

District 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 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 2015-2018

Name of Superintendent: Dr. Heather Davis Schmidt

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

District Name: Whitefish School District

(As it should appear on an award)

Address: 600 East 2nd St. Whitefish, MT 59937

Telephone: 406-862-8640 Fax: 406-862-1507

Web site/URL: <http://www.wsd44.org> E-mail: davisschmidth@whitefishschools.org

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



Date: 12/16/2016

(Superintendent's Signature)

, ED-GRS (2016-2017)

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.

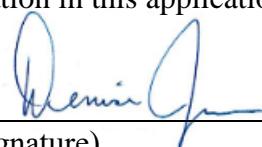
1. The district is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district meets all applicable federal civil rights 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: Montana Office of Public Instruction

Name of Nominating Authority: Denise Juneau

(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: 12/20/2016

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your district is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments, being sure to cover equally all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only districts 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 according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509
Expiration Date: March 31, 2018

Public Burden Statement

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

PART II – SUMMARY OF ACHIEVEMENTS

Whitefish School District, Montana

Whole District Approaches to Sustainability in the Heart of the Rocky Mountains

Whitefish School District is an innovator in sustainability education and programming. Through a coordinated program of sustainability, students, teachers, and administrators are exploring and experiencing sustainability. The district has 1708 students with 26% of students who qualify for free or reduced lunch. Whitefish High School has a graduation rate of 95%. The school district serves the community of Whitefish, MT. Whitefish is surrounded by the Whitefish, Stillwater and Flathead Rivers, as well as the Whitefish, Salish-Kootenai, and the Swan mountain ranges. The community neighbors Glacier National Park to the east.

Whitefish lies within a wildlife corridor that contains grizzly bears, elk, black bears, mountain lions, bald eagles, gray wolves, wolverines, big horn sheep and many other native species. The community lies within the Flathead watershed, which contains 500 lakes within the basin and includes many native species. The Whitefish Legacy Partners has created world class opportunities for outdoor recreation while maintaining the integrity of ecological systems. Environmental stewardship and the conservation of nature are prominent values within our community. These values drive our sustainability programming.

An important aspect of the District's sustainability program is the Center for Sustainability and Entrepreneurship (CES). The design phase was completed in the winter of 2016 with ground breaking in the spring of 2017. In 2017 the District will construct a two story classroom building that has an attached greenhouse. The facility will be the first zero-net energy building in the state of Montana. It will be built with the highest standards of sustainability and utilize a combination of geothermal and solar power to achieve its energy needs. This innovative facility will serve as a laboratory for sustainable practices across the K-12 educational continuum. Surrounding the building will be a production garden, orchard, experimental forest, and an outdoor classroom. Curriculum integration will connect learning to the local economy within the domains of agriculture, forestry, resources management and entrepreneurship. Aspects of the facility are designed to help students achieve dual credit through partnerships with institutions of higher education.

Sustainability efforts are being integrated through a strong collaboration with multiple local, regional, and national organizations. An important local partnership that is furthering sustainability at the district level is occurring between the City of Whitefish and the National Center for Appropriate Technologies. Over the course of the 2016-2017 school year, the District will have a shared sustainability coordinator with the City of Whitefish who will conduct a comprehensive energy audit. The sustainability coordinator will work with each school to develop an energy conservation plan that is based on the baseline energy audit. The coordinator will work with students and teachers to implement programming elements related to sustainability across the district. Another important partnership that promotes sustainability in Whitefish School District is occurring between the US Green Building Council and the Green Schools National Network. Over the 2016-2017 school year, the District is participating in a national cohort of green schools and districts. The cohort is designed to create a platform to share lessons, resources, curriculum, and best practices in the area of sustainability programming in K-12 education. This initial participation will lead to the Whitefish School District guiding a cohort of green schools in Montana over the 2017-2018 school year.

A key feature of the Whitefish School District's sustainability program is a high degree of coordination between facilities, curriculum, and food services. Through a focused effort and continual planning, the directors of each department collaborate regularly with how to improve sustainability at the district level. Through this collaboration, efforts have been made to reduce waste and improve the efficiency by which resources are used throughout the district. Through district level coordination the use of plastic utensils has been eliminated and the process of gradually eliminating Styrofoam has begun. The district uses its current gardening space to supply vegetables and herbs to the school district. Students in the 2nd grade help to maintain the District's herb garden. The herb garden is used for both educational and production purposes. The 7th grade

students plant the garden and the 8th grade students harvest the vegetables. Over 2500 lbs of potatoes are used to supply the school district with its annual use of potatoes. Other easily stored vegetables such as squash and onions are grown as well. The District has developed a composting program that collects compostable material from each building.

Having achieved certification in the area of integrated pest management the district has developed an integrated pest management system. District level coordination has enabled strategic planning to occur around the energy and resource baseline created by the sustainability coordinator. The plan has resulted in several identified actions that are being taken to reduce our ecological footprint. The District has begun phasing in high efficiency lighting, installing occupancy sensors, updating heating control programming, and developing an energy and water conservation plan.

The Whitefish School District wellness plan integrates many elements of sustainability. The school district has developed a comprehensive wellness plan that improves the health and wellbeing of students, teachers, and administrators across the district. This plan has allowed the district to be recognized through the Healthier US Schools Challenge. The District also participates in the Farm-to-Schools program. This program enables the District to purchase meat, dairy, grains, vegetables, and fruits from local Montana-based farms.

In addition to district level planning, each school has a sustainability plan that is lead by students and teachers. Each school has a sustainability team that meets to develop building specific objectives and benchmarks. Students are also engaged in the process of learning about and experiencing sustainability. Student leadership in the middle school and high school comes from student council and also from the student environmental science club called FREEFLOW. For example, the middle school student council identified the issue of automobile idling that was occurring during student pick-up and drop-off times. The students researched the health and environmental issues surrounding idling, presented their findings to the school board, and enacted a no idle zone around each of the schools. Another example of interdisciplinary learning related to sustainability occurred when the entire 6th grade class developed sustainability posters that were implemented into the school's energy conservation plan. The student body voted on a mission, slogan, logo and action they could embody to foster sustainability. The 3rd grade class at Muldown Elementary developed the school's sustainability focus and the 4th grade class is responsible for collecting the school's recycling materials. Students play a primary role in the collection and processing of recycling at each school.

Curriculum integration of sustainability topics is a priority within the District's sustainability program. The sustainability teams inventoried the teachers at each school to determine what teachers teach related to sustainability. The inventory process also identified what teachers would like to teach and what resources they needed to accomplish this goal. Through curriculum alignment to the student developed sustainability actions, teachers develop curriculum and learning experiences.

PART III – DOCUMENTATION OF STATE EVALUATION OF DISTRICT NOMINEE

Pillar I: Reduce Environmental Impact and Costs

Element IA: Energy

Whitefish School District reduces environmental impacts and costs through developing and implementing efficiency measures. The District consists of three school buildings that have a footprint of over 325,000 square feet. Whitefish is located in the Northwest corner of Montana and is 60 miles from the Canadian border. The climate zone for Whitefish is 4b according the USDA Plant Hardiness zone. During the 2016-2017 school year Whitefish School District worked with regional partners to conduct a comprehensive district wide energy audit. Through an innovative partnership with the City of Whitefish, the National Center for Appropriate Technology, and Flathead Electric Cooperative, the district conducted an energy audit for the purpose of establishing a baseline of energy usage. The first step in the process was to gather data related to energy consumption. After the data was gathered the district used the Energy Star Portfolio Manager. The Energy Star

score for Muldown Elementary School was 77, Whitefish Middle School received a score of 59, and Whitefish High School received a score of 71. The energy efficiency aspect of the District's sustainability plan extends beyond the collection of data through facilitates upgrades and behavior-based programming initiatives. In 2014 the District completed construction on Whitefish High School. During the project energy efficiency was prioritized. One strategy that was used to minimize heat loss was the addition of air handlers that contained heat recovery wheels. Variable frequency drives were installed on all of the major electrical components to improve their efficiency according to demand and usage. In addition, across the District lighting upgrades have become a priority. Examples of this can be seen in converting parking lights and exterior light to LED's. Lighting upgrades are also evident in the transition to more efficient and longer lasting fluorescent light bulbs. With the renovation done at Whitefish Middle School variable frequency drives were installed on the gymnasium air handlers. Through the District's partnership with Flathead Electric, thermal imaging photography was used to construct an energy loss baseline. Through a review of this imaging, data strategic insulation and energy saving strategies, decisions were made to reduce the energy loss at the schools. The District received a mini grant from the Governor's SMART schools program which will allow us to purchase power strips that will be used to monitor and control plug-load usage.

A direct action being committed by the District to reduce energy waste and consumption is to monitor energy use using EPA's Energy Star Portfolio Manager. The District is currently in the process of applying for Energy Star certification. Strategies for energy conservation and improve efficiency consist of having integrated light sensors in all of the gyms and many of the classrooms. Utilizing smart power strips with load sensing technology in the computer labs, classrooms, and offices. The District has adopted network and software based strategies to turn on and off computers to improve their efficiency.

Whitefish School District is developing an energy conservation plan that is based on data and input from students. Within the initial process of data collection regarding energy consumption, the District conducted a comprehensive plug-load inventory in all of the classrooms. Through this process the District identified areas of inefficiency and redundancy regarding energy use. Strategies are being implemented to better use items that require energy. Students at Muldown Elementary and Whitefish Middle School developed specific behavioral strategies that are being implemented throughout the schools to promote energy efficiency and reduce the creation of waste.

The Center for Sustainability and Entrepreneurship (CES) will open in the Fall of 2017. This facility has been engineered to be a zero-net energy building with attached greenhouse. An important innovation that the Center utilizes is a Climate Battery, this system incorporates annualized geo-solar principles by allowing air to be redistributed through ground source pumps. This system is estimated to provide a 15 degree increase in the air temperature of the greenhouse. Temperature regulation in the summer is accomplished through the use of automated controls that engage evaporative misters and automated motorized vent windows. The CES has wall insulation at R33 and roof insulation at R60. The windows are triple-paned and maintain the highest standard of low U values. Three high efficiency ductless mini splits provide supplemental heat for the greenhouse and the classroom space is heated by air source heat pumps. The primary sources of electrical energy will be derived from a 31 kilowatt solar system. This system provides the required 43,000 kilowatt hours needed to run the facility annually. The solar array contains 92 panels. A critical dimension of the project is a partnership with Flathead Electric Cooperative. Through a power purchase agreement the District plans to earn credits when the solar systems produce excess energy during the summer months to offset the lack of energy produced during the winter months. Additional aspects of the facility that promote sustainability include the water system, air quality system, and the use of reclaimed materials. The water system is recharged through rain. Given the abundance of rain our community experiences, we plan to capture rain to irrigate our greenhouse. The greenhouse internal gutter collects rainwater and stores it within the lower level tanks that each holds 260 gallons. Two additional 300 gallon tanks are located on the balcony. Water is pumped from the lower tanks to the upper tanks. Whenever possible the construction of the CES strived to incorporate reclaimed materials. The siding and trim are reclaimed materials. Two heat recovery ventilators function to provide a forced air distribution system that filters the air.

Element IB: Water and Grounds

Within the construction of the high school five refillable water bottle stations were installed. These refill stations decrease the amount of disposable water bottles used and improves the overall health of students by engaging in healthy choices. The gardens around the school are landscaped with drought resistant native trees, bushes and plants to minimize water consumption. The District is developing a water conservation plan that involves implementing digital programs that enable watering cutoffs to occur in the instance of rain. Through installing these sensory controls the District plans to save thousands of gallons of water annually by improving the efficiency of the irrigation systems. The District is planning to add additional fountain bubblers in sinks and provide two additional water bottle filling stations in the Spring of 2017 at the middle school.

Element IC: Reduced Waste Production

Recycling is a priority for Whitefish School District. On a weekly basis recycling is collected, sorted, and measured by students. Student driven systems of collection and measurement have been developed at each school to promote recycling. Classrooms contain recycling bins that help to separate plastic, aluminum and paper waste. At the elementary school and middle schools recycling is measured in terms of volume and at the high school it is measured in terms of weight and volume. The District measures the waste produced at each school. Whitefish Middle School produces 9 yards of waste on a weekly basis. The high school produces 12 yards of waste weekly and Muldown Elementary produces 10 yards of waste on a weekly basis. Each school recycles 2 yards of cardboard each on a weekly basis. Through the inventory process, strategies to reduce waste and improve both recycling efforts and minimize consumption are being implemented.

Weekly Average of Recycling Volume at Muldown Elementary School

- Average of 120 gallons of volume on a weekly basis of mixed recycling.

Weekly Average of Recycling Volume at Whitefish Middle School

- Average of 135 gallons of volume on a weekly basis of mixed recycling.

Weekly Average of Recycling Weight and Volume at Whitefish Middle School

- Average of 250 lbs or 120 gallons of volume on a weekly basis of mixed recycling

Monthly Garage Created by the District

- Average of 31 cubic yards of waste per month 124 cubic yards.

Monthly Recycling and Garage Rate per Student

- Average of 1.77 cubic yards of recyclable material per month
- Recycling Rate = $(1.77/124) \times 100 = 1.427$ cubic yards
- Monthly waste generated per student = $(124/1708) : 0.0725$ cubic yards

Composting

The District maintains a strong commitment to composting. For years the district created nutrient rich soil through vermin-composting. As the District prepares for the launch of the Center for Sustainability and Entrepreneurship new systems of composting are being developed. In the interim, the District has partnered with a local organization called Dirt Rich. Through coordination with Dirt Rich over 1000 lbs of compostable materials are collected on a monthly basis from the schools within the District. Compost at Muldown

Elementary is collected and used by local farmers. The District plans to establish a comprehensive composting system that will serve to build rich organic material used to grow food at the Center for Sustainability and Entrepreneurship.

Reducing Food Related Waste

The District has eliminated plastic utensils in the cafeterias, purchased metal silverware, and is transitioning away from the use of Styrofoam. At the middle school the student council has purchased a set of 30 plates and metal silverware for each grade level kitchen in order to minimize the amount of paper plates and plastic utensils used during grade level celebrations.

Learning about Reducing Waste and Resource Consumption

The lunchroom recycling program was started in 2000 through Montana Behavioral Initiative. This program includes lessons and student-based programming specific to recycling. Students at each of the schools collect recycling. With the development of the Composting program new opportunities for learning have emerged. Students and teachers have been educated about how to reduce waste and the systems that are in place at each of the schools. Cafeteria procedures at the middle school and high school have been developed to support the process of composting and recycling. Students learn about the benefits of composting and recycling through individually designed research projects. The high school has developed a Cafeteria Procedures for Waste Management protocol. This system requires all food waste to be placed in the FOOD COMPOST bin. Silverware is placed in clearly marked containers. Plastic and aluminum recyclable materials are placed in recycling bins. Students then empty liquids from containers and discard lids into the landfill bin. Wrappers, baggies, and plastic lids are also discarded into the landfill bin.

At Muldown Elementary and Whitefish Middle School grade level activities have been implemented to create student guided initiatives that support waste reduction and recycling practices. In the Fall of 2016 students in 3rd and 6th grade participated in a grade level assembly about Sustainability in their schools. The students developed posters and active steps they plan to take to conserve energy and reduce waste. The students all voted on their top three choices. Then the selected groups shared with the entire school and the individual classes voted on the top choice. Through this process a school wide energy conservation and waste reduction plan was developed. Within the student created energy conservation and waste reduction plans, numerous strategies were identified. These strategies include; turning off lights when not in use, removing unnecessary appliances or electronics, using power strips to turn off multiple electronics when not in use, using less paper through Google Apps for Education and other interactive software programs, recycling, reusing and repurposing materials or objects, developing online ways to access readings, using reusable water bottles, and many other energy conservation actions.

Element ID: Alternative Transportation

Each of the schools within Whitefish School District is within walking distances of each other. Each fall and spring, the District and the city sponsor walk and bike to school events. Local businesses participate and provide coffee and coupons for students and staff. Information from this past spring's event was used in the city's updated bike and pedestrian plan. Pathways that separate cyclists from the roadways have been established, and new stop signs have been placed to ensure that students and staff members who bike and walk to school are safe. Transportation plans have been implemented at each school to provide effective parking options, improve student safety, and reduce idling. Last year several students at the middle school researched the issue of idling. They presented their research to the school board and through their efforts no idling zones were created at each of the schools. The no idle zones help to create awareness of idling, reduce emissions, and promote cleaner air around the schools. As a result of the no idling initiative at the schools, students have

engaged the Burlington Northern Santa Fe Railroad in exploring a no idle zone as the railroad depot is located near the middle school. Student research in the high school also contributed to improving the bus idling and routes apparent in the District. Students utilized CO₂ monitors to track and documents how idling affects air quality. The Geographic Information Systems (GIS) class plotted busing routes, accessibility pathways for non-motorized travel to and from the schools and has provided recommendations to the City of Whitefish based on their findings. The GIS class plans to continue their research and explore possible ride-share, bike-share and carpooling options.

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

Element IIA: Environmental Health

Whitefish School District carefully assesses all requests for pest control to verify the actual level of need first by physical observation of the reported area. Rather than employ needless mitigation strategies that could expose students and staff to unnecessary risk to toxins, the District carefully researches and implements alternative options for pest management. These options include exclusion or habitat modification before spraying pesticides or herbicides. A guiding principle of our integrated pest management system is to use the least toxic practical option for weed and pest control when the need has been deemed necessary.

Safeguards are put in place to ensure that neither staff nor students have any potential risk exposure to cleaning products. In addition to all cleaning products being secured in a locked room, they are also clearly labeled and marked. The school purchasing practices seek to purchase environmentally safe and non-harmful products. The school is putting in place documentation to track the use of cleaning materials.

Air quality within the schools is a high priority. Each classroom's air quality is regulated and monitored to minimize potential asthma triggers. HVAC maintenance and filter changes occur at regular intervals. The HVAC systems are set to conduct regular system flushes. In this way air movement and quality is ensured for the entire school community. Our school has local exhaust systems for major airborne contaminant sources.

High quality pleated filters are changed on regular intervals at the high school and at elementary school. These filters function to ensure that each classroom maintains a high standard of healthy air quality.

Mold abatement is an important element for the schools in ensuring a healthy school environment. When mold is identified the school immediately contacts external mold abatement experts to check and conduct a mold abatement. Given the climate of Whitefish this is not a common problem but is addressed when necessary. Facilities personnel inspect the classroom dampers, heating ventilation filters and ventilation fans to ensure optimal air quality. Healthy air quality is important to the District and efforts are made to ensure that quality. Each classroom's air quality is regulated by a damper and fan. When the head is running, a ratio of fresh air is taken in to ensure clear air quality. The damper openings are set and checked on a regular basis to ensure the correct amount fresh air intake. Appropriate personnel will evaluate the measures taken to solve the issues pertaining to HVAC, moisture and mold, integrated pest management, cleaning and maintenance, materials selection, source control and energy efficiency.

Through the District's sustainability program, strategies to improve the efficiency of property management have been developed. Systems that monitor and ensure the overall health of the physical spaces have been implemented. The District is completing the final stages of developing a preventative maintenance program. This program required the development of a document that catalogues parts and equipment. Specific operational details regarding components of the mechanical systems at each school are being documented and integrated into the catalogue. The catalogue has been uploaded into a preventative maintenance software program. When completed, the program will provide reminders to district employees regarding preventative maintenance actions that need to be taken according to an established schedule to ensure the health and wellbeing of the schools' properties.

Element II B: Nutrition and Fitness

- [✓] Our District prohibits smoking on campus and in public school buses.
- [✓] Our District has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school.
- [✓] Our District uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO).
- [✓] Our District does not have any fuel burning combustion appliances.
- [✓] Our District has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.
- [✓] Our District has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure.

Whitefish School District prioritizes nutrition and fitness at each school. In 2016 the school district released its Student Wellness Toolkit. This toolkit was the result of a collaborative 18 month process in which stakeholders established policies and procedures related to student wellness. The wellness plan drives the District's participation in the Healthier US School Challenge. The procedures include the focus areas for students; access to nutrient rich food through the school day, dissemination of education that helps them develop lifelong healthy eating behaviors, and opportunities to be physically active before, during, and after school. The wellness procedures also encourage staff to practice healthy nutrition and physical activity in and out of school. The guidelines for nutrition enable the school-based menus to promote fresh fruits, vegetables, and whole grains. Fats, refined sugar, and excess saturated fat and sodium strive to be reduced or eliminated. Processed foods are replaced with whole foods and cooked from scratch whenever possible.

An important connection to sustainability that is prioritized by the District is a menu and procurement plan that integrates local sustainable foods into meals served to students within the District's financial constraints. The wellness plan also includes a focus on providing Farm-to-School components. The District supports a Farm-to-School program to help students eat more nutritious foods and promote healthier lifelong eating patterns; support the local economy and local farmers; and teach students about the origins of their food and how their food is grown. The District's Farm-to-School program provides hands-on educational experiences to connect students with the source of their food. This multifaceted program links nutrition education with the classroom, the lunchroom, the school garden and local farmers. One example of the Farm-to-School program was Crunch Day, for this event students across the District enjoyed locally grown apples from around the Flathead Valley. Our Food Service Director serves as a state-level consultant for the Farm-to-School program. In addition, the Center for Sustainability and Entrepreneurship (CES) will allow students to grow food year-round and contribute to the menus at each school. CES will be used for educational purposes in order to showcase agricultural practices. Permaculture, seasonal production, vertical gardening, hydroponics, and aquaponics will all showcase different methods of crop production. The District gardens are located near Muldown Elementary and Whitefish High School. One garden consists of an herb garden and the other focuses on vegetable production. Every Spring 7th grade students work with community volunteers to prepare the soil and plant potatoes, onions, pumpkins, strawberries, zucchini and squash. In the fall the 8th grade students harvest the vegetables. In the Fall of 2016 over 2500 lbs of vegetables were collected. The potatoes harvested provide the District's potatoes need for the entire school year.

Student snacks follow USDA's Smart Snacks in School standards. The District considers nutrient density and portion size before permitting food and beverages to be sold or served to students. Vending policies and contracts have been modified according to the Smart Snack in School standards. As part of the Wellness plan the District offers professional learning opportunities and resources for staff when feasible, to increase knowledge and skills about promoting healthy behaviors in the classroom and school. Professional learning serves to support the District's staff in understanding the connections between academics and health and the , ED-GRS (2016-2017)

ways in which health and wellness are critical components in District reform or academic improvement plans/efforts.

The District provides students with physical activity education, using an age-appropriate, sequential physical education curriculum consistent with national and state standards for physical education. The District meets the Healthier US School Challenge standards of 45 minutes per week for elementary students. In the middle school and high school physical activity is offered through structured physical education. The District provides the opportunities for every student to develop the knowledge and skills for specific physical activities to maintain physical fitness; and to obtain health education that instills an understanding of the short and long-term benefits of a physically active and healthy lifestyle.

Annual health and wellness screenings are offered to District employees. The Wellness Committee is focused on providing for the health needs of all district employees. The focus for the 2016-2017 school year is called "Be Well Whitefish." The Wellness Committee works year round to receive feedback from staff regarding health related needs. This feedback is utilized to develop programming and supports to increase and sustain the health of district employees. The committee also provides regular newsletters to inform District employees about ways to improve their health and fitness. The Wellness Committee facilitates weekly/monthly challenges such as the TRYathalon. This initiative encourages employees to engage in wellness related activities such as; eating whole or unprocessed food for every meal, turning off electronics before going to bed, and giving people hugs. The committee also provides wellness coaches for employees who are interested in creating a personalized wellness plan.

Physical activities are designed to meet the needs, interests and abilities of all students, and are being carried out in environments that reflect respect for body-size differences and varying skill levels. Physical activity breaks are encouraged, recognizing that students are more attentive and ready to learn if provided with periodic breaks when they can be physically active or stretch. The District recommends that teachers provide short (10 min) physical activity breaks to students during or between instructional periods. Activities outside of recess or physical education classes are encouraged and implemented. Examples of these activities include; yoga, dance, and other music related movement. In the middle school intramural sports are offered all year long and at the high school aerobics and weightlifting are offered every day before school. In addition, the high school's extra-curricular clubs (Bulldog Fly - Fly-fishing, Ultimate Frisbee, Rock Climbing and Alpine Ski Club) provide diverse outdoor physical opportunities.

The natural environment that surrounds the community of Whitefish serves as the basis for promoting student activity. Students have the opportunity in the winter to Alpine and Nordic ski. The District has a Challenge Course that contains both a high ropes and low ropes section. This Challenge Course is utilized to build teamwork skills and coordination. Students often go on field trips to Glacier National Park and rivers, lakes and wooded trails surrounding the community.

In order to provide year round opportunity for fitness and nutrition, Whitefish School District has implemented summer programming components. The District has partnered with the City of Whitefish Parks and Recreation program to offer summer camp experiences in both volleyball and basketball. These sport development camps are offered for students in grades 3-9. These programs serve the purpose of engaging students in developing essential skills and attitudes towards lifelong fitness. Summer programming also occurs in the area of nutrition. Through the National School Lunch program Whitefish School District provides free lunches to students of need throughout the community over the duration of the summer.

Pillar III: Provide Effective Environmental and Sustainability Education

Element IIIA: Interdisciplinary Learning

The District is involved in numerous important local, regional, and national partnerships that further its goal of providing, and building capacity for, interdisciplinary learning in the area of sustainability. Two important local partners are Whitefish Lake Institute and the Flathead Biological Field Station. These

organizations work to maintain the health of Whitefish Lake and Flathead Lake through protection of the surrounding watershed. Both organizations run annual professional development sessions for teachers. In the summer of 2016 Whitefish School District partnered with Arizona State University National Sustainability Teachers' Academy. Two of our teachers were selected to participant in the academy. The academy was held over five days. Teachers began their classes at the University of Montana campus and local sustainable farms. They studied trends and observed practices in sustainability. The teachers spent the remaining days at the Flathead Lake Biological Station exploring the watershed extending from Glacier National Park to Flathead Lake. Participants attended workshops with professional biologists and explored Flathead Lake on the biological station's research boat. In the classroom setting, the teachers learned the history of the station while considering the future of Flathead Lake. ASU's National Sustainability Teachers' Academy provides lessons, activities, and ongoing support for our teachers as they implement sustainability education and practices. The final component of the Academy was to develop a sustainability project to implement at the classroom, school, or district level. The teachers created a blueprint for a zero-recyclable-waste project which included composting of food waste. This project is an extension of the recycling efforts already in effect at Whitefish High School and has been implemented as of November 2016. The District's Curriculum Director served as one of the presenters at the academy. Through his presentation teachers from around the country learned about whole-school programming for sustainability.

Whitefish School District is currently a part of the Center for Green Schools National Cohort. The District participates in ongoing one-on-one coaching and small group workshops. Representatives from the District will present at the School Sustainability Leaders' Summit and the Green Schools Conference and Expo. From this experience Whitefish School District will lead a cohort of green schools in Montana. Through this experience the District will mentor schools to become more sustainable both in terms of facilitates and curriculum integration. Through this partnership with the Center for Green Schools teachers in the district have access to a sustainability curriculum database called Learning Lab. This online curriculum bank provides our teachers with developed curriculum materials that guide and support their integration of sustainability topics.

Beginning in 2015, Whitefish School District began the process of constructing a sustainability education curriculum scope and sequence. The first step in this process was inventorying topics currently being taught in grades K-12 related to sustainability. On the basis of the inventory, interdisciplinary curriculum was developed for the Center for Sustainability and Entrepreneurship. The curriculum for the Center is focused into four primary domains; sustainable agriculture, renewable energy, sustainable forestry and natural resource management, and entrepreneurship. This curriculum will drive interdisciplinary learning as students utilize the Center to engage in experiential learning about sustainability.

Interdisciplinary learning connects students with the natural environment that surrounds our community. The District partners with US Forest Service through a conservation grant to learn about ice science. Through hands-on learning at the community ice skating rink, students learn about properties of water, Newton's 2nd law of motion, and rotational motion in action. Another example of learning that connects students to nature is the annual snow safety training that Whitefish Mountain Resort provides. In this training, students learn the basics of Avalanche safety, ski and snowboard safety expectations, boundaries, and dressing for cold weather. Students also conduct snow survey investigations in which they examine how the water cycle and climate change affect avalanches. An important element of learning that connects students to sustainability at Whitefish School District is fire ecology. Students visit areas in Glacier National Park and Flathead National Forest that have been impacted by fire. Students learn about fire ecology by observing and conducting experiments regarding forest regeneration. Through this hands-on experience students enact the scientific method.

Interdisciplinary learning is also evident in the field trips students take. During the week-long 8th grade trip, students visit important Environmental Protection Agency (EPA) superfund sites. Students visit and learn about the Anaconda Co. Smelter site and the Silver Bow Creek/Butte Area site. By visiting these sites students see firsthand the impacts of human activity on the environment. An important civic connection that students make during this trip occurs when they learn about the process the EPA undergoes to mitigate environmental degradation.

Learning about soil plays an important role in developing systems and practices that foster sustainability. Students across the District learn how soil forms and what minerals are present. By working in gardens and with composting, students learn how and why soil quality varies. Through experimentation, students explore how to improve and degrade soil resources. Through the process of inquiry, students work to understand how society impacts soil and how soil impacts society. At Whitefish High School, students design and conduct an extended lab project that investigates soil and its connections to food production. Examples of research questions are: What is the effect of soil salinization on plant production, and What is the effect of soil texture on plant productivity? Through guided inquiry, students link their research findings to topics of desertification, ground water irrigation and declining aquifers, increased use of synthetic fertilizers, loss of prime farmland, and urban sprawl.

Element IIIB: STEM Content, Knowledge, and Skills

Whitefish School District prioritizes the integration of Science, Technology, Engineering and Math (STEM) within the curriculum. An important program that guides STEM throughout the District is called Project Lead the Way (PLTW). This innovative program engages students in a variety of 21st century topics such as robotics, coding, biomedical science, and health exercise science. Whitefish Middle School launched a makerspace in the fall of 2015-16. This classroom and its collection of recyclables, tools, building toys, and art supplies was meant as an exploratory lab. The middle school experiments with simple structures, simple electronics, some robotics, and art projects. In 2016-17 the middle school is supporting a maker culture by facilitating loosely structured maker clubs, providing maker tools for individual checkout, and cataloging kits for classroom integration.

Specific to sustainability numerous research projects are occurring within the District that support inquiry with the fields of STEM. Students have conducted projects in collaboration with Algae Aquaculture. This local business develops strategies to sequester Co₂ in algae and then process the algae for energy and as a fertilizer. Students have been mentored from local, regional, national and even international entities. One project partnered students with researchers in France seeking to test the friction of climbing chalk. Students have also partnered with the University of Montana's Clean Air and Healthy Homes Program. Through this program students explore how particulate matter varies according to different environmental and human-induced factors. One study that relates to the ski industry in Whitefish was a study on the effects of waxing skis. Students found that ski waxing was a significant risk to an individual's respiratory health if exposed to it over an extended amount of time.

In order to establish the connection between energy systems and food systems students examine energy inputs into the food system. The goal of this program is to help students realize the importance of energy to a local food economy. Students investigate and design projects to produce food indoors in cold environments. These projects include vertical growth window gardens made from materials collected from recycling bins. Students also examine the energy savings from re-using or recycling materials. Students collect data on quantity and productivity values per square foot of the materials collected. Experiments are conducted with growing methods. Through this line of experimentation students explore how the following factors affect plant growth and productivity; hydroponics, aquaponics, soil composition, natural lighting, fluorescent lighting, and LED lighting.

Students make connections to sustainability through project-based learning. In Earth Science courses students conduct energy audits of their classroom, home and school. Students conduct water quality analysis of local creeks and from this initial analysis the students have embarked on a long-term restoration project on Haskill Creek. This important restoration project blends learning in STEM and civic engagement. By creating learning experiences that combine science research and ecological conservation, students are learning and developing essential skills related to sustainably citizenship.

Element IIIC: Civic Knowledge and Skills

Students are engaging in Citizen Science projects by researching the health of the local watershed. The most recent tests conducted focused on evaluating numerous sites for high alpha radiation levels. Students partner with the Whitefish Lake Institute and the City of Whitefish to analyze the health of the Whitefish River and the Flathead River. Citizen Science projects also occur in the GIS courses. Students have engaged in projects that assess CO₂ concentrations and changes caused by traveling and idling cars.

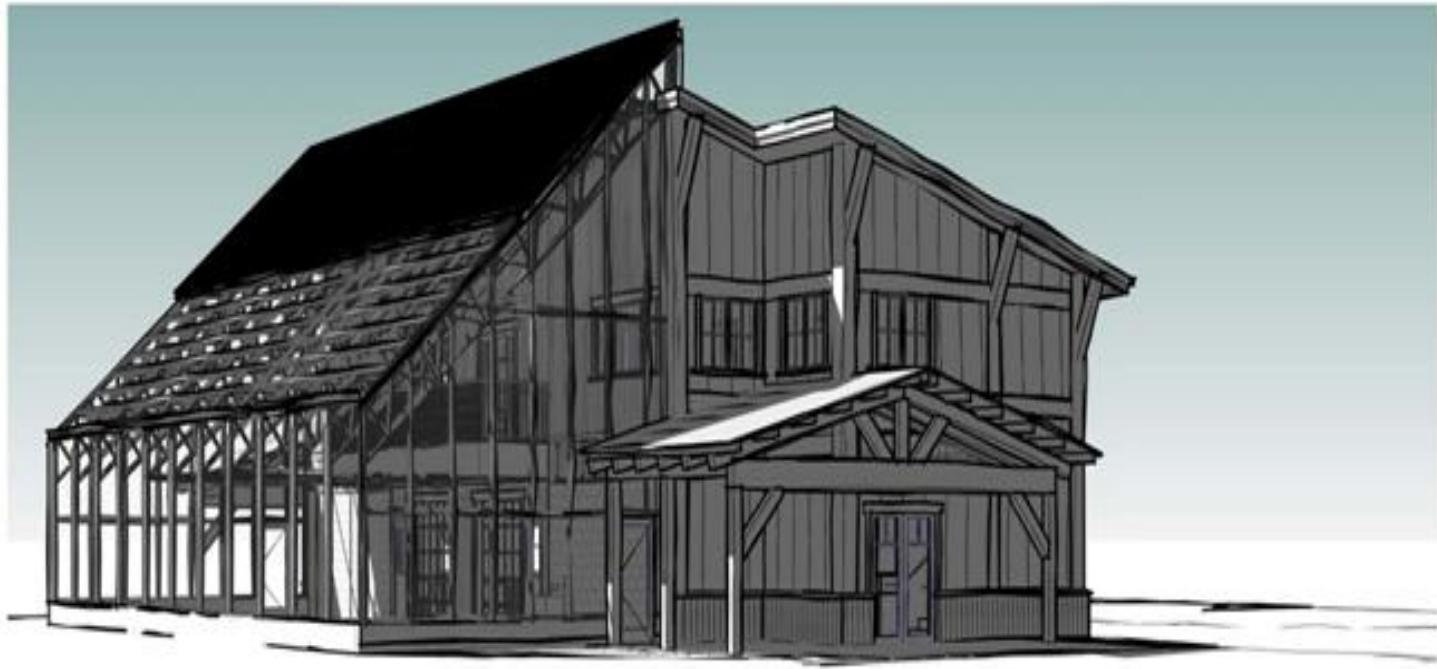
The student environmental group FREEFLOW participates in a local organization called Glacier Climate Action. Students work to support different events and activities that the organization facilitates. Students partner with Glacier National Park and the US Forest Service Rocky Mountain Research Station to further projects that promote conservation and sustainability initiatives. Students also participate in the local farmers' market to provide spring vegetable starts to the community and to set-up and take-down each market.

One course that exemplifies the development of civic knowledge and skills is Prep for Life. In this course students learn about issues related to community and citizenship. Students engage with topics related to living in community. This course provides students with the opportunity to participate in volunteer experiences at the Whitefish Food Bank and the Humane Society. All of the schools in Whitefish School District participate in Clean the Fish. This event coordinates a community wide effort to pick up trash and litter around the community. Another event the students participate and help organize is the Penguin Plunge. In this event community members submerge themselves in the peak of winter in Whitefish Lake. The entire 7th and 8th grade class performs community service during the final week of the school year. Students engage in a series of projects to support the community. Examples of the projects include; trash clean-up of City Beach; painting a neighbor of the school's picket fence; clean-up of the skate park and Whitefish Trails; invasive weed mitigation of Whitefish Trails; trail maintenance of Whitefish Trails; weeding of the planters in downtown Whitefish; help with food bank; and clean-up on a resident of Whitefish property (thinning of overgrowth). Whitefish High School supports numerous clubs that focus on providing community service. For example, Key Club and the National Honors Society help with events such as the Winter Carnival and the Senior Citizen Winter Prom. FREEFLOW also participates in the "Adopt a Highway" program and collects rubbish in the fall and spring, as well as picking up garbage on the parade route after the Winter Carnival Parade. Another example of service occurring at Whitefish High School is the establishment of an Empty Bowls program. Empty Bowls is a program where ceramic artists create bowls that are served with soup at a fundraising event for the non-profit organization that serves families in need. This event allows students to offer service through their art.

Conclusion: Whole District Programming for Sustainability

Whitefish School District strives to embody an ethos of sustainability. The community of Whitefish is surrounded by amazing natural beauty. The connection that the community has to nature guides our pursuit of sustainability. Through the comprehensive actions of the District related to the three pillars of Green Ribbon Schools program, our students are learning to live in a manner that reduces waste, prioritizes awareness of conscious consumption, safeguards the environment, and serves the community. Whitefish School District is creating a sustainable citizenry that will guide our community in a manner that balances social, environmental and economic needs for the present and future generations. As students in our District learn, experience, and practice sustainability in a variety of contexts throughout their K-12 education, they will develop the knowledge, skills, and aptitudes to become stewards for their community, state, nation, and planet.

Whitefish School District Center for Sustainability and Entrepreneurship



Student Created Rendering of the Center for Sustainability and Entrepreneurship



6th Grade Sustainability Poster Activity



Students Conducting Experiments in Snow Science



Documenting Changes in Participant Matter from Alpine Ski Waxing



Students Enjoying an Apple on Crunch Day



Students Engaging in a Fire Ecology Experiment



Students Learning about Forest Ecology at Glacier National Park



Multiage Experiments in Gardening



Interdisciplinary Learning in Sustainability using GIS to construct Recycling Plan

A classroom presentation is taking place. A large screen displays a map titled "Whitefish Recycling" using Esri software. The map shows proposed recycling bin locations in a town, with various symbols indicating different types of bins and buffer zones. To the left of the map, there are two sections of text: "Proposal One" and "Proposal Two", detailing the locations and rationale for the proposed bins. In the foreground, students are seated at desks, and one student is standing and presenting the information to the class. Another student is visible in the background holding a piece of paper.

Students Engaging in a Watershed Restoration Project



Student Sustainability Entrepreneurs at the Community Farmers Market



Students at Muldown Elementary School Conducting Weekly Recycling Collecting



Students at Whitefish Middle School Using the Composting and Recycling Bins

