U.S. DEPARTMENT OF EDUCATION

GreenRibbonSchools

School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades early learning to 12.
2. The school has been evaluated and selected from among schools 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.
3. Neither the nominated public school nor its public school district is refusing 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. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole 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.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. 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 public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school 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 2015-2018

☒ Public ☐ Charter ☐ Title I ☐ Magnet ☐ Private ☐ Independent ☐ Rural

Name of Principal: **Mrs. Julie Davis**
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name: **Monterey Road Elementary**
(As it should appear on an award)

Official School Name Mailing Address: **3355 Monterey Road, Atascadero, CA 93422**
(If address is P.O. Box, also include street address.)

County: **San Luis Obispo** State School Code Number *: **40 68700 6042949**

Telephone: **805 462-4270** Fax: **805 462-4288**

Web site/URL: http://mr.atasusd.org/

E-mail: julieanndavis@atasusd.org

**Private Schools: If the information requested is not applicable, write N/A in the space*

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

Julie Davis Date: 3-5-18
(Principal's Signature)

Name of Superintendent: **Mr. Thomas Butler**
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: **Atascadero Unified**

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

Thomas A Butler Date: 3-6-18
(Superintendent's Signature)

Nominating Authority's Certifications

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

1. The school has some configuration that includes grades Pre-K-12.
2. The school 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 and sustainability education.
3. The school 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 Tom Torlakson**
(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.

Tom Torlakson Date: March 30, 2018
(Nominating Authority's Signature)

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, 2018

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.

Monterey Road Elementary School

California 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
March 2018

PART II – SUMMARY OF ACHIEVEMENTS

Monterey Road Elementary School, Atascadero, Calif.

Using environmental and outdoor education to meet the Next Generation Science Standards

Monterey Road school programs promote exercise, positive school climate, sustainability, and garden time, all integrated across the curriculum on a newly renovated campus. Modernization in 2012 resulted in the installation of many high efficiency technologies and energy reducing infrastructure. In 2014, a rooftop 16kW photovoltaic array was installed and meets 70% of the school's energy demand. The school's facilities exceed Title 24 by at least 20%. Energy use was reduced by 70% from October 2012 to November 2017. Monterey Road has reduced the use of chemical cleaners by using microfiber cloths for 90% of all cleaning. Health and wellness is supported in many ways. Sports are taught three times a week by local high school students, intramural sports tournaments happen once a month, PTA hosts a Long-Jump-Athon, music plays for "Dance Days" during recess three times a week, and teachers have access to a weekly exercise class. Birthdays on campus must be celebrated with healthy snacks or non-food items.

The Caring Schools Community program at Monterey Road is a program that builds classroom and school wide community while developing student's social and emotional skills and competencies. In addition, students have daily access to the school psychologist and bi-weekly campus visits from Paso Robles Community Centers counselors. Students participate in cooking lessons in class using food grown in the garden, and third grade holds salad parties to eat what they harvest. Family Cooking Nights throughout the year give families the opportunity to cook healthy meals together using produce from local farms and campus gardens.

Monterey Road's garden, outdoor classroom area, Food Forest, and native plant habitat utilizes over 19,000 square feet, which is about 5.5% of the school grounds. All planters and a grassy slope have been converted to native plant habitat by students. One planter is a devoted butterfly garden used for educational purposes. Lawn areas are used as an extension of classrooms. Students were involved with all steps of the process to design, construct, and maintain the Food Forest, which is designed to function like a forest ecosystem with five fruit trees, vegetable plants, California natives, herbs, and berries that will provide food and an additional educational space for students. The Food Forest is used as another outdoor learning space where lessons are taught in connection with the California Next Generation Science Standards.

The main garden site at the school includes 23 raised beds, a wheelchair accessible bed, three student-designed brick beds, and various planters. Produce from the garden is served in the cafeteria, sold on Mondays at a mini-farmers market, and donated to the Wellness Kitchen for use in meals prepared for cancer patients. Students learn general garden maintenance that supports life science lessons through planting seeds, harvesting, collecting seeds, and composting. Students develop problem solving skills when deterring gopher activity and designing weather protection.

Monterey Road began an annual student-led waste audit in January 2015. Waste audits are supported by One Cool Earth and performed by students. All students separate lunchtime waste into compost, liquid, recyclable, and landfill bins. In January 2016, Monterey Road added a composting program that includes vermicomposting and lunchtime waste sorting led by Green Team students in grades 3–5. A new classroom waste protocol was implemented last year:

classrooms no longer have landfill trash bins, only recycle bins that are emptied into the school's main recycle bin at the end of each day. Monterey Road documents a 56% diversion rate and has decreased the amount of waste being diverted to the landfill by 26% over the last two years.

At Monterey Road, all teachers integrate Mystery Science curriculum and National Energy Education Development Project (NEED) energy science kits that are provided for free by the Cuesta Sustainability Resource Center. NEED focuses on the science of energy, renewable and non-renewable energy sources, and electricity, with many hands on experiments. NEED also offers students opportunities to explore topics in the garden, math, graphing, geography, art, and career pathways. Outdoor education also includes field trips to farms, aquariums, landfill/recycling center, outdoor school, and water treatment plants. Teachers from each grade attended a professional development workshop on implementing the California Next Generation Science Standards (CA NGSS) using outdoor education and NEED kits. Partners in the workshop were from the San Luis Obispo County Office of Education, One Cool Earth, and Cuesta Sustainability Resource Center. The Student Council of 20 5th graders are committed to greening their school by working to replace more turf on campus with drought-tolerant landscaping.

Monterey Road develops short-term and long-term sustainability goals according to the Three Pillars through both the Gateway to Green Schools Program offered by the Central Coast Chapter of the U.S. Green Building Council (CCGBC) and Green Ribbon Schools Award program. The school received California Green Ribbon Schools Silver Level Awards from the California Department of Education in 2016 and 2017, using the program application as a benchmarking tool and roadmap for further school greening efforts. The company EcoVox Energy Analytics, is used to benchmark Monterey Road's energy efficiency by tracking electric consumption and monitors all HVAC activity. Monterey Road ranks 4 out of 4 for high performance by EcoVox.

Monterey Road has several representative stakeholders that participate in ongoing green efforts including the PTA, student council, Garden Committee, One Cool Earth, Garden Club, School Site Council, and English Language Advisory Council. These stakeholders collectively inform the daily operations of the school. The garden committee maintains and teaches lessons in the garden. The student council is made up of fifth graders who meet twice month to share sustainability ideas and goals. The PTA meets once a month and sends out a monthly digital newsletter. All parent updates are sent bi-weekly via email to reduce paper waste. The PTA purchases materials for the garden, encourages volunteering in the garden, and keeps the school community up to date on garden activities. The School Site Council is an advisory committee whose goal is to help identify needs of the school, set goals and allocate funds. The committee is composed of parents, teachers, the principal, and other school personnel. The SSC meets once a month and meetings are open to the public.

PART III – DOCUMENTATION OF STATE EVALUATION OF SCHOOL NOMINEE

Monterey Road Elementary School serves approximately 350 K–5 students in the Atascadero Unified School District. The school is located in a rural residential area of Atascadero, in inland San Luis Obispo County, on California's Central Coast.

Approximately 30% of students at Monterey Road are "unduplicated pupils" for purposes of California's Local Control Funding Formula, meaning the school receives supplemental grants in

order to provide targeted services for students who are English learners, foster youth, and/or income eligible for free or reduced-price meals. About 30% of Monterey Road students are from communities of color.

Pillar I: Reduce Environmental Impact and Costs

Element IA: Energy

- The Atascadero Unified School District (AUSD) School Board encourages day lighting and passive ventilation and operates under a strong sense of energy related efficiency combined with fiscal responsibility. This direction can be seen daily at Monterey Road, where staff works hard to utilize fans and sky lights to provide cooling opportunities before utilizing the HVAC system. In addition, staff turn off all electronics when not in use and there is a No Appliance policy in the classrooms.
- AUSD is in the process of creating a district-wide Resource Management plan in order to ensure the district's schools are working to use resources wisely. Monterey Road will work to follow the guidelines of that plan. The biggest piece of that plan is changing behavior. The district Maintenance, Operations, and Transportation Department has guidelines for steps to take before changing the temperature on the HVAC units that are posted in each room. Posters with tips for saving energy were provided to each teacher and posted at various locations around the school. The school recently adopted an environmental vision statement that includes using energy wisely.
- In 2012, a renovation built to California's High Performance Incentive Grant criteria made Monterey Road an energy efficient site. The modernization required minimum energy performance, energy reduction, and installation of an alternative energy source (solar) in order to exceed Title 24 by at least 20%. Additional high performance attributes based on LEED principles include construction waste reduction/recycling, storm water planning, potable water conservation, and heat island mitigation.
- Monterey Road's greenhouse gas emissions have been calculated in the EPA Greenhouse Gas Equivalencies Calculator using electrical energy data collected by EcoVox. The initial rate of 0.36 MTeCO2/person comes from electrical use from Oct 2012-Oct 2014 (before the 16 kW PV system was installed). The final GHG rate of 0.1 MTeCO2/person, comes from electricity supplied by PG&E (not total consumption, data from energy used by PV system is not accessible at this time) for Nov 2015-Oct 2017. Once the GHG rates were obtained, the difference was divided by the initial rate and multiplied by 100 to show a 70% reduction. Similarly, GHG emissions from natural gas use were calculated separately from electricity using the EPA Greenhouse Gas Equivalencies Calculator. The separation is due to the inability to get data from the exact same date ranges. The initial GHG rate of .07 MTeCO2/person for natural gas is from therms used in 2013 and the final rate of .06 MTeCO2/person is from therms used in 2017, for a 15% reduction.
- Monterey Road charts its electrical consumption and overall HVAC efficiency through EcoVox. Monterey Road consistently ranks 4 (out of a 4 point scale, 4 being high performance) when compared by building metrics of Usage vs. Last Year, Energy Usage Intensity, and Control Range. EcoVox provides monthly energy reports with detailed notes on HVAC performance. EcoVox will notify the district facilities department if anything out of the ordinary occurs with a particular unit so the district can address any malfunction, repairs, or user behavior immediately. They can also determine if staff

needs to travel to a site or not and can sometimes address the issue remotely, saving time and resources.

- In October 2014, Monterey Road turned on the newly installed 16 kW rooftop array of photovoltaic panels. Those panels produce ~70 percent of the school's energy needs. In September 2014, the electricity use was just over 20,000 kWh hours. For 2015 and 2016, it was down to about 8,000 kWh coming from PG&E. Over the summer, the PV system completely covers the minimal energy needs. Between January and December 2016, the school has saved over $5,000 in part because of the solar panels and in part the scheduled shut off of the HVAC during non-use days.
- No additional renewable energy is purchased beyond what is supplied by onsite photovoltaics and the local utility, PG&E. The PG&E portfolio minimum for renewables is 33% for 2016.
- AUSD works with a PG&E Customer Success Manager to assist the district with energy programs; specifically, she assures the District is on the most advantageous tariffs with PG&E. On Bill Financing assisted Monterey Road with upgrading outdoor lighting to LEDs. After modernization, Monterey Road received a rebate through PG&E's Savings by Design program for exceeding Title 24 after modernization. Moving forward, the school is looking into planning a peak day pricing event through PG&E.
- Monterey Road is dedicated to not only to reducing its energy use but also educating the students about energy. In order to provide high quality education, Monterey Road teachers implement free energy science curriculum from National Energy Education Development Project (NEED). Hands-on kits from the NEED Project supplement the curriculum and are provided free of charge from the Cuesta Sustainability Resource Center. Students learn about what energy is, how it is cycled through nature, used by humans, and the different forms in which it is manifested (i.e., solar, wind, hydro, and fossil fuels).
- School renovation in 2012 includes: minimized construction debris, maximized construction recycling, appropriate storm water handling measures, efficient (T-5) lighting, exterior LED lights, High SEER HVAC equipment, automated building control systems (Johnson), increased insulation of the entire building envelope, enhanced daylighting (skylights/windows), enhanced natural ventilation (operable skylights and windows). The new roof is reflective metal with a high albedo rate. New carpet tiles allow for easy replacement of individual tiles instead the entire room. Areas that need hard floors use an environmentally friendly floor product called Marmoleum. Low flow toilet valves 2.4 gal/flush, urinal valves, low flow sink fixtures, and some metered sink valves. The door arches were scored into the concrete which eliminates the need for repainting and the associated VOC's.
- Energy use and overall HVAC efficiency is tracked by Ecovox which reports on any issues allowing them to be addressed quickly which saves time, fuel used for travel, and energy.
- Monterey Road has worked systematically to replace turf with CA natives or regionally appropriate plants. The Food Forest project is approximately 1,000 square feet; a hillside project separating the school's building mass from playfields was another 1,400 square feet. Eventually, the school plans to mulch and plant natives on the whole hillside, totaling at least 10,000 square feet.
- Monterey Road reduces the heat island effect through a number of strategies: Approximately 50% of the site includes turf and landscaping, and 25% of the site is limited to a high albedo reflective metal roof. The remaining surfaces are limited to the

minimal amount of asphalt required to support school functions (e.g., parking, basketball courts, etc.).

Element IB: Water and Grounds

- Indoor water is supplied by Atascadero Mutual Water Company (AMWC). When there is an issue with the school's well then the water used outdoors comes from AMWC as well. From January 2016 through December 2017, Monterey Road has experienced a 43 % reduction of water coming from AMWC.
- Before Monterey Road underwent modernization in 2012 the site consumed over 5,000,000 gallons from the on-site well per year. After construction there was a decrease to an average closer to 4,000,000. This reduction was possible in part due to the water-saving features installed at the school as part of the modernization project, including low flow toilet and urinal valves, low flow sink fixtures, and some metered sink valves.
- The feasibility of installing rain barrels is being determined and some form of rainwater capture will be present in the future for irrigation purposes.
- Some grassy areas were replaced with native plants and a small food forest which will reduce water use once established; these areas are mulched and the drip irrigation was designed and installed by students under direction of professionals.
- Through lessons provided by One Cool Earth educators, students observe storm water features around the campus and brainstorm design solutions. During lessons about different climates, students use real data to argue why landscaping practices may not be ecologically appropriate for a particular area.
- Monterey Road is currently a test site for new remote water monitoring by the District. A smart controller was installed and will be online in the spring of 2018 to be used for controller irrigation from the onsite well. Smart controllers will use data from local weather stations as well as evapotranspiration rates on site to determine when irrigation is needed. The District has its own weather station for this program. Currently, rain data is used to determine irrigation needs at Monterey Road. Remote monitoring of the well meter began in 2014.
- 72% of the Monterey Road site is permeable; there is very little pavement on campus. The site has been designed and graded to enhance percolation of storm water on-site. Bioswales have been installed to minimize off-site flow of sediment to Graves Creek. The school is in the beginning stages of planning a rainwater capture system that will be used to irrigate trees and gardens.
- Monterey Road's garden, outdoor classroom area, food forest, and native plant habitat utilizes over 19,000 square feet, which is about 5.5% of the school grounds. All planters and a grassy slope have been converted to native plant habitat by students. One planter is a devoted butterfly garden used for educational purposes. Lawn areas are used as an extension of classrooms. Last year the school planted a food forest designed to function like a forest ecosystem, consisting of 5 fruit trees, vegetable plants, California natives, herbs, and berries that will provide food and an additional educational space for students. Students were involved with all steps of the process and received lessons related to the project. This year the Food Forest is being utilized as another outdoor learning space where lessons are taught in connection with the California Next Generation Science Standards. The Food Forest is maintained by students under the direction of Garden Coordinators.

Element IC: Waste

- Monterey Road has calculated a waste diversion rate of 56%. Monterey Road diverts an estimated 7.5 lbs of compostable food waste from the landfill during the course of each month.
- In January 2016, Monterey Road began a composting program initiated by a waste audit. The waste audit was organized by local non-profit One Cool Earth and performed by students. Vermicomposting and a lunchtime waste separation has been ongoing since then. There is a green team made up of students in grades 3–5 who supervise lunchtime waste stations. Fruits and vegetables are collected for vermicomposting by worms. The green team members chop the food waste and place in the appropriate bin. Local Wild Horse Winery donated several grape bins for use as the vermicomposting bins. There is an additional compost bin built by a local Boy Scout that is used for garden and other green waste from around campus. Some of the new soil has been added to the garden beds and food forest. One Cool Earth supports the school's composting program through continued waste audits each school year and assistance with monitoring the worms as well as any educational support needed.
- Garbage and Recycling are tracked on a district-wide basis. Since data for each site is not separated, Monterey Road began an annual waste audit in January 2015. Waste audits are organized by One Cool Earth and performed by students. All students separate lunchtime waste into compost, liquid, recyclable, and landfill bins. A new classroom waste protocol was implemented last year. Classrooms no longer have landfill trash bins, only recycle bins which is taken to the school's main recycle bin at the end of the day. If a student must dispose of a non-recyclable item they take it to the end of the hall where the landfill only trash bins are now located. This protocol makes sense at a school because almost all waste in the classroom is recyclable and reduces non-recyclable waste. This is an additional example of how Monterey Road is instilling sustainable practices in the students and staff. A waste audit was conducted in October 2017. This year's waste audit shows 49.8% will go to the commingled recycle stream, 6.2% will be diverted into compost waste, 3% diverted as liquids and 41% will go into the garbage stream. Monterey Road has decreased the amount of waste being diverted to the landfill by 26% over the last two years.
- Monterey Road's Student Council students from 2015–16 wrote letters to Board members about implementing cardboard trays in an effort to support sustainability efforts. Another school did the same the following year. As the district moved to a more sustainable focus (Monterey Road being the frontrunner), they decided to move away from non-recyclable trays. This year the Student Council's focus is to continue to work on turf replacement project to cover more of the campus with drought resistant plants and ground cover. They are also part of the Green Team, supporting students when sorting lunch waste and running the compost system.
- The district has been involved with "self-recycling" since 1999. Recycled tonnage provides $8/ton revenue to the district as compared to the $47/ton tipping fee for waste taken to the landfill. Fiscal benefit drives interest in the recycling program. Additionally, the district is proactive in the use of public auctions for the purpose of selling off unwanted items. This process has diverted district surplus out of the waste stream and into the secondary market.
- There is very little hazardous waste at Monterey Road. Fluorescent tubes that contain Mercury are boxed and sent to appropriate recycling vendors. There is no asbestos. Gasoline is used in small engine equipment. If a small oil or fuel spill occurs, operation

staff is trained for minor pick up. Paint is used only when required and applied generally during non-student times and adhere to Cal OSHA guidelines. Building paints are stored, cleaned, and disposed of at the MOT site. Thermometers used in classroom science activities are mercury-free. All art supplies are non-toxic. Only trained staff or service technicians are permitted to handle any chemicals or hazardous material. MSDS for all chemicals used are available onsite. Batteries used in science activities are provided by and then returned to Cuesta Sustainability Resource Center where once depleted are appropriately recycled. Other batteries are collected and recycled through local vendors.

- 100% of office and copy paper is Sustainable Forestry Initiative Certified; Monterey Road will be a test site for using 30% post-consumer content recycled paper. Newsletters and parent information is all sent electronically. All students in grades 2–5 have their own Chromebook; grades K-1 have a 4:1 ratio of students to Chromebooks. Chromebooks are used to access curriculum and also used as a tool for students to demonstrate their knowledge in a variety of ways. The use of paper has decreased by 40% since implementing these Chromebook ratios.
- In classrooms teachers are only allowed to use Greenworks Multi-Surface Cleaner which is recognized by the US EPA's Design for the Environment program. Maintenance staff uses cleaners that are labeled as non-toxic and/or biodegradable. Custodians reduce the use of cleaners by using microfiber cloths and mop heads on all indoor surfaces.

Element ID: Alternative Transportation

- Rideshare conducted a survey at Monterey Road in 2016 to gather data about how students get to and from school. Of students that responded, 8.5% walk to school; 17% carpool; and 2% take either a school bus or other public transportation. Rideshare's audit showed that it is not ideal for students to walk or bike to school because sidewalks or wide shoulders are not present beyond school property and there is only a narrow bike lane on one side of the road. The attendance area for Monterey Road is rural residential; sidewalks are not present in many areas.
- In spite of locale constraints, Monterey Road is dedicated to providing educational active transportation activities to teach not only students but staff, family members, and the community. Every other month a walk to school day is planned that uses the "walking school bus" model. To improve the biking skills of students, Monterey Road received a grant from Rideshare to install a bike training course as well as curriculum to be utilized during PE. Students must pass a bike safety test before permission slips can be approved for biking to school. Students in grades 3–5 may bike to school; younger students must be accompanied by a parent. Monterey Road received a bike curriculum grant and a full bike course has been painted on the blacktop. There is a Bike Rodeo planned for May and the bike track is open several times throughout the year after school for students and their families to come and practice bike riding skills.
- Monterey Road has a well-publicized no-idling policy that applies to all vehicles. School buses do not idle and parents are instructed to turn cars off as well. Volunteers guide cars through the two drop off/pickup locations in order to keep traffic flowing. Students wait and watch for their parents to ensure the lane moves quickly. This reduces the amount of time cars are waiting in the line. Vehicle loading/unloading areas are at least 25 feet from building intakes, doors, and windows.
- Monterey Road's Lead Commuter, Mr. Thomas Smith, is collaborating with SLO Council of Governments and SLO Regional Rideshare in an effort to reduce the school's overall carbon footprint through alternative methods of commuting. Biking, walking, riding the

bus, carpooling, and van-pooling will all be presented and encouraged. An electric bike will be on loan from BoltAbout, a San Luis Obispo electric bike company, for two weeks. Interested staff can check it out for a trial commute.

- The district has installed three EV charging stations throughout the District. They have a hybrid electric "Volt" for district staff use and are working on get EV's for staff to travel between school sites. Some school bus routes have been changed to be driven by smaller vans that are more fuel efficient and decrease air pollution.

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

Element IIA: Environmental Health

- The district-wide goal at Atascadero Unified is to implement an Integrated Pest Management Plan by focusing on long-term prevention or suppression of pests through accurate pest identification, frequent monitoring for pest presence, applying appropriate action levels, and making the habitat less conducive to pests using sanitation and mechanical and physical controls. Pesticides that are effective will be used in a manner that minimizes risks to people, property, and the environment, and only after other options have been shown ineffective. Visual monitoring for pests is provided by custodial staff on a daily basis. When found in high enough populations sticky traps may be used to determine precise type and number. Non-Chemical measures include: remove food, fix leaks, seal cracks, install barriers, physical removal, traps, and manage irrigation. A 72-hour individual registry for pesticide applications is also available through the district website. Warning signs are posted when pesticides are in use. Staff is provided with IPM training annually. All pesticide use is reported to the California Department of Pesticide Regulation, and records are kept on site for 4 years.
- No smoking is allowed on the Monterey Road school grounds or in public school buses. Thermostats and classroom thermometers do not contain mercury. Thermometers used for educational purposes are mercury-free as well. All fuel burning equipment is maintained and monitored by knowledgeable district staff. The district asbestos management plan, available online, includes inspections done biannually by the district and triennially by the insurance carrier. All preserved wood play structures have been replaced with metal and plastic IPEMA-approved models. Chemicals are not purchased for educational purposes and cleaning chemicals are provided to trained custodial staff only; MSDS are on-site for all chemicals. All art supplies are non-toxic. Door arches are scored into the concrete, which eliminates the need to repaint and reduces VOCs. All classroom cleaning district-wide is done using microfiber cloths to reduce the amount of cleaners needed. Classroom hard surfaces are cleaned with Clorox Greenworks Multi-Surface cleaner (EPA-recognized for Safer Chemistry); floors are disinfected with Lemon-quat (EPA-registered); other surfaces are cleaned with Simple Green (non-toxic, biodegradable). A Kyvac touchless sanitation system cleans restrooms. Cafeteria tables are cleaned with Joy soap and hot water.
- Classrooms at Monterey Road have good acoustics due to high vaulted ceilings and Fabricmate wall surfacing material, a product with a very high noise reduction coefficient. Classrooms have high-efficiency (T-5) fluorescent lights; future projects will change to LEDs. Operable windows and skylights allow for good daylighting and natural ventilation. Humidity at Monterey Road is not a significant problem. Direct Expansion air conditioning provides ample drying on rare days of high humidity. Mechanical ventilation rates have been provided with new HVAC systems and checked by licensed air balance testing individuals. Monterey Road is a "finger plan" school with grass and trees planted

in between the rows of classrooms; trees and grass can be seen through the windows. Certain classrooms have views of one or more of the following areas: main garden, butterfly garden, native plant habitat, or food forest.

- The district utilizes a preventative maintenance program to track unit ventilators; only skilled technicians provide service to HVAC equipment. Units are constantly monitored for effectiveness and efficiency through the use of Johnson energy management technologies. Monthly reports are provided by Ecovox, the company that monitors HVAC and energy use, as well as reporting any malfunctions of a particular unit may have so it can be fixed. Facility inspections are provided annually though the Facility Inspection Tool and posted on the District's School Accountability Report Card. Repair work outside of the preventative maintenance program is enabled through a computer-based facility management work order system.
- In order to prevent exposure to asthma triggers, AUSD uses pleated filters in all HVAC operation. Monterey Road uses 2-inch filter units in virtually all equipment. All carpeting is vacuumed two times a week. No smoking or animals are allowed on campus. The school follows IPM protocol, which reduces allergens from pests. Any pesticides used are applied in a manner to avoid risk to people. All leaks and moisture problems are addressed immediately by custodial staff. Outdoor activity is limited when outdoor air quality is poor due to excessive smog or smoke. Custodial practices include evening cleaning, cleaners sprayed on microfiber cloths to reduce airborne chemicals, horse hair vacuum attachment for removing dust in high locations. Doors remain open during and 1.5 hours after cleaning with chemicals. Cafeteria tables are cleaned with Joy soap and hot water then dried with a microfiber towel to remove any soap residue. The nurse and staff follow doctor's orders that are tailored to each student's needs. There is an asthma triage plan kept on file in the school office.
- Assuring a leak-free facility is the greatest priority of the maintenance department. Roofs at Monterey Road Elementary are all new, the majority built of long lasting standing seam metal. Any moisture issues are dealt with quickly utilizing dehumidifiers and carpet drying fans that the district has "in-stock." In addition, the carpeting at Monterey Road is laid down in tiles which would allow sections of carpet to be removed for efficient cleanup of moisture and mold.
- In order to ensure Monterey Road's facility is safe from lead contamination all preparations for painting projects comply with Cal-OSHA lead removal guidelines. School was built in 1961 and modernized in 2012. Lead was removed in accordance with Cal-OSHA policies. Lead levels did not require abatement but did require skilled and knowledgeable workers. All new products installed on-site comply with current lead standards.
- Drinking water at Monterey Road is provided by a licensed potable water provider, Atascadero Mutual Water Company (AMWC), which conducts daily inspections and regular tests of all wells in their distribution system. AMWC monitors the samples for all contaminants as required by the US EPA, the Safe Drinking Water Act, and Primary Drinking Water Standards, and follows all guidelines according to the national primary drinking water regulations. Groundwater is treated by natural filtration and chlorine.

Element IIB: Nutrition and Fitness

- The district wide wellness policy is very comprehensive and states that staff, students and families are provided with nutritional information for all of the meals served through the district. Specifically, at Monterey Road there is a healthy birthday snack policy:

healthy snacks or non-food items are recommended for birthday and other celebrations in class. Information on breakfast and lunch programs are available in the parent packet, assistance paying for meals is available for those who qualify. Monterey Road's teachers encourage students to bring in healthy snacks for the first recess; they also bring in fruits and vegetables during lunch time from the garden for student consumption. It is a goal of the District to be able to provide more fresh local fruits and vegetables through guidelines outlined in its Resource Management Plan, currently in development.

- The Garden Club hosts a Farmers market every other Monday selling garden produce to school families. Pumpkins grown in the Food Forest are given away to families that do not have pumpkins at home for the holidays. The food forest has a variety of edible plants, fruits, and vegetables that will be available to students. It is also a place where students can learn about health and nutrition, not only for themselves but also the forest ecosystem.
- Several classes take a field trip to the Avila Barn where students learn about local farming and participate in harvesting produces. The fourth grade class participated in the "Agriculture Adventure" field trip.
- Monterey Road has one main garden, a butterfly garden, native plant habitat, and food forest all maintained by students. Students receive direct instruction around grade level specific standards in science, math, and ELA lessons related to the outdoors once a week from the Garden Coordinator. Lessons on evidence of animals, learning about how worm bins and compost piles work, parts of plants, seeds, how to plant, how to prep soil, harvesting the soil from the compost piles, harvesting produce, seeds and how they are dispersed. Many teachers use the garden to enhance classroom learning. Students also participate in harvesting, composting, and garden projects during recess and garden club. The garden club meets every other week after school. Harvest from the garden is sold after school on Mondays at a mini-farmers market and brought into the cafeteria for students to enjoy during lunch time. Students also participate in cooking lessons in class using food grown in the garden. Third grade holds salad parties to eat what they harvest. Family Cooking Nights (three/year) give families the opportunity to cook healthy meals together using produce from local farms and campus gardens. The food forest mimics natural forest ecological relationships. Students began learning those concepts before the forest was built and were involved with every aspect of its construction from design to planting and now maintaining it. Every class was involved with planting and so many students wanted to help during recesses they had to take turns using tools. The food forest is a place for learning, relaxation, and provides nutritious food for the school.
- Students at Monterey Road receive at least 120 minutes of outdoor physical education on a weekly basis. Fourth and Fifth grade students receive Physical Education from a teacher who specializes in PE once a week for 60 minutes. Fifth graders have a physical education state assessment. Monterey Road has also partnered with the local High School: early education classes focuses on teaching PE to primary students three times a week in small groups. Throughout the day, students participate in brain breaks in the classroom using Go Noodle, and other various types of appropriate exercise videos. Three times a week during recess music is played on the playground and the children dance, these are called "Dance Days". Monterey Road has a large playground and field where physical education takes place and can be held outside most of the year. Student councils hosts Tournaments every trimester and over 85 students participate in the tournaments during lunch on average. The district adopted a bike curriculum and a bike trailer is shared with all elementary schools throughout the year. Students learn bike safety skills and utilize the course. Health measures are integrated into Individualized Education and 504 Plans as needed, such as healthy snack breaks.

- Monterey Road has a Wellness Committee Representative that meets quarterly with the district wellness committee. The representative shares updated information with staff and parents at monthly staff meetings and through the parent newsletter and school website. All students participate in compost stations at lunch. Students are encouraged to eat their “brain food” before going to recess. Kindergarten and third grade learn about UV rays through science activities from the NEED Project solar energy kits. The district and school wellness policies extend to any after school program on campus, including Garden Club, Robotics, and the Good News Club.
- Students spend time in the garden on a weekly basis participating in academic based lessons, are invited to help maintain the garden and food forest during their breaks as they choose and enjoy having the responsibility of caring for the garden and outdoor projects. The Student Council sports tournaments throughout the year to encourage movement and exercise during recess, are available to students in grades 1- 5, and are held during lunch. The PTA organizes an annual fundraiser called the Mustang Trot in which students collect pledges and join staff/ PTA to walk, run, or trot around the playground.
- Monterey Road has a very active staff. Brain/exercise breaks are incorporated into all Professional Development meetings. Staff members are invited to participate in an after school exercise class held on campus and taught by staff members. The staff have regular discussions at staff meetings about taking care of themselves and balancing career with healthy outdoor activities. This year Monterey Road Elementary school staff is being encouraged to participate in health activities both physically and environmentally, when choosing their means for commuting to school. The school Lead Commuter, Mr. Thomas Smith, is collaborating with SLO Council of Governments and SLO Regional Rideshare in an effort to reduce the school's overall carbon footprint through alternative methods of commuting as described in Pillar I.
- Monterey Road partners with One Cool Earth and Cuesta Sustainability Resource Center (CSRC) in an effort to increase sustainability efforts across the curriculum and grades. All energy science kits provided by CSRC come with a list of which activities have health connections.
- To improve the biking skills of students, Monterey Road received a grant from Rideshare to install a bike training course as well as curriculum to be utilized during PE, as described in Pillar I.
- Teachers are encouraged to implement a brain/movement break every 30 minutes in grades Kindergarten through fifth. Students are encouraged to bring a healthy snack for recess and are provided access to unlimited trips to the salad bar during lunch.
- Students at Monterey Road have daily access to a school nurse. The nurse is on-site Monday through Friday from 8:30-3:30. Monterey Road partners with The Community Counseling Center in Paso Robles; students have access to a counselor twice a week for 30-minute sessions as needed. Students are referred to the counselor through the school referral process. There are social groups that run throughout the year where students are also referred to work on social norms, scenarios, and skills to help them increase social skills.
- Monterey Road has adopted the Caring School Community Curriculum. This curriculum is taught school-wide, and builds classroom and school-wide community while developing students’ social and emotional skills and competencies. Students participate in targeted lessons, have class meetings once a week as well as check-in meetings at the end of the day. The school also promote the "Bucket Filling" philosophy. The principal visits every class at the beginning of the year and reads the book, "Have you

Filled a Bucket Today?" Students are recognized all year long for having outstanding character. In addition, the kindergarten playground has a buddy bench where students that need a “friend” can sit and signal others to come and ask them to play.

Pillar III: Provide Effective Environmental and Sustainability Education

Element IIIA: Interdisciplinary Learning

- Monterey Road’s new environmental vision statement and District Resource Management Plan in development will include an educational component and promote more sustainable school campuses. Monterey Road began implementing the California Next Generation Science Standards (CA NGSS) two years before it was required. Teachers participated in various staff development opportunities and are a resource for other teachers in the district.
- Partnership with One Cool Earth (OCE) in designing a food forest also encourages teachers to sign up for lessons from OCE throughout the process of establishing the food forest. It is part of school culture to enjoy the outdoors and continue to expand outdoor learning areas such as the butterfly garden, food forest, and a new hillside native plant habitat.
- Mystery Science curriculum is used in every class to teach inquiry-based science aligned to CA NGSS; many topics address environmental and sustainability concepts. Many teachers supplement with project-based learning and California’s Education and the Environment Initiative (EEI) curriculum.
- In addition, all K–4 teachers use hands-on energy science NEED kits, provided free of charge by the CSRC. NEED focuses on the science of energy, renewable and non-renewable energy sources, and electricity with many hands-on experiments. NEED kits also offer students opportunities to explore math, graphing, career pathways, and art as well as the opportunity to take the lessons outside into the garden where classroom learning can be applied.
- All students receive instructional time in the garden and Food Forest throughout the year, weekly or bi-weekly. Lessons are taught by the teachers, Garden Coordinator, or One Cool Earth instructors. Students are involved in the design and mapping of the garden and Food Forest space using math skills. They learn general maintenance that supports life science lessons through planting seeds, harvesting, collecting seeds, and composting. Students develop problem solving skills when to prevent gophers eating plants and when covering beds to protect them from weather. All teachers for grades 1–5 attended a professional development workshop put on by the CSRC in August 2015. In June 2016, K–5 teachers attended a CA NGSS workshop presented by the San Luis Obispo County Office of Education, One Cool Earth, and CSRC. At the workshop, the teachers learned how to use the NEED kits, EEI curriculum, and the garden/outdoors to implement the Next Generation Science Standards. One 5th grade teacher has participated in a STEM program for teachers offered by the California Polytechnic University, San Luis Obispo. This teacher uses project-based learning to assess students’ environmental and sustainability learning. Other teachers give pre- and post-tests on science topics to assess learning.
- Monterey Road’s 5th grade Student Council members are very environmentally conscious, championing at least one “Green” initiative each year. The 2015–16 council wrote letters to the District Board about replacing the Styrofoam lunch trays with cardboard ones in an effort to support their school’s sustainability efforts. They were

successful, and the District now uses cardboard lunch trays. This year, the Student Council is working to continue turf replacement around the campus with drought resistant plants and ground cover.

- Students in grades 3–5 volunteer to monitor waste stations at lunch as the Green Team. They assist peers in sorting waste and are responsible for tending the worm bins. In the bi-monthly after school garden club, activities include making food from garden produce, making bird feeders, and selling produce during mini-farmers markets. The 4th and 5th grade classes are responsible for caring for the chickens in the garden. Outdoor lessons or activities during class, lunch, or recess take place in the garden, lawn areas, food forest, or native plant habitat and include plant life cycles, composting/decomposition, soil, food webs, food forest and garden design, evidence of animals, ecosystems, recycling, waste audits, oil spill cleanup, on site walks to learn about storm water runoff, insects, thinking maps, climate, science related PE games, and observation walks.
- Students from every grade were involved in various stages of the development of the food forest are responsible for its maintenance. Students learned about the ecological relationships within a forest that the food would mimic. The food forest gives students a live forest laboratory to learn in filled with native plants. During the installation of the food forest students learned about ecological relationships that included them, so many students volunteered during lunch time that they had to take turns using tools, eventually the older students began discussing food forest concepts with the younger students working alongside them.
- Students at Monterey Road have many opportunities for field trips that include: Rancho El Chorro Outdoor School to study animal habitats (2nd & 3rd) and use of natural resources (4th), San Simeon for marine debris (3rd), Atascadero Zoo (severe SDC), Tree Farm (1st, 3rd, severe SDC), Agriculture Adventure and Monterey Bay Aquarium for ecosystems (4th), and the 5th graders do a community clean up and water testing field trip. Several classes visit the Avila Valley Barn to learn about agriculture. Other programs at the school are: Clean Air Ambassadors for air pollution, Zoo to You brings animals, One Cool Earth lessons on the Food Forest, storm water issues, and decomposition, and Integrated Waste Management presentations on recycling.

Element IIIB: STEM Content, Knowledge, and Skills

- Monterey Road teachers use a variety of resources to teach STEM. Those resources include: Mystery Science online curriculum, NEED kits, EEI, the garden and food forest, instruction from the garden coordinator, and OCE garden educators.
- Opportunities to explore STEM topics through sustainability and the environment exist at every grade level:
    - 5th grade studies environmental engineering and sustainable solutions through project-based learning and field trips on the topics of oil spills, marine debris and local watersheds, water testing, and watershed clean up. Students explore the Mysteries of seasons, matter cycle, food chains, water cycle and water resources.
    - 4th grade learns that energy is everywhere in different forms with NEED Kits. They learn how the use of natural resources impact the Earth on a field trip to Rancho El Chorro Outdoor School and explore questions like, *how you could survive a landslide, how a car could run without gas,* and *what if there was no electricity* with Mystery Science curriculum.

    - 3rd grade plays science-related PE games and practices thinking maps in the garden. They explore the Mysteries of plant and animal domestication, animals' ability to adapt to changing environments, cloud formation, and the geography of climates. 3rd grade will also use three NEED kits that teach magnetism, wind energy, and solar energy.
    - 2nd grade uses the Mystery Science program to study plants and water. They use a water energy NEED kit, which incorporates reading, hands-on projects, opportunities for math and engineering, as well as an introduction to the technology of hydropower plants. Life science lessons are tied to garden activities.
    - 1st grade connects the environment and sustainability to science, reading, and garden activities to supplement Mystery Science and EEI curriculums. They use the primary science of energy NEED kit to learn that all energy comes from the sun and discuss the ways people use energy in their lives.
    - Kindergarten had a recycling presentation by Integrated Waste Management Authority; teachers refer to the presentation to reinforce good recycling habits. Life science units on the rainforest, plants, and animals include sustainability and caring for the environment, and solar energy and wind energy units are provided with NEED kits. They take observation walks and have lessons in the garden.
    - Students in the regional grades 3–5 Severe Special Day Class (SDC) learn how humans treat the environment affects animals, visit a local tree farm, have lessons in the garden, and practice recycling in their classrooms.
- Through the design, installation, and maintenance of the food forest, students experience hands-on STEM learning through important environmental and sustainability concepts from One Cool Earth garden educators. Each class received in-class presentations on what a food forest is and what the permaculture design process is (closed loop system). Classes were invited to submit designs for the food forest, so many students volunteered to help prepare and plant the food forest site. Older students installed drip irrigation to each plant and would discuss the concepts they learned to younger students they worked with. Students get to practice the science content, problem solving skills, and math while working in the garden.
- Monterey Road has a One Cool Earth Garden Education Manager assigned to their campus to implement garden-based lessons with the students. Through outdoor hands-on lessons, students learn about soil composition; the structure and function of seeds; and distinctions between climate, weather, and seasons. Students use real data to determine if a type of landscaping is ecologically friendly, test how quickly different materials decompose, and conduct campus walks to identify problem areas and brainstorm solutions for storm water management.
- Students have 1:1 (grades 2–5) or 1:4 (grades K–1) ratios for Chromebooks, as described in Pillar I. The use of technology in learning prepares students for the future in a society that operates through these platforms.
- Fifth graders learn about green technologies and career pathways through their study of environmental engineering as environmental and sustainable solutions. Project-based learning and field trips cover the environmental topics of oil spills, watersheds, and marine debris. Kindergarteners and third graders learn about wind power and solar power generation and that people can get jobs working at wind farms and installing solar power. Kindergarten learns about scientists who study waste from the Integrated Waste Management recycling presentations. Through field trips and non-profit partners, students meet and learn about a variety of professionals who work at zoos, farms,

aquariums, the Rancho El Chorro Outdoor School, and in environmental outreach education from One Cool Earth, Cuesta Sustainability Resource Center, and Integrated Waste Management.

Element IIIC: Civic Knowledge and Skills

- A campaign by Student Council students led the school board to switch from Styrofoam to cardboard lunch trays, as described in earlier sections.
- Every other Monday, the Garden Club holds a mini-farmers market to sell produce to students and their families at low cost. Some food products are donated to the Wellness Kitchen in Templeton, which prepares meals for cancer patients. During after school garden club, students in grades 1–5 cook with garden produce, make bird houses, and sell produce to families. Students also help in the garden during recess and lunch to prepare soil, plant, harvest, mulch, weed, plant new projects, and tend worm bins.
- Students collected change to donate to the Alisa Ranch burn fund to help those affected by a large wildfire within the school district area. Other charitable giving includes Toys For Tots and a canned food drive. The special needs class also hosts a bake sale fundraiser where they donate the money to the local Echo Homeless shelter. Fifth grade students learn about local watersheds and marine debris and put their learning into action by participating in a community clean up.
- Students lead the school's annual waste audit by collecting trash from classrooms, sorting the trash into different categories, and weighing it.
- The Monterey Road Green Team is made up of students in grades 3–5 who assist peers sorting lunch waste into bins for trash, recycle, liquid, and compost for worm bins.
- All students receive instructional time in the garden weekly or bi-weekly. They learn general maintenance that supports life science lessons through planting seeds, harvesting, collecting seeds, and composting in the worm bins. Students develop problem solving skills when preventing gophers from eating plants and covering beds to protect them from weather.
- In May of 2017, Monterey Road celebrated Living Schoolyard Month by having a ribbon cutting ceremony for the addition of the Food Forest as well as a celebration week of their Garden and Sustainability efforts through various lunch time activities.
- The plan for celebrating Living Schoolyard Month in 2018 will be a whole-school collaboration designing signage for the gardens around campus. With the main garden, food forest, butterfly garden, and native plant habitat, there is a lot of opportunity for passive education through signage. Each class with be assigned an area or certain number of plants to design signs for. This project will greatly enhance educational value of Monterey Road's Living Schoolyard.
- The Monterey Road school librarian and OCE Garden Education Manager have started preparing a seed library for students to use. They will be holding the seeds in old business card organizers and students will be able to check out a bag containing a few seeds from the garden or food forest. The system will be run by the students for the students. The Garden Education Manager will help facilitate seed gathering when plants are setting their seeds and they will divide seeds into mini manila envelopes to be added to the seed library. This way students will feel encouraged to take what they've learned in the school garden home with them.
- On September 24, 2015, Monterey Road co-hosted a California Green Ribbon Schools workshop, sharing its efforts in facility energy conservation, school gardens, and student

leadership in a school tour. The day-long event was attended by representatives from school, district, state, nonprofit, and utility partners and was a registered Green Apple Day of Service Project.