



## 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 Pre-K-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 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: **Mr. Charles Jolly**

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

Official School Name: **Yosemite High School**

(As it should appear on an award)

Official School Name Mailing Address: **1900 G Street, Merced, CA 95340**

(If address is P.O. Box, also include street address.)

County: **Merced** State School Code Number \*: **24 65789 2439602**

Telephone: **209-325-1600** Fax: **209-385-6435**

Web site/URL: <http://yhs.muhsd.org/yhs> E-mail: [cjolly@muhsd.org](mailto:cjolly@muhsd.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.

A handwritten signature in black ink, appearing to read "Charles Jolly", is written over a light-colored rectangular background.

(Principal's Signature)

Date: 1/27/2017



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

District Name: **Merced Union High School District**

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

Date: 1/30/2017

(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.

Date: January 31, 2017

(Nominating Authority's Signature)

**SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS**

Provide a coherent summary that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only schools that document progress in every Pillar and Element can be considered for this award.

**SUBMISSION**

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to [green.ribbon.schools@ed.gov](mailto:green.ribbon.schools@ed.gov) 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](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.



# *Yosemite High School*

California Disadvantaged Nominee to  
U.S. Department of Education Green Ribbon Schools



Prepared by  
California Department of Education  
School Facilities and Transportation Services Division  
<http://www.cde.ca.gov/ls/fa/sf/greenribbonprog.asp>  
January 2017

## PART II – SUMMARY OF ACHIEVEMENTS

### Yosemite High School, Merced, Calif.

#### *Green Career Pathways inspire students in California's Heartland*

Yosemite High School (YHS) is on the leading edge of the green schools movement in California's Central Valley. A 2016 California Green Ribbon Schools honoree (Gold Level), YHS uses the Three Pillars of ED-GRS to put students first in every policy and program. More than 94% of YHS students are "unduplicated pupils" in California's Local Control Funding Formula, a composite measure of need that includes students eligible for free or reduced-price meals, English Learners, and foster youth.

YHS serves the whole child with a Coordinated School Health approach. Student health and wellness are attended to by both mental and physical support staff available during school hours. Students have daily access to a registered nurse, a health aide, and a counselor. A full-time mental health clinician from Sierra Vista, an outside mental health agency, provides mental health counseling services and assists in psychosocial issues. Housed on the same campus as YHS, the District Opportunity Center offers intervention programs that address anger management and coping skills, as well as drug and alcohol intervention, with group activities, lessons, speaker presentations, and intensive individual interventions facilitated by a specialist. YHS' Urban Essentials program of restorative justice builds community in response to student misconduct, with the goals of repairing harm and restoring relationships.

YHS students are active outdoors in physical education, coursework including Physical and Agricultural Science, and during most lunch periods with activities presented by the school's leadership team. Staff lead after school activities and interact with students in roles promoting physical fitness and health. The Valley Continuation Sports League spearheaded by YHS and the Merced Union High School District gives students opportunities to engage in basketball, volleyball, bowling, flag football, soccer, softball, and badminton on coeducational teams. League play between four teams and tournaments with up to 12 schools keep students interested in competition and staying active all year long. Between league games and tournaments across sports, students have the opportunity to enjoy 82 intermural games each year.

Giving back to the community is an integral part of school culture at YHS. The campus is a leader in gallons of blood donated to BloodSource. School activities send homemade lunches and leftovers to The Men's Mission and D Street Homeless shelters. Donations to St. Vincent DePaul's, the Kids Against Hunger Project, and We Day - Free the Children demonstrate a commitment to helping others.

YHS students demonstrate the same care for their environment that they do for their community. Students lead campus efforts to recycle leftover food and used paper to feed the school's worm farm. The byproducts from the farm, castings, and worm tea return as fertilizers or in mulch for campus plants and horticulture projects. A collaboration with Tree Partners USA has helped YHS to select regionally appropriate plantings in an effort to reduce the heat island effect. A 45% reduction in campus water use over less than three years shows incredible stakeholder buy-in to the conservation efforts on campus.

Advocacy, social justice, and environmental justice are an integral part of the educational program at YHS. Students participate in field trips to the State Capitol, where they meet with

legislators to advocate for laws and regulations on environmental issues and topics. Through civic engagement, students experience first-hand what it means to act on the part of their environment—a critical building block for environmental literacy.

Students engage further in local issues by participating in the “There Ought to be a Law” competition hosted by State Senator Cannella. The 2016 entry from YHS focused on active transportation and Safe Routes to School, recommending lighted crosswalks in front of every California school where stop signs are not present within 900 feet of the main entrance.

The YHS campus features an outdoor classroom, raised garden area, and 500-square-foot greenhouse. YHS has a composting center where breakfast, lunch, and snack-time leftovers are collected, along with campus grass clippings, and fed into the composting bins daily. Non-acidic fruits, vegetables, breads, and foliage are delivered and used as feeder for the worm farm. Castings are used in the greenhouse, raised garden, and on plants around campus. Worm compost tea is diluted and fed to trees on campus. YHS is working with the US EPA Region 9 office to coordinate a food waste audit in early 2017.

The innovative Green Technology and Energy Conservation (GTEC) courses offered at YHS provide students with access to California’s Energy & Power Technology career pathways and lead directly to industry certifications or employment opportunities. The GTEC curriculum is designed to fully integrate learning objectives critically relevant to the renewable energy and green technology industries. Model curriculum from industry partners helps prepare high school students for their industry exams.

“Introduction to Energy Conservation” is a comprehensive survey course of the basics of energy. The course provides an introduction to energy concepts, energy efficiency, green building technology, and alternative fuels. “Green Technology” is an interdisciplinary course that integrates environmental and sustainability concepts across STEM, Social Studies, and the English-Language Arts curriculum. The course uses hands-on interactive activities to engage students and help them understand how green technology is applied to our environment and how it helps make our communities sustainable. Students build reading, writing, and literacy skills analyzing laws and regulations impacting energy and discussing the effect these policies have on society. A partnership with GRID Alternatives engages about 50 students each year in ten service learning work experience days. After learning about solar technology and working with the demonstration solar panel on campus, students have the opportunity to participate in residential solar installations for low-income residents in and around Merced.

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

### Pillar I: Reduce Environmental Impact and Costs

#### *Element IA: Energy*

- YHS partnered with the California Conservation Corps to conduct an extensive energy audit in 2016 in order to develop a comprehensive plan for reducing energy use and costs. The current Energy Services Project, funded by California’s Proposition 39, calls for the replacement of exterior and interior lighting fixtures with energy-efficient LED units, which offer a substantial return on investment. Previous renovations for energy efficiency including replacing aged windows with energy-efficient ones in the cafeteria

and retrofitting lighting (i.e., upgrading to LED) campus-wide. When fully implemented, the project will generate an energy reduction of 1,085,650 kBTU per year.

- At this year's Pacific Gas & Electric (PG&E) Energize Schools energy conservation competition, students were able to showcase their knowledge and interest in energy efficiency and environmental stewardship by presenting an energy conservation plan for the school that achieved an 18% monthly savings and earned YHS a first-place finish.
- YHS demonstrates a 20% reduction in greenhouse gas (GHG) emissions since 2014 from non-transportation projects that include interior and exterior lighting, HVAC replacement, and vending machine controls resulting in GHG reductions of 207.3 metric tons.
- YHS has a training solar array on campus. This equipment engages students in project-based learning by affording them the opportunity to assemble and disassemble a solar panel just outside their classroom doors. The demonstration system has the capability to produce a total of 4.16 kW. Students in the Green Technology and Energy Conservation (GTEC) pathway have presented information to the school board demonstrating that a switch to solar could result in an annual savings of \$40,000.
- YHS obtains its energy from PG&E. The California Energy Commission reported that PG&E's renewable energies comprised 29.5% of their total production in 2015. PG&E surpassed state goals that call for 23.3% renewable energy for 2014–16; the utility is well on its way to meeting California's targeted 33% renewable portfolio by 2020.
- Most of the school's landscaping was replaced with drought resistant plants to conserve both energy and water. New shade trees and ground cover help cool the urban environment and aid in energy and water conservation.

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

- YHS demonstrates an average water reduction of 16,229 gallons/occupant/year since 2013–14. Water Consumption fell from 22,082 gallons/occupant/year in 2014 to 5,730 gallons/occupant/year in 2016; YHS uses approximately one-quarter of the water today that it did only three school years ago.
- Students and staff at YHS are passionate about reducing the use of water at school and at home, as California's Central Valley suffered "exceptional drought" in recent years. The Green Team collaborated with the Art Department to sponsor a water conservation poster contest, placing posters around campus asking for cooperation with indoor and outdoor water use restrictions and guidelines. A "Go Slow with the H<sub>2</sub>O" slogan and t-shirts branded this student-led movement to save water.
- YHS collaborated with Tree Partners USA and used EPA's WaterSense Water Budget Tool to remove trees and plants for climate-appropriate planting. Plants with similar watering needs were relocated into specific hydro-zones to reduce water use and protects plants from overwatering. These plants require little water beyond normal rainfall and are adapted to local soils and climate. They rarely need fertilization and are resistant to pests and disease.
- Rain water plays a pivotal role in water conservation on campus. Harvesting rainwater reduces the demand on groundwater usage, and it is free of salts, pollutants associated with ground and surface water, and chlorine. The natural acidity of rainwater is good for soils that have become alkaline from cement-leached lime. Rainwater is also energy efficient. Rain barrels supply water for both the raised garden and the greenhouse.
- YHS has an active mulching project to reduce water use. Pine needles are used for insulating top soils from freeze in winter and heat in hot summers. Mulching the majority

of plants with pine needles, leaves, and landscaping clippings also assists in absorption of rainwater and cuts down on water lost to runoff. Water from rooftops is diverted wherever possible to the athletic fields, garden area, and planters.

- 90% of the campus has either drip irrigation or sprinkler systems. The majority of the drip irrigation was added during the drought resistant landscaping upgrades two years ago.

#### *Element IC: Waste*

- 29.38% of solid waste is diverted from landfilling or incinerating due to reduction, recycling, and/or composting. The monthly waste generated is 1.04 cubic yards per person.
- YHS has a composting center where breakfast, lunch, and snack-time leftovers are collected, along with campus grass clippings, and fed into the composting bins daily. Non-acidic fruits, vegetables, breads, and foliage are delivered and used as feeder for the worm farm. The other composting materials are used as fertilizer. Castings are used in the greenhouse, raised garden, and on plants around campus. Worm compost tea is diluted and fed to trees on campus. Non-colored or waxed paper is shredded and also fed to the worms. Compost is added prior to mulch. This combination benefits both the plants and soil to increase permeability while directing nutrients directly to a deeper root system for watering and rain infiltration. YHS is working with the US EPA Region 9 office to coordinate a food waste audit in early 2017.
- The horticulture class has a campus-wide recycling program that picks up aluminum cans, plastic bottles, cardboard, and paper. Classroom and campus recycling cans are emptied at least once a week and materials are sorted. Kingsview picks up the cardboard stored in large containers each Thursday during the school year, and as needed during vacations. There are eight cardboard cans diverting 1.5 tons of paper material from the waste stream each school year. Recycled cans and bottles total 500 pounds per year.
- YHS has a recycle plan through Eco-Impact which tracks printer toner and ink cartridges; to date, 160 cartridges (375 pounds) have been collected.
- YHS has implemented an environmentally preferable purchasing policy and has trained employees on how to identify and use green products.
- YHS seeks to eliminate waste and toxins whenever possible by purchasing green products, co-mingling, and sharing equipment. YHS trains employees on how to work with products, including proper disposal methods. A campus inventory of chemicals and equipment helps prevent a buildup of contaminants and reduces environmental hardships. Staff that attended last year's California Green Schools Summit brought back contacts to purchase Green Seal products. Approximately 20% of cleaning products purchased by the campus are third-party vendors/labels that are certified as green.
- The campus is preparing students for testing in the California Common Core State Standards with one-to-one Chromebooks, and is reducing paper consumption with a parallel effort to go paperless.

#### *Element ID: Alternative Transportation*

- The Green Team conducted a poll to gather accurate data on mode share—the types of transportation students used during the school day. Students created a three-part questionnaire that asked the most frequent type(s) of transportation used to-date. The results for “form of transportation taken most often” were: Carpooling (33%); Walking and Rolling (29%); School Bus (26%); and Other (9%).

- The school offers a raffle prize for students who carpool, walk, or roll to school during the month of May.
- District personnel and the City of Merced collaborate to make the journey to and from school each day as safe as possible. The City of Merced recently authored and received Active Transportation Program (Safe Routes to School) funding in the amount of \$980,900. This allowed the City to install crosswalk safety lighting and flashing beacons, and to construct sidewalks, curbs and gutters, and curb ramps throughout the City. A crosswalk light was placed in front of YHS for a safer crossing of one of the most heavily used streets in town.
- The school provides a weekly tip announcement to advise students on how to get to school safely when biking or walking. Announcements also ask students to share and teach these tips to younger siblings, family, and friends.
- YHS is registered Walk/Bike to School participant and will be participating in the National Bike to School Day this May.
- The San Joaquin Valley Air Pollution Control District supplied the campus with Healthy Air Living "No Idling" signs to post in parking lots.
- District buses have been retrofitted with clean emissions systems via a grant from the San Joaquin Valley Air Pollution Control District. Home-to-school transportation is consolidated with other school sites in order to reduce the number of buses used.
- The District Transportation Director is involved with a cooperative city-wide plan to reduce environmental impact and provide green alternatives to students as they travel to and from school. These measures include wider and safer bike and walking paths and recommendations for future development that encourage a local community consolidation of housing, schools, and businesses.

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

### Element IIA: Environmental Health

- The YHS Integrated Pest Management Plan helps to create a safe, healthy, and pest-free environment by clearing all vegetation, shrubs, food leftovers, and wood from around structures. Identifying the type of pest helps determine the best method of management. Filling cracks in floors, walls, and pavements reduces access for pests. Trash containers are routinely collected and dumpsters and garbage cans are cleaned bi-monthly. YHS uses traps and vacuums when appropriate. Pesticides are used in spot-application rather than in wide areas whenever possible. The district policy is for all employees to receive pesticide training pursuant to California's *Healthy Schools Act*.
- The chemical management program includes policies encompassing chemical purchasing, storage, labeling, training and handling, and inventory. District chemical handling policies incorporate hazard communication, a purchasing policy for less-toxic products including less-toxic art supplies, and selecting third-party-certified green art products.
- YHS is a tobacco-free campus and smoking on buses is not allowed. Thermostats containing mercury have been removed. Rooms that have gas furnaces have had sensors installed to stop exposure to carbon monoxide. The district is following the *Asbestos Act* and has had exposed areas cleaned by certified professionals. There is an asbestos management plan in place.
- 100% of classrooms have good acoustics (less than 45 dBA). Classroom lighting, including timed LEDs, was upgraded in 2016.

- Asthma is the most common cause of absenteeism in the Central Valley. YHS monitors indoor air quality and classroom humidity to control asthma triggers and support the health and performance of students and staff. 100% of classrooms have good relative humidity control (ASHRAE 30-60%).
- The staff works extremely hard to keep rooms and areas clean and dust-free. Yard work, such as mowing and blowing, is done before students arrive on the bus or after school. Special attention is paid to cockroaches, mold, dust mites, and diesel exhaust. Staff are alerted confidentially as to which students have asthma, and how to respond to any student having an attack.
- Staff members can communicate with district personnel in real time to report maintenance needs through the SchoolDude campus referral work order system.
- HVAC systems are inspected at intervals recommended by the manufacturer's warranty and adjusted or upgraded when issues arise. These inspections ensure all units are running at maximum capacity and filters are changed every December and June. All vacuums have HEPA filters to prevent particulate matter from becoming airborne.
- YHS participates in the San Joaquin Valley Air Pollution Control District's Air Quality Flag Program to communicate the daily air quality to the school community. The air quality status and forecast are also posted to the school website.
- Buildings on campus are painted with low-VOC paint that does not contain lead. Painted surfaces are monitored to ensure paint remains intact.
- The school's drinking water comes from the City of Merced's municipal water source of 20 deep water wells. The State Water Resources Control Board regulates and sets standards. The City constantly monitors water conditions for clean and safe water standards and guidelines of the *Safe Drinking Water Act* of 1974. An annual Water Consumer Confidence Report (CCR) discloses regulated contaminants and their levels.
- YHS uses the EPA's Indoor Air Quality Tools for Schools as a point of reference for indoor environmental quality. Most asthma triggers are identified in this resource and staff are proactive against these problems.
- School policy prohibits the idling of vehicles on or near campus; two large signs at each school entrance ask drivers to turn off their engines while waiting for students.

#### *Element IIB: Nutrition and Fitness*

- YHS has a nutritional snack standard and partners with the Alliance for a Healthier Generation to provide a Healthy Snack Calculator for project-based learning and individual guidance online.
- AGLink is used to purchase locally grown fresh produce. The after school program partners with Rancho Piccolo Organic Farms, which donates boxes of produce that students use to develop meal plans with recipes, including the nutritional value of each dish.
- YHS Teacher Ann-Marie Delgado was recognized in the White House program Champions of Change for her work in extracurricular enrichment, after school and summer programs that create opportunities for girls. Ms. Delgado teaches the YHS course, "The Women in Society," which includes a unit on body image, in which students discuss body image, eating patterns and disorders, and food choices.
- The Merced Union High School District began participating in the USDA's HealthierUS School Challenge this school year.

- Students of all grade levels are encouraged to enroll in the horticulture program, a course that focuses on plant propagation. Seeds are taken from succulent stock and used for cuttings to propagate additional plants. The YHS art class creates clay pots for the propagated succulents to be sold on campus. Flowers and vegetables planted from seeds are maintained year-round.
- For the past five years, staff and students at YHS have planted and maintained a garden. Approximately 800 pounds of fresh fruits and vegetables were sent home with young mothers to prepare for their children or prepared in the after school program. During the school year and summertime, extras are given to staff.
- In the 2015–16 school year, a 450-square-foot raised garden was installed; students from after school programs and the horticulture class maintain it. Thanks to funding from ASSET's after school program and Lowe's Home and Garden Store, the raised garden is adding 20 new boxes this year, expanding the garden footprint by 1,200 square feet.
- Green Team members collaborated with Horticulture, GTEC, Wood Shop, and Science classes to engineer and construct a butterfly sanctuary and pollinator garden to promote both mental health and crop productivity.
- The garden area includes an outdoor classroom consisting of a butterfly sanctuary, bee pollination area, raised garden area and greenhouse where students engage in hands-on lessons.
- Students enrolled in Physical Education spend 120 minutes per week in outdoor sports including kickball, softball, basketball, and volleyball. Students also complete a one-mile run test each Friday.
- Students build technology and literacy skills by designing personal healthy lifestyle plans and setting personal goals.
- YHS has multiple committees addressing student health and wellness. The Local Control Accountability Plan (LCAP) Advisory Committee meets every two months to discuss issues directly with students, parents, and community members. The School Site Council provides a direct line of communication for students to discuss issues such as offering more CTE courses, going solar on campus, providing input to the cafeteria menu, and having more support staff in the nursing office. The efforts of these committees led directly to increased hours for nursing staff, more student input on school breakfast and lunches, the establishment of the GTEC training course, and a board meeting where students will present a student-engineered solar project for the campus.
- YHS is a registered SunWise campus.
- Outdoor learning experiences include Environmental Science, Wilderness Club, and Hiking Club. Field trips provide hiking, camping, and overnight backpacking experiences in various locations. YHS partners with UC Merced and the Yosemite Leadership Program to connect students to outdoor nature lessons. Students are taught the seven principles of Leave No Trace, a study of wilderness ethics. These outdoor adventures are extremely beneficial to all students, as many have spent little time in the outdoors. A variety of topics are discussed, including ecosystems, geology, and the history of parks. Reward trips and outdoor activities include hiking and a trip to Monterey Bay.
- ASB activities are conducted outside at lunch time. ASB is the student leadership team that plans, facilitates, and executes all student activities on campus.
- Staff members are encouraged to exercise during lunch breaks and with students in the Dragon Academy after school program. The gym is open during lunch and after school for staff and students to play volleyball and basketball or lift weights. The after school

program includes hiking exercises for the Yosemite National Park hiking trip. Staff members meet twice a week in the gym to play basketball with after school program students. Staff members are offered discounts to two gyms as district employees. Staff is also offered produce deliveries from Rancho Piccolo Organic Farms and Sierra Café, where students prepare meals from unprocessed foods.

- Self-Insured Schools of California provides free health screenings on-site at least once a year and offers staff members gift certificates for their participation.
- Staff and students participate in Farm Safety Day where students assist in teaching about common farm hazards, electrical safety, and basic first aid.
- Students enrolled in The Role of Women in Society have "Dinner with a Doctor" at UC Merced and are introduced to women trailblazers and discuss their accomplishments and contributions while considering how they might have a similar impact or profession. The Women's Studies class has small-group mentoring relationships and provides mentors and mentees with support, guidance, and encouragement with an emphasis on women, mental health, safety, and leadership.
- Students at YHS receive the full benefit of a campus coordinated school health approach. YHS has a team of professionals who are there for students' physical and emotional needs. The team includes a Health Aid, Mental Health Counselor, School Nurse, Child Welfare and Attendance Liaisons, a Guidance Counselor, and a retired School Psychologist. The campus has an Anger Management Program and Drug Opportunity Center where students are counseled on drug abuse.
- Ace Overcomers assist students with adverse childhood experiences which have been found to impair the cognitive functioning and educational achievement of students. The Merced Police Department collaborates with a full-time School Resource Officer on-site.
- Sierra Vista, an outside mental health agency, provides mental health counseling services and assists in psychosocial issues. UC Merced interns help with counselor duties and student mental engagement activities.
- The District Opportunity Center is a drug and alcohol intervention program with group activities, lessons, speaker presentations, and intensive individual interventions facilitated by a specialist. A retired school counselor volunteers to help students with mental and social issues that arise. A group also helps students who suffer from anxiety and social anxiety disorders.
- YHS empowers students with information and strategies to eliminate bullying through the Character Counts program on-site. The program website is dedicated to sharing resources to combat physical, social, verbal, and cyber bullying. By addressing these issues, students are provided the skills to identify unhealthy cycles that exist their community.
- Through the UC Mentoring program, students engage in peer-to-peer mentoring and support. Twice monthly, the Teen Parent Program has a University of California Nutrition Specialist present health and nutrition topics to teen mothers. Topics range from reading labels to cooking healthy recipes.
- Each semester, senior nursing students in the California State University, Stanislaus Registered Nursing Program present healthy lessons to teen mothers. Lessons include respiratory illnesses, dental health, women's health, breastfeeding, labor and delivery, stress reduction, and common childhood illnesses.
- Each semester, YHS collaborates with All Moms Matter to present a series of sessions for teen mothers that includes setting goals, relationships, and time management. This

year, YHS started a group for teen fathers. All Dads Matter meets on a weekly basis at lunch to offer support and key concepts in parenting. YHS works closely with the Merced County Office of Education and their Early Headstart Program and A.C.C.E.S.S. to help ensure students have affordable, quality child care so that they can continue their education after Yosemite High.

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

#### *Element IIIA: Interdisciplinary Learning*

- YHS environmental literacy learning objectives embedded across the curriculum help students develop the capacity to behave successfully and understand how people and societies relate to each other in a functioning and evolving natural system.
- YHS offers courses in Green Technology and Energy Conservation (GTEC), Earth Science, Agriculture, and Horticulture. All seniors are expected to complete a Senior Portfolio to help them with the transition into life after high school. Students will also participate in mock interviews with professionals from local community businesses and partners. Specific lessons are designed for each component of the portfolio and presented in the senior English and Government classes, to assist students in creating their own unique portfolios. One of the components of the Senior Portfolio is a Signature Assignment, a project-based assignment that integrates communication, collaboration, creativity, and critical thinking.
- YHS partners with Green 360, a co-curricular program that helps supplement classroom learning for environmental and sustainability literacy. Staff will receive training and resources from California's Education and Environment Initiative (EEI) on-site this spring.
- YHS incorporates policies that help foster environmental and sustainability education, focusing on ethics and environmental stewardship in order to create a campus atmosphere that develops students who are responsible and trustworthy. Students learn to consider the consequences of their footprint, engage in the sustainability of their community, obey laws and rules, and become great neighbors while helping to protect the environment.
- YHS has a green schoolyard master plan designed to create outdoor classrooms and learning environments where teachers can demonstrate and explain natural and environmental processes as part of a STEM curriculum. Budgets have been approved and equipment has been purchased to upgrade and install outdoor learning simulators, like the on-site demonstration solar array, that support training objectives across curriculum, including agriculture, horticulture, renewable energy, and Earth Science topics.
- The Green Team works with both staff and students to promote practices for conservation and education. With nearly 20% of energy conserved, YHS was a first-place finisher in the PG&E Energize Schools Competition in November and a top-five finisher in the California Recycle Challenge for cardboard collection.
- A Current Events class infuses environmental education into the curriculum to teach students about policies, behaviors, and decisions involving both economics and natural resources. Lessons cover topics such as energy use, fuel resources, renewable energy, climate change, pollution, waste water treatment, and overpopulation. Examples of students' projects include creating a campus policy to conserve water, researching

plastic bags made from protein, and advocating for drought-resistant landscaping on part of the school campus.

- The Dragon Academy after school program offers opportunities in worm farming, composting and recycling, gardening, social justice, and community service projects. Students improve their environmental literacy outside of the classroom by visiting Yosemite National Park, Santa Cruz, and the Monterey Bay Aquarium.
- “Introduction to Energy Conservation” is a comprehensive survey course of the basics of energy and is a foundation to the series of Green Career Pathway courses offered at YHS. The course provides an introduction to energy concepts, energy efficiency, green building technology, and alternative fuels.
- “Green Technology” is an interdisciplinary course that integrates environmental and sustainability concepts across STEM, Social Studies, and the English-Language Arts curriculum. The course uses hands-on interactive activities to engage students and assist them with understanding how green technology is applied to our environment and how it helps make our communities sustainable. Students build reading, writing, and literacy skills analyzing laws and regulations impacting energy and discussing the effect these policies have on society.
- Senior English teachers use the book Into the Wild by Jon Krakauer as part of the CSU Expository Reading and Writing Course. Krakauer extensively integrates works arguing for appreciating and protecting the natural environment by famous environmentalists such as John Muir, Henry David Thoreau, and Ralph Waldo Emerson. Students are often engaged to reflect upon what the natural environment means to them, as well as to society as a whole.
- GTEC is an elective course that meets graduation requirements for Physical Science, integrating renewable energy and green building concepts. The course is designed to provide students with the hands-on skills and job shadowing experiences needed to bridge the pathway from classroom to industry. This course utilizes public/private partnerships with green industry leaders such as PG&E, GRID Alternatives, and Green360.
- Students of all grade levels are encouraged to enroll in the horticulture program. The course focuses on plant propagation and the use of cuttings and seedlings. Methods to assess student learning around the environment and sustainable living include tests and quizzes, reports and presentations, small group project work, and evaluations afforded by clients and job shadowing professionals throughout the community. An array of evaluations are used to assess students’ final employment portfolios.
- The school garden practices organic farming; students monitor soil fertility and pathogens in the soil. The area was designed to incorporate a butterfly sanctuary and pollinator garden.
- YHS offers an after school Green Technology Club that provides students the opportunity to engage in campus and community energy conservation and sustainability projects. The club allows students to communicate the status and progress of ongoing green campus projects to staff, administrators, and community stakeholders. Field trips to the State Capitol and Monterey Bay Aquarium help students take leadership roles in their community and environment.
  - In the most recent trip to Sacramento, students met their Assemblyman, Adam Grey, to talk about issues facing the state such as water conservation and renewable energy credits. Students also visited with other elected officials and

leadership to voice their opinions on solar energy and statewide renewable energy targets.

- On the Monterey Bay Aquarium field trip, students experienced the beach and its ecosystem. For most YHS students, this was their first ever visit to a beach, let alone their first field study of a beach ecosystem.
- The GTEC course provide students with access to California's Energy & Power Technology career pathways and lead directly to industry certifications or employment opportunities. The GTEC curriculum is designed to fully integrate learning objectives critically relevant to the renewable energy and green technology industries. Model curriculum from industry partners like NABCEP and CalCerts are integrated into the course instruction and help prepare high school students for their industry exams. A NABCEP Associate Credential or California HERs rater certification can be earned by passing the related industry exam.
- The Green Team takes field trips to the local waste water treatment plant and county landfill for a closer look into how these institutions work in support of the community. The first visit to the landfill inspired students to look into biodegradable plastics. Their interest has led to a partnership with Algix, a company that is working on protein-based plastics that break down within weeks of hitting a landfill.

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

- Students in the GTEC Class (described above) are learning complex mathematical formulas in context as they audit campus energy use and design solar energy systems. These students design systems for the school campus and for the housing unit they live in. The systems must provide a 100% offset and demonstrate the environmental and economic savings at each site.
- Metal Shop 1 is offered as an elective that meets graduation requirements as well as the district's VAPA/foreign language requirement. Articulated with Merced College, it is an introduction to metalworking course in which students develop basic skills and safety habits. The course includes instruction in welding, sheet metal, bench metal, lathe, and machine tools. Students develop metalworking skills through exercises in project construction. Vocational opportunities and requirements in metalworking trades are explored. The CTE Director schedules professionals for the trades and union representatives to create a pipeline of communication and information about job opportunities and professional requirements.
- Biology requires analytical thinking. Students learn the concepts of basic chemistry, evolution, physiology, reproduction, genetics, plant and animal life (simple to complex), the human body (structure and function), and ecology.
- In horticulture class, students study basic plant science, including the physiology and function of plants, and careers in horticulture. They also learn and practice various propagation methods. In addition, students learn introductory fundamentals of landscape design, where they use scaled drawings to illustrate their plans. Horticulture also prepares students for careers in the nursery, landscaping, and floral industries. Emphasis is placed on horticultural terminology, plant identification, plant physiology, soil science, plant reproduction, Cal/OSHA and labor laws, nursery production, floriculture, integrated pest management, marketing and retail concepts, landscape design, installation, and maintenance.
- Students in GTEC have designed a campus solar project that will offset the electrical need from the current server and save the campus tens of thousands of dollars a year. On January 13, 2016, students addressed their local school board to present this project

and gain hands-on advocacy experience in a greening campaign. This school year, a Career Technical Education Advisor was brought on in a full-time teaching position.

### *Element III C: Civic Knowledge and Skills*

- The GRID Alternatives partnership engages about 50 students each year in ten service learning work experience days. After learning about solar technology and working with the demonstration panel on campus, students have the opportunity to participate in residential solar installations for low income residents in and around Merced.
- The local utility, PG&E, has provided materials for sustainability system simulations and hands-on practice with industry tools. Students also participated in a PG&E Solar Suitcase Project. These suitcases were built in class and will provide solar energy to impoverished areas in Africa. As part of the project, students conducted research that increased their awareness and understanding about communities that lack consistent access to electricity, including the effects on public health.
- Student advocacy projects include meetings on renewable energy at the State Capitol, participation in the “There Ought to be a Law” competition, and project recommendations to improve Safe Routes to School. (See details above)
- Green Team students continue to investigate the algae problem in China and how it has affected the Pacific Ocean. Students are conducting research and developing recommendations for shopping bags produced from algae protein to complement existing state taxes on plastic shopping bags.
- For PG&E's Energize Schools energy conservation competition, art students developed posters for campus signage, leadership students worked on social media, and Green Team members joined forces to promote the event. Since YHS shares a campus utility meter with four other entities, community outreach was critical to the students' success. Students won first place honors for Best Overall Campaign in Fall 2016.
- Students have traditionally worked hard in the community and supported local causes and efforts including Pennies for Patients, blood drives, holiday food drives, and food preparation for homeless shelters.
- Electronic Recycling (E-Waste) is conducted on campus along with food audits, water conservation campaigns, and energy competitions. These are just some of the examples of how students who are economically challenged still find the ability to look out for the sustainability and well-being of others.
- The campus leadership team has a Green Activities Chair that plans out activities throughout the year that brings awareness to the environment and green issues. The Green Activities Chair has scheduled four activities during this year's Living Schoolyard Month. Examples of these activities include:
  - Campus sign-ups to volunteer in the Annual Farm Safety Day event;
  - A lunchtime showcase of the campus solar field project design by the GTEC class;
  - A cafeteria display of posters created in art class that provide nutrition information and tips; and
  - A plant sale to raise money for the horticulture class as well as offer students an opportunity to buy a plant for Mother's Day.
- As a part of Current Events coursework, students conduct research about California's water resources and how the state's water system meets the needs of the population. Students learn about the current status of California's drought and how it affects regional

agricultural production and brainstorm ways to use grey water for agricultural applications.

- A spring 2016 celebration recognizing Social Studies Teacher Jeff Rivero's Presidential Innovation Award for Environmental Educators (PIAEE) brought representatives from the US EPA and California Department of Education to YHS, offering students a dialog with policy makers on environmental protection, resource conservation, and education for sustainability.
- A partnership between YHS and the Merced Adult School allows for maximum retention of students. High school seniors who need more instruction in the GTEC program after they exit YHS are encouraged to enroll as adults to complete the course. Merced Adult School partners with the Merced County Department of Workforce Investment and Human Services Agency to serve unemployed and undereducated adults in the areas of basic education leading to a high school equivalency or diploma.
- The GTEC program provides for concurrent career skill building to accelerate student college and career readiness. The campus teams up with UC Merced Cooperative Extension for various leadership and educational events. A job fair held on campus includes local union plumbers and steamfitters, roofers, carpenters, IBEW trainers and field representatives to educate students on different pathways to success in each job field. Senior Career Day invites local business leaders to assist students with resume development and help them understand local hiring needs and requirements.
- Staff members work proactively with local, state, and federal agencies to promote green initiatives for schools. Staff attend conventions, seminars, and meetings to promote activities and programs on campus; share information and tips for energy efficiency and water conservation; and attend school summits to gain knowledge of programs and activities to integrate on campus. Staff members have attended Green California Schools Summit for the past five years, co-presenting on a panel of California Green Ribbon Schools honorees in Fall 2016.
- The Green Team sponsors a Green Day at Castle Vista Senior Living in Atwater to provide senior citizens with information on energy efficiency and water conservation. Students also present information on utility incentives and rebate opportunities.
- Outreach programs with Stanislaus State University, UC Merced, and Merced College all enhance YHS students' lives. These partnership expose students to variety of events and programs including leadership management, the Youth to Youth Conference, Office of Civil Engagement Character in Action projects, the Center for Community Research Teen Pregnancy Task Force, and STEM Night.