for all four years at Credo. These classes include PE, yoga, eurythmy, aikido, qi gong, fencing, archery and dance.	

<b>SOMO Village-related action items for Health and happiness from OPAP Version 2.0.</b>	<b>Credo OPAP No.</b>
2. Explore potential bus shuttle, bike path and other physical links between SOMO Village and Sonoma State University.	
3. Work has been done to determine the types of facilities and services desired on-site. The plan for the market square is periodically reviewed with respect to appropriateness for a wide range of events. Our event center welcomed 35,000 visitors in 2015. Our concert venue attracted 11,000 people to six concerts in 2015. BCV Architects (SF Ferry Building) have been engaged to re-vamp the event center. We continue to identify appropriate festivals and events for various cultural groups on-site.	
4. Review principles of new urbanist pedestrian experience with current design team. Address impacts on signage, energy, landscaping, etc. The “walkability” of the community is extremely important, and this experience is best when community spaces are comfortable, safe, beautiful, interesting and happy. The bike-pedestrian path from SMART train station reflects these principles.	
8. Use extensive daylighting everywhere. Where feasible, employ new “skylight” technologies that are easy to maintain and do not mold. Set a design guideline for “light on two sides of a room” for residential spaces.	
9. BKF and JZMK to review street crossings for child safety, especially on major route to school. (See current site plan)	
10. Review amenities plan for appropriate mix and location of services, e.g. – daycare near to places of work to allow midday visits, affordable family-friendly gym, yoga, wellness center, retail stores, restaurants, cafes, grocery stores, hotels, health clinics, sport facilities, martial arts studios and more.	
12. Create places for teenagers, modeled on other successful locations. Study successful examples and review the site plan for appropriate spaces.	

<p>16. Set up a program for sustainability education, with components potentially including students trained as “park rangers” for visitors, visitor education and tours, Sustainable Living courses, visiting educators, and printed and web information on how to live sustainably at SOMO Village.</p>	
<p>20. Plant oak trees where possible, recognizing their need for very large root zones and their poor growth in clay. Consider other species that will thrive in a hotter, drier climate. For details, see Habitat.</p>	



## Equity and local economy

Creating safe, equitable places to live and work which support local prosperity and international fair trade.

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**Management Team:** Students: Indika Halferty and Derek Bayless  
Staff: Chip Romer, Andrea Akmenkalns and admin

**Context:** Credo High School, a Certified Sonoma County Green Business member, is located in suburban Rohnert Park, in Sonoma County. Sonoma County is a leader in sustainable business practices. Credo provides a tuition-free public Waldorf education and offers to help families afford schools trips and buy school supplies if they are in need of financial assistance. In the academic year of 2015-2016, 28% of the attending students came from socioeconomically disadvantaged backgrounds.

The school is located in the multi-use community of SOMO Village in which there will be residential areas and businesses. In the future these businesses could provide the students with access to internships and work experience on site.

**Target 1. Campus:** Follow guidelines from the social and environmental purchasing policy for Credo when purchasing school products and educate school community on this policy.

- a) Prioritize products from local companies or shortest distance away
- b) Products made with renewable resources and/or post-consumer products
- c) Avoid products with excessive packaging, even if the packaging is recyclable
- d) Support businesses that have made it a priority to be social and environmentally consciousness and have gone through a certification process i.e. B-corp and Fair Trade

**Target 2. Community:** Provide a free and equitable education experience to all students attending Credo ensuring activities, meal programs and trips are accessible to all students especially those coming from underserved communities.

**Target 3. Curriculum:** Help students understand economic inequalities on a global and local level and alternative models of sustainable business practices.

### **Key Performance Indicators:**

- Track paper use and cost so we can reduce consumption until Credo can afford more sustainably sourced paper that abides by the One Planet purchasing policy.
- Increase the percentage from 28% of students attending Credo coming from underserved communities.
- Connect students with local organizations and companies that exemplify sustainable businesses practices and culture.

### **Management Process:**

In year one, Equity and local economy captains will work closely with Materials and products captains as well as Andrea Gregory in the office to track paper purchasing over the year. They will update the action plan with total cost and quantity every trimester. Staff and student workshops will be given to explain how to use Google docs and reduce printing needs.

Work with Matthew Smith (Credo’s new student community service coordinator) to create a One Planet community service program for students. Help place students in companies representing different One Planet Principles and track number of students opting for this choice and number of hours volunteered.

### Action Plan

Related Target (T)	Description of actions	Connecting principles
T1	<b>1. Purchasing policy:</b> Equity and local economy captains will work closely with the administrators to help make sure the purchasing policy is observed wherever possible.	Zero waste
T1	<b>2. Online Store:</b> Equity and local economy captains work with Materials and products captains to create an online store with links and descriptions about sustainable products and businesses.	Materials and products
T1	<b>3. Back to school supply list:</b> Equity and local economy captains work with Materials and products captains to create a “back to school” supply list to send out at the beginning of each school year.	Materials and products
T1	<b>4. Paper use reduction program:</b> Administrators and office staff track quantity and cost of paper ordered for the school each year. Materials and products captains will research sustainable paper companies to purchase paper from in the future.	Land and nature, Materials and products
T1	<b>4a. Google classroom:</b> Equity and local economy captains host student/teacher sessions to problem-solve ways to reduce paper use at school and get teachers and students to use Google classrooms.	Land and nature; Culture and community
T3	<b>5. Volunteering:</b> Every student volunteers 20 hrs/year to a local community organization or nonprofit. Administrators and teaching staff will help students find placements that will help educate students about running a business in a sustainable way.	Culture and community
T1	<b>6. Student council:</b> Equity and local economy captains will join student council meetings to help direct funds to support sustainable economies.	Culture and community
T2	<b>7. Reduced lunch program:</b> Offer a reduced lunch program for students coming from financially disadvantaged backgrounds.	Culture and community
T2	<b>8. Increasing diversity:</b> Track number of Credo students coming from disadvantaged backgrounds and work with feeder schools to help them build ethnic, cultural and socioeconomic diversity in their own school populations.	Culture and community
T3	<b>9. Sustainable businesses:</b> Create curriculum that explores innovative, sustainable and closed loop businesses practices and compares them to the current linear models of nonrenewable resource extraction and waste.	Land and nature

T3	<b>10. Sustainable economics:</b> Create a curriculum that requires students to research the inequalities around the world using the Sustainable Development Goals as a foundation.	Culture and community
T2	<b>12. GoLocal Member:</b> Maintain Credo membership in GoLocal, a community based nonprofit that promotes spending within local and locally owned businesses.	Culture and community

<b>SOMO Village-related action items for Equity and local economy from OPAP Version 2.0.</b>	<b>Credo OPAP No.</b>
1. Created the onsite non-profit small business incubator, SOCO Nexus, focused on generating high quality jobs in sustainable resources and social justice. Make-A-Thon and Innovation Summit are events creating awareness of and opportunities for new enterprises.	
7. Identify disadvantaged groups (e.g., farmers, long-term unemployed people, the elderly, people with disabilities and illnesses, ex-prisoners) and create a written plan for employment outreach to this segment.	



## Culture and community

Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living.

**Management Team:** Students: Audrey Hecker, Max Holden,  
Teachers: Maria Bragonier, Bob Harrington

**Context:** Sonoma County has a wonderfully diverse cultural history (Pomo and Coast Miwok communities, which thrived in the area, Russian and Italian immigrants who settled in west Sonoma County, and the Spanish Mission founded in the Sonoma Valley). Today, the county is inhabited by a primarily white population with a median age of 44 years old.

There are prevalent locally-run festivals and celebrations including the Sebastopol Gravenstein Apple Fair, Petaluma's Butter and Eggs Day, Healdsburg's 4-H Parade and Fair, Bodega Bay Fisherman Festival, and numerous wine festivals. Local musical events such as Green Music Center's Bluegrass Festival originate at Cotati Inn of the Beginning, where artists Arlo Guthrie, Neil Young and Crazy Horse, Van Morrison, Carlos Santana, Janis Joplin and The Grateful Dead all played.

Rohnert Park itself was founded on what used to be the Rohnert Seed Farm site, a major horticultural success in Sonoma County. The original city plan in 1954, the first planned city in California, depicted the "neighborhood unit" concept of clustering single-family homes around schools and parks, very similar to the current SOMO Village layout minus the inclusion of commercial components (i.e. businesses) that is included in the SOMO Village arrangement.

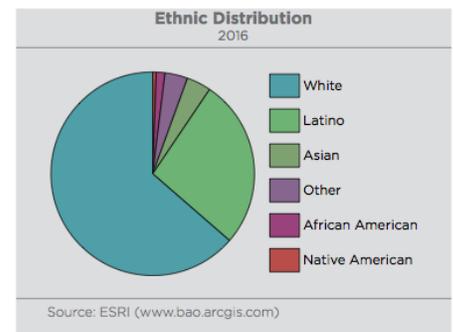
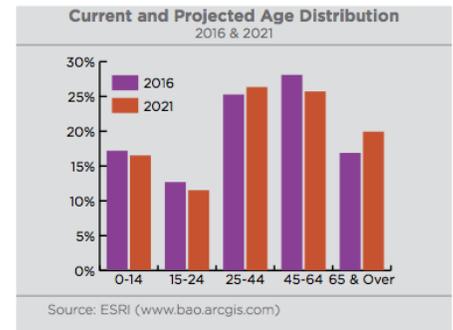
**Target 1 Campus:** Use the campus to bring the community together and strengthen community connections through One Planet cultural events and activities.

**Target 2 Community:** Connect students and staff with the wider SOMO Village community to collaborate on art projects, One Planet activities and events that celebrate cultural heritage.

**Target 3 Curriculum:** Ensure curriculum helps students understand their own heritage as well as the history and development of diverse cultures and communities around the world.

### Key Performance Indicators:

- Display art around the campus throughout the year that celebrates a diverse range of cultures as well as the heritage of the school's current location.
- Record at least three stories per year from the collaborative work on art projects, events and One Planet activities.
- Ensure all students learn a foreign language and about the history of the US, their heritage, Native American history and other world cultures.



### Management Process:

All Credo students must take Spanish or Mandarin languages classes, and United States and world history classes to graduate. SOMO Village/Credo collaborative projects, events and activities will be recorded and added to the action plan. Teachers will be encouraged to display the work of their students when it relates to diverse cultures and their own.

### Action Plan

Related Target (T)	Description of actions	Connecting principles
T1	<b>1. Workshops and parent evenings:</b> Host a One Planet workshop for parents (and staff) who are interested in learning more about bringing the ten guiding principles back into their own homes.	
	<b>2. Credo application:</b> Ensure all prospective students learn about One Planet Living by answering a question in their Credo entrance application that asks them which principle they are most connected to and why.	
	<b>3. Curriculum mapping:</b> Map the curriculum at Credo by including a One Planet question on each course evaluation sheet that the students fill out. The question will inquire which One Planet Principle the students felt the course most related to and why.	
T1	<b>4. One Planet display board:</b> Create a One Planet display board where all events can be posted and One Planet art pieces can be displayed.	
T3	<b>5. One Planet pen-pals:</b> Connect foreign language classes with students in Spanish speaking countries or provinces in China speaking Mandarin, as well as Waldorf schools around the globe. Have the students discuss their lifestyle routines and community challenges as they relate to One Planet Living.	
T1	<b>6. One Planet assemblies:</b> Each month celebrate a new principle and host a speaker to present at an all-school assembly to help educate and inspire the student body.	
	<b>7. One Planet portfolios:</b> Create the One Planet track program and introduce it to the Ninth Grade so they can start to create their One Planet portfolios and develop it over their four years at Credo, and beyond.	
T1	<b>8. Extended families:</b> Have every student at Credo choose a principle to learn about. One Planet captains will host lunchtime meetings when needed to plan for events and activities and involve the students (their extended family) signed up for their principle.	
T1	<b>9. One Planet movie nights and lecture series:</b> Host at least four movie nights for the school community over the course of the year.	Health and happiness
T2	<b>10. Story map:</b> Have students work with SOMO Village to create a digital story map so they can learn how to also make one for Credo.	
T2	<b>11. On-site artwork:</b> Connect student artists to SOMO Village to help	

	with creating on-site art work displays including sculptures, living walls and paintings.	
T2	<b>12. Student performances:</b> Every year Credo invites the wider community to 4-6 student theater productions and eight concerts.	
T1	<b>13. Parties and celebrations:</b> Credo hosts three student dances per year, one parent dance party and a community block party to celebrate the end of the year.	

<b>SOMO Village-related action items for Culture and community from OPAP Version 2.0.</b>	<b>Credo OPAP No.</b>
1. Case Study: Create a digital “story map” that becomes the living memory of SOMO Village. Collect history of site (Miwok and Pomo, seed farm, rail), particularly the farming history of the area pre-SOMO Village. Begin assembling and documenting stories. Launch website in 18 months, and update and continue story as community grows.	10
3. Local high school art students have been hired through the Artstart program to create on-site artwork. Local artists Caleb Haye, Brianna Rochelle and Randall Jahn have art installations at SOMO Village including a living wall, sculpture and paintings. Consider commissioning a mural to show Rohnert Park’s history.	11
4. Make nature visible (e.g., rain gardens, swales, areas where leaves are left on the ground, etc.). Prepare a master “nature” plan based on the urban design plan that shows all areas of visible nature. Ensure that nature will be visible from every house, shop and office.	
5. Case study: SOMO’s event center hosts local festivals, markets and celebrations. There are events weekly at the site. Eventually SOMO Village is planning one local festival each month, and a farmers’ market at least once per week after people begin living on-site.	6, 9
8. Create a community-oriented culture with a high degree of community input on the project and future community processes. Create a community-based website. Implement online response capability to community-generated ideas within six months of website launch. Research homeowners associations and other community structures for models of collaborative and progressive community life, and create documents for CC&Rs based on this research.	
9. Provide public art that references historic Miwok and/or Pomo cultures as well as the current “eco-culture.” Research native cultures. Find, interview and select a local artist who has experience creating historic, contemporary and/or ecologically-based public art.	
12. Honor the history of Rohnert Park as a seed farm. Provide space on the master plan for a community “seed nursery” that designates habitat for endangered local heritage fruit and vegetable species. Support an educational program to guide the planting, maintenance and harvesting of the seed nursery; Farmster and the Petaluma Seed Bank are potential partners.	

13. Become a destination on the local "ArtTrails" program. As a sponsor of public art, SOMO Village invites community members and visitors to enjoy the work of local artists in a beautiful setting.	
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### Management Team

Students: Elliot Overmeer, Zoe Stapp, Jasper Caddell, Max Keetch

Staff: Tiffany Roberts, John O'Mara

**Context:** Credo has moved onto the site of a former Hewlett Packard research and development facility, and much of the surrounding land is irrigated lawn or uncultivated fields. Plans to develop this land into residential property, sports fields and more commercial space are underway. The One Planet Action Plan of SOMO Village includes a habitat conservation plan, which commits to “only planting native plants, restoring native habitat or pre-developed water bodies or wetlands on project site in an area equal to or greater than 10% of the development footprint.” SOMO Village will ensure 15% or more of the property is park land and 5% is left as open space. Cited directly from the SOMO Village One Planet Action Plan published in 2016, the following paragraphs give insight to the wildlife living in the local area that surround Credo High School.

*“Our site is home to a fairly small number of large animal species, but the types of species are important because the mix is different than that found in the surrounding developed areas of Rohnert Park and Cotati. Nearly all the bird species on-site are ground-feeding (e.g., California Quail, American Robin, California Towhee, Kildeer, Meadowlark and the Lesser and American Goldfinches). A few other species frequent the wetland area—notably the Song Sparrow and Red-Winged Blackbird. The California Tiger Salamander is the only known endangered species to inhabit the area, with a jurisdictional breeding area less than a half-mile from the western edge of the site. Kit fox are known to exist in the region, although none have been sighted at SOMO Village. Occasional sightings of deer, jack rabbits, geese, turkey and possum occur on and around the site.*

*The U.S. is experiencing a significant decline in pollinator insects, and plans for the site should address this.*

*Worldwide, migratory birds and nocturnal animals are losing habitat and experiencing disorientation and breeding challenges because of light pollution and predation by house cats.”*

**Target 1 Campus:** To ensure a positive contribution to local biodiversity and the health of the ecosystem on campus.

**Target 2 Community:** Host at least four events throughout each that bring the community together to participate in taking care of our surrounding land and native wildlife.

**Target 3 Curriculum:** To provide educational experiences, activities and curriculum that will help students find personal connections to nature and foster an understanding of its great value in their lives.

### Key Performance Indicators:

- Record number of native species on site every year, finding a baseline number in year one.
- Document all four events that are organized by Land and nature captains and involve the wider community in meeting Target 1 from this principle.
- Ensure every class goes on an outdoor adventure trip every year.

**Management Process:** One Planet leaders will monitor and record data for native species and will perform these tasks twice a year, updating the action plan. This can occur in collaboration with Credo botany classes. Pictures and descriptions of the organized events will be posted on social media platforms (OPS Facebook, Instagram and Credo Facebook).

At the beginning of every year, students go on an adventure learning trip with their class. These trips are three to four days spent either kayaking, backpacking, rock-climbing or on a solo trip in the wilderness.

**Action Plan**

Related Target (T)	Description of actions	Connecting principles
T1	<b>1. Increasing diversity:</b> Work with SOMO Village to increase diversity of trees and plants on-site and remove invasive species.	Culture and community
T1	<b>2. Zero pesticide:</b> Commit to SOMO Village’s expanding policy of zero pesticide use.	Culture and community
T1 and T3	<b>3. Biological assessment:</b> Connect Land and nature captains with SOMO Village when they perform their biological assessment of the entire site.	Culture and community
T1	<b>4. Riparian corridor:</b> Have students work with SOMO Village landscapers to restore the riparian corridor along the western edge of the property.	Culture and community; Sustainable water
T3	<b>5. Environmental science:</b> All students take environmental science classes in their first year at Credo.	
T3	<b>6. Climate change:</b> All students take a climate change block as their first class at Credo that introduces what it means to be a part of a One Planet school.	Zero carbon energy; Travel and transport
T2	<b>7. Events:</b> Organize and invite the community to engage in tree planting, invasive species removal, native plant planting, trash cleanups and lawn removal events.	Culture and community
T2 and T3	<b>8. Acquiring restoration skills:</b> Connect students with outside organizations who can give them conservation/restoration knowledge and skills.	Culture and community

SOMO Village-related action items for Land and nature from OPAP Version 2.0.	Credo OPAP No.
1. Continue and expand the policy of zero pesticide use by SOMO Landscape. Only non-toxic, organic sprays are used on-site currently.	2
2. Implement a policy to use mainly native plants and only drought-tolerant. Clearly this connects with Sustainable water but also with Zero waste because of the significant reduction and even elimination of pruning, mowing and cutting for low water plants.	7

3. Increase diversity of trees and plants on-site and remove invasive species.	1
4. Perform a biological assessment of the entire site, noting areas of unusual habitat and quality to protect or mimic, and areas of special concern to restore. Include an inventory of all important species. This study will also include a survey of the natural history of the region so that restoration efforts can be informed by the pre-settlement conditions.	3
5. Create a restored riparian corridor along the western edge of the site to connect the existing wetland with the planned restored habitat in the southern portion of the site. Show area as riparian corridor on next plan update.	4
7. Promote backyard wildlife habitat – in the development plan and supported by resident education, contests and garden tours. Consider how the site plan supports this goal or hurts it, and adjust accordingly. Also consider implementing a system of allotments, ala the U.K., in which each household has access to a small plot of land to garden in a common area.	
9. Currently creating apiaries and butterfly gardens on inaccessible green roofs.	
10. Using only native plants, restore native habitat or pre-development water bodies or wetlands on the project site in an area equal to or greater than 10% of the development footprint and remove any invasive species on the site. Protect such areas from development in perpetuity by donating the land to the city of Rohnert Park.	7
11. The SOMO Village Parks Plan creates a 10-year management plan for on-site native habitats and their buffers. It also establishes a guaranteed funding source for management. Involve at least one person from a natural resources agency, a natural resources consulting firm or an academic ecologist. The plan will include biological objectives consistent with habitat conservation, identify procedures for maintaining the conservation areas, estimated implementation costs and funding sources, and threats that the project poses for habitat within conservation areas (e.g., introduction of exotic species, intrusion of residents and pets into habitat areas) and measures to substantially reduce those threats.	8
12. Include “green screens” or other kinds of vertical landscape elements in the architecture and landscape plan.	
13. SOMO Village’s California Tiger Salamander habitat restoration plan is ready to submit for formal application. The plan allows SOMO to acquire fee title or conservation easements on off-site land and ensure protection of the land from development in perpetuity, or establish a joint habitat restoration program with Fish & Wildlife on-site. Any conservation land must be within 200 miles of the project, and must be identified by a local, state, or national government as important for conservation for natural or cultural purposes.	
14. Create bird nesting and bat roosting boxes. Include raptor roosts near open space.	



## Sustainable water

Using water efficiently, protecting local water resources and reducing flooding and drought

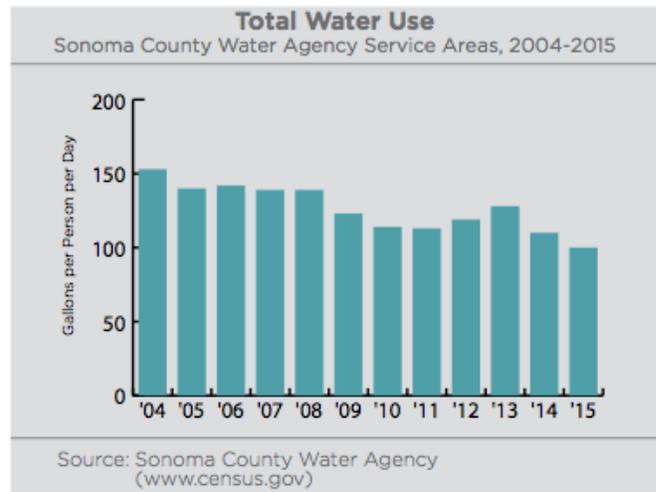
### Management Team

Students: Bailey Holland, Brenna Stevens, Nolan Crichton and Chloe Madden

Staff: Tiffany Robert, Julian Shaw

**Context:** In 2017, after a winter of above-average rainfall, California is 77% free of drought. Although Sonoma County, served by Sonoma County Water Agency (SCWA) is not immediately facing drought conditions, California has been in drought for the last five consecutive years, so it is still wise to find ways to reduce water use in preparation for future years.

In Sonoma County the average person uses 110 gallons per day with a visible decrease in use since 2014. Decrease in use is due to communities responding to drought conditions. The county's average per capita use is above the state average of 86.8 gallons per day in 2016 as reported by the California Water Board. With the targets set by SOMO Village for water efficient appliances (see table below), the average use for staff and students will be below the county's average.



SOMO Village sits in the Russian River watershed and between Lichau and Copeland Creek and gets its water from the SCWA, one of the largest energy users in the county. SCWA now operates using Sonoma Clean Power and is a carbon-free water system.

**Target 1 Campus:** Ensure all measures are taken to reduce water use and reuse water within and around the campus wherever possible.

**Target 2 Community:** Support the creation of a water program involving students which will help parents install a laundry-to-landscape system.

**Target 3 Curriculum:** Educate the school and community about the issues surrounding water (locally and globally) as well as possible innovative solutions.

### Key Performance Indicators:

- Measure flow from all water appliances on campus.
- Explore separating water bill for Credo from the rest of SOMO Village.
- Increase area planted with drought resistant plants and remove irrigated lawn.
- Install a laundry-to-landscape system in a minimum of three parents' properties with a minimum of four students attending each installation.

Credo High School, 1300 Valley House Dr, Rohnert Park, CA 94928, USA

**Management Process:** Sustainable water captains will analyze water flow from all faucets inside the school campus and research if there are ways the school can reduce water use. Captains will request a separate water bill for the school building to gain an estimate baseline measurement and average water use per student.

Working with SOMO Village landscapers and Daily Acts, a local organization, students can contribute to the reduction of water use by the removal of lawn and planting drought resistant plants. The area converted can be tracked as well as the water saving from each removal.

At the One Planet parent evening, a grey water professional will attend and collect information from parents interested in installing a laundry-to-landscape system in their house. Students will be given the opportunity to assist and learn how to do the installation and measure the water savings.

**Action Plan**

Related Target (T)	Description of actions	Connecting principles
T2	<b>1. Greywater program:</b> Create a greywater program involving students which will help parents install laundry-to-landscape systems at their homes.	Culture and community
T1	<b>2. Catchment systems:</b> Explore water catchment systems to collect rainwater from rooves and also at the new 2-acre school garden site.	Local and sustainable food
T3	<b>3. Connect with local organizations:</b> Connect with Daily Acts, a local organization about their “project wet” curriculum and explore how to bring it to Credo.	Culture and community
T3	<b>4. Building knowledge:</b> Help students learn about water issues on a global and local level.	Equity and local economy
T3	<b>5. Ocean ecology:</b> All students take an oceanography class before they graduate.	Land and nature
T3	<b>6. Analyse water bills:</b> Connect with SOMO Village management team to learn how we can gain access to Credo’s water bills and gather information for further study and for problem solving ways to reduce water waste and use.	

SOMO Village-related action items for sustainable water from OPAP Version 2.0.	Credo OPAP No.
4. Set water efficiency guidelines within the SOMO Standard Specifications, including toilets at 1.28 gpf, 0.5 gpf urinals or less, commercial lavs at 0.5 gpm, showerheads at	6

1.5 gpm, dishwashers, clothes washers, CIMIS-controlled efficient irrigation (bubblers, drip, sub-surface, micro-spray, etc.).	
5. Research options and make a decision on how to flush toilets without using drinking water (e.g., with rainwater, reclaimed water, greywater from showers and/or bathroom sink). Include in plan an approach to extend the use of reclaimed water to ALL irrigation, including in backyards. Tie in with possible onsite cisterns for rainwater catchment and possible capture of shower greywater via a reed bed.	6
6. Create an integrated plan to use multiple water sources (existing and potential) of differing qualities: municipal water, rainfall, municipal re-claimed (purple pipe), greywater, on-site treated wastewater.  Pinpoint efficiency trade-offs (i.e. minimize infrastructure development by combining like quality water sources (e.g., greywater and blackwater), by de-centralizing storage, delivery and treatment systems, by strategically locating 'back-up' supply and overflow points to minimize piping and pumping, and by using on-site infrastructure that saves the energy and cost of pumping to and from remote locations.	1
7. Begin work on an extension of the Water Plan to articulate commitments of stewardship through the year 2020.	
8. Create plan for stormwater management and discharge treatment with advanced surface features (e.g., porous materials, structured soil, swales, ponds, mycoremediation).	4
10. Draft HOA rules regulating pesticides, fertilizers, herbicides and car-washing practices to protect creeks and wetlands from pollution. Currently SOMO Village specifies that only non-toxic, organic pesticides and fertilizers may be used on-site.	



## Local and sustainable food

Promoting sustainable, humane farming and healthy diets which are high in local, seasonal, organic food and vegetable protein.

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### Management Team

Students: Noelle McCoy, Kevin Terlizzi-Bowes, Kamryn Conway, Shayla Rose-Brown and Sofia Stopeck  
Staff: Kelly McNeal, John O'Mara, John Hinkle

### Context:

Sonoma County is home to many small family-owned farms with great farm-to-table connections to local restaurants and cafes that value local, seasonal, organic and fresh food. The rich agricultural heritage of this county includes hop production in the 1800s, fruit orchards in the 1900s, cattle and dairy farming, and currently world-renowned wines. Northern California's "back-to-the-land" movement initiated in the 1960s serves as the basis for an expanding organic farming and locally produced agricultural products and foods sector. Examples of these include grass-fed organic beef, locally harvested seaweeds, and the gluten-free, vegetarian meals from Amy's Kitchen and Restaurant. There is also a thriving and growing network of CSAs, farmers' markets, and a health conscious community to keep these local food industries alive.

When Credo High School moved campus in March of 2017, there were delays in deciding where the school garden should be. Since then, a 2-acre area has been approved for the start of the academic year 2017-18.

The school will initiate an official lunch program three days of the week, in collaboration with SOMO Village caterer Sally Tomatoes. The intention is that Credo will grow high quality biodynamic produce on the school farm and provide it to Sally Tomatoes, which will prepare and deliver it as school lunches.

**Target 1 Campus:** Transform a 2-acre plot of land into a school farm so the students can learn how to grow biodynamic food on campus for the local community.

**Target 2 Community:** Make it easy, accessible and attractive for the school community to enjoy fresh, local, seasonal and healthy produce.

**Target 3 Curriculum:** Students will take farming classes that will teach them how to grow their own food as well as cook and learn about healthy nutritional diets.

### Key Performance Indicators:

- In the academic year 2017-2018, students will break ground and start working on the creation of Credo's school garden. Pictures will be taken as the years go by to give a visualization of the process and progress.
- The soils will be tested periodically to ensure farming practices are building organic matter and the health of the soil.
- Track produce from the school garden by category and weight going to Sally Tomatoes.
- All students will have completed a minimum of 80 hours in the garden before they graduate.

### Management Process:

Local and sustainable food captains will be tasked to document progress in the school garden by taking pictures every month. Farmer John O'Mara and teacher Kelly McNeal will test the soil with their farming

classes. When the garden is up and running and they are sending food to Sally Tomatoes, they will also track that food by category and weight with their students.

Administration will continue to prioritize farming/gardening classes and make sure each student has spent a minimum of 80 hours on the farm before they graduate.

**Action Plan**

Related Target (T)	Description of actions	Connecting principles
T1	<b>1. School garden:</b> The 2-acre plot of land designated for the school farm is clay soil and will need a lot of cultivation to improve its structure before much can be grown.	
T2	<b>2. Lunch program:</b> Connect with local, small business food vendors usually at farmers' markets and invite them to campus to sell food at lunch.	Equity and local economy, Culture and community
T2	<b>3. Farm produce:</b> Use the produce from the school garden/farm to sell at the farmers' markets when SOMO Village gets them started.	Culture and community
T2	<b>4. Sally Tomatoes:</b> Work with Sally Tomatoes to provide more options on their menu that are fresh, local, seasonal, vegan, healthy and attractive to students.	Culture and community
T1	<b>5. Bee garden:</b> Work with SOMO Village to create a native species bee garden to attract pollinators and increase biodiversity.	Land and nature, Culture and community
T1, T2 and T3	<b>6. On-site compost:</b> Collect food waste from the school and Sally Tomatoes to build a composting program that can be used to improve the quality of the school garden soil and will eliminate the need for food waste to be collected by an off-site business.	Land and nature, Culture and community, Travel and transport, Zero carbon energy
T1	<b>7. Grow for Sally Tomatoes:</b> Plant and grow fruit trees, vegetables and herbs to be used by Sally Tomatoes.	
T1	<b>8. Gardening club:</b> Local and sustainable food captains create gardening club to invite parents and other interested students to spend extra time in the garden.	Culture and Community
T3	<b>9. Gardening classes:</b> Administration will continue to prioritize gardening classes and make sure each students spend a minimum of 80 hours in the garden before they graduate.	Health and Happiness

T3	<b>10. Food literacy:</b> Food literacy is a vital part of the ninth grade farming curriculum. Students learn about our current food system, sustainable food production versus monocrops and food injustice, and watch films like Food Inc. and Cowspiracy.	Health and happiness, Equity and local economy, Zero waste, Zero carbon energy
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<b>SOMO Village-related action items for local and sustainable food from OPAP Version 2.0.</b>	<b>Credo OPAP No.</b>
1. The year-round farmers' markets will be located in the courtyard. Basic structures that are adaptable to other uses will be installed for farmers, craftsmen and artists to use. Improvements to the market space will continue based on feedback. Plans for a Farm Stand at Bodway and Valley House are underway. The concept would allow shoppers to pick up a healthy light meal or snack of local fruits, vegetables, baked goods and almond milk—all from SOMO and County based businesses.	3
2. Update the plan for edible landscaping in parks and vegetable gardens. Farmster manages the fruit trees and herb garden planted on-site. Herbs are used by Sally Tomatoes.	
3. Recruit a neighborhood market interested in promoting sustainable foods by agreeing to: <ul style="list-style-type: none"> <li>● Purchase vegetables, fruits, dairy products and meats such that at least 25% of these products come from within 50 miles and 75% from within 300 miles.</li> <li>● Post the company, city and country of origin for each vegetable, fruit, dairy and meat product, and display the Monterrey Sustainable Fish guidelines on seafood.</li> <li>● Ensure that Fair Trade products have a minimum of 3% of the total store shelf space.</li> <li>● Participate in a soup kitchen program and a composting program for disposing of food near to and after spoiling.</li> </ul>	
4. Continue supporting Farmster, our on-site micro-farm, and other innovative farming groups. Challenges include: building topsoil, controlling odors, adjacency with noisy transformer and open space habitat. Future process could include tracking the percentage of food supplied to the community and actively working to increase the percentage of local food consumed there.	
7. Create a plan for mini-gardens in some areas, recognizing that not all residents will wish to participate in gardening. Identify the best areas for mini-gardens based on housing type, solar access and the expected age of homeowners. Do the same for mini-orchards. Consider sharing community gardens with adjoining neighborhoods.	
8. Encourage a healthy, organic school lunch program by working with Credo High School and Rohnert Park-Cotati Unified. Also, help to create a school garden program at Credo High School (ala Alice Waters). The garden could be located on-site at the school or at SOMO Village.	4

<p>9. Consult with a bee expert and establish an on-site apiary on existing rooftops to increase flower production and help the insect population recover from the recent die-off. The current plan is to implement an apiary and butterfly garden prototype on our office rooftop working with Farmster.</p>	<p>5</p>
<p>10. Sally Tomatoes provides an opportunity on-site to purchase and pick-up freshly-cooked, healthy lunches and dinners from a convenient window or storefront near the Village Square. The new bike-pedestrian path to the SMART Train will allow Oliver's Market to be another option. Eventually the Farm Stand on Bodway will be a third alternative.</p>	
<p>12. Establish a community supported agriculture (CSA) program with easy sign-up in the Sustainable Living Center.</p>	
<p>13. Explore a potential seed farm on-site. See Heritage for details. Two partners for this activity have been identified: the Petaluma Seed Bank and Farmster.</p>	
<p>14. Investigate setting up an on-site composting operation with Farmster. Continue re-use of our landscape waste to dress gardens on-site.</p>	



## Travel and transport

Reducing the need to travel, encouraging walking, cycling and low-carbon transport.

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### Management Team

Student: Kaya Thunan and Coral Utnehmer

Staff: Emma Farais

**Context:** The State of California has set a goal for 2050 to reduce greenhouse gas (GHG) emissions from transportation 80% below 1990 levels. CO<sub>2</sub> emissions from transportation are responsible for more than half of Sonoma County's total emissions according to a yearly indicators document published by the Sonoma County Development Board.

As Credo is a tuition-free, Waldorf-inspired school, it is one of a kind and therefore draws students from towns and cities too far for students to bike or walk to school from. Public transportation has been limited in the past years although with the growing population of the school, more bus routes have been established and the Sonoma Marin Area Rail Transit (SMART) train now allows more students to take public transportation and then bike or walk to school from the station.

In the first academic year of this action plan and with Credo completing a full year in its new location, a carbon footprint baseline measurement will be calculated for the school community. A community survey will be taken to figure out how many students and staff are walking, biking, carpooling or taking public transportation to and from school. Partnering with ECO2schools, an outside local organization, students and staff will be surveyed at the beginning and end of each academic year to collect accurate data. This data will shed light on student behaviour around transportation and will help provide ideas to further incentivize actions that will reduce emissions from travel.

**Target 1 Campus:** Create incentives and make it attractive to use zero carbon methods of commuting to school.

**Target 2 Community:** Incentivize and promote car sharing and public transport methods of getting to school.

**Target 3 Curriculum:** Raise awareness of CO<sub>2</sub> emissions from travel so students choose zero emissions methods whenever they can.

### Key Performance Indicators:

- Travel and transport captains will survey the whole school community at the beginning and end of the school year to calculate the CO<sub>2</sub> footprint of the community and better understand barriers to sustainable travel.
- Travel and transport captains will organize a minimum of two school community events, activities or challenges to raise awareness of CO<sub>2</sub> emissions from travel. These will be documented in the action plan through pictures and/or stories.
- Travel and transport captains will work with ECO2school, a local nonprofit, and SOMO Village to design incentives for car share, public transportation and biking and walking to school.

**Management Process:** Travel and transport captains work with ECO2school to survey whole school community at the beginning and end of the school year to calculate the CO<sub>2</sub> footprint of the community and to

better understand barriers to sustainable travel. The team will put together a document that summarizes their results and will share this widely to help inform and raise awareness in the community.

From the survey, the team will better understand what would help students get to school sustainability (i.e. better bike racks, priority parking for car shares and electric cars) and will advocate for these ideas to be acted upon. The first class that all incoming students take at Credo is Climate Change. This is an important piece to helping students understand their own emissions and start thinking of ways to reduce their carbon footprint.

### Action Plan

Related Target (T)	Description of actions	Connecting principles
T1 and T3	<b>1. Community partners:</b> Create connections with Sebastopol Community bikes and start a bike maintenance club to upkeep the 15 recycled bikes they have already donated to Credo.	Materials and products
T3	<b>2. Safe routes to school (SRTS):</b> Within the first year, work with SRTS engineering contractor to assess traffic safety issues, conduct a walking audit and create a recommended safe routes to school map.	Culture and community, Health and happiness, Zero carbon energy
T3	<b>3. Transportation survey:</b> Work with SRTS and ECO2school to conduct whole school transportation surveys at the beginning and end of each year. Collective carbon footprint from transportation will be updated in the OPAP. For full memorandum of understanding between Credo and the SRTS program of Sonoma County, see appendix.	Zero carbon energy, Culture and community
T2	<b>4. Carpools:</b> Research apps for car shares/carpool options for students and make them easily accessible for parents on social media and in the schools New News.	
T2	<b>5. Student discount pass:</b> Work with SOMO and SMART to create a student discount pass.	Equity and local economy, Culture and community
T1	<b>6. Student challenges</b> Create at least two fun challenges and/or competitions (with prizes) to encourage more students to bike/walk/skate to school. Track how many students took part.	Culture and community, Health and happiness
T1	<b>7. Zero emissions parking:</b> Create a couple of carpool parking spaces closest to the school building for student drivers.	
	<b>8. Parking fee:</b> Consider charging students to park as an incentive to take public transportation.	

<b>SOMO Village-related action items for Travel and transportation from OPAP Version 2.0.</b>	<b>Credo OPAP No.</b>
1. Review site plan to ensure walking, bicycling and taking buses is easy, safe and fun. Include at least one easily-accessible, secure, covered bicycle parking space for every housing unit on-site and easily accessible bicycle racks in commercial areas. New bicycle racks designed by local artists add visual interest as well as a practical use. Employ bicycle boulevards across the community and Class 1 trails around the community. Provide two bicycles per business.	2
2. Build a high quality, safe bike and pedestrian path directly to the SMART station, including landscaping and lighting. Investigate a bike rental or bike share program for rail station to SOMO trips.	2
7. Bicycles and bike repair are available on-site. Sonoma Trikes operates its shop at SOMO Village. It is planned to provide two bicycles per existing business.	1
10. The SMART train initiative succeeded! The train begins service August 2017. Political, financial and advisory support from SOMO Village helped make this transport available to our community.	5
11. Coordination with the Cities of Rohnert Park and Cotati and Sonoma State University to set up an alternative fuel commuter shuttle from SOMO Village to Sonoma State University and the Cotati train station is underway.	
14. Provide transit passes to all incoming residents free for three months and at a 50% discount for a minimum of ten years.	
18. Encourage the evolution of a “walking bus” or other similar method for safely getting kids to school without having to drive.	2
19. Create a ride share waiting area with informational kiosk/sign-up on-site.	



## Materials and products

Using materials from sustainable sources and promoting products which help people reduce consumption.

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### Management Team

Student: Janelle Barraza and Amelia Malpas

Staff: George Welp

**Context:** Leadership in Energy and Environmental Design (LEED) is a growing global initiative put together by the US Green Building Council to help ensure new buildings meet high sustainability standards. The LEED initiative also finds ways to retrofit existing buildings to operate in a way that is not only better for the environmental but also increases the health and happiness of its occupants.

While SOMO Village recognises that LEED standards are excellent, SOMO Village also recognizes that there is room for improvement and has set their own standards to address this. Standards set by SOMO Village also include non-toxic cleaning products, and “take-back” product recovery initiatives whereby manufacturers reclaim the product to upcycle it at the end of its life.

Over the summer of 2017, Credo remodeled 40,000 sq. ft. of an existing building rented from SOMO Village and observed the following guidelines:

- Classrooms were reconfigured to allow for natural light throughout the campus; interior windows allow light to penetrate central common areas
- Lighting throughout the school was redesigned and replaced with LED lighting to be more energy efficient and meet current Title 24 standards
- HVAC systems were redesigned to operate more efficiently and only when school is in session
- Filtered hydration stations were put in place to ensure minimal use of disposable water bottles by students and staff
- Low flush toilets were installed or maintained throughout the campus
- A 200' x 20' lawn adjacent to the campus was removed and will be replaced with native, drought-tolerant plants
- All steel, concrete and glass removed from the building was recycled (amount?)
- Furniture and cubicles left from a previous tenant were recycled or distributed to other nonprofits
- 600 recycled student desks were purchased from another school district
- 34 teacher and administrator desks were acquired second-hand
- 200 linear feet of previously used classroom cabinetry was purchased from a recycler
- The school chose to use existing bare concrete floors rather than cover with carpet or vinyl tile

**Target 1 Campus:** Set the example of sustainable living by carefully considering the purchase of school supplies, selecting those that have positive social and environmental impacts and supporting suppliers with similar values.

**Target 2 Community:** Make reusing, repurposing and sharing material objects attractive within the community.

**Target 3 Curriculum:** Explore classes that can study repurposed materials and discuss life cycle assessments (LCA) and cradle-to-cradle concepts of design.

### Key Performance Indicators:

- Materials and products captains will work closely with captains from Equity and local economy and administrators to look at school supplies and make sure products are non-toxic, sustainably sourced, Fair Trade and local where possible.
- Organize item swap events such as the Winter Fair and track the number of items brought, swapped and donated to charity.
- Identify classes needing materials and products. Materials and products captains explore ways to get class materials repurposed. Work with teachers to ensure repurposing of materials is discussed and make sure students fill out evaluation forms at the end of the course.

### Management Process:

Materials and products and Equity and local economy captains will create a One Planet school supply list and create a document that keeps track of school products purchased that meet purchasing policy (see Equity and local economy section above).

One Planet leaders will organize and run the swap event(s) and track items exchanged and donated to document and post on social media so they can beat that number the next time.

Work with teaching staff to further understand what materials they need for their classes and how to strengthen discussions on repurposing, reclaiming and reimagining and product LCA. Track these classes with evaluation forms to see if that message is clear and has meaning for the students.

### Action Plan

Related Target (T)	Description of actions	Connecting principles
T3	<b>1. Materials used in class:</b> Look at classes that require materials and explore where we can source used materials. Connect with inventory of materials SOMO Village has onsite.	Equity and local economy
T2	<b>2. Recycled bikes:</b> Create connections with Sebastopol Community bikes and start a bike maintenance club to upkeep the 15 recycled bikes they have already donated to Credo. These bikes will be used to help students get to their farming classes on time.	Culture and community, Equity and local economy
T1	<b>3. Non-toxic cleaning products:</b> Ensure all the cleaning and maintenance products bought for school campus are non-toxic and suppliers are local with Bcorp status or have similar sustainability certification.	Health and happiness
T2	<b>4. Online store:</b> Create an online store for the wider community that directs people to local products that have been upcycled and fairly and sustainably made.	Culture and community, Equity and local economy
T1 and T3	<b>5. Sustainably sourced paper:</b> Work closely with Equity and local economy captains to find the most sustainably and locally sourced paper.	Equity and local economy

T1	<b>6. Product inventory:</b> Look at the inventory of school purchases to understand the most frequently bought products. Ensure these products are coming from local companies that value sustainability practices.	Equity and local economy
T2	<b>7. Artistic upcycling:</b> Work with SOMO Village to create art from their existing stockpile of construction waste.	Culture and community
	<b>8. Existing suppliers:</b> Work with existing suppliers to encourage them to source materials locally and more sustainably.	Equity and local economy

<b>SOMO Village-related action items for Materials and products from OPAP Version 2.0.</b>	<b>Credo OPAP No.</b>
3. Create an additional component within the Standard Specification Guide indicating distance to the closest known suitable manufacturer.	5
4. Create an inventory of existing materials on-site, including crushed concrete and asphalt, steel, doors, ceiling tiles, transformers, light fixtures, etc. This inventory to include conceptual future uses for such materials and identify the proper methods for recovery and storage. The plan will then be administered by the SOMO Sustainability Team to coordinate storage locations. To date fixtures, carpeting, ceiling tiles, doors and lockers have been re-used on-site. Furniture and TV screens left by the former site owner were donated to schools and other organizations.	1, 7
5. Enlist local artists to create town art from our existing stockpile of construction waste.	1, 7
6. An on-site construction material reuse center to accept, store, prepare and provide salvaged materials has been set-up. Thus far materials have been used internally. It may be expanded to other builders throughout the region to deposit and acquire materials. Asphalt and road base materials are kept on-site for future development. In May 2016 several diseased redwood trees had to be removed. Wood was milled and cured on-site for future use in building outdoor furniture. Chipped branches were given to Farmster for mulch.	1, 7
9. Continue operation of the on-site nursery for growing street trees and plan an adjacent compost facility for generating topsoil.	
10. Produce sustainable standards for future remodel, tenant improvement, and home customization projects. Moveable walls are being used in offices on-site and in school facilities.	3, 4, 6



## Zero waste

Reducing consumption, re-using and recycling to achieve zero waste and zero pollution.

### Management Team

Student: Kyle Conway and Amelia Stock Cummings

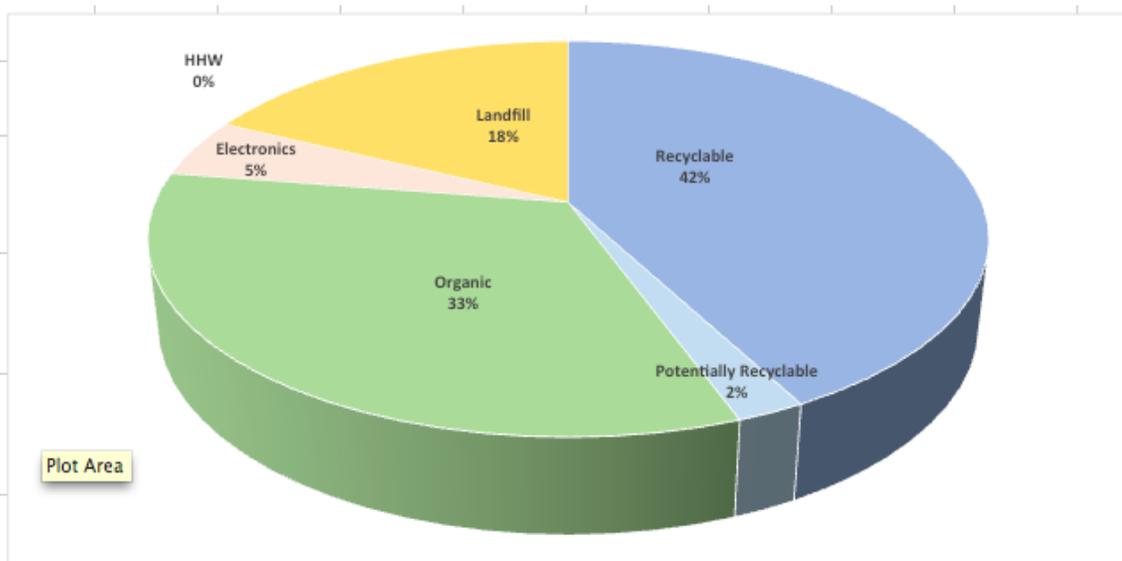
Staff: Brian Eberly

**Context:** California has adopted a policy goal to recycle, compost and reduce waste sent to landfill by 75% by the year 2020. In 2016, Cal Recycle recorded the average waste per capita for Californians was 6 lbs. per day. In Sonoma County, the average is 4.3 lbs. per capita per day.

SOMO Village is working towards eliminating the concept of waste altogether. Its goal is to send no more than 2% of waste by weight to landfill by 2020.

As a SOMO Village tenant, Credo has adopted this same goal of sending no more than 2% of waste by weight to landfill by 2020. In 2017, Credo undertook a waste characterization study. At the time of this first waste study, Credo was at the old campus and only had a two-bin system of recycling and landfill. In the new campus at SOMO Village, Credo has a three-bin system, adding composting. The pie chart below shows the results from the first waste characterization study (Feb 2017) at the old campus. All “organic” matter was being sent to the landfill, totalling landfill waste at 53%, including “potentially recyclable.” For the full waste characterization report, see appendix no. 3.

Year	Historic Recycling Rate	Statewide Recycling Goal
2010	49%	
2011	49%	
2012	50%	
2013	50%	
2014	50%	
2015	47%	
2016	44%	
2017		
2018		
2019		
2020		75%



**Target 1 Campus:** Send less than 2% of waste by weight to landfill by 2020.

**Target 2 Community:** Help events organized by the wider community become zero waste events.

**Target 3 Curriculum:** Organize student challenges and strengthen course curriculum that helps to eliminate the concept of waste.

**Key Performance Indicators:**

- Integrate a waste characterization study with students every trimester. Publically announce and record measurements in action plan.
- Connect students with local event organizers and zero waste professionals to help divert event waste from landfill. Track hours students volunteer at these events.
- Track the weight of materials used in Credo classes that have been repurposed and diverted from landfill.

**Management Process:**

At the beginning of each year, new students will get a Zero waste introduction and reminders throughout the year. Each ninth grade class will perform a waste characterization study in their math class to get hands-on experience and a better understanding of the community waste stream. The results from these math classes will continue to update this action plan.

Local waste reduction organizations have already reached out to the One Planet captains at Credo asking for their help in reducing waste at their events. Captains will be in charge of communicating with these outside organizations, helping out at the events and logging their hours in the action plan.

In year one of this action plan, Zero waste captains will work closely with captains from Materials and products to better understand the classes that require materials that can be upcycled, reused and repurposed. The captains will research potential local resources for these classes to use in year one if possible.

**Action Plan**

Related Target (T)	Description of actions	Connecting principles
T1 and T3	<b>1. Waste audit:</b> Integrate waste audit into ninth grade math class and have ALL incoming students perform a waste characterization study. Each trimester these results are recorded in this action plan.	Culture and community
T3	<b>2. Mason jar challenge:</b> All ninth grade students learn about their personal trash by carrying a 16oz mason jar around with them for up to two weeks collecting their own trash. After two weeks the students have to write a reflection piece explaining what they noticed, what the most common piece of trash was and what they will do about it in the future.	Materials and products
T1	<b>3. Three bin system:</b> Introduce a 3-bin system with composting, recycling and landfill. Make sure all three bins stay together and can be found in all common areas. Make sure all bins have signs for what can go into them.	
T2	<b>4. Zero waste events:</b> Work with the wider community to set up volunteer programs in which students can help the public participate in creating zero waste events in Sonoma County.	Culture and community

T1 and T2	<b>5. Onsite composting:</b> Create an onsite composting program on the 2-acre school farm for all food waste from campus (Year 1) and other businesses in SOMO Village (years 2 and 3)	Land and nature, Local and sustainable food, Culture and community
	<b>6. Hydration station:</b> The school has installed a hydration station on campus to reduce the use and need for single use plastic water bottles.	

<b>SOMO Village-related action items for Zero waste from OPAP Version 2.0.</b>	<b>Credo OPAP No.</b>
1. Design for waste minimization and recyclability. Issue directive to design buildings with easily recycled materials and using fasteners instead of glues, where possible. Use fabricated wall systems which create less than 2% of the waste of traditional framing. Design to ensure recycling is at least as easy as garbage (e.g., any chutes in buildings will require separate garbage and recycling chutes). Also, require all businesses and homes to feature adequate space for convenient separation of materials for landfill, recycling, green waste, food waste and toxics.	1, 3
3. Refine the standard 01505 Jobsite Waste Recycling Plan to obligate a minimum recycling goal of 75% for our construction activities, and to further encourage strategies which minimize the total material handled as either waste or recycling. Include waste plan in SOMO Standard Specifications. The goal of 75% recycling will remain in place, even as the total volume of waste is reduced by at least 60% from improved framing practices and other techniques, leading to an overall waste reduction goal of at least 90% for jobsites.	
4. Inventory on-site materials available for reuse, sale or recycling. See Sustainable Materials section for details.	
5. Encourage retail tenants to reduce packaging and bag use and to minimize disposable products. Support practices that favor waste reduction such as discounts for reuse. Create convenient and inexpensive ways to buy food in bulk with minimal packaging (e.g., Oliver's bulk food section). Possibly create a community wide purchasing group, co-op or weekly deliveries of fresh vegetables from Farmster. Include these goals in printed and web marketing materials.	
6. Approach Sonoma County Waste Management about setting up an innovative program in which garbage prices are set to encourage people to minimize volume, making recycling inexpensive or possibly free, and creating an easy method for properly disposing of hazardous/toxic materials. Food waste collection has been implemented for the county, but is trucked out of the county. On-site composting has been established by Farmster and a plan to expand operations is under discussion.	
14. Create a plan for generating a culture of Zero waste. This could include incentives, contests, grade school education and reporting on community progress.	1, 2, 3
15. Begin collecting yard waste and vegetable food waste for use in an on-site compost program.	5

<p>16. Create collection facilities for materials such as clothing and electronics. Where possible create on-site businesses to make use of recyclable materials. Many items of furniture were donated to schools when the site was taken over. Fixtures, doors and carpeting have been re-used on-site and even steel beams have been repurposed as landscape art installations.</p>	
<p>17. Create a community center that has a stock of useful items that can be shared or rented by all, including tools, shop space, party supplies, recreational gear, etc.</p>	
<p>18. Eliminate the need for purchasing bottled water by providing high quality filtered water throughout the community.</p>	6



### Management Team

**Student:** Julia Anderson and Fiona Jacobsen-Sarter

**Staff:** Dr Julian Shaw

### Context

As each year becomes the hottest on record, the actions we can do on a global, regional and local level to mitigate climate change are becoming more and more important. According to the US Green Building Council, the commercial and residential building sector account for 39% of the country's CO<sub>2</sub> emissions every year. The EPA estimates that every individual in the US emits 22 tons of CO<sub>2</sub> per year with 17% of that coming from people's homes. With growing populations and increased economic activity in Sonoma County, reducing GHG emissions will be a challenge.

SOMO Village recently installed photovoltaic solar panels on the roofs of their buildings to provide 3.14 MW of clean, renewable, on-site power to meet the community's electricity needs. Additional demand is augmented by power purchased from Sonoma Clean Power (SCP). Buildings are retrofitted with lighting upgrades i.e. Light Emitting Diodes (LEDs) and Compact Fluorescent Lights (CFLs) and light sensors and the heating and cooling systems are being upgraded to have automatic shut off controls. Credo occupies 45,000 sq. ft. of SOMO Village's buildings and benefits from updates and energy efficient retrofits as well as from the on-site clean energy that the solar panels provide.

As SOMO Village was once occupied by a single company, the buildings do not have separate meters to measure their energy use. Credo occupies most but not all of Building 1300. Even if SOMO Village could separate usage by building, Credo would only be able to get an estimate baseline. Credo will continue to request that separate meters are installed; when this happens baseline measurements for energy use will be recorded and added to this action plan.

**Target 1 Campus:** 100% of energy consumed is supplied by non-polluting renewable energy generated onsite.

**Target 2 Community:** Help the school community understand where its energy comes from by providing regular tours of the energy center with a guide from SOMO Village.

**Target 3 Curriculum:** Help students understand their energy use and how it relates to climate change and how to reduce energy demands on a personal and community level.

### Key Performance Indicators:

- Work with SOMO Village representative to monitor and document the energy use of the community.
- Document the dates of a minimum of three annual tours of the energy center for the students, one tour for teachers and one tour for parents.
- Build energy audits into the curriculum and make sure all students learn where their energy comes from and how to reduce their consumption. Once separate meters are installed by SOMO Village, energy audits will be carried out and documented by students to add to the action plan on a yearly basis.

## Management Process:

In the first year, connect students with SOMO Village energy representative and try to separate out Credo's energy use from the rest of the community with the goal of gaining baseline knowledge (energy use per student) to improve upon in future years.

Track and update energy center tours given by SOMO Village representative and the number of community members attending these tours.

Work with the math and science teachers to help students understand and perform energy audits at home so that every Credo student learns the basics of the energy system, production and ways to reduce consumption and cost.

## Action Plan

Related Target (T)	Description of actions	Connecting principles
T3	<b>1. Reducing GHG:</b> Zero carbon energy captains will work closely with Travel and transport captains to reduce the school community's GHG emissions.	Travel and transport
T2	<b>2. Partner organizations:</b> Partner with US Green Building Council (USGBC) and/or Strategic Energy Innovations (SEI) to better understand energy audits for schools and how to estimate a baseline measurement to work from, bearing in mind Credo's energy use is combined with the rest of SOMO Village.	
T3	<b>3. Biomimicry - designing efficient energy systems:</b> Students take Biomimicry in twelfth grade. This class helps them look at nature to learn from the sustainable patterns and designs that have developed over millions of years. This course is a great example of studying how nature uses carbon versus how humans do, before rethinking and re-designing our system.	Land and nature
T2	<b>4. Energy tours:</b> Organize tours of energy center given by SOMO Village staff. These tours will help Credo students and the wider community learn more about renewable energy.	
T3	<b>5. Phantom loads:</b> Work with students to measure and inform community about "phantom loads". Students will measure energy using watt meters and encourage the community to unplug devices not in use.	
T1, T2, T3	<b>6. Energy information access program:</b> Analyse energy use from energy information access program provided by SOMO Village.	
T3	<b>7. HVAC System:</b> In the remodel of the campus, HVAC System was redesigned to operate more efficiently, and only when school is in session.	

T3	<b>8. Campus lighting:</b> Lighting throughout the school has been redesigned and replaced with LED lighting to be more energy efficient and meet current Title 24 standards. The solar tubes in the main campus common area were kept to maximize natural light and reduce the need for electricity.	
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<b>SOMO Village-related action items for Zero carbon energy from OPAP Version 2.0.</b>	<b>Credo OPAP No.</b>
5. Create a standard metering plan and lease language for new tenants such that large-size new tenants pay for their own energy use. The system will be designed to recover maintenance and depreciation on renewable power systems and central plant equipment, and will address the concern of changing tenant boundaries over time.	6, 7
10. Create a plan for providing on-site renewable power in excess of the available solar photovoltaic capacity, if needed. SOMO is adding an additional MW of solar power in 2016 for a total of 3.14 MW on-site. Sonoma Clean Power came online for Rohnert Park in 2015. Residents will be able to purchase 100% renewable energy from Sonoma Clean Power. Residences will be pre-wired for solar and EV chargers. SOMO has invested in Ag Waste Solutions and Resynergi (making fuel from plastic waste) to meet future fuel needs. Other potential systems include gasification of cellulosic biomass from county sources, methane production from food waste composting and biodiesel production.	
12. Create a detailed plan for the Zero carbon energy education campaign. SOMO Village will conduct an ongoing education program to help promote low energy use. These education efforts will include the Sustainable Living Center, a website, and collaboration with the Environmental Center at Sonoma State University, Credo High School and the Sustainable North Bay. In addition, the resource center and website will facilitate the purchase of efficient lights, appliances and other consumer goods.	5, 6, 7
18. Complete energy information access program so that all residents and businesses have online or in-building access to their energy use data in a simplified easy-to-understand format. Process to begin by 2016 and be standardized by 2020.	7

# Appendices

## Appendix no. 1.

### One Planet at Credo High School (2016-2017)

Below is a summary of actions Credo has taken in its first year of developing its One Planet School program.

- To apply to Credo, prospective students have to write an application. On the application, the ten guiding principles for One Planet Living are introduced and the prospective students must identify the principle they are most interested in and briefly tell admissions about their connection to this principle.
- All teaching, maintenance, admin and leadership staff attend a One Planet Living introductory workshop at the beginning of the school year to help understand their personal connections to the ten principles.
- Students at Credo start their first high school class learning about climate change and One Planet Living.
- At the end of every Credo course, students reflect back on the material learned and write an evaluation. The first question they must answer is: What principle(s) did this course relate to most? They are also asked to explain the connection between the curriculum content and the principle.
- Parents/guardians are invited to attend a free One Planet Living evening workshop to learn how they personally connect to the ten principles and how they can bring the principles into their own households.
- Credo students have formed a One Planet leadership team. Each principle has 1-4 co-captains and their responsibilities are as follows:
  - On their One Planet principle month, captains take charge of creating a variety of activities to engage the student body and the wider community.

These include:

- Find a speaker who is doing inspirational work that relates to their principle to give a presentation at a whole school assembly.
- Create innovative and inspirational awareness pieces for the student body about their principle.
- Create highly engaging and irresistibly fun challenges within their principle that help reduce Credo's ecological footprints on an individual basis.
- Recruit a team of students to help organise and run these events—these students become their “extended family.”

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- Attend school events and be responsible for making sure their principle is represented.
- Post on social media/blog/Instagram/Facebook/Twitter about their progress, lessons learned and inspirations.
- Choose a local organization or business in the local community to connect with and to bring further insights/understanding, inspiration and local volunteer opportunities to the school community.
- Support other One Planet captains and co-captains in their projects and activities.
- Help to organize the annual One Planet youth summit at SOMO Village. This one-day youth summit will bring together students from schools in San Francisco and in counties north of the city.
- Write, track and update Credo's One Planet Action Plan, incorporating SOMO Village's goals and vision.