

School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

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

1. The school has some configuration that includes grades early learning to 12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education Green Ribbon Schools

Public Charter Title I Magnet Private Independent Rural

Name of Principal: Mike McGill

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

Official School Name: The Northwest School

(As it should appear on an award)

Official School Name Mailing Address: 1415 Summit Avenue, Seattle, WA 98122

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

County: King State School Code Number *: N/A

Telephone: (206) 816-6145 Fax: N/A

Web site/URL: <http://www.northwestschool.org> E-mail: mike.mcgill@northwestschool.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.

Michael Allame

(Principal's Signature)

Chief Financial Officer

Date: 2/12/19

Name of Superintendent: N/A

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

District Name: N/A

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

N/A

Date: N/A

(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.

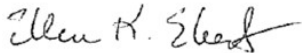
1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and 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: Office of the Superintendent of Public Instruction/Learning and Teaching/Science, Environmental, 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.

The Northwest School

2019 US Green Ribbon Schools Application

Summary Narrative

The Northwest School is an urban college preparatory school for grades 6-12 that educates students to think critically, act compassionately, and own responsibility for their global home. Environmental sustainability (ES) has been an integral part of the school's mission since its founding in 1981. Our commitment to ES was further deepened in 2016 by creating a new position, Director of Environmental Education & Sustainability. ES continues to be a guiding principle in all aspects of our educational program and involvement in the community.

Environmental sustainability—interacting with the natural systems on which we depend, in a manner that enables current and future generations to thrive—is one of the most existential and urgent social justice issues of our time. At Northwest, caring for the environment is integrated into our daily routines, curriculum, institutional practices, and student leadership opportunities. Our key sustainability practices include:

- Robust student and faculty engagement through the Environment Program and various sustainability groups,
- A student designed and managed urban farm/garden,
- A dining hall program that includes ES as one of its operating principles,
- An Outdoor Program that leads 10+ trips for 200+ students per year,
- Recycling and compost bins throughout campus,
- A Facilities Department that operates with ES at the forefront of its practices,
- An endowment that has recently been transferred to 100 percent environmental, social, and governance screened investments,
- Grade level field trips relating to environmental issues, and
- ES curricular ties across grades and disciplines.

Our campus includes four buildings and an urban farm/garden adjacent to one another in the heart of Capitol Hill, Seattle. Our main school building is on the historic building registry, which influences many of our facilities and operations related ES practices. Our Facilities Department (Facilities) aims to reduce our environmental impacts in the built environment and has adopted environmentally conscious procurement practices. Facilities strives to improve energy efficiency and is currently engaged in an energy audit and building systems tune-up. They have replaced incandescent and compact fluorescent lightbulb (CFL) light bulbs with light emitting diode bulbs (LEDs) throughout our main school buildings. In addition, Facilities has an environmentally sound cleaning program, minimizes the use of toxic and harsh chemicals, is diligent about reducing, reusing, and recycling materials, and properly disposes of any hazardous waste.

The Environment Program has been a core part of the school's culture and ethos since the school's founding: Three times a week students and faculty (teachers, staff, and administration) work in more than 90 teams under the leadership of Seniors to clean and care for the school and surrounding areas.

This effort includes everyone at the school—more than 600 people. This program grounds our wider ES ethic in direct attention to our immediate surroundings, facilitates leadership development among seniors, and builds community. Each team has the responsibility of maintaining, cleaning, and caring for a specific part of the school. In addition to this physical work, teams discuss weekly environmentally related prompts on topics from climate change impact to microplastics, food systems, and environmental justice.

Northwest has three groups that specifically focus on strengthening ES practices at the school:

1) Sustainability Committee – With 15 faculty members, this group has a mission to raise awareness about environmental issues, make recommendations to improve the school’s sustainability practices, and implement projects that further our community’s understanding of and action on environmental issues. The committee meets every other week, and its members represent many parts of the school—faculty from nearly every academic discipline, operations, facilities, finance, communications, development, and administration.

2) Student Environmental Interest Group – 30+ students in grades 6-12, led by 5 student leaders, and supported by 2 faculty members, EIG works to expand the environmental consciousness of every individual within The Northwest School to promote global change through concrete projects and advocacy. The group meets twice per week and recent projects include designing and building a campus farm/garden, conducting a Dining Hall Food Waste Audit, writing letters to government officials advocating for strong environmental policy, and organizing a clothing swap.

3) Friends of Sustainability at Northwest - 20+ parents of current/former students and friends of the school who meet 2-3 three times per year. The Friends group supports the school’s ES efforts through hands-on projects, makes recommendations and shares ideas, and offer expertise in the field of ES.

The Dining Hall program is an area of daily engagement in ES for Northwest students and faculty, as everyone eats scratch-made lunch together. The Dining Hall is an expression of the school community and its values. Eating together and sharing food is one of the ways we build community, invoke conversation, and further our mission of actively caring for the environment and our planet. The program is rooted in principles of cultural diversity, seasonality, sustainability, environmental and social responsibility, nutrition, and culinary innovation. We aim to balance conscientious purchasing, customer preference, and financial responsibility. We regularly reevaluate our processes, purchasing decisions, and practices as we endeavor to become leaders in an environmentally sustainable dining program that positively impacts food systems locally and globally. We strive to graduate thoughtful eaters, who have a deep appreciation for the cultural, environmental, ethical, and community-building roles that food can play in one’s life, as well as the complexities of the food system.

Over the past two years, more than 300 students worked together to design and build a 3,000+ square foot campus farm and garden including 30 planter boxes, 20+ types of crops, a greenhouse, composting systems, picnic tables, and a geodesic dome seating area. Many students engage weekly in the farm/garden, as well as during lunch and classes in the space.

We have a comprehensive Health & Wellness Program in grades 6-12 with dedicated time for learning about time management, sleep, social dynamics, and the benefits of being in the outdoors. We have a comprehensive mental health unit in the ninth grade where students keep a sleep journal, learn to

meditate, and take actionable steps to change aspects of their lives. We have a Peer Mentoring program which specifically teaches juniors and seniors how to navigate the challenges that impact teens and young adults, so they can be informed resources for themselves, peers, and younger students. This group regularly visits local clinics and health agencies, explores community resources around mental health issues, and participates in suicide prevention training. 150 middle schoolers (97 percent of middle school students) participate in sports and Physical Education (PE) classes that take place outdoors. Grades 6-9 average at least 100 minutes of physical education weekly.

To expand our network of ES practitioners, and to learn from and share best practices with others, the school is a member of the Green Schools Alliance, National Association of Independent Schools and Northwest Association of Independent Schools Environmental Sustainability Communities, Washington Green Schools, and Global Washington. We are certified at the Gold Level for Waste, Grounds, and Transportation by Washington Green Schools.

Environmental sustainability is a core part of our mission and values. It is deeply imbedded in our long-term strategic planning in addition to our daily practices. Our recently published Strategic Framework integrates ES throughout and includes direct connections to ES in 36 percent of the 11 areas of engagement. Building ES into our strategic planning processes ensures Northwest’s continued commitment to these issues. (Full Strategic Framework: <http://northwestschool.org/about-the-school/board-of-trustees/strategic-framework-engagement-and-evolution>)

Green Schools Participation

| Program | Level and Date Achieved |
|--------------------------|--------------------------------|
| Washington Green Schools | Gold Certified, 2017 |

Awards

| Award | Awarded to | Awarded by | Year Received |
|-----------------------|-------------------|---|----------------------|
| Fulbright Scholarship | Jeff Blair | Japan-US Teacher Exchange Program for Sustainable Development | 2014 |

PILLAR 1: Reduce Environmental Impact and Cost

Element 1A: Energy Conservation

Over the last five years Facilities has ramped up action to reduce campus energy consumption. Measures they have recently implemented include: a third-party energy audit and implementation of recommendations, including a full building systems Tune-Up (a City of Seattle program to reduce energy consumption in buildings), recommissioning of building systems, and adjusting scheduling for HVAC units to optimize for building occupancy and weather. We shut down our boilers in summer 2018, which resulted in energy bill savings of \$2,000-\$3,000.

We have tube-style solar collectors on the rooftop of our gym and Dining Hall building that provide reclaimed heat energy for hot water. We have replaced incandescent and CFL bulbs throughout our main school building with LEDs. The longer lifespan of LEDs has reduced maintenance on lights and saved energy and money due to increased energy efficiency. We participate in Energy Star reporting in accordance with City of Seattle energy use reporting requirements.

We are in the process of developing a Greenhouse Gas (GHG) emissions reduction plan. The first step is a GHG inventory that an eleventh-grade student is conducting, which she began in Spring 2017. It includes Scope 1, 2, and 3 emissions, is on track for completion by March 2019, aims to be replicable every two years as a student independent study, and will inform our GHG reduction goals. We are developing these goals and our plan for achieving them in conjunction with our school-wide strategic planning process.

The school recently acquired four parcels of land adjacent to campus, and we are in the early stages of a campus expansion process. Having a physical campus that reflects our commitments to ES is core to this process and the future of our campus; we are exploring the possibilities of carbon-neutral and regenerative architecture.

Element 1B: Water Conservation

At the school, we raise awareness among students about water quality and environmental justice. For example, our eighth-grade earth science class works with Water1st, an organization that supports sustainable water projects in developing countries around the world. This class then engages our school community to help them understand the relationships between water, society, and environment. Students are also analyzing our school's water consumption with a goal of developing strategies to reduce it.

Northwest reports water usage through EPA's Portfolio Manager in accordance with City of Seattle requirements. We have adopted a systemic view of our water usage, working toward zero-irrigation landscaping, and have a goal of minimizing water consumption throughout our campus facilities. We have low-flow water fixtures in all bathrooms, including toilets and sink faucets.

We have taken on four projects aimed at drastically reducing water consumption over the past five years:

- 1) We re-landscaped the main entrance area of school (4,000 square feet) with the goal of maintaining an aesthetically welcoming entrance while reducing water consumption to zero. To do this, we replaced most grass in the area with drought tolerant, low water plants.
- 2) Students installed drip irrigation and rainwater harvesting systems in our campus farm/garden to conserve water. The drip irrigation system is on a Wi-Fi enabled timer system providing more control. We can adjust watering based on weather and ensure watering occurs in the mornings and evenings.
- 3) We installed a rainwater catching/monitoring system on our newest building that informs our irrigation system for landscaping around that building. When there is rain, the irrigation systems feeds less water into the landscaping.
- 4) We began the practice of monitoring water bills to check discrepancies from bill to bill, which has resulted in finding out about and fixing leaks more quickly.

Element 1C: Waste Reduction

Waste stream receptacles throughout campus occur in groups of three: compost, recycling, and garbage. We have an Environment Team that tracks waste by weight each week. We do annual waste sorting training with faculty, eighth grade, eleventh grade, and twelfth grade. Students empty all waste bins, so they are aware of the amount of material our community wastes. We are in the process of developing a Zero Waste Events guide for all campus events.

Lunchtime is a time for action around reducing food waste. Students organized a Dining Hall Food Waste Audit this and last year to better understand our lunchtime food waste habits and to reduce waste. The Dining Hall has woven waste reduction measures into their operations. They encourage all to only take what they plan to eat and come back for more if needed. Leftovers are transformed into soup or salad bar offerings. We donate leftover dry goods to food banks and are formalizing a partnership with Seattle Salvation Army Food Pantry and Meal Program to donate leftover meals. Meal prep scraps are worm composted on campus and other organic by-products are composted by the city. Our Dining Hall has no single-serving packaging and serves on durables. In catered events all items are durable or compostable.

The Dining Hall prioritizes local and organic purchases and tracks procurement patterns. In 2016-2017, 24 percent of our produce was organic; in 2017-2018 this increased to 50 percent. 69.5 percent of our produce and 39 percent of our meat comes from within Washington.

In 2015, we created a school-wide Environmentally Preferable Purchasing Policy. This includes purchasing only paper that is 50 percent or more post-consumer material, made of fibers from forests certified as responsibly managed, and chlorine free. Facilities has eradicated all oil-based paints. We have eliminated hazardous waste and hazardous or dangerous products.

Element 1D: Transportation Alternatives

We are an urban school, accessible by public transportation. There is no car parking for students and few spaces for faculty. All are encouraged to use the lowest carbon transportation possible. The school provides a secure bicycle shed with a capacity of 22 (expanding this spring) and highly subsidized public

transit passes to faculty. The school encourages carpooling among students and faculty by making a carpooling app available.

Students in the Environmental Student group organize an annual Bike/Walk to School Day to raise awareness for lower carbon transportation. Students collect data on how their peers commute throughout the week. Organizing this day and week-long data collection involves setting up a breakfast station at the main entrance to school for students and faculty who walk or bike, creating posters describing environmental impacts of various forms of transportation, and asking students to report their transportation mode when they sign in at school. In 2017, 33 percent of students took public transportation and 11 percent biked/walked.

Last year a survey of faculty revealed the faculty commuting mode share was: 32 percent bike/walk, 20 percent use public transit, 13 percent carpool, 35 percent travel in single occupancy vehicles. To incentivize public transit, the school heavily subsidized transit passes for all faculty (<\$10/month for an unlimited pass; usually \$100/month). A similar survey this spring will assess the impact of this program.

There is not a yellow bus service to and from school. A fleet of 10 school buses is used for field trips, grade-level trips, and athletic games/practices. The school is exploring the possibility of school bus morning and afternoon pick-up/drop-off for students who do not live in areas best served by public transportation. There is not a formal no-idling policy; however, we conduct outreach to parents reminding them not to idle. School vehicles are not idled. In 2015, Facilities switched to an electric vehicle.

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

Element 2A: Health and Safety

In 2015 we created an Environmentally Preferable Purchasing Policy (EPPP), which is designed to strengthen and encourage purchasing that is more environmentally responsible, socially conscious, and accounts for community health. We hope the EPPP influences providers, peers, and community members to do the same. (Full EPPP: http://northwestschool.org/_ui/img/public-documents/nws_environmentally_preferable_purchasing_policy.pdf)

Three examples of the EPPP in action:

- 1) Carpeting in buildings has huge environmental and health impacts. In 2017 we replaced the carpeting in the Commons. We chose a carpet that was Living Building Challenge DECLARE certified (the highest environmental health certification for building materials).
- 2) Our cleaning products have Green Seal certification. Given that our entire school engages in cleaning, we are committed to using green cleaning products that are safe and don't negatively impact human health.
- 3) When the Facilities buys a new chemical or new product, they ask, "Is this environmentally friendly?" and "Is this safe to use?". They ask this of sales reps and research products on their own.

We keep safety data sheets for all products/chemicals used on campus and we are compliant with a global harmonizing system for safety data sheets. We minimize use of toxic chemicals, and we store and dispose of chemicals properly. Our Facilities does preventative maintenance related to indoor air quality including regularly checking belts, replacing air filters, and cleaning heating coils.

Our pest management practices at school include preventative maintenance related to pest control in our buildings and use of pest repelling plants in the campus farm/garden. We do not use any sprays anywhere on campus. Our Facilities sets physical traps seasonally (ant traps, rat hotels, mouse traps-- but no sticky traps) and has pigeon point and chicken wire where needed around school buildings. In the farm/garden we practice organic pest management, planting marigolds and nasturtiums as pest repellents.

Element 2B: Nutrition and Fitness

ES and nutrition are core values visible in the Dining Hall. Meals are cooked from scratch using local produce and products whenever possible (90 percent), and as the growing season allows. More than 300 students worked together to design and build a 3,000+ square foot campus farm and garden including 30 planter boxes, 20+ types of crops, a greenhouse, composting systems, picnic tables, and a geodesic dome seating area. This is a student-managed outdoor lab, creative space, demonstration area for sustainable urban agriculture practices, food producing area, and place of joy on campus.

The Outdoor Program has been a key part of our extracurricular offerings since the founding of the school. Trips are open to all grades and experience levels. Each year we offer 10-12 outdoor trips, including hiking, snowshoeing, igloo building, backpacking, kayaking, and cycling. 200+ students participate in the Outdoor Program each year from all grades. The school loans out gear and covers trip expenses for financial aid students to make the program accessible to everyone.

The athletics program includes many sports teams and classes. 150 middle schoolers (97 percent) participate in sports and PE classes that take place outdoors. Grades 6-9 average more than 120 minutes of PE weekly, while in the upper grades there is more variability due to electives. In the Upper School, 330 students annually participate in a variety of sports and classes. Students use an outdoor sport court, rooftop field, and gym throughout the day.

The Athletics Department incorporates nutrition and hydration into all middle school PE, Health & Wellness classes, and coaching. Students learn to use heart rate monitors and associated data to guide their fitness training. Ninth grade students complete a Functional Movement Screen, complete workouts to improve functional movement, and receive a comprehensive nutrition unit.

Element 2C: Mental Health and School Climate

We are an institution with a strong academic, college-prep program, and we understand the importance of taking care of oneself in order be able to fully engage intellectually. We have a comprehensive Health & Wellness Program in grades 6-12 with dedicated time for learning about time management, sleep, social dynamics, and the benefits of being in the outdoors. We have a comprehensive mental health unit in the 9th grade where students keep a sleep journal, learn to meditate, and take actionable steps to

change aspects of their lives. We have a Peer Mentoring program which specifically teaches juniors and seniors how to navigate the challenges that impact teens and young adults so they can be informed resources for themselves, peers, and younger students. This group regularly visits local clinics and health agencies, explores community resources around mental health issues, and participates in suicide prevention training.

The school prioritizes student mental health through 2 full-time school counselors, and a half-time Director level position coordinating the Health & Wellness program. We have an advisory program in both middle and upper school where groups meet for 40 minutes weekly with a faculty member. Faculty choose frequently to participate in professional development conferences focusing on adolescent social and mental development with a specific focus on suicide awareness and prevention. Many Northwest faculty have specifically trained with the Forefront Suicide Prevention Center at UW and facilitate in-house workshops. We work with Freedom from Chemical Dependency annually in our prevention efforts around substance use/abuse and participate in Washington's Healthy Youth Survey. In partnership with these two organizations, students take annual surveys to assess their attitudes and behavior around risk and resiliency factors. As a school we have access to the resultant data and participate in annual presentations and training for faculty and students.

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

Element 3Ai: Integrated Environmental and Sustainability Education

Each year, every student participates in the Environment Program. Three times weekly students and faculty work in mixed-grade teams under the leadership of seniors to care for the school and surrounding areas. Each team is responsible for maintaining, cleaning, and caring for a specific part of the school. During this time teams discuss weekly environmentally related discussion prompts on topics from climate change impacts in Seattle to microplastics, food systems, and environmental justice. Students are assessed on their participation and engagement in the program.

Each of our science classes include specific units relating to ES. Teachers "measure" students' ES literacy through assessment of work on various projects and through tests. A sampling of units across grade levels include: research into alternative energy sources and storage methods, designing and building wind turbines, study of the chemistry of liquid fuels to investigate environmental impact, exploration of the toxic chemicals in personal care products, a unit on ocean acidification and the issue of overfishing.

A twelfth grade Humanities course examines the ways nature has been conceptualized in the USA from the colonial era to the present. Students study texts from a range of fields as they look at the multiple and conflicting ways that Americans have attempted to answer the question: What is nature? Students are assessed and receive feedback throughout the year on their level of literacy and engagement.

Our Summits program (two-week intensive classes) has a strong focus on environmental education. Nearly all our Summits have some connection to the environment, and about a third directly relate to environmental education, including Summits on the Duwamish River, urban agriculture, history of the cedar tree, food justice, landfill philharmonic, and a course on cooking, chemistry, and community.

Through both formal and informal methods, teachers continually evaluate students' depth of learning during these experiences.

Element 3Aii: Teacher Professional Development

All faculty at Northwest have access to funding each year for Professional Development (PD) experiences of their choice. We also have in-service PD days in which all faculty participate. Over the past two years, we've had more than 23 faculty members attend ES related conferences and workshops including:

- Northwest Climate Conference,
- University of Washington Urban Environmental Justice Symposium,
- Pacific Northwest Climate Adaptation Conference,
- International Living Futures Conference,
- Independent School Experiential Education Network Winter Institute,
- Traverse (experiential education conference),
- NOLS Risk Management Conference,
- Wilderness First Responder Certification,
- First Aid certification, and
- Various workshops on zero energy buildings, climate education, nutrition, mindfulness, food systems.

During in-service professional development days and faculty meetings, we've often had ES training or experiences over the past two years including faculty builds in the campus farm/garden, waste sorting training, Environmentally Preferable Purchasing Policy training, and Environment Program training.

Sharing our school's sustainability journey and ongoing efforts in order to be a model for other schools to learn from is also a critical part to how we view our engagement in ES. As such, we've had faculty give presentations and facilitate workshops over the past two years on Student Engagement in Environmental Sustainability (NWAIS, 2018), Diversity, Equity, and Inclusions and Environmental Sustainability (NWAIS, 2018), Food Justice (Traverse, 2018), and Eco-Schools (Low Carbon City, 2017).

Our school is a leader among NWAIS schools that work on ES and works to convene sustainability-minded educators from NWAIS members schools to share experiences, knowledge, and inspiration. In Spring 2017 we hosted a gathering of NWAIS ES leaders including 19 participants from 13 schools in WA, OR, ID, and UT.

During our last accreditation cycle, we included ES questions in the process, and requested that NWAIS include ES criteria in accreditation requirements for all member schools.

Element 3Bi: Science Supported by Environmental and Sustainability Education

All science courses across grades and disciplines, incorporate ES throughout the year. Each science class is year-long, lab-based and taught (mostly) by teachers who are also leaders in the Outdoor Program. All science teachers work under a fundamental imperative to teach about climate science from a solution-

oriented perspective. Teachers regularly bring ES concepts into their curriculum through discussion of current events, and specific connections to the units of study. Science courses use the following topics to connect course content to ES challenges: bioplastics, fuels, ocean acidification, renewable energy, and toxic chemicals in personal care products. In the Math Department, students use the school farm/garden to study ratios in relation to crop yield and area, the challenge of packaging waste reduction to study surface area and optimization, and exploration of e-waste in computer science.

To ready them for careers and future engagement in STEM, students learn about the process of science as iterative, fact-based, and intrinsically centered around the natural systems that sustain us. Students learn how to collect and analyze data and understand how data can be misrepresented in the media, especially related to climate change claims. Many science classes use systems-thinking and design-thinking to learn about the interconnectedness of life on our planet. This directly inspires students to pursue a wide range of interdisciplinary ES majors after high school. All students engage in the iterative process of science and gain first-hand experience in how it requires a continual reexamination and redesign of the question. They also gain an understanding of relationships across scales and systems.

The science program gives students the scientific skills necessary to pursue higher education in this field and understand how to analyze and process data, appreciate the interconnectedness of all things, and to believe that there are solutions to the most pressing global environmental problems.

Element 3Bii: Environmental Career Connected Learning

Yearly our twelfth-grade students volunteer on local political campaigns, initiatives, and nonprofits through Humanities classes that often directly relate to environmental issues and open new ideas to them for ES careers. Twelfth grade physics students visit the Bullitt Center, the “greenest building in America,” and demonstrate heightened interest afterwards about career paths in this area.

Over the past two years, we’ve hosted many environmentally focused all-school meeting speakers and guests, who provide concrete examples of ES career pathways including: Heidi Roop, Lead Scientist for Science Communication, Climate Impacts Group at UW; Kevin Rennert, former Deputy Associate Administrator for the Office of Policy at the US EPA; Gary Shigenaka, Marine Biologist at NOAA; Eleanor Bastian, former Legislative Director to US Congressperson Diana DeGette; and Chris Jordan, artist/environmental activist. Our environmental student group often hosts these guests for well-attended discussions that include career paths in the field. We have a very strong parent community with deep ES roots, who are frequently invited to talk with students about ES professions.

Northwest has a robust intern program with 5 Urban Farm/Garden interns working with our Director of ES each summer. The program is open to high school students, college students, and recent college graduates. Interns care for the Farm/Garden, assist with summer camp classes that use the space, and take on additional independent or team projects related to the Farm/Garden.

Northwest alumni have gone on to pursue PhDs in ecology and evolutionary biology, win Fulbright Scholarships to study sustainable farming practices around the world, pursue college pathways that bring together the fields of business and ES, focus on commercial fisheries, establish commercial organic farms, found companies that repurpose “food waste” into useable products, develop a honey-bee focused start-up, study environmental science and policy in college, and manage campus organic farms.

3C: Civic Engagement

Students have many opportunities at Northwest to get into the community to connect with different people and organizations.

Seventh graders work in a community garden devoted to senior citizen immigrants, helping the students have a greater understanding of the importance of connecting with nature, and providing safe access to quality food within a smaller community. They also visit local organic farms in the Skagit Valley to experience larger scale food production and increase awareness of where their school lunches come from.

Eighth grade students learn about plankton filter feeders and the marine food web during grade level trips to local beaches. They connect the experiences to their ocean acidification unit in Earth Science class. The eighth-grade students also visit UW oceanography, ice core, and seismology labs to learn about how those scientists deepen their understanding of the interconnectedness of human behavior on physical earth systems.

Tenth grade students visit Yakima to gather data with professors at Heritage University on a project that explores the environmental impact of biochar on apple production.

Eleventh grade students have done construction work on nearby fruit farms to improve the living conditions for migrant farm workers. They learn about the issues facing this population and bring their experiences back to the greater school community through all-school presentations.

Twelfth grade students are required to engage in a local campaign or community service project which they report on for their Humanities class. Student regularly choose to work for environmental initiatives or candidates with strong ES perspectives. This develops a deep appreciation of public service and the importance of grassroots organizing.

Northwest is in the process of developing a partnership with a nearby camp that would create opportunities in marine biology field research, trail development, wetlands restoration, and ecology field studies.