



District Sustainability Award Nominee Presentation Form

CERTIFICATIONS

District's Certifications

The signatures of the district superintendent on the next page certify that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the superintendent's knowledge.

1. The district has been evaluated and selected from among districts within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
2. The district is providing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
3. OCR has not issued a violation letter of findings to the school district concluding that the nominated school district has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
4. The U.S. Department of Justice does not have a pending suit alleging that the school district has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school district in question; or if there are such findings, the state or school district has corrected, or agreed to correct, the findings.
6. The district meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education Green Ribbon Schools District Sustainability Award 2019-2021

Name of Superintendent: **Dr. Barb Dill-Varga**
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

District Name: **Carmel Unified School District**
(As it should appear on an award)

Address: **4380 Carmel Valley Road, Carmel, CA 93923**

Telephone: **831-624-1546** Fax: **831-624-1726**

Web site/URL: <https://www.carmelunified.org/> E-mail: bdillvarga@carmelunified.org

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.



(Superintendent's Signature)

Date: 01/30/2020



Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The district is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: **California Department of Education**

Name of Nominating Authority: **State Superintendent of Public Instruction Tony Thurmond**
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.



(Nominating Authority's Signature)

Date: February 10, 2020

SUBMISSION

The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509
Expiration Date: March 31, 2021

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.



Carmel Unified School District

California District Sustainability Award Nominee to
U.S. Department of Education Green Ribbon Schools



Prepared By:
California Department of Education
School Facilities and Transportation Services Division
[Green Ribbon Schools Award Program](#)
February 2020

PART II – SUMMARY OF ACHIEVEMENTS

Carmel Unified School District, Carmel, Calif.

Taking responsibility for the Environment

Carmel Unified School District (CUSD) stretches from Big Sur on the Pacific Coast to Cachagua in the Carmel Valley, serving diverse students from across 600 square miles, a district roughly the size of Rhode Island. CUSD's mission calls out responsibility for the environment as a core belief. This commitment is embodied within the district's organizational structure, facility maintenance practices, programs promoting student health and safety, and connections to the environment in and out of the classroom.

CUSD's Environmental Responsibility Team (ERT) meets regularly to brainstorm ways to reduce their environmental footprint, network, and share accomplishments in environmental literacy and community involvement. The team has representation from each school, consisting of teachers, site administrators, high school students, and parents. District representatives to the ERT include the Superintendent, the Chief Academic Officer, and the Director of Maintenance and Operations. In 2017, the ERT aligned its goals to the three pillars of U.S. Department of Education Green Ribbon Schools.

The Maintenance, Operations, and Transportation (MOT) Department monitors water use, indoor temperature, and electricity use, allowing for quick detection and correction of issues. This focus has resulted in a 15% reduction in electricity use and a 31% reduction in water use district-wide, even as the district added buildings and expanded programs for students. These efforts helped CUSD to earn the 2019 Association of Monterey Bay Area Governments Energy Watch Champion award, recognizing the district's work to reduce energy use and related greenhouse gases through the installation of energy efficiency equipment.

The district partners with local non-profit MEarth, to manage The Habitat, a 10-acre parcel adjacent to Carmel Middle School that is dedicated to outdoor learning and environmental literacy. The property features a pond that is home to the threatened California red-legged frog, bird feeders and houses for migrating birds, a bee garden, and a monarch butterfly garden. In 2012, The Habitat opened the first LEED-certified public school classroom in Monterey County. The 1,600-square-foot flexible classroom is used as a culinary classroom where students from across the district and throughout Monterey County work with MEarth educators on Farm-to-Table lessons. The classroom is powered by a solar array built from repurposed and recycled materials, and it uses a living roof and captured rainwater to irrigate the many native plants on-site. The Habitat's building collects rain in four 1,500 gallon tanks and uses sprinklers to reduce water use and maximize water absorption.

CUSD implements environmentally preferable purchasing practices ensuring that 92 percent of the paper they purchase is Forest Stewardship Council Certified Paper, and purchasing cleaning products certified by Environmental Protection Agency, ECOLOGO, National Science Foundation, and Green Seal.

CSUD Board of Education's Wellness Committee provides community-based guidance on the district's comprehensive wellness efforts. The Committee focuses on four areas of wellness: 1) bell schedule adjustments to address issues of adolescent sleep deprivation; 2) stress and anxiety causes and interventions; 3) nutritional needs and improvements; and 4) reduction of the use of illegal substances, including vaping. Schools all around CUSD are implementing these goals. The elementary schools incorporate daily mindfulness instruction, emotional well-being, and anger management using the Second Step social and emotional learning program. The district is piloting a program to address the

social and emotional needs of middle school students. First grade classrooms use the Mind Up curriculum for mindfulness instruction.

CUSD has twice received the U.S. Department of Justice Tobacco Grant. The grant is used to support a district-wide School Resource Officer tasked with educating youth and reducing the use of illegal substances, especially tobacco products and vaping. Sandy Hook Promise is a new partnership the county and CUSD have embraced this year, providing programs to help students feel connected and less likely to become agents of violence. CUSD is implementing “Just Say Hello” and “Say Something” at all school sites.

The district’s youngest learners approach environmental literacy through STEAM, while making consistent efforts to reduce environmental impact. The Carmelo Child Development Center makes recycled paper and crayons and has a trading post to exchange toys or school supplies in order to reduce consumption. The center limits waste, keeps trash out of the watershed, and practices vermicomposting. Children take field trips to learn about local watersheds; and integrate literacy and art with science by reading about sea turtles, looking at and painting their habitats, and inquiring why they are becoming endangered and what can be done to help.

Environmental integrated teaching and learning are thoroughly interwoven throughout the courses and curriculum. CUSD’s curricular approach is aligned with the California Next Generation Science Standards (CA NGSS) and California’s Environmental Principles and Concepts (EP&Cs). CUSD’s transition to CA NGSS is evidenced by new courses that integrate environmental and sustainability concepts into core curriculum. All sixth graders take an Ecoliteracy course and learn about biodiversity, human impacts, and advocacy. All middle school science classes go to The Habitat to study local and migrating birds, native plants, and insects. Middle School students pick vegetables from the garden and prepare meals based on the history and culture they are learning at the time in their core, social studies, and world language classes.

All school sites have gardens, and a recent survey revealed that nearly 86% of CUSD teachers are making classroom connections to nature or the environment; 60% of those teachers do this more than once a month. Elementary schools have designated garden teachers, and middle school students work with MEarth for garden education. Elementary school students have art and a garden-based program integrated into literacy and math. At one school, the kindergarten science program is wholly conducted in the garden; primary students have garden science once a month; and intermediate students have a Garden-to-Table program.

All school sites incorporate composting into their curriculum. Transitional Kindergarten students maintain worm bins and use the compost for gardening or as food for local pigs. Food scraps from lunches are composted in some elementary school gardens, and scraps not fit for the composter are used as chicken feed. Students in the Ecoliteracy class participate in “Friday Farming” each week; with assistance from MEarth staff, students add to, turn, and use compost in the garden.

CUSD classes integrate the environment into different disciplines and work with the Monterey Bay Outdoor Education Program (MBOE) to connect students to their local environment and increase their understanding of the interconnection between humans and nature. Students are taken to local destinations to study their unique biodiversity and the richness of land-sea connection. Students complete an MBOE journal to develop environmental literacy through math, history, art, poetry, and science.

The Carmel High School (CHS) Environmental Club is the first local Surfrider chapter, leading regular waste reduction initiatives. The club partnered with Elkhorn Slough National Research Reserve to raise money to restore native wetlands. Students also partner with the National Oceanic and Atmospheric Administration (NOAA) to screen environmentally-themed movies alongside panels featuring local experts in the CHS theater. The club also hosts a series called Earth Experts on local television. “This Club Saves Lives” at CHS hosts a “Thirst Gala” each year, raising money to build wells in water-stressed locations.

Carmel Valley High School’s (CVHS) competencies in empirical and quantitative reasoning include and address environmental projects such as owl boxes, water testing, gardening, and restoration projects. CVHS partners with the Big Sur Land Trust as environmental stewards of the Songbird Preserve on the Carmel River. Students remove invasive species, work on native plant restoration, and participate in trail maintenance.

CUSD aims to center environmental literacy in the district’s culture by providing a dedicated instructional coach to assist teachers and promote environmental education. Instructional coaches, administrators, and elementary teachers consider and reference California’s EP&Cs during curriculum adoption. For the past two years, teachers have attended paid professional learning workshops on the integration of the EP&Cs across the curriculum during the district’s Summer Institute.

CUSD’s Carmel Middle School (CMS) is a 2015 California Green Ribbon School (Green Achiever) and 2015 U.S. Department of Education Green Ribbon School.

PART III – DOCUMENTATION OF STATE EVALUATION OF DISTRICT NOMINEE

Pillar I: Reduce Environmental Impact and Costs

Element IA: Energy

- An ambitious vision for teaching and learning drives CUSD’s Master Facilities Planning process including the following: sketching out renovations and new construction bringing green spaces and gardens closer to classrooms; providing learning spaces that will foster collaboration with area environmental partners; and imagines gardens as maker spaces using natural products and not just churning out more plastic. CUSD board policy promotes “green school practices that conserve natural resources, reduces the impact of district operations on the environment, and protects the health of students, staff, and community;” currently replacing inefficient, non-functional items with energy efficiency models.
- CUSD has made an 18% reduction in greenhouse gas emissions from 2013-2018.
- CUSD uses the ENERGY STAR Portfolio Manager to track four schools. 75% of the schools tracked have a score of 70 and above.
- CUSD documents a 15% reduction in non-transportation energy use from 2013 to 2018 by comparing utility bills and factoring in the number of students served and the area (footprint) of school buildings.
- The green classroom at The Habitat features a 3.8-Kilowatt set of photovoltaic panels with battery storage. This demonstration project represents about 5% of Carmel Middle School’s (CMS) energy use.

- With funding from the California Clean Energy Jobs Act (Proposition 39), CUSD retrofitted suspended fixtures and exterior lights to LED, and installed an efficient Variable Frequency Drive pump to replace an inefficient pool pump. Leveraging rebates from Pacific Gas and Electric for the work listed above, the district purchased a building management system to provide better control of HVAC systems.
- Recently, CUSD replaced many water-loving plants and grass landscaping with drought-resistant plants, mulch, and rock landscaping at many sites. CMS has added native pollinator gardens around the campus.
- In 2012, CUSD opened the first LEED-certified public school classroom in Monterey County and received LEED Silver certification. The passive solar building, constructed using repurposed and recyclable materials, contains photovoltaic and solar thermal panels; rainwater catchment tanks; and a living roof containing native plants.
- CUSD's efforts in reducing the heat island effect include planting shade trees at Tularcitos to shade a classroom; replacing traditional roofs on about 20% of the district's portables with TPO or Tresco to reflect heat energy; and replacing asphalt from the flat roofs at CHS with TPO. Additionally, the landscaping around the District Office contains white/lightly colored rocks, and the green classroom at The Habitat has a living roof to provide greenspace and to reduce the heat island effect.
- CUSD's efforts to reduce energy use received the 2019 AMBAG Energy Watch Champion Award for the great work accomplished reducing energy use and related energy costs through the installation of energy efficiency equipment (via Pelican Building Management System and Intermatic). The equipment monitors and regulates HVAC and energy systems and usage through integrated lighting controls and timers, allowing the district to detect inefficiency and quickly remedy the problem areas.

Element IB: Water and Grounds

- The District tracks water consumption using Smartlink irrigation controllers, and CalAM Smart Meters allow CUSD to monitor for leaks or inefficient use. Data from the water district allows CUSD to quantify and compare the monthly usage. Schools using well water have separate meters for indoor and outdoor water supply.
- In just five years, from 2013-2018, CUSD has reduced water consumption by 31%. Data from the local water district and student numbers allowed CUSD to quantify this reduction.
- CUSD reduced and continues to reduce water consumption. On the grounds at every site, drought-resistant plants; and exposed soil covered with wood chips, mulch, or rocks; replaced water-loving plants. Rainwater is collected and stored in four 1,500-gallon rain-collecting tanks. Sprinkler heads have been installed to allow max water absorption with the least amount of water. Student bathrooms include low-flow faucets, urinals, and toilets. Smartlink irrigation controllers allow the monitoring of irrigation of all sites and precisely detect leaks for a quick repair. As part of his Eagle Scout project, a student from the District, built a greywater system that collects water from the washer in the LEED-Green Building and waters the middle school's "Butterfly Garden." Excess water from around The Habitat's frog pond drains into a swale that waters native, riparian plants.
- The percentage of school grounds dedicated to ecologically beneficial uses varies per site ranging from 5% to 25%. The most notable examples are The Habitat, landscaping at CMS, and the gardens at the elementary schools. The Habitat is a 10-acre area dedicated to outdoor learning. It contains a pond with federally-listed California red-legged frogs; bird feeders and

houses for migrating birds; a bee garden; and a butterfly garden for monarch butterflies. Landscaping around the middle school and elementary gardens contain native plants that attract pollinators.

Element IC: Waste

- Carmel Unified School District (CUSD) has calculated a waste diversion rate of 57%.
- All school sites incorporate composting into their curriculum. The TK and Co-op at Carmelo have active worm bins and the compost provides food for pigs or gardening soil. All elementary schools participate in small-scale composting. At Captain Cooper, scraps not fit for the composter become chicken feed. All sixth graders take an Ecoliteracy class, and every Friday is “Friday Farming,” with assistance from MEarth staff, students add to, turn, and use compost in the garden. Both district high schools are currently experimenting with large- and small-scale composting systems. Over 120 students in AP Environmental Science participate in compost collection and education. CVHS students can choose to work on garden projects including composting and collecting food waste for local pigs.
- Waste management partners track all CUSD’s waste, recycling, and green waste disposal monthly. Students have done extensive waste audits that track plastics, baggies, aluminum, and wrappers for three years as part of an Ocean Guardian grant. All sixth graders learn about waste disposal in Ecoliteracy classes. CHS Environmental and Surf Rider club also does biannual waste audits.
- Hazardous materials are monitored, properly stored, and disposed. Hazardous materials used in science classes are used, labeled, and stored using Flinn Scientific Storage recommendations. An outside company conducts annual inventory and safety checks of hazardous materials from the middle school and high school. MOT is inspected yearly and materials are disposed of as needed. Keenan, an outside agency, conducts the yearly inspections. An e-waste facility properly disposes of collected electronic waste. The District’s Environmental Responsibility Team consistently reflects on and discusses ways to reduce waste produced at all sites.
- CUSD implements environmentally preferable purchasing practices ensuring that 92% of the paper they purchase is Forest Stewardship Council (FSC) Certified Paper, and purchasing cleaning products certified by Environmental Protection Agency (EPA), ECOLOGO, National Science Foundation (NSF), and Green Seal.
- Carmel River School teamed up with the Carmel Foundation to purchase a “party kit” for every classroom. This kit contains reusable plates, etc. teachers can use to eliminate waste from the classroom parties. The district-wide back-to-school breakfast strives for zero waste by composting, recycling, and encouraging all staff to bring their reusable containers. High school Environmental Club leaders spoke at this breakfast to educate the staff on the new recycling methods.
- CHS Environmental Club has teamed up with the Associated Body to reduce plastic waste and purchase biodegradable glitter at school events.

Element ID: Alternative Transportation

- All sites provide safe routes to school. The district bus system transports 25% of students. Carmelo has a 5-mph speed limit and parents with small children receive priority parking. Schools around the district have many innovative transportation solutions. Innovations include large mirror on curved driveway; designated traffic flow systems; pedestrian beacons on

crosswalk signs; and mobile radar signs to show vehicle speed, drop off areas with teachers greeting students; and remodeled parking lots to provide a safe route for students crossing busy Highway 1.

- CUSD adjusted practices to ensure its fleet is reducing its environmental impact. The district added a vapor recovery system to the fueling station and retrofitted busses with particulate filters and crankcase ventilation systems reducing exiting particulates. Hydrotex is added to fuel systems to save energy and reduce pollution. Reusable air filters are used in all trucks and vans. The wash bay contains an elaborate catchment system that filters out all the toxins.
- To reduce oil waste from buses, oil samples from the buses are sent to a company that determines if they need an oil change.

Pillar II: Improve the Health and Wellness of Students and Staff

Element IIA: Environmental Health

- CUSD's Integrated Pest Management (IPM) practices consider the health of students, staff, and the environment. The Director of Facilities maintains all records in accordance with state policies. Regular inspections occur as part of the preventative maintenance program. Employees are trained on IPM procedures yearly. They are trained to identify plant and animal pests and how to control the organisms. In 2016, the district hosted a regional IPM workshop for employees of CUSD and neighboring districts. None of the sites used Roundup. Pesticide use has been reduced by the installation of drought resistant landscapes (plants, mulch, and weed barriers). The district also uses an industrial steamer to kill weeds on walkways, clean benches, and lunch tables. Electric rodent traps are used to reduce the use of baits.
- CUSD prohibits smoking on all property and in all district vehicles. The district has identified and properly removed elemental mercury and prohibits purchase. When fuel burning appliances are used, the district has taken steps to protect occupants from carbon monoxide. Wood structures and playgrounds containing chromate copper arsenate do not exist on any sites within the district. The art teachers create an inventory of potentially toxic or listed toxic products for art classrooms. They are catalogued and stored in flammable-safe cabinets. These chemicals are used in well ventilated spaces and with safety equipment like gloves and face masks for these materials. All paints and cleaning materials use by custodians and MOT are low-VOC.
- CUSD's classrooms have good acoustics (less than 45 dBA). Well-lit rooms are obtained using daylight from windows, open doors, and plenty of indoor lighting. The temperatures are regulated using Pelican Building Controls and the relative humidity levels are good (ASHRAE 30-60%). The HVAC system runs to provide the necessary air exchange rate. A preventative maintenance program is coupled with teacher feedback regarding facilities issues. MOT addresses indoor environmental issues as soon as they arise.
- The furnace filters are replaced quarterly with MERV 8 filters. These filters remove particles triggering asthma. All classrooms are cleaned daily (counters wiped, floors swept /vacuumed). School vacuums are equipped with HEPA filters. The gym floor is cleaned with an ionized water-based cleaner to reduce the use of chemicals. Custodial staff use an Envirox low-VOC cleaner.
- The Preventative Maintenance Technician has every room in every building on a schedule to check for leaks and condensation. If a problem is observed by staff member, it is quickly addressed. Wet materials are dried for 48 hours and leaks repaired immediately. Roofs and gutters are frequently inspected and cleaned. Floor and attic ventilation are routinely inspected. Temperature is maintained and monitored using a building management system.

- Ensuring the buildings and grounds are lead-safe is one of the highest maintenance priorities of the district. Buildings and grounds are monitored for potential lead-related issues. Painted surfaces are kept intact whenever possible. Before any renovation or remodeling is started, potential lead exposure hazards are professionally evaluated and remediated if necessary. All work and lead tests are documented to make sure all current and future students and employees are safe.
- All schools have drinking water for the students. Water is regularly monitored for lead by CalAm, the district's water supplier. Drinking fountains are regularly cleaned by custodians and maintained by the Preventative Maintenance Technician. Four district schools have filtered water bottle fillers for the students. Students are encouraged to bring and use their reusable water bottles. Ocean Guardian Grants have supplied students with refillable water bottles to fill at the stations. All school offices have filtered water available to staff. Samples for several locations on each campus are tested for lead yearly. Captain Cooper School uses a well for its water source. The District contracts with a Water System Operator and testing lab to conduct monthly testing of the system.
- CUSD ensures all chemicals are stored in areas inaccessible to students. Instructional-use chemicals are stored in a locked room with access restricted solely to teachers. MSDS/SDS sheets are retained for all chemicals and are easily obtained by user. Custodial chemicals are in locked storage areas only accessible to custodial staff and site administrators. Chemicals from the middle and high school are inventoried and checked for safety every year. MOT is inspected yearly and materials are disposed of as needed.
- To ensure the safety of the students and staff, custodians are trained yearly on the proper use and application of all cleaning materials. All cleaning products are low-VOC. For example, custodians use Envirox cleaners, which are low-VOC and environmentally friendly. An industrial steamer that only uses water is used to clean the outside tables and benches.
- The indoor air quality at CUSD schools is maintained at a high level by following a preventative maintenance plan. The Preventative Maintenance Technician has every room on a schedule and inspects the safety of the room. Furnace filters use MERV 8 filters and are replaced four times a year. Rooms are cleaned daily. The Facility Inspection Tool (FIT) is used as a comprehensive inspection for all district classrooms.
- CUSD students spend a lot of time outdoors, and protecting outdoor air quality is important. School busses do not idle. The wood shops at CMS, CHS and MOT have filters to prevent wood dust from blowing out of the room. The middle school environmental club received an Ocean Guardian Grant to install eight no-idle signs. Signs were designed by students and placed in drop off/pick up area. Finally, during fire season office staff constantly monitor local air quality and if there is a fire nearby, site administrators make recommendations about outside activities during these times.

Element IIB: Nutrition and Fitness

- CUSD utilizes a consortium of local farms through a woman-owned farm to school business called "Savor the Local." Through this program, CUSD purchases organic strawberries, apples, pears, plums, and seasonal vegetables. These are truly farm-to-school as the farms are only a few miles away. The following are percentages of certified organic foods: 20-25% of produce, 20% of meats, 50% organic eggs, yogurt and cheese. Milk is free of antibiotics and hormones but not organic at this time. Cafeterias provide fresh salad bars. CUSD participates in "California Thursdays," featuring unprocessed foods from California such as walnuts, avocados, vegetables,

cheeses and dairy foods. Students obtain nutrition information in middle school and high school health classes, sports med classes as well as during cooking classes at the Habitat with MEarth staff.

- Gardens are an integral part of the student experience at CUSD. All schools have garden spaces and integrated garden activities in the curriculum for K-eighth graders. Elementary schools have designated garden teachers and CMS works with MEarth for garden education. At Captain Cooper, the garden and Response to Intervention (RTI) teachers created an art and garden-based program integrating literacy and math. The River school conducts the kinder science program in the garden, first-third graders have garden science once a month and fourth-fifth graders have a Garden-to-Table program. All Tularcitos, students plant and harvest vegetables. K-1 Tularcitos students care for and study planter boxes. CMS teaches nature studies and science classes using the butterfly, native bee, and pollinator gardens. Science, nature studies, and Ecoliteracy students help maintain all gardens. Core, social studies teachers, Ecoliteracy, and world language teachers work with MEarth in the organic garden for Farm-to-Table lessons. At CHS, the Environmental Club operates a small garden containing natives for pollinators and produce. The CHS language classes travel to the district's Habitat garden and kitchen to work with MEarth on cultural food lessons. CVHS has a small garden which student can choose to use for student-driven projects.
- All of CUSD's PE classes spend at least 50% of the time outdoors, often exceeding the minimum. Captain Cooper integrates the sciences, art, engineering, and PE together in the STEAM program to increase time spent outdoors. The Tularcitos program includes a swimming unit in which most fifth graders can pass the high school swim test. Tularcitos also has a Swing Dance unit where students can perform a variety of dance moves. River and Tularcitos incorporate exercise in the morning to assist learning on the days there is a need of high cognitive retention very early in the day. Elementary and Middle school physical education classes also incorporate mindfulness and SEL throughout the lessons. Fifth, seventh, and ninth grade students participate in the California Fitnessgram.
- CUSD promotes wellness with the recommendations set forth by the district Board of Education's Wellness committee. The committee meets 6 times a year, focusing on four areas of wellness: 1) bell schedule adjustments to address issues of adolescent sleep deprivation; 2) stress and anxiety causes and interventions; 3) nutritional needs and improvements, and 4) reduction of the use of illegal substances including vaping. This committee of 40 is comprised of administrators and teachers, parents, and concerned citizens in addition to two Board members.
- Outdoor opportunities occur at all school sites. River and Tularcitos schools have school-wide "morning mile" programs twice a week. River School also has an annual "Ocean Mile" run all students and staff participate in during the spring. All elementary school gardens are open at lunch for students to eat and relax. There are three garden-to-table lessons of 90-minutes each for K-5 classes co-taught by the garden teacher and classroom teachers. Peer Assistance and Leadership (PAL) fifth graders structure outdoor play events for younger students in grades K-1. At CMS, core classes, Ecoliteracy, and world language student have farm-to-table cooking classes. CMS students can elect to take Nature Studies and spend afternoons collecting bugs and studying nature at The Habitat. During mornings and lunches, gyms are open for student play at both CMS and CHS. Student teams pack the CMS's wiffle ball field at lunch as they play each other. All sites have lunchtime opportunities for student-led games such as spikeball, frisbee, soccer, outdoor ping-pong, basketball, and relay races. Exercise and being outdoors can reduce stress. Counselors work with students experiencing stress or anxiety take middle school students for walks around The Habitat.

- CUSD’s insurance provider offers a Healthy Rewards program to all employees. This popular program allows staff to participate in healthy lifestyles that includes exercise, healthy eating, and mindfulness. River School teachers participate in mindfulness trainings for staff development; the Climate and Culture Committee collaborates on how best to ensure morale remains high. Sites have staff retreats (e.g., rope course challenges, hikes) in August. All schools have Social Committees supporting staff members celebrating life milestones and during life’s challenges. At CHS four days per year, break is extended by 20 minutes and all staff and students are encouraged to be outside and connect with one another. The entire CVHS staff goes on walks with the students, as well as plays games like disc golf and horseshoes together. The district office has added picnic tables with shade umbrellas to encourage staff to eat together outside when possible.
- New Student programs help transition families to the community by assigning buddies through student leadership, and hosting events for new families. All schools address bullying through assemblies and ongoing programs, including lessons on the character pillars at the elementary level, Ohana Day at CMS, and Breaking Down the Walls at CHS. Each school hosts an orientation day for transitioning classes. At CHS, Link Crew helps freshmen manage stress and academics. Link Crew leaders follow up with their group throughout the year. CVHS meets each family at an intake session when students transfer.
- The elementary schools incorporate daily mindfulness instruction, emotional well-being, and anger management sequentially in all classrooms using the Second Step SEL program. First grade classrooms also use the Mind Up curriculum for explicit mindfulness instruction.
- Every campus has robust counseling services for students. Counselors run various groups (e.g., friendship, social dynamics) and personal safety workshops in the classrooms at every grade level. Elementary Schools, CHS, and CVHS contract with the Rape Crisis Center to teach about appropriate and healthy relationships. CUSD hired a district-wide crisis counselor dedicated exclusively to mental health and to securing needed services for students and families. At CVHS, advisors assist students with school work, internship placements, acquiring paid employment, and making the transition to post-high school life.
- Every school partners with Rotary in “Partners in Community Service” (PICS). Students identify a problem in the community that they care about and develop projects or personal action plans to be a part of the solution. Through this partnership, students have awarded tens of thousands of dollars to local charities such as Safe Place (providing shelter and care to homeless youth in Monterey) and Dorothy’s Kitchen (providing meals to the homeless in Salinas).
- The district has twice applied and twice received the US Department of Justice Tobacco Grant. Funds from this grant support a districtwide school resource officer (SRO) tasked with educating youth and reducing the use of illegal substances, especially tobacco products and vaping. The SRO co-teaches health classes with CHS health teacher at both the HS and MS.
- Each school site has a full-time health aide or licensed vocational nurse who is available to provide first aid, medication administration, and TLC as needed. These staff members also keep track of immunizations. The district-wide certificated school nurse coordinates health services at the school sites. The District Nurse provides consultations, assessments, school health planning and case management for students with healthcare needs, mandated vision and hearing screening and training for other staff members who perform healthcare services. Students have access to school counselors. They also have access to mental health support at school either through the district mental health counselor or through county mental health services.
- High School students receive the following health education: ninth grade - health class; tenth grade - Sunstreet Centers speak about distracted driving; eleventh grade - Planned Parenthood

talks about pregnancy prevention and STIs; and twelfth grade - Rape Crisis Center presents on their services and sexual assault. CHS has a health technician for students to visit throughout the day. The high school also has a licensed social worker available for social emotional counseling.

- CUSD partners with the Carmel Library Foundation each year to co-host two parent education events. Sandy Hook Promise is a new program the county and CUSD has embraced this year with programs to help students feel connected and less likely to become agents of violence. CUSD is implementing “Just Say Hello” and “Say Something” at all school sites.
- The district has a well-established sports med program at the HS, which now receives dual enrollment credit from the local community college, Monterey Peninsula College.
- CUSD continues to self-assess student mental wellness and behavior on a district-wide, school-wide, and individual student level through formal training and implementation of Second Step all elementary schools, the Say Something initiative implemented at CHS, and incorporating five behavior intervention assistants (BIAs) at two elementary schools and CMS. Second Step is an evidence-based social and emotional learning that helps students with emotional management, situational awareness, and academic achievement. In addition, the district continues the partnership with Monterey County Behavioral Health providing access to a MCBH clinician who provides therapy for both general education and special education students.

Pillar III: Provide Effective Environmental and Sustainability Education

Element IIIA: Interdisciplinary Learning

- CUSD’s board policy aligns with California’s Environmental Principles and Concepts (EP&Cs), stating, environmental education, “shall be to provide students with an understanding of the interactions and interdependence of human societies and natural systems, people's dependence and influence on natural systems, the ways that natural systems change and how people can benefit and influence that change, the fact that there are no boundaries to prevent matter from flowing between systems, and the fact that decisions affecting resources and natural systems are complex and involve many factors.”
- All sixth grade students take an Ecoliteracy course at CMS. Students in this class participate in restoration projects, assist MEarth staff in “Friday Farming” activities, learn about the environmental impacts of food during “Food Week” with MEarth, and repurpose used boxes to make signs that promote environmental stewardship at the middle school.
- In middle school science classes and seventh and eighth grade social studies classes, at least four Education and the Environment Initiative (EEI) curriculum sets are used. These lessons directly connected to the EP&Cs help students develop environmental literacy as they learn the required content standards.
- CUSD is continuing its transition to the California Next Generation Science Standards (CA NGSS) and the EP&Cs are deeply rooted in the development of new courses that integrate environmental and sustainability concepts into core curriculum.
- Instructional coaches, administration, and elementary teachers considered the EP&Cs during curriculum adoption. Additionally, the district has an instructional coach designated to assist teachers and promote environmental education. For the past two years, teachers have received paid professional learning workshops on the integration of the EP&Cs during the district’s summer institute professional development program.

- Phase one of the district’s Facilities Master plan proposes and addresses wellness, safety, and environmental impact. CUSD board policy promotes “green school practices that conserve natural resources, reduce the impact of district operations on the environment, and protect the health of students, staff, and community.”
- All CUSD students experience an academic program rich in environmental and sustainability concepts across the curriculum within every grade. For example, fifth graders at River School attend Science Camp each spring and the fourth and fifth graders participate in Project Based Learning (PBL) in all classes. At River School, students initiate the PBL projects, nearly 100% of which involve the environment. Student projects include generating solutions to address the seagulls stealing their snacks, building owl boxes to help with pest control, and designing works of art, physical models, and/or call to action projects to help tackle the world’s plastic pollution problem through the National Geographic GeoChallenge. PBLs and Nat Geo Challenge projects use rubrics and outside professionals to evaluate the projects.
- All sixth graders at CMS take “Ecoliteracy” and learn about biodiversity, human impacts and advocacy. Middle school science classes study local and migrating birds, native plants, and insects at the Habitat. The middle school curriculum incorporates the CMS’s school garden; the district works with MEarth to provide gardening and farm-to-table programming for all the sixth grade Core students, seventh grade social studies, and world language classes at least twice a year. Students pick vegetables from the garden and prepare meals based on the history and culture they are learning at the time.
- All seventh-grade students participate in Monterey Bay Outdoor Education (MBOE) Week. During this week, the district partners with outside organizations allowing students to travel to three different local locations to learn about the local environment and connect it to their science, history, art, and language arts classes. Science and Social studies teachers complete the EEI curriculum workshop and incorporate these units into their classes. Students experience three units of California’s EEI curriculum during seventh and eighth grade social studies classes.
- Students learn subject matter including CA NGSS science and engineering practices, environmental connections course content, ability to explain human impact, and connection to real-world problems. Students restored, designed, and created bird and pollinator habitats as they demonstrate understanding of CA NGSS ecological performance expectations. All fifth graders that participate in the National Geographic GeoChallenge get feedback from the organization’s specialist.
- CHS and CVHS participate in the Watershed Guardian Program, a citizen water quality testing program in cooperation with Pacific Grove Natural History Museum. At CVHS, students are expected to design projects which include empirical and quantitative reasoning, and these projects often take an environmental stance.
- This year the science teacher/ instructional coach works with CVHS students every Friday. The initial focus has been on carbon dioxide, leading up to a field trip to the Monterey Bay Aquarium to learn about “Carbonated Seas” at the Aquarium’s Bechtel Center.
- Professional development opportunities are provided for all employees. The district offered “CUSD’s Summer Institute” workshops in integrating Environmental Principles and Concepts in 2018 and 2019. Science teachers attended workshops that integrate EP&Cs at the CSTA’s conference. Additionally, an instructional coach has been added to promote environmental literacy across the grades.
- CUSD students participate in a wide range of co-curricular programs from pre-K through twelfth grade. At Carmelo preschool, students take field trips for students to science museums, zoos,

aquariums, parks, and farms. At Captain Cooper, students participate in field trips to local state parks, the Monterey Bay Aquarium and science camp. At River School, a student led, ninety-member "Blue Crew" environmental club meets bi-monthly. Each elementary class engages in a PBL service learning project. All Carmel River elementary students visit the Monterey Bay Aquarium to participate in labs, and they visit the middle school's Habitat to participate annually in environmental education. First, third, and fifth grade classes visit the Monterey Fairgrounds for a day dedicated to farm education. Fifth graders attend science camp and currently focus on reducing plastic pollution through the National Geographic GeoChallenge. This school also hosts a Family Ocean's Afternoon that includes booths and activities led by students and community organizations who partner with the district.

- At Tularcitos, first graders go to the Santa Lucia Conservancy, the Pacific Grove Natural History Museum and Monarch Butterfly habitat, and the Seymour Marine Lab. Second graders annually go on a boat safari through the Elkhorn Slough to learn about marshland and study ocean animals in the spring. Third graders have a local history field-based program where they learn about the local habitat, animals, and conservation practices. Fourth graders experience an intensive watershed morning of study learning about pollution and water issues. All elementary students go on a field trip to the CMS habitat; there, the students collect seeds and investigate the dispersal type. All Tularcitos fifth graders travel to San Francisco and spend the night on the Balclutha, a three-masted, historical ship originally made in 1886. Students get to experience history and learn the navigational skills used by sailors.
- All seventh-grade students participate in the Monterey Bay Outdoor Education (MBOE) Week. During this week, CMS partners with several outside organizations to allow students to travel to three different local locations to learn about the local environment and connect the local environment to their science, history, art, and language arts classes. The theme of the MBOE focuses on the local Carmel River Watershed and the differences students can make.
- Eight graders have an opportunity to spend a week at Lava Beds National Monument. In 2019 over 50 students camped, explored caves, and learned about the natural history of the area.
- The middle school has worked with California Native Plant Society and MEarth to transform lawns around the school into native plant pollinator gardens. Students learned about service learning by restoring a habitat. Students learn about native plants, pollination and the importance of conserving a pollinator habitat. CMS's core classes learn about cultures and the importance of education for women as they raise money to send girls in Nepal to school. Last year, the CMS environmental promoted Earth Day activities and CMS's "This Club Saves Lives" raised awareness about water scarcity in some areas of the world.
- Courses and clubs at CHS place a heavy emphasis on real-world environmental learning and service learning experiences. The APES class is a field trip-based course with lab-based excursions to the Monterey Bay Aquarium, Carmel's wastewater treatment facility, meteorological centers, Earthbound Farms, and many local rivers, lagoons, wetlands, and parks.
- Non-science classes also provide co-curricular experiences in sustainability. Spanish and French classes learn and practice environmental vocabulary on field trips to the Monterey Bay Aquarium. Performance dance classes have worked on projects that promote environmental practices. CHS art classes learn to make paint from natural resources, use bamboo to make marks, and construct sculptures from materials diverted from the landfill.
- The CHS Environmental Club is the first local Surfrider chapter and involved in regular waste reduction initiatives. The club partnered with Elkhorn Slough National Research Reserve to raise money and restore native wetlands. The club regularly partners with NOAA to show environmentally-themed movies with local experts as panels in the CHS theater. The club also

hosts a series called Earth Experts on local television. CHS's "This Club Saves Lives" has a "Thirst Gala" every year, raising money to build wells in water-stressed locations.

Element IIIB: STEM Content, Knowledge, and Skills

- CUSD fosters cross-curricular teaching with a focus on environmental topics. Captain Cooper School has a unique STEAM program; integrating garden, science, technology, engineering, art and math students learn twice a week for sixty minutes each session. River School participates National Geo Challenge and PBL; both involve environmental topics such as eliminating or reducing plastic usage, protecting endangered species, and conserving and protecting the oceans. River kinder students attend science in the garden weekly. All first through third grade students have monthly class meetings in the garden where they apply principles of sustainability to many of the science standards. At Tularcitos, environmental education is weaved into the Life Science Unit. First and second grade students conduct animal research as a culminating project following thematic instruction about the ocean environment and biomes that integrates ELA, science, math, and technology standards throughout these two themes.
- Sixth grade students at CMS visit the maker space to construct anemometers to study the wind speed in local environments. Students also learn how to incorporate coding and digital sensors into their wind-measuring devices. CMS students use Vernier lab-probes to measure temperature of air, soil, and water. Students construct their own barometers to measure air pressure and compare with a standardized gauge. Sixth graders have designed solar cookers out of recycled materials.
- At CHS, AP Chemistry students examine and assess the impact of certain chemicals on the environment. In Statistics, students analyze case studies that often relate to the environment and public opinion on the environment. In Engineering and Computer Science, discussions and analysis of the environmental impact of certain tech innovations as well as the energy cost of engineering and recycling practices take place. The award winning CHS robotics team uses recyclable materials. The auto shop teacher at CHS recently received an award to purchase an electric car kit that can be built by the students and used teach how technology can be used to reduce carbon footprint.
- CVHS competencies in empirical and quantitative reasoning include and address environmental projects such as owl boxes, water testing, gardening, and restoration projects. CVHS partners with the Big Sur Land Trust as environmental stewards of the Songbird Preserve on the Carmel River. Students remove invasive species, work on native plant restoration, and participate in trail maintenance.
- Starting at the preschool level, students learn about sustainability and the environment as a context for learning green technologies and career pathways. They discuss inspirational scientists that include women and scientists from different cultures. Students also learn about careers associated with botany, oceanography, and biology.
- At River School and Tularcitos, students have science activities that study and experiment with solar energy, hydroelectric energy, and steam power. Students use scientific vocabulary and are encouraged to "think like a scientist/engineer" during science and STEAM activities. Fifth grade students also tour their local wastewater treatment facility, talk to the workers, and learn how water is treated and recycled in the community.
- At The Habitat, solar panels installed on the green building provide an example of how green technology is an important industry. Elementary, CMS, and CHS students learn how scientists

collect and analyze data as they collect real data in citizen science projects using National Geographic and iNaturalist.

- AP Environmental Science invites scientists speak about local issues and careers. AP Human Geography students spend a day at a Taylor Farms in Salinas. On this trip to a local farm, the students learn about the farming community and the importance of the farming industry in Monterey County.
- Carmel High School and Carmel Middle School have hosted career days that include representatives from the science and engineering fields. CVHS students interviewed 15 professionals about their work, including a Natural Land Manager, Senior Wildlife Ecologist, a Grassland Ecologist, and Water Systems Manager. CVHS students toured the wastewater treatment plant at the Preserve and learned about how the wastewater turns into golf course irrigation. As a direct result of this partnership, two CVHS students secured summer jobs at the Preserve, and one has stayed on in a full-time position.

Element IIIC: Civic Knowledge and Skills

- CUSD integrates environmental and sustainable concepts into many project-based learning activities. Carmelo presented their Ocean Guardian work to several district science classes as well as to the CUSD school board. River School fifth graders collaborated with National Geographic Project Based Learning to create environmental solution to a plastic problem. All grades at River School partnered with a local sustainability organization to create artwork on reusable bags for shoppers and community members at local farmer's markets. Annually, River School encourages families to engage in a beach clean ups. For the past few years, fifth graders at River participate in PBL on reducing waste, leading to an ordinance eliminating single-use plastics in Carmel-By-the-Sea.
- The ocean themed-mural at River school represents a commitment to reducing plastic. Students collected over 100 pounds of plastic caps from the beach and worked with a local artist, their teacher, and a National Geographic Explorer to construct an amazing mural that welcomes students to River School every day. A CHS student, inspired by the mural at River School, worked with an elementary school in Marina to complete a similar project.
- At Tularcitos, first grade students participate in Earth Day, beach cleanups at Asilomar State Beach, and field trips to local tidepools. All third-grade students participate in Farm Day annually and work with local conservationists on the Carmel River.
- Every fall, Carmel Middle School students participate in Serve-A-Thon a community service day. Students learn about community service and participate in a service project. Students can choose to do many activities on this day and many choose to do restoration projects at The Habitat, pick up plastic trash around campus, participate in a beach cleanup, and plant plants around the middle school. Middle school students gave a presentation about plastics in the ocean at the 2019 Annual Stormwater Quality Association conference.
- At CHS, students have the opportunity to participate in Environmental Club. Freshmen learn about the world water crisis from Thirst Project and present at the Thirst Gala. MEarth provides many community service opportunities, including beach clean-ups and environmental documentaries hosted by the Environmental Club and open to students and the community. CHS Environmental Science class requires six hours of community service. Every two months, "Earth Experts" come into APES classes to present on their field of study.
- Carmelo preschool programs have garden boxes, campus clean-ups, water table experiments with ocean animals, and field trips to the district's Habitat Pond and to the Carmel River lagoon.

Captain Cooper students attend Science Camp and embark on field trips to the local state parks, the district's Habitat, and the Monterey Bay Aquarium. River School fifth graders attend Camp Sea Lab, and all K-fifth students participate in garden lessons and outdoor science labs. All third and fourth graders travel to state parks, school organized beach clean ups, and visits to the ocean to go tide pooling. Tularcitos first grade students visit Seymour Marine Discovery Lab and have direct observation of Monarchs in the PG Monarch butterfly habitat.

- In addition to all the core and language classes in The Habitat with MEarth staff, CMS participates in multiple outdoor experiences such as trips to the Lava Beds National Monument and Monterey Outdoor Education Week (MBOE). CVHS participates in the Watershed Explorers program and students test the water chemistry of the Carmel River; CVHS is working to become an authorized testing site for this program. Every year approximately fifty CMS eighth graders travel the Lava Beds National Park to engage in environmental education as a residential experience for over a week. At CHS, over fifty students (33%) participated in the annual Desert Trip where students go to Joshua Tree National Park to have sustainability, natural history, ecology, and social-emotional lessons.
- CUSD participates in California's annual celebration of Living Schoolyard Month in May. River School puts on a May Festival where every grade level performs an outdoor dance that has an ocean theme. Family Ocean Afternoon takes place in outdoor space and is designed to educate families about ocean conservation and beautification. Tularcitos participates in Ocean Week, and the school garden is a certified wildlife habitat. At CMS, the Renaissance Fair incorporates all middle school students in an outside history, math, and science lesson and celebration in The Habitat. Student vendors at the Renaissance Fair are encouraged to bring repurposed and recycled projects to sell. At CHS Earth, the environmental club puts on weekly activities, including games with reusable containers as prizes, lunches on the chill hill, and a rock concert with a student band.
- CUSD classes integrate the environment into different disciplines and work with community partners such as the Monterey Bay Outdoor Education Program (MBOE). This place-based program connects students to their local environment and increases their understanding of the interconnection between humans and nature. This year, students spent three consecutive days outside at three local destinations: Carmel Beach, Hastings Natural History Research Reserve, and Palo Corona Regional Park. The destinations provided unique diversity, richness of land-sea connection, and opportunities to connect with local community organizations. Students complete an MBOE journal that has students develop environmental literacy through math, history, art, poetry, and science to local environments.
- Elementary students from Tularcitos presented speeches and posters at the California Wildlife Day to educate the public about the natural history of the Carmel River.
- A CMS science teacher partnered with Stanford researchers to connect CMS students with students from Senegal. CMS students and their peers in Senegal received foldscopes, cleverly designed microscopes folded from paper. CMS students met at lunch, folded their microscopes, and studied microorganisms in the school's pond. They shared their experiences with the students in Senegal by constructing a website.
- In 2018, Carmel Middle School partnered with MEarth, California State Parks Lifeguards, Elkhorn Slough National Estuarine Reserve, Monterey Peninsula Regional Parks, LiMPETs Program, Monterey Bay National Marine Sanctuary, and Pacific Grove Natural History Museum for outdoor learning.
- Two CUSD instructional coaches conducted a workshop at 2019 CSTA annual conference on Integrating Technology to study the environment. Darrell Steely is part of the Leadership Council

for the California Environmental Literacy Initiative, which promotes environmental literacy for all students in the state of California.

- Opportunities for student driven projects, stewardship, and student voice regarding the environment are apparent in many areas throughout the district. Elementary students decide on a problem and design solutions during project-based learning. River School students have made a presentation about plastic pollution to the city council of Carmel-By-The-Sea and to local restaurants. Middle school students make signs that promote environmental stewardship during Ecoliteracy classes. Nature Studies students designed their own projects to protect bird habitats. Projects ranged from amazing videos shown to the school community to fences designed to capture plastic before entering the Carmel River.
- Last year the Environmental Responsibility Team realized that there was a need for student voice on the team and four student members from CHS's Environmental club enthusiastically joined. Their contribution to the team was extremely valuable. The students helped develop a new recycling program and gave a presentation about it to all the staff at this year's Welcome Back Breakfast.