

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**

Name of Principal: **Mrs. Aimee Conwell**

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name: **May Ranch Elementary School**

(As it should appear on an award)

*\*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.



(Principal's Signature)

Date: January 15, 2021

Name of Superintendent: **Mr. Michael R. McCormick**

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: **Val Verde Unified School District**

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: January 15, 2021



### 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 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.

A handwritten signature in blue ink that reads "Tony Thurmond".

Date: February 18, 2021

(Nominating Authority's Signature)

### **SUBMISSION**

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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: December 31, 2023

### **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](mailto: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.



# *May Ranch Elementary School*

California Disadvantaged School 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 2021

## PART II – SUMMARY OF ACHIEVEMENTS

### **May Ranch Elementary, Perris, Calif.**

#### *Growing School-wide Sustainability*

May Ranch's vision is for all students to be empowered and equipped with the knowledge and strategies necessary to become confident and successful global citizens. This overarching vision provides the framework for the school's garden vision: May Ranch Elementary school envisions a sustainable agriculture program that utilizes green technologies; leads to cross-curricular, real-life application and hands-on learning; and provides the community with healthy, nutritious produce. To realize the school and garden visions, staff commits to reducing its environmental impact and costs, improving the health and wellness of students, staff, and the community, and integrating environmental and sustainability learning into the curriculum.

The school's energy management plan encompasses upgraded HVAC units, photovoltaic solar panel structures, occupancy sensors, and centralized thermostat control to reduce its environmental impact and costs. These improvements resulted in a 62% reduction of kWh energy usage tracked from 2016 to 2019. The installation of economizers in HVAC units in 2016 and a rigorous maintenance plan consisting of quarterly replacements of filters and regular inspection and replacement of belts have contributed to lower energy usage and improved indoor air quality. Currently, May Ranch generates 80% of the school's energy from four carport and ground-mount photovoltaic solar structures installed as part of a district 7.153 MW solar installation project. May Ranch's cool roofs have a single-ply, white membrane coating to help reduce the heat island effect and insulate buildings.

Outdoor environmental improvements to the May Ranch campus include replacing 14,515 square-feet of grass with artificial turf, planting water-efficient indigenous plants supported with bark mulch, and improving irrigation. These projects resulted in a 24% reduction in indoor/garden potable water use and a 68% reduction in outdoor reclaimed, non-potable water use from July 2017 to June 2020. Eighty percent of all plants are California natives. School landscape and garden areas feature new bubblers and drip irrigation, replacing old equipment. Upgraded nozzles in the field's rotating sprinklers better fit the needs of the fields and avoid overwatering. May Ranch students access clean drinking water through a water bottle filling station that has saved 23,844 plastic bottles from the landfill to-date.

The school recycles and composts green waste and food scraps to divert waste from the landfill. Eighty percent of green waste turf cuttings are recycled and reused in the field. Last year, the school's vermicomposting and composting food scraps provided ten pounds of compost for their garden. May Ranch works with district buyers to purchase green and recycled materials for administration, instruction, and maintenance whenever possible.

May Ranch pick-up and drop-off policies ensure a reduced environmental impact and safe arrival to school. Parents are encouraged to park legally in the neighborhood and walk onto campus to avoid idling in the parking lot. The school employs a visitor "taxi" system for all student pick-ups, in which student names are written on cardstock and placed on dashboards to allow staff to call students quickly to their cars. This system speeds up the pick-up process and avoids excessive idling. Students walking or rolling to school arrive safely due to well-communicated policies and active supervision in all crosswalks in front of the school and the parking lot.

The school follows California's Healthy Schools Act requirements and the Val Verde Unified School District's Integrated Pest Management practices to ensure long-term pest prevention using the safest methods possible. As the need arises, glue traps and mechanical traps are the preferred methods for pest control. When non-chemical options are ineffective, the district uses pesticides to minimize risks to people, property, and the environment. The school district has eliminated all glyphosate-containing herbicides district-wide and utilizes the natural weed killer Weed Slayer, and saltwater, for weed abatement. Custodians at May Ranch employ green cleaning practices, consisting of 81% green cleaning products, feather dusting, and daily vacuuming with vacuums containing HEPA filters.

May Ranch promotes healthy food and nutrition to support students and the school community. While the school garden curriculum provides a foundation for health and nutrition education, the City of Perris, Eastern Municipal Water District, Nutrition Education and Obesity Prevention Program, and Healthiest City Challenge have provided additional education and resources over the years. May Ranch students participate in Chef in the Classroom, Dairy Council lessons, healthy eating assemblies, the Harvest Festival "Rethink Your Drink" booth, and the City of Perris Health Fair. May Ranch has also hosted parent classes on the topics of healthy eating and wellness.

The school garden consists of a 2,737-square-foot outdoor school garden with 19 beds, ten fruit trees, and nine aeroponic towers; and a Nutrient Film Technique vertical farm located in six classrooms. The school garden at May Ranch provides ecological benefits with 96 square-feet devoted to pollinator-friendly plants. The school garden must be sustainable over time; as part of that effort, students save seeds from the garden, clone plants, and create compost from food waste and worm castings. Annually, the school garden and garden curriculum provide more than 900 students in all grade levels with hands-on learning in the California Next Generation Science Standards (CA NGSS), environmental and sustainability education, and the joys and benefits of gardening.

In partnership with the district and City of Perris, the school earned a USDA Farm to School Grant to increase fresh produce procured locally and at school for student consumption. Now in the second year of implementation, May Ranch has provided well over 500 hours of garden and nutrition curriculum. Maintaining and operating the aeroponic towers and vertical farm allowed May Ranch students to offer more than 1,000 heads of lettuce to the cafeteria during the 2019-20 school year, equating to 5% of the salad bar's needs. The May Ranch cafeteria supports farm-to-school programs and purchases lettuce and vegetables from the school garden. Students harvest, weigh

and calculate the retail cost of produce provided to the cafeteria, and staff invoice the district's food services department. Cafeteria staff have observed that students consume more lettuce on days when nutritious "May Ranch lettuce" is served in the salad bar because students have pride and ownership in the food they have grown. Additionally, the school recognizes that directly supplying lettuce and vegetables to the salad bar reduces its carbon footprint since produce is not shipped from distant farms.

At May Ranch, social skills and social-emotional learning are explicitly taught twice a week during morning meetings. The school utilizes Positive Behavior Interventions and Supports tiered interventions. In the classroom, all teachers employ mindfulness, restorative practices, and trauma-informed practices to ensure student wellness and build a positive classroom community. When more intensive interventions are required, a full-time school psychologist and two mental health therapists support students and provide counseling daily. The school supports student health with a school-based health center staffed daily by a Licensed Vocational Nurse and a Health Technician. They maintain necessary health records, assist with health services and medical screening of students, disseminate health information, address and communicate routine health issues, and provide emergency medical care.

May Ranch strives to provide all students with environmental and sustainability education woven into the curriculum, extracurricular activities, and the green schoolyard master plan. As an AVID Elementary School, the school utilizes elements of writing, inquiry, collaboration, organization, and reading to provide a framework for environmental and sustainability integration with science, mathematics, and the ELA core curriculum. Each trimester, students in grades 3-5 participate in engineering design process projects that challenge students to develop solutions to real-world problems. Students' past projects include designing, building, and writing about irrigation ollas for the school garden; hydroponic systems; and plant cloning.

Students in all grade levels participate in field trips, many of which focus on the CA NGSS Earth and Life Sciences. Most field trips take place outdoors and integrate environmental and sustainability learning to provide experience, knowledge, and context, which lead to cross-curricular opportunities through writing, inquiry, collaboration, organization, and reading. Following the field trips, students draw on their experiences to write, ask unanswered questions, participate in discussions, organize notes in graphic organizers, and analyze texts.

From 2017 to 2020, the City of Perris and May Ranch have annually certified approximately 30 students as Junior Master Gardeners. Currently, 90 students are participating in the Junior Master Gardener program through distance learning. Realizing the health, wellness, and learning benefits of the Junior Master Gardener curriculum, May Ranch utilized the program's Learn, Grow, Eat, and Go curriculum with all students in grades 1-5 in the 2019-20 school year. During P.E. "FLEX time" physical activity station rotations, these lessons integrate physical activity with literacy, gardening, and nutrition.



Outdoor learning experiences are purposefully planned in teachers' lessons to provide meaningful hands-on learning experiences and application in Science, Math, Social Studies, and Environmental Literacy. The indoor hydroponic system and outdoor garden offer opportunities for STEAM integration and problem-solving. Green practices are part of daily garden and life science instruction. Students study, plant, and maintain pollinator-friendly native plants, including indigenous, water-efficient plants in the garden; compost food scraps; and maintain two vermicomposting towers with 1,000 worms. Established in 2014, the Garden Club has grown to nearly 75 students who support the school's garden, aeroponic towers, vertical farm, and campus beautification efforts. The playground, field, and other shaded areas offer additional outdoor spaces for science and math skill application, demonstrations, and project testing.

The garden and school grounds allow student groups to lead civic and community engagement projects. The Associated Student Body promotes and provides campus beautification, such as planting bulbs in ornamental planters, pulling weeds, and picking up trash. Junior Master Gardeners volunteer at events such as the City of Perris' Health and Wellness Fair and lead the Green City Farm, teaching the community gardening tips.

May Ranch students are the future of the Perris community, and it is through them that the school will realize its vision. The school's students and community inspire its school-wide sustainability mission. Understanding the need to combat obesity and the city's status as a food desert, May Ranch relentlessly continues to expand its garden and sustainability education, hands-on learning opportunities, and outdoor experiences for students.

## PART III – DOCUMENTATION OF STATE EVALUATION OF SCHOOL NOMINEE

### Pillar I: Reduce Environmental Impact and Costs

#### *Element IA: Energy*

- The May Ranch Energy Plan consists of multiple components to manage and reduce energy use. The school reduced non-transportation energy use by 62% from 2016 to 2019 by installing optimizers, conducting rigorous HVAC maintenance, implementing centralized occupancy control of thermostats and lighting, and installing four photovoltaic solar structures.
- The school enrolled in the Southern California Edison (SCE) HVAC Optimization Program in 2016. SCE offered financial incentives to install optimizers and assist with offsetting the incremental costs of the planned maintenance. Benefits include lower energy usage and maintenance costs, fewer unplanned service calls, increased system reliability, indoor air quality, temperature control, and a smaller carbon footprint.
- An energy management system has been in place since 2016 that allows the school's district to control HVAC and lighting consumption centrally. Occupancy

sensors shut off lights in unoccupied rooms, and teachers must manually turn on HVAC units after student dismissal.

- May Ranch obtains 80% of its energy from on-site renewable energy generated by photovoltaic solar panels. The installation of four photovoltaic solar panels in 2017 consists of two parking lot carport structures, two ground-mount structures in the rear playground area, and a Tesla backup battery system.
- SCE utilizes a mix of renewable resources such as wind, solar PV, solar thermal, hydroelectricity, geothermal, and bioenergy to meet their renewable procurement targets. As of 2018, 36.5% came from their Renewable Portfolio Standard eligible resources, exceeding the state standard.
- May Ranch installed cool roofs on all campus buildings in 2013 to reduce the heat island effect. The roofs at May Ranch are a single-ply, white membrane coating. This reflective coating also provides energy savings by insulating the buildings. Strategically-placed trees in the parent pick-up area and outdoor learning space and garden also reduce the heat island effect.

#### *Element IB: Water and Grounds*

- May Ranch Elementary tracks reclaimed water used to irrigate landscaping on-campus as well as potable water used indoors and for garden irrigation. The school used Eastern Municipal Water District (EMWD) statements to document a 24% reduction in indoor and garden water usage and a 68% reduction in outdoor/reclaimed water usage from 2017 to the 2020 school year.
- Multiple projects around the school contribute to the reduction in water consumption. From 2017 to 2019, students replaced all plants in ornamental planters with drought-tolerant, indigenous plants and installed bark in the planters to reduce watering and soil runoff. In 2018, artificial turf replaced grass in front of the school. May Ranch updated the original sprinkler system from 2008 with water-efficient bubblers and drip irrigation. Rotating sprinklers are customized to the needs of the fields to avoid overwatering. From 2015 to 2018, 14,515 square-feet of turf was removed, providing space for the school garden and outdoor learning classroom and saving water.
- May Ranch uses reclaimed, non-potable water to irrigate landscaping. In the 2019-20 school year, the school reclaimed 58% of total water utilized. The benefits equate to a safe, sustainable, and cost-effective water supply. Additional water savings have resulted from drought-tolerant, indigenous plants in ornamental planters and the school garden. 80% of plants are water-efficient and regionally appropriate.
- May Ranch is purposeful in supporting ecologically beneficial practices. Three 8 x 4-foot beds in the school garden area are devoted to growing pollinator-friendly native plants such as sunflowers, Nasturtium, and yellow bells to attract pollinators and provide learning opportunities. Ten fruit trees, Society Garlic, and palms planted throughout campus also attract pollinators. May Ranch follows an intentional plant purchasing policy, only growing plants without pesticides or neonicotinoids in the garden. Students employ practices such as companion planting to reduce pests in the garden as opposed to pesticide use.



### *Element IC: Waste*

- Various practices at the school divert waste from the landfill. The school's waste management company documents 23% recycling material diverted from the total waste collected. Eighty percent of turf cuttings get reused, diverting 9,840 tons of grass from landfills. The school estimates 1,000 pounds of food waste diverted annually through composting and food sharing practices in which leftover or unwanted cafeteria produce is made available for students wanting additional food.
- The school works with the Riverside County Department of Waste Resources to teach students about reducing environmental impact by diverting waste from landfills. During the 2018-19 and 2019-20 school years, three classrooms learned about composting and vermicomposting from the Riverside County Department of Waste Resources volunteers. Students in the Garden Club compost ten pounds of food waste and garden clippings in a tumbler-style composter and maintain two healthy vermicomposting tower systems to enrich the garden's soil. Additionally, after learning about composting, one classroom made compost containers out of plastic bottles then placed their compost into the garden.
- May Ranch closely regulates hazardous material use and disposal following district policies and procedures. Material Safety Data Sheets identify all hazardous materials used at the school. The document is located in the front office and on the district website and details waste disposal practices for hazardous materials used on site. For additional safety, the school district contracts with an outside vendor to remove and recycle all fluorescent lamps and tubes.
- Yearly, all May Ranch staff members receive training on Val Verde USD's Injury and Illness Prevention Program. Training includes instruction on methods staff may use to detect the presence or release of hazardous substances in the work area and protect themselves from these hazards. Custodians, district Maintenance and Operations employees, and substitutes participate in five days of hands-on training to ensure they are well trained in the storing, handling, clean up, and disposal of chemicals.
- May Ranch works with the district purchasing department to request certified green products. Purchasing includes filler paper made from 100% recycled, 40% post-consumer materials, and white copy paper made from sustainably-sourced trees and biomass energy.

### *Element ID: Alternative Transportation*

- Students at May Ranch arrive safely at school due to purposeful communication, policy, and staffing. May Ranch is located strategically in the community, close to student homes. The school administered transportation surveys and documented 43% of students walking to school and 22% of students "rolling" to school. Students wishing to ride a bike or scooter to school are required to provide a permission slip signed by a parent, wear a safety helmet, and bring a lock to secure bikes or scooters in the storage area. Supervision aides, administrators, or teachers monitor crosswalks in two intersections and the parking lot for 45 minutes before the start of the school day and 30 minutes following the end of the school day. Staff monitoring

the safe ingress and egress of students wear reflective vests and use handheld crosswalk signs while crossing students. All staff members share the responsibility of reminding students and families to use crosswalks to cross safely onto campus. The school explicitly teaches bike safety and rewards students for demonstrating safe behavior with awards.

- May Ranch encourages parents to park legally in the neighborhood and walk onto campus to avoid idling in the parking lot. The school employs a visitor "taxi" system for all student pick-ups, in which student names are written on cardstock to allow staff to call students quickly to their cars. The system speeds up the pick-up process and avoids excessive idling.
- The school's parent district does not have its own bus fleet, nor does it provide daily busing to and from school for most students. For field trips and instances requiring busing for students with special needs, the district contracts with a local district to use their buses. The Hemet Unified transportation department now utilizes 53 clean-burning CNG buses, many of which replaced older diesel buses. For fleet vehicles, the school district is purposeful in buying and replacing efficient fleet vehicles. District fleet vehicles that visit May Ranch for maintenance and operation purposes have start/stop technology, which shuts down the vehicle's engine when stopped for longer than ten seconds, thereby avoiding excessive idling and reducing environmental impact.

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

### *Element IIA: Environmental Health*

- May Ranch follows the Val Verde USD's IPM practices. All staff at May Ranch receive yearly comprehensive training on IPM. This training includes understanding the Healthy Schools Act, reviewing IPM practices, learning about the safe and natural reduction of pests in the indoor school environment, and applying procedures for the proper use of antimicrobial pesticides.
- The district employs practices to reduce pest infestation, including removing access, food, water, and shelter for pests in the classroom. As the need arises, glue traps and mechanical traps are the preferred methods for pest control. A local contractor, Gopher Patrol, manages routine pesticide-related applications and store chemicals off-campus at the service provider's facility.
- May Ranch has eliminated all glyphosate-containing herbicides and utilizes the natural weed killer, Weed Slayer, and saltwater. Herbicides are stored in chemical storage containers off-campus in the Maintenance and Operations/Grounds service building.
- May Ranch prohibits the use of any tobacco-related products, including all forms of electronic vaping devices and disposal of any tobacco-related waste on campus or school buses. Signage posted in front of the school and the school's Parent and Student Handbook provides communication to the community of the policy.
- May Ranch follows the district chemical management program, which consists of purchasing and selecting green products to the greatest extent possible. 81% of all

custodial products bought and used within May Ranch are Green Seal certified or meet EPA Safer Choice product standards. Custodial staff apply green cleaning products and utilize non-chemical cleaning methods as appropriate. All custodial backpack vacuums use HEPA filters to keep air quality in the classrooms healthy. During COVID, site custodial staff disinfect classrooms and facilities using electrostatic sprayers. These sprayers utilize electrostatic technology, which charges the atomized particles of cleaning solutions (one of which is fully biodegradable) to adhere to all surfaces.

- All May Ranch staff members receive annual training on the district's Injury and Illness Prevention Policy. This training includes informing employees of the requirements and location of the written Hazard Communication Plan. A key component of the Hazard Communication Plan is training May Ranch staff in the methods and observations that staff may use to detect the presence or release of hazardous substances in the work area and protect themselves from these hazards. Custodians, district Maintenance and Operations employees, and substitutes participate in five days of hands-on training to ensure they are well trained in the storing, handling, clean-up, and disposal of chemicals.
- May Ranch's HVAC upgrades, including economizers and program-controlled humidity sensors, enhance classroom and campus buildings' thermal comfort. HVAC systems exceed the required minimum amount of outdoor air exchange rates, cycling 25-30% of outdoor air per hour.
- A full-time filter maintenance employee replaces filters more often than the industry standard, every four months versus every six months. Frequent filter replacements provide healthy air in classrooms. During the filter and belt replacement, the units' internal components are inspected for wear and deterioration and replaced accordingly.
- Purposeful training and actions help avoid asthma triggers in the classroom. The site follows district guidelines preventing the use of fragrances such as air fresheners in the school. Site and district staff also monitor air quality and limit outdoor activities when air quality may pose a hazard to all or sensitive students. The school provides alternative indoor activities in place of potentially dangerous outdoor activities.
- Every summer, the roofs on all May Ranch buildings are inspected for signs of leaks or wear. District employees monitor for leaks and moisture hazards during the school year and rapidly inspect and repair as needed. Economizers installed in 2016 on May Ranch HVAC systems control humidity inside the classroom.
- From 2018 to 2019, the school planted four trees in front of the school and four more in the outdoor learning classroom, and ten fruit trees in the school garden. The fruit trees contribute to cleaner, fresher air and support efforts to attract pollinators in the garden and community.
- May Ranch ensures that flowering, pollinator-friendly plants and trees are included in the school garden and throughout campus. Three 8 x 4-foot garden beds are devoted to growing pollinator-friendly native plants, including sunflowers, Butterfly Bush, Nasturtium, Marigolds, and Yellow Bells. The flowering plants provide environmental benefits by providing oxygen and utilizing carbon dioxide, and preventing soil erosion.

- The school's drinking water comes from a municipal water source. Eastern Metropolitan Water District (EMWD) maintains clean and contaminant-free water. EMWD tested May Ranch's drinking water in April 2018 and did not identify any concerns. EMWD drinking water contains safe amounts of fluoride to prevent tooth decay.
- In 2017, EMWD donated a water bottle filling station, available to all May Ranch students to provide hydration during PE and recess and a healthy alternative to sugary drinks. To date, the water bottle filling station has saved 23,844 plastic bottles from the landfill.

*Element IIB: Nutrition and Fitness*

- May Ranch employs several practices to promote healthy food and nutrition. Support from the City of Perris, Eastern Municipal Water District (EMWD), Nutrition Education and Obesity Prevention Program (NEOP), and Healthiest City Challenge provide education and help address the community's obesity rate of over 40%, limited park space, and status as a food desert. NEOP brought healthy initiatives and programs to May Ranch, including "Chef in the Classroom," healthy eating assemblies, and parent education classes. The school garden became one of 31 satellite community gardens through participation in the Healthiest City Challenge, which expanded the existing school garden from 665 to 2,737 square feet.
- The school focuses on healthy food and nutrition in enrichment and community partnership events. During May Ranch's STEAM Night and Harvest Festival, the Student Garden Club members sell student-grown produce and plants to raise funds to support the school garden program. Since 2015, the City of Perris has been a frequent partner at these events and provides education on "Rethink Your Drink" (limiting sugary drinks) and healthy nutritional options. They also provide families with health and wellness classes offered at the city garden. Approximately 30 May Ranch students participate and volunteer for City of Perris community wellness events such as their annual Health Fair, Mayor's Salad Challenge, and health/wellness classes at the city garden.
- In partnership with Val Verde USD and the City of Perris, the school earned a Farm to School Grant with the USDA and is in the second year of the implementation phase. The grant aims to increase the amount of fresh produce procured locally and at school for student consumption. Through the grant, May Ranch has provided over 500 hours of garden and nutrition curriculum aligned to the Next Generation Science Standards and National Health Standards. All May Ranch students in grades 1-5 participated in ten lessons and activities from the Junior Master Gardener's (JMG) curriculum Learn, Grow, Eat, and Go, which combines literacy, gardening, nutrient-dense food experiences, and physical activity. May Ranch students to provide more than 1,000 heads of lettuce to the cafeteria during the 2019-20 school year, equating to 5% of the salad bar's needs.
- From 2015 to 2018, most classrooms participated in the City of Perris' Chef in the Classroom program. The program consists of an interactive cooking demonstration alongside a nutrition education lesson to encourage students to eat healthier while participating in prepping and sampling their own healthy snacks.

- May Ranch cafeteria employees encourage students to select and eat May Ranch-grown lettuce from the salad bar, and school-grown produce is a healthy snack in some classrooms. The May Ranch cafeteria purchases lettuce and vegetables from the school garden. Students harvest, weigh, and calculate the retail cost of produce provided to the cafeteria, and staff invoice the district's food services department. Cafeteria staff have observed that students consume more lettuce on days when nutritious "May Ranch lettuce" is served in the salad bar because students have pride and ownership in the produce they have grown. Additionally, May Ranch recognizes that directly supplying lettuce and vegetables to the salad bar reduces its carbon footprint since produce is not shipped from distant farms.
- The May Ranch class of 2014 donated a 665-square-foot garden and began the school's gardening efforts. In August 2017, a partnership with EMWD and the City of Perris expanded the garden to a total of 2,737 square feet. Currently, the outdoor garden contains native plants, produce, and fruit from 19 garden beds and ten fruit trees. An additional nine aeroponic towers and Nutrient Film Technique vertical farm placed in six classrooms provide indoor hands-on environmental and gardening education.
- Riverside Master Gardeners support the school-wide garden curriculum as frequent guest teachers at May Ranch. Master gardeners lead students and the community in cooking lessons using produce from the school. During their gardening lessons, Master Gardeners have also taught students that the garden yields have more benefits than food. May Ranch students have created musical instruments and dyed fabric with materials grown in the May Ranch garden under their tutelage. Each year, approximately 30 students earn Junior Master Gardener certification through participation in city courses and, in turn, teach their practices and skills to the larger community.
- The school principal, instructional coach, and four teachers regularly attend professional development opportunities. They have participated in the Green Our Planet program, Ag in the Classroom conference, a hydroponics workshop from the University of Arizona, and JMG training at Texas A&M. These staff members return from the workshops to provide training support to May Ranch teachers. Additionally, the school's lead gardening teacher attends monthly networking and training meetings with district partners and district schools.
- In October-November of 2019, two May Ranch teachers taught an after-school Garden-to-Table cooking class based on the MyPlate curriculum. Taste and Teach Grants have enabled students from multiple classrooms to taste and learn about various types of produce monthly. In 2019, the City of Perris painted the school with the MyPlate portion food guide, fruits and vegetables, and footprints on the playground blacktop to provide information and encourage healthy eating.
- Each week, May Ranch students in grades 1-5 rotate through 60 minutes of physical activity stations, called FLEX time. In addition to FLEX time, teachers in grades 1-5 plan 30 minutes of additional structured PE 3-4 days per week in which students stretch, run, practice skills, and participate in strengthening exercises. Transitional Kindergarten and Kindergarten students participate in 15 daily minutes of outdoor

structured PE rotations that focus on motor skills, movement, personal space, and social skills.

- Students in grades 1-5 engage in daily optional recess activities with eight supervision aids trained to monitor and facilitate games. Older students are trained as student leaders in these games and help facilitate games and mentor play for younger students. Transitional Kindergarten and Kindergarten students participate in 20-minute daily recess activities, including highly structured activities facilitated by Supervision Aides and older student leaders. Lunchtime music and activities, Jump Rope for Heart, and after-school intramural sports provide additional exercise and recreation options for May Ranch students of all ages.
- Since 2016, the 100 Mile Club is a co-curricular activity open to all student grades K-5, teachers, and parents. The campus opens early for student participants to walk/run on the playground each morning. Monthly Saturday events and off-campus activities provide additional exercise and participation opportunities to students. Participants log miles in an application through a scanner to tabulate their results.
- Each year, the PTO sponsors a Move-a-thon fundraiser open to all students grades TK-5. The Move-a-thon promotes outdoor physical activity as students rotate through movement-centered stations such as dance, obstacle courses, and hula hoop challenges. Funds collected from the event contribute to field trips and school activities.
- During the summer of 2018, May Ranch hosted the district's first Math and Mindfulness Summer camp for students across the district. The camp included mindfulness professional development to teachers, who then integrated mindfulness and growth mindset instruction with math instruction. During 2018, nearly 200 Val Verde USD students in grades 3-6 participated in the weeklong camp. In 2019, the district expanded the program to two weeks to support about 300 learners. Particular lessons in the camp connected math to nature, such as an outdoor activity in which students identified patterns in nature. In both years, May Ranch teachers participating in the camp trained all May Ranch teachers the following school year. As a result, teachers model mindfulness and self-regulation strategies in morning meetings and throughout the day.
- May Ranch believes that healthy staff can best support healthy students. The district's Injury and Illness Prevention Plan and Risk Management Department facilitate education, training, and a variety of programs such as the annual district wellness fair; free TB shots, flu shots, and CPR and First Aid training; heat illness education and equipment (heat index calculator, umbrellas); and monthly safety topics and trainings. Some May Ranch staff also take advantage of district-promoted health and wellness initiatives, such as stress management webinars, through insurance companies.
- May Ranch utilizes a Coordinated School Health approach to address school health issues across various fields. Support staff members work closely together to support staff and students' health needs and assist the students in their ability to learn. The school promotes student health with a school-based health center and access to the district nurse and the district mental health team members. The school health center is staffed daily by a Licensed Vocational Nurse and a Health Technician. They



maintain necessary health records, assist with health services and medical screening of students, disseminate health information, address and communicate routine health issues, and provide emergency medical care. The District Nurse is on-site one day per week. The nurse collaborates with 504, RTI, and IEP teams to provide service and leadership in health services to students, parents, and staff.

- The school supports student mental health and school climate through robust tiered Positive Behavioral Interventions and Supports (PBIS). Tier 1 supports include behavior expectations and acknowledgments, weekly social-emotional learning lessons, anti-bullying lessons, and trauma-informed practices that apply to all students to reinforce positive behaviors and prevent problem behaviors. Annual theme weeks (e.g., anti-bullying, digital citizenship, What If Week), assemblies (e.g., Jon Pritikin on anti-bullying; Blake Brandes on growth mindset), and attendance challenges further support the Tier 1 program. Tier 2 and 3 interventions include restorative practices, mental health referrals, risk assessments, mentoring, small group counseling, and other targeted approaches. Yearly, teachers participate in professional development such as tiered PBIS interventions, mindfulness, SEL, morning meetings, Restorative Practices, and Trauma-Informed Practices.
- May Ranch students are supported five days a week by two on-site counseling therapists. The counselors implement tiered supports such as individual and group counseling and trauma mitigation, and assist with risk assessments. A school psychologist supports May Ranch two days a week and provides counseling services, performs assessments, and supports 504, RTI, and IEP teams. During distance learning, the school district has provided a mental health self-referral form for student use. The form offers group, individual, and family counseling sessions to support the well-being of the community.
- Students have daily access to physical education classes and additional unstructured activity opportunities such as recess. Health education is provided at the classroom level by teachers with support from the district nurse as needed. Fifth-grade students participate each year in district-adopted Health curriculum and instruction. Students and staff have access to nutritious foods provided by the nutrition services department for breakfast and lunch.

### Pillar III: Provide Effective Environmental and Sustainability Education

#### *Element IIIA: Interdisciplinary Learning*

- May Ranch envisions a sustainable agriculture program that utilizes green technologies; leads to cross-curricular, real-life application, and hands-on learning; and provides the community with healthy, nutritious produce. Environmental and sustainability policies appear throughout the curriculum, extracurricular activities, and the green schoolyard master plan at May Ranch. All students access lessons from the school's core Life and Earth Science curriculum, integrating environmental and sustainability learning. The core curriculum is supported and supplemented by Discovery Education media resources, assemblies, and experiences in the school site STEAM, school garden, and other outdoor learning spaces. The garden provides a real-life context for classroom instruction as it offers a place for students

to plant and study pollinator-friendly native plants. These experiences demonstrate the critical role pollination plays in the environment. The school garden must be sustainable over time; as part of that effort, students save seeds from the garden, clone plants, and create compost from food waste and worm castings. The green schoolyard master plan, developed in 2016 with The City of Perris, established blueprints for the current school garden. The plan continues to evolve as May Ranch seeks to realize its garden vision.

- The garden is an integral part of the curriculum for students of all grades. For example, students learn about the role pollination plays in agriculture and the environment through maintaining and observing three 8 x 4-foot garden beds planted with pollinator-friendly plants and ten fruit trees in the school garden. In the spring of each year, Kindergarteners learn about the butterfly's life cycle and release their butterflies into the garden to help support pollination. Garden-based learning begins with "learning walks" in lower grades. Students focus on sensory experiences in these walks by identifying, hearing, smell, feel, and taste from the garden. The learning progression continues through the grades, with upper-grade students engaging in more rigorous research projects such as soil composition analysis, examining plant biology, and implementing sustainable composting.
- An outdoor learning classroom project started before school closures will provide an outdoor learning space with seating, a whiteboard, three keyhole gardens, additional garden beds, and shade trees. Plans include a walking path on the playground turf area that will provide a mindful location for students and staff to walk while removing more turf.
- May Ranch offers several co-curricular programs and opportunities that enrich environmental and sustainability education. Established in 2014, the Garden Club has grown to nearly 75 students who support the school's garden, aeroponic towers, vertical farm, and campus beautification efforts. The school thoroughly integrates the garden into their curriculum at all grade levels, and the members of the Garden Club not only maintain the indoor and outdoor school gardens before and after school and during school breaks but also receive additional learning and mentoring opportunities through partnerships with the Riverside Master Gardeners and City of Perris.
- From 2017 to 2020, the City of Perris and May Ranch have partnered to certify approximately 30 Garden Club students as Junior Master Gardeners (JMG) each year. Currently, 90 students are participating in the Junior Master Gardener program through distance learning. Junior Master Gardener certification requires a service-learning component. Examples of JMG service-learning include volunteering at the City of Perris Health and Wellness Fair and teaching community members about home gardening in the Perris Green City Farm.
- Realizing the health, wellness, and learning benefits of the JMG curriculum, May Ranch expanded the garden curriculum to all students in grades 1-5 in the 2019-20 school year. For 30 minutes each week, all students in grades 1-5 participated in the JMG Learn Grow Eat and Go lessons that combine literacy, gardening, nutrient-dense food experiences, and physical activity.

- All May Ranch students receive a foundation in environmental and sustainability education through a California Next Generation Science Standards (CA NGSS) aligned science curriculum. This foundation allows for the integration of environmental and sustainability concepts within academic programs. Students in kindergarten explore plants, animals, and weather. First through fifth grades engage in hands-on learning about organisms, life cycles, plant growth and development, animal studies, microworlds, weather, soils, rocks and minerals, land and water, and ecosystems.
- May Ranch is an AVID Elementary School and incorporates elements of WICOR (Writing, Inquiry, Collaboration, Organization, and Reading) in all lessons. WICOR provides the framework for environmental and sustainability integration with science, mathematics, and the ELA core curriculum, Wonders.
- Field trips are standards-aligned and include environmental and sustainability enrichment learning opportunities and activities. 200 Transitional Kindergarten and Kindergarten students are introduced each year to animal diversity and habitat with the traveling petting zoo on-site field trip. Second graders learn about the desert environment, habitat, flora and fauna, and indigenous lifestyles on an annual field trip to the Living Desert. The third-grade trip to the Santa Rosa Plateau Ecological Preserve specifically targets environmental education. Approximately 50 students from fourth and fifth grades participate in a science camp at the Pali Institute, learn leadership and survival skills, and leave with an increased understanding of human impact on the environment. A partnership with Eastern Municipal Water District (EMWD) provides funding for fifth grade and Junior Master Gardeners to visit the EMWD wastewater treatment facility and wetlands. The field trip consists of a tour of the wastewater treatment facility, a visit to multipurpose constructed wetlands, and a non-point source pollution and groundwater demonstration in the Wetlands Water Education Facility.

*Element IIIB: STEM Content, Knowledge, and Skills*

- Many third through fifth-grade students participate in multi-disciplinary projects that integrate California's Environmental Principles and Concepts, STEM technologies, and California Common Core State Standards in reading, writing, and math. A great example of these multi-disciplinary projects is Engineering Design Process projects, which promote sustainability and environmental awareness and challenge students to develop solutions to real-world problems. Failures in the design process teach students to return to the problem and redesign for desired results. Past solutions created by students include designing, building, and writing about irrigation ollas (an environmentally responsible irrigation tool) for the school garden; engineering and building hydroponic wicking systems; and engineering and testing hydroponics units.
- The school's STEAM lab, converted from an unused computer lab in 2017, houses engineering supplies, robotics equipment, and science materials. The lab comprises flexible learning spaces to allow for hands-on demonstrations, experimentation, and interactive experiences. For example, students learn about erosion in the lab using the space to engage in hands-on modeling.

- Master Gardener volunteers teach garden lessons monthly to classes in grades 3-5. The lessons include demonstrations and sampling of recipes prepared from the garden, which provide context for student writing assignments. Students also grow hydroponic lettuce from seed to harvest, calculate the cost, and share their farming knowledge with other students and local schools. Students produced more than 1,000 heads of lettuce during the 2019-20 school year, which provided 5% of the cafeteria's lettuce.
- The nine aeroponic towers and Nutrient Film Technique vertical farm located in the 3rd through 5th-grade classrooms provide additional STEAM integration opportunities. Students are responsible for the maintenance and operation of the equipment to maximize productivity. Students monitor the pH in the water, adding nutrients as required. Observations of mildew provide the context for problem-solving (fans), and plant growth is measured and monitored. The lettuce grown in the aeroponic towers goes to the cafeteria salad bar. Students surveyed the student body for their preferred lettuce served in the cafeteria. They chose to produce five different lettuce based on survey results. Students in grade 3 calculate the weight, cost, and price of May Ranch lettuce versus store-bought lettuce.
- The school incorporates green practices into daily garden and life science instruction. For example, students have learned the ecological benefits of pollination. Students study, plant, and maintain pollinator-friendly native plants to attract beneficial bees and butterflies. Indigenous drought-friendly plants are studied and selected for inclusion in the garden. Students in grades 3-5 learn about the many ways composting can benefit the garden and divert waste from landfills. They compost food scraps in a garden tumbler composter and their own plastic bottles. Two vermicomposting towers located in the garden house 1,000 worms and decompose food waste. Worm castings are then utilized in the garden and provide beneficial nitrogen, phosphorus, and potassium to the soil.

*Element IIIC: Civic Knowledge and Skills*

- May Ranch students learn and apply environmental and sustainability skills and knowledge through civic/community engagement projects. In 2019, 90 students participated in the Riverside County Department of Waste Resources Upcycle project challenge. The project required students to design new uses for recycled items, build the reimagined creation, and display them at the Riverside County Recycle Fair. Student projects were videotaped and shown to the community to encourage diverting items from the landfill by reusing and recycling them.
- The Associated Student Body (ASB) also supports environmental and sustainability initiatives at May Ranch and integrates service-learning opportunities. The group includes student leaders from grades 3-5, with 2-3 representatives drawn from each teacher's class. ASB promotes campus beautification by planting bulbs and drought-tolerant, native species in ornamental planters. ASB student leaders also partner with community groups to recycle, reuse, and donate to those in need through events such as its annual sock drive for local shelters and toy drive for low-income students.

- Each year, students in grades 3-5 solve real-world problems using the Engineering Design Process (EDP). Since 2016, students in grades 3-5 have volunteered to teach the community and demonstrate their EDP projects at the Val Verde USD's Explore Fair. For instance, during the 2018 Explore Fair, students explained the benefits and uses of hydroponics wicking systems that they had designed and built. Other student-led Explore Fair demonstrations have included composting, vermicomposting, and making seed cards.
- As part of the community service requirement to earn Junior Master Gardener (JMG) Certification, students in the JMG Garden Club volunteer at events such as the City of Perris Health and Wellness Fair. Students lead the learning during these events and teach the community in the Green City Farm.
- Outdoor learning experiences are purposefully planned in teachers' lessons in all grade levels to provide meaningful hands-on learning experiences and application in Science, Math, Social Studies, and Environmental Literacy.
  - Kindergarteners learn about the butterfly's life cycle and release their butterflies into the garden to help support pollination
  - First grade students engage in hands-on learning about organisms, life cycles, plant growth and development, animal studies, microworlds, and ecosystems.
  - Second-grade students study volcanos, erosion, and earthquakes through physical demonstrations.
  - Third-grade student conduct area and perimeter playground measurements.
  - Third and Fourth-grade test the effectiveness of different sunblock.
  - Fourth-grade design solar ovens
  - Fourth and Fifth-grade classes measure outdoor water evaporation.
- The May Ranch garden provides an outdoor living classroom and a place where students study, problem-solve, tend to plants, and develop civic skills. Since 2019, the school annually hosts community events such as STEAM Night and Harvest Festival. Members of the Student Garden Club sell school-grown produce and plants to raise funds to support the garden program and teach the community about gardening.
- The school community includes suburban developments and rural agricultural areas. Sustainable environmental practices and green technologies have immediate, daily relevance to many May Ranch students' lives, whose families may live on or work in agricultural industries including nurseries, commercial farms, livestock ranches, and dairies, or maintain a home garden. Exposing students to hydroponic, aeroponic, and vertical farming has presented opportunities to learn about various agricultural career pathways. As a result, environmentally (and economically) sustainable agriculture and gardening, and associated green technologies and career pathways, are a primary instructional and co-curricular focus for May Ranch students.