

District Sustainability Award Nominee Presentation Form

CERTIFICATIONS

District's Certifications

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

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

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

Name of Superintendent: Dr. Jane Stavem

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

District Name: Lake Washington School District

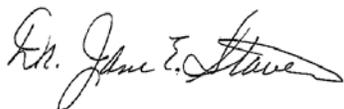
(As it should appear on an award)

Address: 16250 NE 74th St. Redmond, WA 98052

Telephone: (425) 936-1257 Fax: (425) 936-1213

Web site/URL: www.lwsd.org E-mail: jstavem@lwsd.org

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



(Superintendent's Signature)

Date: February 13, 2019

Nominating Authority’s Certifications

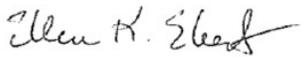
The signature by the Nominating Authority on this page certifies that each of the statements below concerning the district’s eligibility and compliance with the following requirements is true and correct to the best of the Authority’s knowledge.

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

Name of Nominating Agency: Office of the Superintendent of Public Instruction/Learning and Teaching/Science, Environment, and Sustainability Programs

Name of Nominating Authority: Dr. Ellen Ebert
(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: 2/14/2019

(Nominating Authority’s Signature)

SUBMISSION

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

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

Public Burden Statement

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

Lake Washington School District 2019 US Green Ribbon Schools Application

Summary Narrative

Together we can change the world. Sustainability efforts in Lake Washington School District No. 414 (LWSD) rely on the participation of every student and employee. Parents, community organizations, and volunteers are valuable partners.

LWSD's vision is Every Student Future Ready. "Future Ready" includes understanding and taking responsibility for the impact of one's decisions and actions. It also includes contributing to a better future for the next generation. District sustainability efforts contribute to Future Readiness through implementation of:

- a comprehensive district-wide resource conservation management program,
- green building practices,
- K-12 curriculum and student learning focused on sustainability/environmental concepts, and
- professional development for teachers and staff.

In 2006, the district adopted a Resource Conservation Management (RCM) program focused on conservation and cost savings. Student enrollment has grown 26 percent in the last decade to 29,987 students at 43 sites over 76 square miles. LWSD serves students in Kirkland, Redmond, Sammamish and unincorporated King County. Despite growth and rising rates, the district continues to reduce utility costs through proactive management. The McKinstry powerED Performance Dashboard helps LWSD identify ways to conserve energy and water, reduce waste, educate students/staff, and use sustainable building and maintenance practices.

Since 2005-06, LWSD has reduced electricity usage per square foot by 30 percent. Natural gas usage has decreased 37 percent. Benchmarks were reset in 2014. Since then, LWSD has reduced energy usage by 11 percent. LWSD's RCM program has focused on water conservation initiatives since 2008. Since then, water usage has decreased 30 percent per student; irrigation water usage has reduced by 80 percent. Native plants are used in all landscaping. Irrigation is only provided for secondary school playfields and two elementary schools where fields are used by community athletic programs. LWSD partners with cities and community groups to share playfields. This allows community groups to enjoy activities without building their own fields.

In 2008-09, garbage pick-up frequency was reduced at 13 schools and 15 garbage truck trips per week were eliminated by "right-sizing" dumpsters. Waste-reduction and recycling efforts have reduced costs by \$120,000 per year since 2008.

As of December 2018, 31 LWSD schools are participating in the King County Green Schools Program; 19 have achieved Level One, seven have achieved Level Two, and one has achieved Level Three.

LWSD is an eight-time winner of the King County Best Workplaces for Waste Prevention and Recycling. All schools recycle and about 75 percent of schools collect organic food waste for composting at a

regional facility. Since August 2016, new water bottle filling stations at secondary schools have filled approximately 772,225 bottles of water, reducing the need for single-use disposable bottles.

LWSD students receive bus service if they live outside a school's walk area. Approximately 75 percent of LWSD buses were built after 2007. The rest were retrofitted with extra particulate exhaust filtration, drastically reducing emissions. In August 2018, LWSD Transportation received a \$560,000 grant from Washington State's Department of Ecology to purchase 16 low-emission school buses to reduce emissions by up to 99 percent. All school bus drivers receive instructions to avoid idling and enforcement occurs using technology on buses.

The health of LWSD students is a top priority. LWSD students have unlimited access to fresh fruits and vegetables in lunch garden bars. "Local Wednesday" features locally-sourced foods. Elementary students have Physical Education (PE) twice per week, in addition to morning and afternoon recess each day. Middle school students take PE each year and high school students earn 1.5 credits of PE and .5 credits of Health to graduate. LWSD has five pesticide-free schools. LWSD is one of 12 districts in the nation to receive Excellence in Integrated Pest Management star certification by passing a rigorous 37-point evaluation in 2014-15.

In 2017, LWSD received the Green Cleaning Award from American School and University Magazine. The Green Cleaning initiative began in fall 2012. Green Cleaning includes using a reduced number of cleaning chemicals while increasing the cleaning paper products made of 40 percent post-consumer recycled content.

LWSD is committed to teaching and assessing Next Generation Science Standards (NGSS) in grades K-12. NGSS topics K-12 include Interdependent Relationships in Ecosystems (including environmental impacts), Weather and Climate, Energy, Earth's Systems, Human Impacts, and Human Sustainability. Prior to graduation, the typical capstone course for students is Physics in the Universe, which includes a full unit with standards addressing climate change. LWSD Career and Technical Education (CTE) courses include Environmental Science, Sustainable Design, and Urban Gardening.

LWSD integrates environmental and sustainability literacy into school culture. For example, a waste audit at Kirk Elementary School, in partnership with King County Green Schools, found that the school recycles correctly 96 percent of the time. Natural outdoor spaces enhance curriculum, like during "Wetlands Week" at Dickinson Elementary, where students removed invasive plant species and learned about the important role wetlands play in the ecosystem. Students at Emerson High School learn about green sustainable design technology—in a CTE course, students built a hoop house and raised beds for the school's urban garden.

Programs such as Sustainability Ambassadors inspire students to initiate and measure sustainability goals in their communities. One student group, Schools Under 2C at Tesla STEM High School, challenged schools around the world to reduce greenhouse gas emissions. Students received the President's Environmental Youth Award from the U.S. Environmental Protection Agency Region 10 in 2017.

LWSD publicizes school sustainability efforts on the district website and through e-newsletters and social media to recognize efforts and motivate schools to continue and expand efforts.

LWSD encourages teachers to deepen their knowledge of sustainability instruction and problem-based learning. Professional learning programs and partnerships are available through organizations such as

Washington Alliance for Better Schools (WABS), Cascade Water Alliance and Sustainability Ambassadors. Fellowships and externships bring teachers together with industry partners and university professors to explore questions to bring back to their classrooms.

LWSD is teaching today's students about sustainability, while using green building practices to construct the schools of tomorrow. By 2020, 27 percent of schools' heating will come from high-efficiency geothermal, including 75 percent of high schools. LWSD has the largest solar energy capacity of any district in the state at 615 kilowatts.

School building projects must meet detailed requirements to receive funds from Washington State's School Construction Assistance Program, including the incorporation of natural view lighting, which reduces electricity costs and enhances student learning environments. In 2008, Carson Elementary School was the first K-12 public school in the state built with a green roof, which covers two sections of the school, reducing rain run-off. LWSD is exceeding state energy standards on its 2016 bond projects by implementing light emitting diode (LED) lighting inside and outside. All new portable classrooms installed since 2013 (about 40 classrooms) are high-efficiency Smart Academic Green Environment (SAGE) units. LWSD has a Resource Conservation Manager who is involved with capital projects during design and construction to ensure efficiency standards.

The Lake Washington Parent Teacher School Association (PTSA) Council established a district PTSA Sustainability Committee, with parent representative chairs in every school. The PTSA Sustainability Committee collaborates with the newly-established District Green Team, which includes district staff from Support Services and administrators representing instructional programs. The District Green Team is responsible for setting sustainability-focused district priorities and goals and ensuring sustainability efforts are sustained over time.

Green Schools Participation

Program	Level and Date Achieved
King County Green Schools	Level Three/Sustaining: Sandburg/Discovery Elementary, achieved 2017
King County Green Schools	Level Two: Eastlake High School, achieved 2017; Environmental and Adventure School, achieved 2017; Inglewood Middle School, achieved 2017; Redmond High School, achieved 2017; Tesla STEM High School, achieved 2017; Wilder Elementary, achieved 2011
King County Green Schools	Level One: Blackwell Elementary, achieved 2017; Carson Elementary, achieved 2017; Evergreen Middle School, achieved 2017; Franklin Elementary, achieved 2013; International Community School, achieved 2016; Juanita High School, achieved 2016; Keller Elementary, achieved 2013; Kirk Elementary, achieved 2015; Kirkland Middle School, achieved 2017; Lake Washington High School, achieved 2017; Mead Elementary, achieved 2012; Redmond Middle School, achieved 2017
King County Green Schools	In progress/Working Toward Level One: Alcott Elementary, Baker Elementary, Bell Elementary, Dickinson/ Explorer Elementary, Juanita Elementary, Lakeview Elementary, Muir Elementary, Rockwell Elementary, Rose Hill Elementary, Rose Hill Middle School, Thoreau Elementary, Twain Elementary

PILLAR 1: Reduce Environmental Impact and Cost

Element 1A: Energy Conservation

Since 2005-06, LWSD has reduced electricity usage per square foot by 30 percent and natural gas usage by 37 percent. Despite rising rates, the addition of 500,000 square feet, and 6,000 more students, energy costs are nearly \$500,000 less per year than in 2006.

This drastic reduction is partially a result of actively monitoring energy use. In 2006, LWSD began its Resource Conservation Management Program focused on energy efficiency in building design, operation and occupancy. LWSD has a dedicated Resource Conservation Manager. Since 2012, LWSD has used a global shutdown button for use on snow days to immediately put buildings into night setback. Optimized warm-up mode is used to reduce consumption by nearly 60kWh/day at each school during warmer months.

In 2014, LWSD began utilizing McKinstry powerED, a systematic behavior-based program to implement strategies to save energy/cut waste. LWSD educates/engages building occupants. Maintenance staff receive training in building operations. LWSD educates through articles on the district website and social media. Waste audits and partnership activities with King County Green Schools and Sustainability Ambassadors help to motivate students and staff.

LWSD tracks energy efficiency using the U.S. Department of Energy's Energy Star rating system. Most LWSD facilities have a rating of 75 or higher.

Personal appliances are not permitted at LWSD sites. Employees share refrigerators in employee lounges. In 2010, most refrigerators older than 10 years were replaced with more efficient appliances.

By 2020, 27 percent of schools' heating will come from high-efficiency geothermal, including 75 percent of high schools. LWSD schools do not have air conditioning. Schools built since 2016 include sun shades, white roofs and fans on upper floors. LWSD has the largest solar energy capacity of any district in the state at 615 kilowatts.

Approximately 40 high efficiency SAGE portable classrooms have been installed since 2013.

Element 1B: Water Conservation

LWSD's RCM program has focused on water conservation initiatives since 2008. LWSD has reduced water usage per student by 30 percent and irrigation water usage by 80 percent in the last ten years.

LWSD facilities and schools employ many water-saving features. Older toilets were replaced with modern 1.6 Gallons per Flush (GPF) or—since 2008—1.28 GPF units. Restroom sinks have been retrofitted with high-efficiency aerators that reduce water consumption by 75 percent. Most sinks are equipped with automatic shut-off valves to prevent occupants from leaving the water running. Main kitchen dishwashers have been replaced with the highest-efficiency units. As of 2012, new schools are equipped with dishwashers that re-use steam to pre-heat incoming water. Kitchen pre-rinse spray valves were replaced with low-flow units across the district. New schools are equipped with leak-detection systems. New schools utilize low-impact development for rainwater retention and treatment, including bioswales and rain gardens. Pavement is minimized, and several schools have permeable paving in fire

lanes and walkways. Placards are placed in visible locations to educate students about natural rainwater retention and treatment systems and the importance of watershed protection.

Student water conservation projects include studies of sustainable water systems in Advanced Placement (AP) Environmental Science. For example, students at Tesla STEM High School taught elementary students in Darrington how to analyze the water quality of Bear Creek and the Sammamish River with computer programs.

Native plants are used in all landscaping. Irrigation is only provided for secondary school playfields and two elementary schools where the fields are used by community athletic programs. We partner extensively with cities and community groups to share playfields. Nearly all irrigation controllers adjust watering times based on weather. Systems are audited by professional irrigation auditors to maximize watering efficiency.

LWSD tracks energy efficiency using U.S. DOE Energy Star rating system. Most facilities are rated 75 or higher.

Element 1C: Waste Reduction

LWSD is an eight-time winner of the King County Best Workplaces for Waste Prevention and Recycling. After a waste audit in 2008-09, pick-up frequency was reduced at 13 schools and 15 garbage truck trips per week were eliminated by right-sizing dumpsters.

Participation in King County Green Schools is the district's highest priority for waste reduction. As of December 2018, 31 schools in LWSD are participating; 19 have achieved Level One, seven have achieved Level Two, and one has achieved Level 3/Sustaining.

LWSD has numerous solid waste management measures in place. RCM works with schools to achieve a 1.6 cubic foot per student per month level of waste. LWSD phased out Styrofoam trays beginning in 2009. Wherever possible, reusable trays/baskets are used. When not possible, LWSD uses compostable trays. Water-bottle filling stations are installed at secondary schools, reducing reliance on single-use plastic water bottles. Paper products meet Environmental Protection Agency minimum guideline of 40 percent post-consumer recycled content. Toilet tissue dispensers use coreless rolls. Trash liners are only replaced when torn/soiled. All schools have unlined recycle bins.

All LWSD schools/facilities recycle; approximately 75 percent of LWSD schools collect organic food waste for composting. Yard waste is sent off-site for composting. In fall of 2018, 5,000 pounds of edible food that would not last through winter break was donated to a nonprofit. In 2018-19, LWSD will pilot food share tables at five schools to develop best practices for wider future implementation.

All Informational Technology items, furniture, and larger school supplies are donated to other school districts or go to public auction before recycling or disposal. LWSD coordinates with Waste Management to discontinue service during school breaks. Site-specific strategies/practices also reduce waste. By installing a sewer line at Wilder Elementary in 2009, LWSD eliminated two to three truck trips to the school weekly, saving fuel and \$130,000 per year.

Element 1D: Transportation Alternatives

LWSD students receive bus service if they live outside the walk area. Buses transport students from a central location to elementary highly capable programs and secondary choice schools. Bus routes are evaluated to maximize ridership. Buses drive mid-day routes, eliminating the need to return to the bus barn after morning routes.

LWSD replaces aging buses. Approximately 75 percent of buses were built after 2007. The rest were retrofitted with extra particulate exhaust filtration, drastically reducing emissions. In August 2018, LWSD received a \$560,000 grant to purchase 16 low-emission school buses. LWSD expects to reduce emissions by up to 99 percent.

All school bus drivers receive instructions to avoid idling. This is enforced through technology on buses. Maintenance staff are instructed not to idle. New schools have no-idle signage in pick-up areas. LWSD coordinates with the Lake Washington PTSA to increase no-idle efforts through communication and signage.

LWSD partners with Kirkland, Redmond, Sammamish and King County to develop suggested walk and bicycle routes for elementary students. Routes are developed/reviewed by a district Pedestrian and Bicycle Safety Advisory Committee.

LWSD partners with PTAs and cities to promote “Walk to School Day” in fall and “Bike to School Day” in spring. Schools participate in “School Pool” in October and May. Students are encouraged to walk, bike, carpool or bus to school. Students track progress and earn rewards. At International Community School, the student Green Team provided oranges to thank students for reducing car trips.

LWSD partners with Greater Redmond Transportation Management Association to help employees find carpool/vanpool matches. Five sites have designated carpool parking stalls. Lake Washington High School students who live outside the school walk area receive a King County Metro bus pass.

LWSD reduces driving and trips to sites. Many schools have trash compactors. Schools built since 2006 have large-capacity coolers/freezers. Elementary fields are dormant in summer.

Pillar 2: Improve the Health and Wellness of Schools, Students, and Staff

Element 2A: Health and Safety

LWSD is one of 12 districts in the nation to receive Excellence in Integrated Pest Management star certification. The district passed a rigorous 37-point evaluation in 2014-15 conducted by the independent nonprofit IPM Institute of North America. LWSD has five pesticide-free schools. LWSD is working with the Lake Washington PTSA Sustainability Committee to educate schools on how they can become pesticide-free.

A high standard of air quality is important for the health of our students and to maximize learning. When wildfire smoke is in our region we closely monitor air quality and adjust outdoor activities to limit student exposure. LWSD is also developing guidelines to reduce unnecessary fragrances.

Drinking water is tested on a rotational basis for lead levels above 15 parts per billion. When lead above this level is detected, measures are taken to correct the problem and retest the water.

LWSD has a chemical management plan for science and lab classes, custodial services, and integrated pest management.

In 2017, LWSD received the Green Cleaning Award from American School and University Magazine. LWSD's Green Cleaning initiative began in fall 2012. The number of cleaning chemicals used was reduced by nearly half. Only four core chemicals are used for routine cleaning. LWSD also began cleaning with color-coded microfiber cloths and mop heads. All custodial staff are trained in their use.

Several additional green cleaning measures have been implemented. Vacuums are equipped with proper filters/bags and are changed per manufacturer recommendations. All core chemicals are dispensed using Ecolab dispensers in ultra-concentrated 1.3-liter containers.

In 2018-19, LWSD's Green Team will develop and communicate guidelines to reduce unnecessary fragrance and address air quality issues to work to limit environmental asthma triggers.

All schools have a school nurse and/or school-based health center.

Element 2B: Nutrition and Fitness

LWSD Nutrition Services implements high standards of nutrition and serves local, fresh food in school cafeterias. LWSD students have unlimited access to 3-5 varieties of fresh fruits and vegetables every day at lunch garden bars. Every Wednesday is "Local Wednesday," with lunches featuring organic spring mix and local produce. In 2017-18, through the United States Department of Agriculture/Department of Defense Fresh Fruit and Vegetable Program, LWSD Nutrition Services purchased \$220,000 worth of fresh fruits and vegetables.

LWSD implements high standards of fitness and quality outdoor time for students and staff. In the 2017-18 school year, a committee of Health and Physical Education (H&PE) teachers, administrators, and district staff aligned curriculum K-12 with the 2016 H&PE standards. As of the 2018-2019 school year, all H&PE teachers will teach to those standards.

All K-5 elementary students receive two 30-minute sessions of PE per week. Units in PE include multiple outdoor activities; unit topics include soccer, bicycling, and track and field events. All K-5 elementary schools provide morning and afternoon recess each day, totaling an average of 60 minutes. Recess is held outdoors unless conditions are unsafe due to weather.

All 6-8 middle school students take PE for at least one semester each year. PE units include multiple outdoor activities; unit topics include soccer, flag football, and track and field events. All 6-8 middle school students also take one semester of Health. Health assessments include elements of health measures. These include the ability to identify healthy behaviors. Students are given effective resources to support physical and emotional health.

All LWSD students are required to earn 1.5 credits of PE and .5 credit of Health to graduate. In addition to PE coursework, all LWSD students in grades 6-12 can participate in district directed athletics, with numerous outdoor athletic options provided throughout the year.

Element 2C: Mental Health and School Climate

LWSD is committed to supporting student mental health and positive school climate efforts in all schools. Specifically, LWSD promotes and supports student social and emotional learning (SEL), positive

behavioral intervention and supports (PBIS), and mental health through a series of coordinated initiatives. At the elementary level, all schools implement SEL and PBIS programs: Second Step curriculum and/or Kelso's Choices. Full-time school counselors teach lessons in classrooms and staff support and integrate SEL into classrooms and through school wide effort. To monitor program effectiveness, LWSD administers student surveys through Panorama and partners with University of Washington SMART Center to monitor the effectiveness of implementation. LWSD is in the process of evaluating and adopting SEL materials for district-wide implementation at the secondary level in the 2019 school year.

LWSD also works with King County Public Health, Seattle Children's Hospital, and Youth Eastside Services to implement universal screening for behavioral health at the middle level. All secondary counselors receive training in methodology for brief interventions with students through use of Motivational Interviewing or Brief Intervention for School Clinicians (an intervention developed by University of Washington). Through a partnership with Evergreen Health, half-time social workers serve our four comprehensive high schools. Social workers are being trained in the use of Cognitive Behavioral Intervention for Trauma in Schools, an evidence-based small group intervention for students experiencing anxiety or trauma.

LWSD has strong policies in place to prevent harassment, intimidation and bullying, and schools focus on creating safe and inclusive learning environments for all students. Each year schools participate in Unity Day activities, as well as ongoing positive climate activities in homeroom periods, school-wide assemblies, and ASB student clubs such as Aware Club, Black Student Union, Diversity Club, Kind Club, Latinos Unidos, Multicultural Club, and SAGA (Sexuality and Gender Acceptance).

Pillar 3: Provide Effective Environmental and Sustainability Education which Incorporates STEM, Civic Skills, and Green Career Pathways

Element 3Ai: Integrated Environmental and Sustainability Education

LWSD is a "standards first" district that teaches and assesses NGSS in grades K-12. NGSS topics K-12 include Interdependent Relationships in Ecosystems (including environmental impacts); Weather and Climate; Energy; Earth's Systems; Human Impacts; and, Human Sustainability. Curriculum and assessments are aligned with NGSS and measure environmental/sustainability literacy at each grade level. Prior to graduation, the typical capstone course for students is Physics in the Universe, which includes a full unit directly addressing climate change.

LWSD CTE courses at middle and high schools include: Environmental Science, AP Environmental Science, Sustainable Design, and Urban Gardening.

LWSD integrates outdoor learning and environmental/sustainability literacy into school culture. Many elementary schools provide 5th grade camp experiences and/or have outdoor classrooms where students have hands-on interaction with nature and give outdoor presentations. LWSD schools participate in the King County Green Schools Program. School-based Green Teams educate and engage students in resource conservation and sustainability advocacy. Examples include:

- 1) In 2014-15, Sandburg/Discovery Elementary became LWSD's first school to achieve King County Green School Level Three/Sustaining status and has since been recognized each year. In 2017-18, they renewed their commitment to maintain an herbicide free environment and hold monthly volunteer work parties to weed, plant and fertilize school grounds. Students initiated monthly litter clean up and rain water maintenance. The music teacher worked with students to plan/perform a musical performance during Earth Week. The school earned district recognition for decreasing its energy use by 25 percent.
- 2) In 2017-18, Lake Washington High School's Green Team conducted a cafeteria waste audit leading to improved waste reduction and recycling. Juanita High School students composed a composting rap. International Community School Green Team members promoted durable water bottle use, and Tesla STEM students initiated the Schools Under 2C initiative, which has been adopted by schools worldwide.

Element 3Aii: Teacher Professional Development

LWSD aligned all secondary science courses to NGSS in 2017-2018. As part of the alignment process, all science teachers participated in approximately 19 hours of NGSS-focused professional learning, including Earth and Space Science, with teaching strategies focused on utilizing local phenomena, including environmental events/topics. In addition, approximately 50 percent of secondary science teachers participated in collaborative curriculum design sessions. This year, all middle school and high school science teachers are participating in professional learning and writing lessons and units for integrated science, which includes standards addressing environmental and sustainability concepts.

In the 2017-18 school year, all elementary teachers engaged in a minimum of three hours of professional learning focused on NGSS. This year, all elementary teachers are participating in a minimum of 4.5 hours of professional learning focused on NGSS, including environmental and sustainability concepts.

Currently, seven LWSD teachers participate in professional development through Sustainability Ambassadors. Specifically, elementary and secondary teachers in LWSD are participating in a multi-department committee collaborating to create units and lessons for use throughout the district that directly address sustainability and environmental concepts.

Through participation in LWSD's CTE Program Advisory Committees and through regional, state and national conferences, LWSD CTE teachers of Environmental Science, AP Environmental Science, Sustainable Design, and Urban Gardening, collaborate with and learn from with industry professionals in environmental-focused fields. Industry professionals from Waste Management, Cascade Water Alliance, King County Green Schools, and Sustainability Ambassadors serve on LWSD CTE Program Advisory Committees.

In addition to teacher professional learning, in the 2017-18 school year, all building administrators participated in a training focused on increasing levels of environmental responsibility and sustainability. In addition, LWSD promotes school participation in the King County Green Schools Program and provides opportunities for program representatives to present at building administrator meetings.

Element 3Bi: Science Supported by Environmental and Sustainability Education

In LWSD, science is taught K-12 and science curriculum is reviewed and updated/adopted on a regular cycle to ensure best practices in science teaching and alignment with the latest nationally recognized science standards. LWSD core science classes and secondary science pathways are aligned to NGSS; science and engineering practices are reflected within the standards. At the middle school level, science courses are fully integrated, meaning students' course work each year includes life, physical, and Earth and space sciences. All science teachers have been trained on utilizing strategies that focus on using local phenomena to teach topics, incorporating environmental and sustainability concepts.

In addition to the general science curriculum integrating science and engineering practices, middle and high school students in LWSD can access CTE courses in Engineering 1, 2, and 3; Engineering and Green Design; Mechanical Engineering; STEM; and Robotics. STEM-related CTE course offerings are provided at all middle and high schools, and CTE courses support and expand the learning of the general science curriculum.

Partnerships with organizations such as King County Green Schools and Sustainability Ambassadors also support the learning that occurs through general science education. Through school-based Green Teams and work with Sustainability Ambassadors, students engage in learning and projects that support school sustainability efforts and build on students' general science knowledge.

LWSD also provides STEM-focused choice school options open to all students. Currently, LWSD provides one elementary STEM-focused program serving approximately 90 students K-5 and one STEM-focused high school serving approximately 600 students 9-12. At the middle school level, LWSD offers Environmental and Adventure School, which serves approximately 90 students. A STEM-focused choice middle school is planned to open within the next two years. STEM learning and concepts are embedded integrated across the curriculum and include sustainability and environmental concepts.

Element 3Bii: Environmental Career Connected Learning

LWSD's provides STEM-focused environmental and sustainability learning for students. LWSD's CTE General Advisory Council and Environmental and Sustainability Program Advisory Committee includes teachers and industry professionals from King County Green Schools, Waste Management, and Sustainability Ambassadors. LWSD curriculum connects classroom content to career options that focus on environmental and sustainability field studies or careers. High school course options include AP Environmental Science, Urban Gardening, and Engineering and Sustainable Design. LWSD serves as host to WANIC Skill Center which offers a summer Green Sustainable Design Course.

An annual Insights to Science, Technology, Environment, Arts, and Math Careers Pathway Night for all middle and high school students brings industry professionals to present on a career panel. Puget Sound Energy, UW and other organizations host learning booths along with CTE teachers.

LWSD partners with UW Department of Environmental and Occupational Health Sciences, Cascade Water Alliance and Sustainability Ambassadors. Through the Water Systems Teacher Fellows Program, a partnership between Sustainability Ambassadors and Cascade Water Alliance, LWSD teachers are developing problem-based units connected to environmental field studies/careers. For example, one unit focuses on earthquake preparedness and engages students in creation and use of water purification kits. In 2017, two LWSD teachers traveled to Singapore to study Singapore's Integrated Water Management Program in context of water management systems in our local cities and King County.

They then collaborated with their fellow educators to develop authentic, real-world problem-based curriculum to address water systems and sustainable thinking.

LWSD middle and high school students serve as Sustainability Ambassadors and lead an annual Community Sustainability Summit. They explore five elements needed to build collective capacity for change, including Transportation advocacy to fund electric buses. Students at Tesla STEM participate in sustainability-focused internships with Terex Genie, Waste Management, and other companies. Students work to reduce greenhouse emissions through composting, lighting, heating, recycling, and cleaner transportation.

3C: Civic Engagement

Nineteen LWSD elementary schools participate in King Green County Green Schools. For example, Rachel Carson Elementary achieved Level One in May 2018. They formed a Green Team of 56 students in grades 2 to 5. The Green Team made lunchtime announcements, presented information in classrooms, and hung posters in hallways. Students were trained as Waste Watchers to monitor recycling at lunchtime and remind students to recycle.

Six LWSD middle schools participate in King County Green Schools. For example, Kirkland Middle School achieved Level One in April 2017. They formed a student Green Team who collaborated with students from a University of Washington bio-solids class to plan, create and present PSA videos. A cafeteria share table was set up to reduce waste, allowing students to take or place unwanted, packaged, and unopened cafeteria items.

Six LWSD high schools participate in King County Green Schools. In 2017-18, Lake Washington High School's Green Team conducted a cafeteria waste audit that led to improved waste reduction and recycling. Juanita High students created a rap about composting. International Community School Green Team members promoted use of durable water bottles instead of single-use plastic bottles. Tesla STEM students initiated the Schools Under 2C initiative, which has been adopted by other schools nationwide and beyond. Moreover, students from three high schools are involved in Sustainability Ambassadors. Students advocate and present at community forums, including an annual presentation to city and community leaders at a Kirkland Chamber event.

LWSD engages students in field studies. In 2018-19, during construction at Juanita High School, the facility design team will visit the school's Green Team and physics students to educate students on the new school's high-performance features. They will discuss the physics behind geothermal heating. They will also tour the school and geothermal field, connecting a geothermal heating physics project to field studies.