



School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

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

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

U.S. Department of Education Green Ribbon Schools 2015-2018

Public Charter Title I Magnet Private Independent Rural

Name of Principal: **Mr. Steve Soeteber**

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

Official School Name: **Kromrey Middle School**

(As it should appear on an award)

Official School Name Mailing Address: **7009 Donna Drive, Middleton, WI 53562**

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

County: **Dane** State School Code Number *: **3549**

Telephone: **608-829-9531** Fax:

Web site/URL: <http://www.mcpsd.k12.wi.us/kromrey/> E-mail: ssoeteber@mcpsd.k12.wi.us

*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.

Date: **January 20, 2017**

(Principal's Signature)

Name of Superintendent: **George Mavroulis**

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



District Name: **Middleton-Cross Plains Area School District**

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

(Superintendent's Signature) *George Marvelli* Date: **January 20, 2017**

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: Wisconsin Department of Public Instruction

Name of Nominating Authority: Dr. Tony Evers

(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.

(Nominating Authority's Signature) *John Shapiro* Date: **January 23, 2017**

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

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

SUBMISSION

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

**U.S. Department of Education Green Ribbon Schools
Summary of Achievements
for
Kromrey Middle School**

Located within the Middleton-Cross Plains Area School District, Kromrey Middle School is an outstanding example of what happens when a school district and community embrace sustainability. Although the district itself and schools within the district have been recognized by U.S. Department of Education Green Ribbon Schools, Kromrey Middle School deserves recognition in its own right. The vision and concept for the new Kromrey Middle School building constructed in 2013 was a direct result of the recognition received within the district for other sustainability initiatives. During design and construction, the school chose to invest dollars that could have been spent on LEED certification into additional green technology. The school was awarded *Energy Star Certification* (2016, score of 91) and *U.S. Middle School Design Project of the Year 2016*.

In addition to the facility, Kromrey Middle School community is working to transform students and staff. In 2015, the school received the *Wisconsin Technology Education Association Middle School Program of the Year* and was named *Best Place to Work* by Madison Magazine in its annual rankings in 2015. In their third year occupying this new building, staff are transforming the educational program to enhance student learning and use the building and school site as a teaching tool.

Kromrey Middle School is working to create a permanent shift in school culture towards daily healthy habits and sustainability practices. The school serves 1,150 students in grades 5-8 with 170 staff. The school population has 4% of students who are limited English proficient and 22% of students from economically disadvantaged households. Located in Middleton, Wisconsin, this suburban public middle school has documented significant achievement in all three pillars of U.S. Department of Education Green Ribbon Schools.

Pillar I: Reduced Environmental Impact

Kromrey Middle School has a history of reducing environmental impact. Prior to their new building, the school achieved EPA Energy Star recognition each year from 2008-2013. Many steps have been taken to create a modern facility that incorporates sustainable practices and features. The new building has geothermal heating and cooling, solar hot water, LED or florescent lighting plus daylighting to reduce the need for artificial lighting, over a quarter of the landscaping is native or native cultivars, and building materials were sourced locally where ever feasible. There are many places inside and outside the school for students to gather in natural lighting and with views of nature including an outdoor amphitheater and living wall on the edge of a nature conservancy. The school has received “Sugar Maple” recognition, the highest recognition possible from Green & Healthy Schools Wisconsin. The Student Council, comprised of approximately 60 students from diverse backgrounds, is working with students and teachers to incorporate everyday environmental impact reduction techniques and utilize the resources of the new facility.

Pillar II: Improved Health & Wellness

The school wellness committee promotes the motto of “Rest – Eat – Move” (REM) in order to motivate students and staff. Wellness activities are offered for Kromrey staff both at the school and at other district buildings. Mindfulness techniques are embraced and used in classrooms and staff trainings. All students are taught with the REM elements in mind in their physical education classes as well as in athletics. A district teacher with contract time to offer support in the area of stress reduction, resilience, self-care, and mindful practices, supports KMS staff individually or in teams to incorporate mindful movement and relaxation into academics. Movement and breathing lessons are developed to help calm and focus the mind and body that are directly related to classroom content. Teachers receive lessons to use as well as support to incorporate these practices as another teaching tool. In a partnership with the Center for Investigating Healthy Minds a research study in 5th grade at KMS is currently being conducted related to using mindfulness techniques in the curriculum.

Pillar III: Effective Environmental and Sustainability Education

Environmental education has always been a goal of Kromrey Middle School and the new building is advancing that goal. The school's proximity to Pheasant Branch Conservancy provides teachers and students a great opportunity to work with environmental and conservation agencies to incorporate environmental education and outdoor learning. Since moving into a building with views of the adjacent nature preserve, teachers are writing curriculum to learn about and connect with the environment. English classes head outside for observations related to writing poetry or observational writing. Summer, 2016 Kromrey staff partnered with Friends of Pheasant Branch Conservancy to develop outdoor inquiry units for fifth and sixth grade. Additionally all sixth grade students spend two days at Upham Woods Environmental Learning Center. Classes ranging from *Choices and Careers* to *Technology and Engineering to Social Studies* address environmental sustainability.

About the Summary and Scoring:

The complete state application is too long to include in this nomination submission, so the applicant's information has been summarized in the following pages, aligned with the pillars and elements. Each application was ranked by teams of external reviewers and internal reviewers, each with different areas of expertise, using a common ranking tool. In addition, the slate of nominees was forwarded to related state and federal agencies to ensure there were no compliance or regulatory issues.

The summary of the nominee's achievements as reported in their application is presented in each pillar and element below. The focus area references Wisconsin's application structure.

Pillar I: Reduced Environmental Impact

Element 1A: reduced or eliminated greenhouse gas (GHG) emissions

Focus Area: Energy

Prior to building the new KMS, Sustainable Engineering Group, Inc. as a part of Energy Star certification audited KMS and the former Kromrey building had achieved Energy Star status 2008-2013. During construction, energy star audits at KMS were suspended until the new school opened in September 2014 and a new baseline could be established. The new Kromrey building received an Energy Star score of 91 in 2016.

Approximately 24,700 square feet of the vintage Kromrey was maintained and updated with modern plumbing, HVAC and electrical systems as the rest came down and 80% of the old building was recycled. It was replaced with a new building complete with geothermal heating/cooling and the existing photovoltaic hot water system maintained with the solar panels being relocated to a higher roof. Construction waste was recycled.

Energy modeling and analysis were used throughout the design process to maximize the building and systems design to ensure the highest level of energy efficiency possible. Testing of the building envelope was used to discover infiltration paths before construction was completed or the building was occupied. Significantly lower installed lighting wattage than permitted by Energy Code for exterior lighting and slightly lower installed lighting wattage for interior lighting were used.

The school has the following practices and policies to ensure energy efficiency:

- Computer power management settings
- Thermostat temperature setpoints
- Hot water temperature setpoints
- Optimized programming of occupancy sensors
- Digital energy management system for all heating and cooling equipment.
 - Demand controlled ventilation for large spaces such as the gym adjusts outside ventilation based on the number of occupants in the space, saving energy during low or unoccupied times.
 - Gas and electric digital metering with demand control.
- Monitors energy usage by tracking monthly energy consumption and costs
- Guidelines for limiting personal appliances such as portable space heaters or mini-fridges
- Follows a schedule for regular maintenance of HVAC equipment
- Energy and water efficient product purchasing and procurement policy. Last Date Updated: 2010
- Energy Policy Date developed: 2010

The school has the following energy saving equipment:

- Energy efficient lighting:
 - Currently classrooms have T-8 fluorescent lighting however the district is looking into replacing these with LED lighting.
 - Dual-level lighting throughout the building to reduce energy usage when higher light levels are not necessary for tasks and daylight sensors where appropriate.
 - Collaboration Space (8 areas of common space for several classes to interact) has LED lighting.
 - LED exterior lighting including parking lot lights, path/landscape lights, and wall packs and all exit signs.
 - Outside LED lights are on a timer coinciding with dusk/dawn. Changed seasonally.
 - Lighting controls include occupancy sensors for all rooms and daylight sensors where appropriate such as hallways, library, art rooms and dining commons.
- Energy efficient Heating, Ventilation and Air Conditioning (HVAC) system: geothermal 2013-14. Ventilation system has heat exchangers to conserve warm air.
- Carpeting/flooring: recycled content 2014
- Roofing: Building envelope (roofs and walls) performance exceeds code minimums by approximately 20%
- Windows: R-5 windows are low-E and double paned. Frames are thermally broken aluminum. Glass is insulated, high performance glazing with a low-e coating
- Doors: 2014
- Vending misers or have removed vending machines.: 2014
- Insulation: Foundation wall insulation – 1” thickness down to around 4’ to 5’ at perimeter
- Variable Frequency Drive: 2014
- KMS has zones that are designed so that the public zones can be open/available on evenings and weekends and the plumbing, HVAC and electrical systems will not have to be run (or operated at bare minimums) to accommodate this use.
- MERV 13 filters on Energy Recovery Ventilation units.
- Energy efficient hand dryers (extreme air) in restrooms.
- Building design incorporated a Light Courtyard that acts to let natural lighting into the building and is used as an outdoor learning space for classes.
- Lockers have light gray paint for more reflective lighting. Vintage KMS had dark red and dark blue lockers that absorbed rather than reflected light.
- Interior windows in the hallway entrances benefit from daylighting in the stairwells.
- Library, band room, art rooms, dining commons, choir room, tech ed, all have shades to control the amount of light/heat coming in to reduce cooling needs.
- Field house/Gymnasium has three basketball courts with lighting sensors to shut down lighting for unused areas.
- Wood for gym floor was from an area north of Green Bay, WI so a local purchase cutting down on energy for transportation.
- Classrooms have a glass wall that can open to the collaboration space. Light from the hallways can help in lighting the classroom.
- Kitchen appliances are all energy star.

KMS gets 40% of energy from on-site renewable energy, including:

- Geothermal heating and cooling systems utilize a vertical borefield as its ground source being 28% more efficient than conventional systems.
- Active Solar Thermal (solar hot water system)
- Daylighting

The largest non-renewable energy source for the school is electricity from MGE. With reduced funding for budgets, the cost of Green Power is prohibitive. We use our own local, low energy infrastructure and cultural conservation practices to reduce energy use and the associated cost.

Head custodian's goal is to turn down heating units in entryways. He is monitoring energy use on the Focus on Energy website. He is also working with energy consultants to help streamline and reduce energy use. Even with a new building, the school documented a 58.8% reduction of its energy use from the baseline year by continuing to fine-tune equipment operation. The school works with Focus on Energy and Cenergistic, a Dallas-based energy conservation consulting firm consults when advice is needed in managing energy reductions.

The facility managers and building operators have advanced certification and training:

| | | |
|---|----------------|--------------------------------|
| WASBO Facility Managers Program certification | Bill Eberhardt | 5/18/2007 |
| Practical Energy Management (PEM) | Neal Bickler | 5/1/2010 |
| Building Operator Certification (BOC) | Bill Eberhardt | Level 1 - 2002, Level 2 - 2011 |

Students help identify and/or implement behavioral changes to reduce energy consumption. Various student groups have worked with the school to implement energy saving strategies. Health classes have created posters influencing students to conserve water and energy. Students have created announcements and encourage staff and students to unplug unused electronic equipment and conserve energy.

Staff help identify and/or implement behavioral changes to reduce energy consumption. Computers power down and shut off at the end of the day. Staff are encouraged to check to make sure all computers are shut off at the end of the day and not to rely on technology to do this. Printers have a conservation feature with a double print order. This has reduced printing errors and volumes of paper saved. Since July 1, 2013, KMS has saved 83,655 pages by deleting or abandoning the print job in the secure queue. This equates to 220,849.20 gallons of water or 5,111.32 pounds of CO₂. This saves energy as well as resources. Every vacation, all staff are reminded to unplug all appliances including refrigerators. At Thanksgiving the energy manager sends tips for staff to save energy at their own homes by turning down the thermostat due to body heat of guests, don't put leftovers in the refrigerator until cool, etc. Staff use daylighting or reduced electrical lighting when classes are present. Lights are mostly out when the teacher is alone working in a classroom. Staff are encouraged to turn off lights when leaving the room instead of letting the motion detectors turn them off later. The head custodian has set the hallway lights to be on 7:30-4:30 when school is in session, and then to power down and shut off without motion.

Energy is taught in the curriculum in the following ways:

In the 5th grade curriculum, some of the teachers incorporated the use of solar energy into their curriculum. 6th grade teachers have involved discussions on alternative energy solutions into their curriculum on ecology and the environment. 7th grade has created environmental projects based on their informational writing. 8th grade teachers have done community service projects related to energy savings. Technology Education teachers have fully incorporated their energy saving techniques into their Project Lead the Way instruction.

Staff participate in professional development related to energy and/or energy education. Staff have been offered KEEP (Wisconsin K-12 Energy Education Program) classes. Neal Bicker inservices staff every fall and throughout the year with energy tips. Bickler also visits schools and leaves encouraging notes for staff that are conserving energy. Professional development therefore is immersing staff in behaviors that are best practices in conservation as well as formal courses such as KEEP. Teachers have participated in MG&E's classes on energy education. Tech ed instructors are developing a learning curriculum for all students on the sustainable features of KMS including the geothermal system. The infrastructure of geothermal heating and cooling was intentionally left uncovered to be able to educate students.

Element 1B: Improved water quality, efficiency, and conservation

Focus Area: Water

The school's water comes from a municipal water supply from groundwater source. The school does the following to ensure water quality and conservation:

- Our school meters water use and documents water use to identify substantial changes in water use.
- Our school conducts annual audits of the facility and irrigation systems to ensure they are free of water leaks and to identify opportunities for savings.
- Our school educates students and staff on what should and should not go down the drains.

KMS has the following water-saving equipment or practices to ensure water quality and efficient use:

- Low-flow toilets (1.6 gallon per flush (gpf))
- Faucets with properly timed automatic shut-off
- Hand washing faucets equipped with 0.5 gallon per minute (gpm) aerators.
- Low-flow shower heads (2.2 gpm) in locker rooms
- Efficient dishwashing equipment.
- Air conditioning equipment does not utilize water.
- Water softening systems (if used) regenerate based on water volume treated and not time.
- Other salt-efficient water-softening practices (such as brine reclaim, cold water bypass, system optimized by professional within 5 years).
- Taps, faucets, and fountains at our school are cleaned at least twice annually to reduce contamination and screens and aerators are cleaned at least annually to remove particulate lead deposits.
- Our school has a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure).
- Our school has a medication disposal policy.
- Our school has a chemical disposal policy that helps ensure water quality.
- Our school has a grease trap or oil/water separator for the kitchen sanitary waste line.

Locally manufactured materials were utilized in the new construction reducing transporting miles and the associated pollution from vehicles that ultimately ends up in aquatic systems. Also materials with high recycled content were specified during construction. This reduced impact on natural systems in providing raw materials thus keeping waterways more protected. 18% of the landscaping is native, and an additional 10% is native cultivars. Native vegetation requires little to no watering once established. Also the custodians spent a day in August pulling weeds by hand in all the beds to avoid the use of herbicides that could impact Pheasant Branch Creek, which is adjacent to the school. The rain gardens (treats water quality) are designed as bioretention basins, meaning the plants and specially designed soil help to hold water after a rain event. These basins are connected via both underground and surface piping to protect Pheasant Branch Creek. A portion of the stormwater on the west side (back side of the school) is captured and routed to the dry basin in the northwest corner of the site. Stormwater is treated for quantity by above grade detention. Erosion during construction was managed through the use and maintenance of erosion control fencing. While building the new Kromrey, the District focused on water conservation and stormwater runoff containment and infiltration.

Students are actively involved in planning and implementing water conservation and/or protection activities. In the past, students have become involved with the conservation of water by utilizing 'educational campaigns'. They have created informational posters and pamphlets to make staff and students aware of various water saving techniques. We have 11 new drinking fountains with a bottle re-filler that were a focus of one of these such education campaigns.

Staff are actively involved in identifying and implementing water conservation and/or protection activities in the school. Staff were involved in the planning of the new building. Part of this planning was the implementation of rain gardens for rainwater run-off. Also the back of the school facing the Conservancy has permeable pavement on the paths. Many different water saving techniques were focused on during the planning of the building. The P.E. staff found students were not likely to shower after class so recommended that numerous showers could be eliminated from the plans. The locker rooms have only one shower stall each. Each classroom has sink aerators to conserve water. Every classroom except art and science has drinking faucets on the sink that turn on and off by the student getting a drink. Not continuous running. The hallway outside the dining commons has hand-washing stations with extreme air dryers. The hand-washing faucets have motion detectors as do the faucets inside the restrooms.

Water topics are taught in the following ways: Fifth grade has a lesson in which students will observe and learn how stormwater is collected on school grounds using permeable asphalt, rain gardens, bioswales, and drainage patterns across/through green spaces with native plants. They also as part of their FOSS science units have lessons on water as a habitat for fish. To compliment the indoor labs that have activities in water chemistry and their effects on aquatic organisms, a discovery, outdoor experience was written for students to journal the aquatic environment they observe at Pheasant Branch Creek. 6th grade classes have studied ground water and its impact on environments and ecology in their science curriculum. All sixth graders go on an overnight field trip to Upham Woods in Wisconsin Dells and one activity they experience is a pond study. Seventh graders participate in various water conservation

topics while discussing green architecture in their Industrial Technology courses. Eighth grade science has a unit on hydrology lasting about two weeks. The following topics are covered in that unit:

- water cycle
- availability of fresh and salt water
- amount of water in fruits and veg.
- porosity and permeability of soil
- filtration qualities of sand, soil, and clay
- groundwater

Staff has participated in professional development related to water and/or water education, including water and stream studies, water runoff, rain gardens, and erosion prevention.

KMS using the following landscaping practices:

- use of mulch and native plants to reduce watering needs
- landscaping designed to be water-efficient and/or regionally appropriate
- use of broom or blower to clean driveways and walkways
- KMS does not water lawns once established and has native plants in extensive rain gardens to reduce watering

Our school has the following runoff or stormwater practices:

- Rain garden
- Downspouts directed to vegetated areas
- Mowing, leaf collection, and snow removal managed to keep removed materials off impermeable surfaces
- Use of leakproof lids on dumpsters or other outdoor waste collection bins
- Other ways of reducing storm water runoff and/or impermeable surfaces (specify): bioswales, permeable Asphalt

The following deicing practices that help protect water resources:

- Snow & ice are removed with shovels, plows, or snowblowers before salt is applied
- Salt applicator is not paid by volume of salt applied
- Salt applicator has attended best management practices training for salt application
- Salt equipment is calibrated
- Salt is stored in an enclosed location away from surface water bodies including wetlands

Salt is purchased as needed from the City of Middleton Garage where it is kept dry and also stored in a location at KMS that keeps it dry as well. At present there is no equipment available for making and applying brine.

Our school is used as a tour focus for other Districts wanting to implement environmentally sound techniques into their buildings. Due to this focus, our District has focused on keeping Kromrey as a model school for each of these areas.

Element 1C: Reduced waste production

Focus Area: Recycling & Waste Management

Our school has a policy to minimize the generation of all waste types. Our facilities manager keeps data on recycling vs waste volume and conducts informal audits of recycling and trash dumpsters. Recycling bins are clearly labeled and placed next to a trash can in all locations, including hallways, classrooms, lunch room, staff lounge, and main office. We recycle:

- Paper
- Glass
- Metals
- Plastic Containers
- Ink Cartridges
- Cell Phones

- Milk and Juice Cartons
- Batteries
- Markers
- Construction waste

Materials used in the construction and equipping of the new school were sourced for recycled content and ability to be recycled at the end of its life cycle. An example is the choice of flooring. KMS has Johnsonite Tarkett Melodia 2D Homogeneous Vinyl tile. According to company literature: "REUSE AND RECYCLE....

- Space modular resilient tiles contain up to 35% pre-consumer recycled content
- Tiles can be installed with releasable adhesive for repurposing in other areas.
- All samples can be reclaimed and repurposed as part of our ReStart® Reclamation Program
- ReStart allows installers to send back unused or cut material for recycling. "

Middleton has a new recycling facility that takes items the curbside recycling does not. After 30 microscopes arrived each packaged in styrofoam, a custodian gathered up all the styrofoam and drove it to the recycling center that is only open Sat. mornings. This shows dedication to recycling since he had to make a special trip on a non-school day. Kromrey's solid waste diversion rate is 50%.

Our school has a policy on the proper storage, transportation, and disposal of regulated wastes that is actively enforced and followed at our facility. During the move in 2015 to a new facility, KMS science chemicals found not safe for student use were disposed of through Badger Disposal. There were 71 substances identified for disposal. Amounts were determined by container capacity and % remaining. Some were not deemed hazardous and others such as sodium peroxide, sodium hydroxide, copper compounds, lacquer thinner are hazardous. Environmental and health services contractor quantified the materials and Badger Disposal completed the manifest that will track the waste disposal. The chemical hygiene officer at Middleton High School must approve all chemicals for Kromrey before purchasing. No chemicals are purchased that are on the Flynn non-recommended for students list.

Reuse is deemed favorable over recycling, so most surplus school equipment is either sold at MCPASD "garage sales" or recycled in an environmentally correct manner. Unwanted computers or furniture is first sold through district "garage sales" before being considered for recycling. Our school disposes of unwanted computer and electronic products through an approved recycling facility or E-cycle Wisconsin program. All our computer purchases are Electronic Product Environmental Assessment Tool (EPEAT) certified products.

Envirox cleaners that are green certified are used at KMS. Low maintenance flooring was installed that is only waxed once per year reducing the amount of chemical being purchased and reducing exposure for workers to the wax.

Any pre-packaged food such as carrots, milk, whole apples, etc that students have taken but don't want are placed in a box for the local food pantry. KMS students know it is better to donate unwanted food than to throw it away. According to a survey in 2014, district-wide, this food donation (in place for 25 years) exceeds 30,000 lbs/year kept out of landfills. Training for kitchen staff reduces waste at the food production level.

The tech ed teacher has a metal recycling barrel in his room for all scrap metal parts, including nails, screws, rivets and sheet metal. KMS PTO recycled printer cartridges including 211 from City of Middleton Clean Sweep in Oct. 2014. Middleton Clean Sweeps have now ended with the building of the City's recycling center that collects recyclables that are not picked up curbside.

KMS has software that requires teachers to actually select what they want printed at the printer (after selecting print on the computer) to reduce mistake printing. This has reduced the paper use at KMS by 70.6 reams of paper for the period 8/1/16 to 3/9/16. This translates to 31.8 sheets of paper per Kromrey student saved from the waste/recycle stream. Avoiding waste printing also eliminates the ink that would have been used in printing. All printer cartridges are recycled and reused. Durable trays are washed and reused for school lunches. All confidential documents for discard at KMS are shredded & recycled.

In the spring of 2016, the Student Council took on a project to do more recycling of products that are seldom recycled. They put bins for markers around the school to send to the Crayola Recycling Program. They also made signs to encourage the reuse of one sided paper. Also, students have been monitoring the recycling bins checking for fidelity to our recycling program.

The Student Council in the school has taken the initiative to help implement change in reducing waste and increasing recycling. This is done by positive interactions between students in the school environment. As statistics are coming back from our completed new school project, students are engaging in discussions about the recycling and reusing of the building materials in our school. They have implemented a marker recycling program that recycles the empty expo markers. They are also beginning to monitor the recycling bins to ensure appropriate usage of those. In the future, the plan is for the Student Council to collaborate with other student groups to identify areas of improvement in recycling and reduction of waste. The viability of composting is being studied by the student council during 2016-17.

Staff help identify and/or implement changes to encourage waste reduction, reuse, and recycling behaviors. Staff encourage students to recycle milk cartons and other recyclables in the dining commons and classrooms. Every classroom has recycling and landfill bins as do the hallways. Each recycling station has a poster to remind students what is recyclable. Eleven bottle refilling stations were installed to encourage students and staff to refill reusable water bottles rather than purchase plastic.

Waste reduction, recycling, and management topics are taught in the curriculum.

- Health programs encourage appropriate management of waste and recycling.
- 6th grade curriculum is based around ecosystems, biomes, and ecology. They do an entire unit on waste management.
- Other classrooms have done service projects in which they go to the Pheasant Branch Conservancy to pick up trash and other materials.
- Previously, teachers have taken student groups to the recycling center in Madison to see how the recycling system works.
- All 6th grade students are involved in the GREAT program at Kromrey Middle School. All students must complete a community service project. Many students choose to pick up trash, or implement clean up programs in the community.
- 6th Grade also teaches a Social Issues Literacy Unit in which many students focus on recycling, composting, and trash as their social issues.

Staff participated in professional development related to waste reduction, recycling, and management. Fall of 2015, KMS head custodian was trained by Michelle Grindle, Waste Management on what items can be recycled in the food service program. Staff have then been trained by head custodian on monitoring trash/recycling bins at various times including lunch and special events held in the school cafeteria.

Element 1C: Use of alternative transportation

Focus Area: Transportation

Kromrey works to ensure transportation use is efficient and reduces environmental impact, including air quality. The transportation center requires no idling when dropping off or picking up students at school. GPS equipment is used to monitor reduced idling. At all times, only buses are allowed along the curbside closest to school. Most parents must park along the adjacent streets to pick up and drop off students therefore minimizing the effects of idling. Every fall KMS conducts a transportation audit. Currently 25.4% of students walk, 5.5% bike, and 47% carpool to school. 21% of KMS students are transported by District buses, which use routing software, Transfinder, to locate stops to shorten routes for route optimization and stop optimization. The fleet includes:

- buses retrofitted with diesel oxidation catalyst using EPA region 5 Midwest clean diesel initiative grant
- buses that use ultra low sulfur diesel fuel
- 41 new, lower emission, higher MPG buses have been purchased since 2010 and replaced inefficient buses

Additional opportunities that help to reduce vehicle emissions, fuel consumption, and traffic, and/or promote physical activity to get to school where safe and possible include:

- KMS has access to 4 suburbans for transporting small groups and one suburban has flex fuel option.

- KMS participates in the "Safe Routes to School" Program and received funding to add islands so students walking have a safe place to wait in the road. Traffic cones are used to direct buses and cars to separate, appropriate areas for picking up/dropping off students.
- KMS has a well-publicized no idling policy that applies to all vehicles (including school buses).
- KMS has established Safe Pedestrian Routes to school which are distributed to parents and posted in school offices.
- Bike racks, showers, lockers, and/or other bike amenities.
- Consistent, clear communications to families regarding transportation options and policies.
- Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.
- A policy pertaining to fuel-efficient fleet vehicle purchasing.
- Clean diesel/bio diesel/alternative fuel
- There is discussion of creating incentives for students to utilize our trail system or alternative methods of traveling to school.

Transportation issues, including correlations to outdoor air quality, are taught in the curriculum. Outdoor air quality is a focus of many students writing about the subject in grades 5-8. For these writings, many students do research and focus on informing and promoting change in the readers. Our Industrial Technology classes focus on transportation and building and discuss air quality issues with regard to different fuel usage. Science classes in grades 5, 6, and 8 focus on air quality in some form of their instruction as issued by their curriculum.

MCPASD sent the transportation services manager (TSM) and transition transportation coordinator (TTC) to National Association for Pupil Transportation conference in November of 2014 to learn of alternatives to gasoline and diesel fuel such as propane, CNG, and diesel electric hybrids. Transportation staff, the Superintendent and Assistant Superintendent are all inserviced on the latest technology learned at conferences. WI Department of Energy held conferences in 2012 on Compressed Natural Gas opportunities that were attended by TTC. All transportation staff are instructed in low idling procedures....at 20F--10F limit is 15 min/hr and below -10F idling as necessary. This low idling policy reduces emissions, wear and tear on the engine, and saves \$8,000-10,000 annually districtwide. In winter the buses were idling as much as 200 hours/week and after GPS equipment was installed to monitor and enforce idling policy in 2012, the average was reduced to 15 hours/week greatly reducing fuel use and emissions.

Pillar II: Improved Health & Wellness

Element 2A: Integrated school environmental health program

Focus Area: Environmental Health

KMS has a comprehensive indoor air quality management program that is consistent with EPA's Indoor Air Quality (IAQ) Tools for Schools. Additional measures to improve environmental health include:

- Our School has taken actions to prevent exposure to asthma triggers such as mold, dust, and pet dander
- Our school has an asthma management program that is consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools Guidelines
- Our school has installed one or more energy recovery ventilation systems to bring in fresh air for use in the HVAC system.
- Our school meets ASHRAE Standard 62.1-2010 (Ventilation for acceptable indoor air quality)
- Our school has installed local exhaust systems for major airborne contaminant sources
- Our school has CO alarms that meet the requirements of the National Fire Protection Association Code 720
- Our staff visually inspects all our school's structures on a monthly basis to ensure they are free of mold, moisture, and water leakage
- Our school's indoor relative humidity is maintained below 60%
- Our school has moisture resistant materials/ protective systems installed (i.e. flooring, tub/shower, backing, and piping)
- There are no wood structures on school grounds that contain chromate copper arsenate

- Our school has combustion appliances that are annually inspected to ensure they are not releasing carbon monoxide; OR not applicable - the school does not have combustion appliances
- All of the ground contact classrooms at our school have been tested for radon within the last 24 months. Radon tests for our school tested at or below 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L

KMS has a chemical management program and purchasing policy that supports low or no-VOC products and substitution when less hazardous alternatives are available. Management includes procedures for:

- Storage and labeling.
- Training and handling.
- Hazard communication.
- Spills (clean up and disposal).
- Selecting third-party certified green cleaning products

Prior to purchasing chemicals for any purpose, less hazardous alternatives are considered. Science rooms have a locked shared storage for chemicals. They also have a fume hood shared with the storage room for preparing lab chemicals. They also have a ventilated acid cabinet. All chemicals for purchase by science teachers must first be approved by the chemical hygiene officer. The custodians have green certified cleaners but still keep cleaners in a locked closet. Also all custodians are properly trained in the hazards, use, maintenance and disposal of cleaning chemicals, dispensing equipment, and packaging. Most chemicals in the art classes are locked up in the spray booth room. No glazes with lead are purchased or kept in the school. When necessary, students and staff use engineering controls such as fume hoods and personal protective equipment

The school's IPM Coordinator participated in a Department of Agriculture, Trade and Consumer Protection IPM training seminar (2012) and an Integrated Pest Management (IPM) approach is used for controlling insects, rodents and weeds. The IPM approach focuses on making the school building and grounds an unfavorable habitat for these pests by removing food and water sources and eliminating their hiding and breeding places. This is accomplished through routine cleaning and maintenance. School buildings and grounds are routinely inspected to detect any pests that are present. Pest sightings are reported to our IPM coordinator who evaluates the "pest problem" and determines the appropriate pest management techniques to use to address the problem. The techniques can include increased sanitation, modifying storage practices, sealing entry points, physically removing the pest, etc. Chemicals (pesticides) are only used when necessary to eliminate a pest problem. The school will try to use the least toxic products when possible.

Notice of specific pesticide use is provided to any school staff, student or parent who requests this notification. We will provide notice either in writing or by phone at least 24 hours prior to the application, if possible. Pesticide use is kept to a minimum and the current volume of annual pesticide use is .001 gal/student/yr. At KMS, we try to reduce habitat for pests and only use pesticides (the least toxic as meets the needs) as a last resort and when students are not present if possible. For example, before school started, all KMS custodians spent a day hand pulling weeds in the numerous shrub/flower beds on campus rather than spray herbicides.

Our school has an employee who is certified to apply pesticides and also contracts with a certified and licensed pesticide applicator. Our school posts a notice at the time of pesticide application and for at least 72 hours following application and prohibits students from entering a treated area for at least 8 hours after the treatment or longer if required by the pesticide label. Our school provides pest control policies and methods of application to parents and school employees and meets posting requirements. Our school makes available copies of pesticide labels, copies of notices, material safety data sheets (MSDS) and annual summaries of pesticide application in an accessible location.

Highly recycled content materials were specified whenever possible to reduce the use of virgin materials, which is healthier for the planet. No/low volatile organic compounds (VOCs) products were specified whenever possible providing for a healthier interior atmosphere.

All staff have a series of on-line, safety training videos with quizzes that must be completed by Oct. of each school year. The chemical hygiene plan is included in this grouping. Many of our science teachers have had professional development and training focused on environmental health. Many of our health teachers also focus on this topic.

Staff help identify and/or implement behavioral changes to improve environmental health. The facilities director regularly sends out emails to staff to encourage safe behaviors. For example: "It is that time of year again when the snow melts during the day and refreezes at night. When you arrive to work, be watchful for icy areas. Do not park in a stall where you may need to step onto ice. Do not walk on areas that look wet and shiny. These are more than likely icy spots. Inform your Head Building Custodian if you recognize areas of concern. Thanks for making safety a first priority." 2/17/16

Students also learn about environmental health topics. 7th and 8th grade focuses on environmental health topics and chemicals in the science curriculum. Because these two grade levels focus a lot on lab work in the classes, this is a topic of discussion frequently. 5th and 6th grade focus more on the effect chemicals, pollution, and environmental health have on the ecosystem.

Element 2B: Nutrition & Fitness

Focus Area: Health & Wellness

KMS is committed to providing school environments that promote and protect children's and adult's health, well-being, and ability to learn by supporting healthy eating and physical activity. KMS has a School Health Advisory Council (SHAC) or school wellness committee and also implements the following programs and policies to promote health lifestyles:

- a comprehensive school physical activity program (CDC) or implemented the DPI Active Schools: Core 4+.
- students spend at least 120 minutes per week per year in school supervised physical education.
- A large portion of our students are outside for physical education 50% of the time. The other portion, because of the large number of students and classes, are inside - we have to rotate field/outdoor space on a weekly basis.
- integrates health measures into assessments.
- offers opportunities for students to be physically active outside of physical education classes (e.g., recess, open gym, before/after school programs, classroom activity breaks).
- promotes or supports walking and bicycling to school.
- promotes hand washing for staff and students.
- has Physical Education curriculum based on state standards and grade-level outcomes for physical education.
- participates in the Presidential Youth Fitness Program and is coupled with Fitnessgram testing.
- participates in the National School Breakfast Program.
- participates in the National School Lunch Program.
- All foods and beverages sold during the school day meet the USDA's Smart Snacks in School nutrition standards.
- has a policy for healthy classroom snacks.
- participates in Farm to School activities, including local food procurement. (since 2006)
- has a garden that supplies food for our students in the cafeteria, a cooking or garden class or to the community. Date established: 2015 and moving in 2016 to a sunnier location. A trial straw bale garden was initiated spring of 2016. Plans for an enlarged world language garden are being developed for implementation in spring of 2017.
- prohibits advertising and promotion of less nutritious foods and beverages on school property.
- has on-site indoor and outdoor physical activity facilities available to students, staff, and the community.
- purchases food locally sourced or certified as "environmentally preferable"
- KMS students are offered at least one fruit and one vegetable daily for their hot lunch. Skim and 1% milk are also offered.
- Hand washing is done several times a day including before lunch and in instances where students have been identified as having food allergies.

Kromrey fully participates in and implements in the district-wide wellness program for all students and staff. The integrated PE/Health and Wellness curriculum "Rest-Eat- Move" is both a K-12 comprehensive education program as well as a staff wellness initiative designed to provide skills and resources for achieving and sustaining fitness for a lifetime. The "Rest" element focuses on three areas: Passive rest (how to get a good night's sleep); Active rest (daily physical decompression) and Mindful rest (strategies for stress reduction). The "Eat" portion of the program emphasizes the importance of choosing real (rather than processed) foods and stresses the enjoyment of buying, preparing and sharing meals. The "Move" portion of the program--for students, athletes and staff, alike--aims at creating bodies that are physically "literate" and adaptable, rather than simply adapted.

There are 2.5 FTE counselors, shared director of equity and student achievement, a school nurse and assistant, shared school psychologist, and school social worker. There is also a shared occupational therapist available. All the contacts are on the district as well as KMS website. The students are informed of these services at the beginning of the school year and on an as needed basis. Parents and staff are also informed of these services.

Some of the wellness offerings for staff have included:

- Yoga- As part of the OM YEAH movement, join our highly qualified and heart-led teachers for gentle flow classes that are intended for all levels from beginners to practitioners. We are grateful to Bliss Flow Yoga for providing us with so many instructors!
- Cardi-Yoga- Circuit-based workout/yoga practice with an option to end after 20 minutes if that's all your schedule allows, or to stay for the full 45 minutes.
- Saturday Playground Cardi-Yoga- Come for a fun fusion of cardio workouts and yoga poses ON THE PLAYGROUND! Have kids? Bring them along! Don't have kids but don't mind some running between us as we play through our workout? Awesome! We hope to see you for this circuit-based workout/yoga practice!
- Morning Mayhem- Functional movement in three planes (and the ability to socialize while increasing your heart rate) for all levels.
- Open Pool (the MCPASD pool is open for your free use during open swim times)

There are summer program offerings for middle school students in collaboration with the City of Middleton and MCPASD. The Youth Center for middle school students that has an after school program throughout the school year and also activities in the summer. A couple of offerings:

- Camping Trip to Devil's Lake State Park
- Wildlife Rehabilitation Presentation: (partnering with Friends of Pheasant Branch) wildlife rehabilitator, with live animals, describing the natural history of the animals and the care needed at the center to restore health and hopefully a return to nature.

In physical education classes the Pheasant Branch Conservancy is used for running/mindfulness activities. Snow shoeing occurs in the winter. Educators and students use the outdoor amphitheater for exercise and mindfulness activities. The outside green space is used for many fitness/recreation activities and sports.

Students help identify and/or implement behavioral changes to improve health and wellness. The information in R-E-M is broken up into lessons and units that spread throughout the year. We try to give the students the knowledge and ability to make healthy lifestyle choices to improve their overall health and wellness. During the planning phase for the new KMS, students met with architects and helped design a series of hand-washing stations outside the restrooms that are in close proximity to the dining commons. The idea was to have quick access to hand washing instead of long lines in the restroom so students could get to the lunch line more quickly and have clean hands to eat.

Staff help students improve their health and wellness by instructing in the R-E-M program. As noted above, this is an all inclusive wellness program involving rest, good food and how to move for health, strength and flexibility. The staff Wellness Committee has helped target different training opportunities for staff development. Some of these include mindfulness training, yoga, and journaling. Betsy Delzer, Mindful Practices Specialist and MCPASD teacher, has a position to offer staff support in the area of stress reduction, resilience, self-care, and mindful practices for personal and classroom application. She provides support to staff individually or in teams to incorporate mindful movement and relaxation into academics. Movement and breathing lessons are developed to help calm and focus the mind and body that are directly related to content the students are learning in the classroom.

Teachers receive lessons to use as well as support to incorporate these practices as another teaching tool. Lessons are customized based on the classroom community of learners.

The Center for Investigating Healthy Minds (CIHM) is conducting a research study in 5th grade at KMS related to the use of mindfulness techniques. Part of the arrangement with CIHM includes professional development opportunities throughout the year for KMS staff members. As part of R-E-M all students and staff in all grades at KMS have opportunities to learn healthful activities in all these areas. R-E-M is infused into all grade levels.

Staff have many opportunities to participate in professional development related to health and wellness. Introduction to Movement is a four-week course offered to staff taught by the MCPASD wellness coordinator. The goal is to familiarize staff with the available facilities, equipment and expertise available within the district. All staff are invited to participate in and help create "Rest, Eat, Move" wellness opportunities. Introductory sessions were conducted Jan- Feb of 2015 and included instruction in understanding food and health connections; functional movement and training opportunities and stress reduction through mindfulness and meditation.

A Health Risk Assessment is mandatory for all staff with health insurance through MCPASD. A monthly wellness letter is emailed to all staff with tips on healthy living. This was begun in 2014-15 school year. KMS staff have access to several short wellness-oriented video segments that were produced featuring the District Wellness Coordinator aimed at introducing various aspects of the comprehensive R-E-M Physical Education / Health and Wellness initiative.

Experts from the UW (Physical Therapy; Nutritional Science; Sports Medicine; Sleep Clinic, Sports- Med, etc.) are invited to present on various topics that KMS employees may take advantage of. There are three wellness equipment carts around the district. Each cart contains multiples of the following equipment: Mini-bands; medicine-balls; light-denomination dumbbells; foam-rolls; sticks, straps (with handles); and long surgical-tubing loops. The idea is to offer a portable option for staff movement sessions. Simple equipment is used because simplicity yields complexity in training. KMS staff can choose this option.

Staff are given many opportunities to increase their health and wellness. Some classes offered in the winter of 2016, include:

- Afternoon Strength & Conditioning
- Small Group Walking @ MHS
- Home Workout Options
- Cook Once, Eat Twice:

The goal is to create wellness "tribes" . . . groups of teachers and staff who meet regularly to move. That may be with the carts; it might be Zumba classes; it could be Yoga (Yoga is offered throughout the district); it might be a walking group . . . anything. The KMS "tribe" is free to decide the venue for their wellness program or partake in district offerings.

These were beginning of school offerings that all staff needed to participate in by choosing what interested them.

REST:

- Chair Yoga and Mindful Practices
- "Zen" Zentangles for Mindfulness
- Yoga
- The Power of Decluttering
- Power of Positivity
- Stress 101

EAT:

- Nutrition Jeopardy
- Beautiful Breakfast with the Garden Chef
- Fueling Our Body with Food
- Feeding a Busy Family

MOVE:

- Open gym at Harbor Athletic Club or Princeton Club West
- Bike Ride - Easy/Fun

- Bike Ride - Longer/Faster
- Come try a tri (mini triathlon)
- America Ninja Warrior obstacle course
- 5K run/walk
- Zumba
- 8 acre School Forest Tour

Pillar III: Effective Environmental and Sustainability Education

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems

Focus Area: Environmental & Sustainability Education

Environmental and sustainability literacy concepts are taught in the curriculum. In Technology and Engineering, our teachers discuss aspects of green and sustainable building techniques. Some form of environmental and sustainable education is involved in our curriculum 5-8.

- In 5th Grade, Native American speakers visit in the fall. During this seminar, which lasts about a week, the speaker covers many topics including human impact on the Earth and awareness around the subject. Also, in the 5th Grade Curriculum, students study land-forms and the formation of Glaciers.
- In 6th Grade, students travel to Upham Woods as an experiential education overnight trip. During their trip, students participate in a ropes course, rafting to Blackhawk Island including a nature hike, canoe the Wisconsin River, hear a raptor presentation and learn about outdoor survival. The students built a shelter using branches and other natural materials found in the forest. They also participated in archery. Students come away with a better understanding of how their natural world around them works. Various classrooms in the 6th grade also travel to the Pheasant Branch Conservancy in the spring to eradicate Garlic Mustard plants. There is education that surrounds the project that includes discussion about invasive species and conservation.
- In 7th Grade, students focus greatly on their writing skills in their English and Language Arts classes. Students are directed to write directly focusing on environmental issues. These writings range from informational to persuasive and focus on a broad range of topics. Students have also created websites based on the topics they chose.
- In the 8th Grade Curriculum, students learn about Earth and Space Science.
- Our school resource officer has incorporated these concepts into his GREAT program in which students do community service for their final projects. Various projects have included pond/stream/water pick up, trash and litter pick up, eradication of invasive species (garlic mustard), and beautification through creation of a bench.

Students are asked in many of their classes to identify problems within their school and greater community. These opportunities range from research papers, student led projects, teacher directed activities, and personal interest programs. Student Council is working on identifying areas for improvement in the school and addressing these through informational videos and lessons for students and staff.

Staff members are educated on the opportunities that are available regarding environmental education in their classrooms. Secondary science curriculum renewal, a three year process that began in the fall of 2015, directs environmental education opportunities in the curriculum. The district sustainability coordinator spoke to the renewal team in May 2016, at their last meeting for the school year, suggesting EE be the topic for one quarter of the school year. Talks resumed this fall and are on-going. Fifth grade teachers were in-serviced last fall on an outdoor activity that entails students measuring elevation increase and placing ropes that represent contour lines on a map. Some teachers used the activities while others were hesitant. We are hiring a recently retired fifth grade teacher to direct the activity for classes to help teachers feel more confident with the activity. This same teacher has written four more outside activities to go with the four FOSS science units currently in use. An ecology unit was written for spring for sixth grade with outside activities involving plant ID and planning for habitat restoration on campus.

Over the course of the last few years, teachers have had many opportunities to learn and incorporate sustainable education into their classrooms. Many teachers have taken programs through the opportunities in the Middleton Community (through the Pheasant Branch Conservancy) or from our local power provider (Madison Gas and Electric). These programs vary in their topics, but many of them provide resources for environmental instruction in the classroom. Many of them have included things like energy conservation and water conservation. KMS staff have participated in trainings offered through your local CESA, Earth Partnership for Schools, KEEP (WI K-12 Energy Education Program), Leopold Education Project, state, national and international conferences related to environmental education, Project Learning Tree, Project WET, Project WILD, and Aquatic WILD.

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems

Focus Area: School Site

KMS is adjacent to the Pheasant Branch Conservancy. The Friends of Pheasant Branch (FOPBC) and its community of naturalists have been used in various ways for outdoor education. French classes use the school vegetable gardens as world language gardens. The students tend, harvest, and use the vegetables for French cuisine. During summer of 2016, each grade level, 5-8 had teachers working with a naturalist to develop outdoor education activities to compliment the curriculum. The lessons with equipment were placed in bins and stored in the environment room to be checked out and utilized by both middle schools. An English teacher had her class perform a Shakespearean play in the outdoor amphitheater in 2015-16. During summer school, 2016, a writing class gave a recital for parents and friends in the amphitheater. The amphitheater is used extensively during fall and spring as an outdoor classroom for many subjects/grade levels. Furniture for seating is located in the light court so it may be used as an outdoor teaching site. Outside the library on the deck, there is seating that students can use for reading or art classes will use for drawing in nature. The deck faces the Pheasant Branch Conservancy, a forested natural area.

During the planning stages of KMS, District Administration and architects met with the Friends of Pheasant Branch to get ideas for incorporating the Conservancy and grounds into plans for outdoor education. The result was a trail leading from the school to the Pheasant Branch Creek and a proposed bridge to connect Middleton High School with KMS campus for collaboration among students/classes. The bridge construction was completed fall of 2016 with the trail to follow. Also an outdoor amphitheater with a living wall behind it was built as an outdoor classroom with use as described above. Science curriculum renewal 5-12 is occurring during the 2015-17 school years with plans to write EE outdoor curriculum aligned with the Next Generation Science Standards in summer 2016 to be piloted during the 2016-17 school year with implementation the following school year.

The Friends of Pheasant Branch (FOPBC) is partnering with middle school teachers to write lessons and purchase equipment (summer 2016) to create self-contained kits for teachers to use for outdoor education opportunities. These kits will be housed in KMS environment room 600. Also these kits containing EE lessons and equipment may be checked out K-12 as well by community groups such as girl and boy scouts. Lessons are being written 2016-17. The room is also a community resource currently being used as a meeting site on a monthly basis for the Friends of Pheasant Branch. Room 600 can also be used as a staging ground for classes in inclement weather or for introductions/summaries before or after field trips.

In addition, the Girl Scouts of Dane County, FOPBC, and KMS are partnering in a backpack project. Lessons with equipment are being developed from a Girl Scouts program designed to get girls outside and learning about nature. Some of these backpacks will be stored at KMS in the environment room.

Additional outdoor learning features include:

- A habitat garden includes extensive rain gardens on the front side of the building containing native plants that provide a nectar source for insects and birds. Over a quarter of the school grounds was planted in native or native cultivar vegetation. Most of the back of the school has prairie forbs along the path.

- Our school has a food garden with numerous straw bales used for gardening.
- Very large as a portion of the Pheasant Branch Conservancy runs the whole length of the land KMS sits on and continues outward from both ends.
- Our school uses the existing site, lawns, parking areas, playgrounds, etc. for outdoor teaching.
- Our school uses a community park. **Approximate size::** Parisi Park, a city block, is used by fifth grade.
- Our school uses a water body *within walking distance* to fish or do aquatic habitat explorations.

Professional development to promote use of school grounds school forest, or outdoor teaching sites has included:

- The fifth grade teachers were in-serviced in fall of 2015 on land forms and erosion lessons. The students use equipment to measure elevation and place ropes along the contours of the landscape forming a 3D topographic map. The other lesson instructs students on stormwater and erosion control using the rain gardens on site. Teachers were also recently in-serviced on an outdoor lesson to accompany each of four FOSS science units.
- Fall of 2015-16, one of the wellness choices for the district inservice at the start of the school year was a walk and talk in the Pheasant Branch Conservancy behind KMS. The large group was divided into two smaller groups led by FOPBC naturalists. The talk was centered on the benefits of EE and using the outdoors as a learning environment. This walk/talk was repeated later in the fall for all the new hires K-12 as part of their professional development program.
- Fall of 2016-17 an email was sent to all staff listing and encouraging them to participate in the field trips offered by FOPBC and Pope Farm Conservancy.

The after school program, grades 6-8 run by the City of Middleton and MCPASD is located at Clark Street Community School (CSCS) located across Pheasant Branch creek from KMS. Conveniently located for KMS students, most if not all of the students come from Kromrey. The other district middle school is located in Cross Plains. The students not only get help with course work, but can also participate in environmental activities. CSCS is where the District Youth Garden is located. Activities include wellness lessons in good eating, planting, tending and harvesting the garden. Also Art projects to utilize different vegetable matter are done. Students were introduced to stream monitoring during the summer of 2015. KMS will also be a site for backpacks with lessons and equipment for girl scout use in the Conservancy. Programs such as a wildlife rehabilitator with life raptors was brought to the after school program in October. This program was sponsored by the Friends of Pheasant Branch and not only are KMS students invited but also Middleton High School and Clark St. Community School students and the larger community.

Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills

Focus Area: Environmental & Sustainability Education

Our school subscribes to the Project Lead the Way (PLTW) curriculum. This curriculum utilizes various environmental and sustainable engineering concepts to teach various STEM and STEAM related subjects. Over the course of the year, 7th grade students analyze green architecture and other engineering projects.

Other students at Kromrey are involved in various problem solving or 'Genius' Activities where they are asked to come up with creative solutions to problems. This is a growing teaching strategy being used by classroom teachers. Many of these solutions work with the tech coach in the building to develop solutions to environmental problems.

KMS builders club competes in CANstruction, hosted by Middleton Outreach Ministry (MOM) , the competition calls on teams to end hunger by building structures of canned goods and packaged food. All food is donated to the MOM Food Pantry, serving Madison, Middleton and Cross Plains. The Builders Club partnered with KMS Student Council, Middleton Kiwanis Club, and their design expert, Phil Fish, of Fish & Associates Inc.

Element 3C: Development and application of civic knowledge and skills

Focus Area: Community Involvement

The Student Council at Kromrey Middle School offers students the opportunity to become involved in environmental and sustainable education. The Student Council has been an important part in implementing strategies for the purposes of becoming a Green and Healthy School in Wisconsin. This included a marker recycling program, interviewing professionals in the community regarding green and healthy practices, and working together as a school to promote healthy choices and school policies. The Student Council frequently meets with school administration to address Green and Healthy Schools focus areas. There are about 60 students who are part of this program. KMS student council worked with school and district personnel to complete the U.S. Department of Education Green Ribbon Schools application.

The World language Club has implemented planting and sustainable growing techniques at Kromrey Middle School. Every year, the club plants a mini garden in hopes of building the school community. There are approximately 30 students involved in this program. Future Problem Solvers Club is a program that allows students to become engaged in the future problems of their lives. Topics can include various things such as solving community problems, writing letters to officials, and arranging meetings on civic topics. FPS asks some students to address environmental issues and to come up with solutions for them. This club involves about 50 students.

The City of Middleton's after school program is housed at MCPASD's charter school, Clark St. Community School. The after school program services middle school age students (5-8). These students were trained in stream monitoring spring of 2015 and participate in Growing Food and Sustainability, which is a youth-led, community-based sustainability initiative in Middleton. They engage elementary, middle and high school youth in hands-on environmental education and leadership training through agriculture, nutrition, cooking, art, biking, and multi-age relationship building. Other environmental programs done at the Youth Center this year include:

- A wildlife presentation on rehabilitation for injured wildlife. Live wildlife were on hand including a skunk, bull snake, great horned owl and screech owl.
- The Madison Herpetological Society gives a presentation on reptiles and amphibians every semester
- Gardening at the Youth Farm and cooking with the produce grown
- Nature photography in Pheasant Branch Conservancy
- The Center ran an "Art and Social Justice" mini-course last spring that involved the students in imagining a better world, which included environmental issues.

City of Middleton Youth Center runs a summer program called Outdoor Adventures that involves 5th-8th grade students in hiking, canoeing, swimming, and camping. Sixth graders partner with the City of Middleton in Garlic Mustard removal. Result: education on why invasive species are undesirable and service to community in removal.

Big City Mountaineers is a national organization that transforms the lives of under-served urban youth through wilderness mentoring expeditions that instill critical life skills. BCM partners with community-based youth organizations and adult volunteers who act as mentors in the field to help young people realize their potential. The curriculum improves integrity, self-esteem, responsibility, decision-making abilities and communication skills. Since 2013, KMS has had students participate in this project. BCM requires a day of service from the participants for team building and doing environmental projects. 2013 the project involved raking two steep slopes that drain to Pheasant Branch Creek, seeding the slopes with prairie seed, and applying erosion netting and coconut logs at creek's edge. 2014 and 2015 projects planted trees in the creek corridor. The partnership was with the City of Middleton and included district volunteers.

300 KMS students were involved in a service project with the Friends of Pheasant Branch in spring 2016 to seed an area at the Boch Forest, in the Pheasant Branch Conservancy. The students used native prairie seed in this area and got an understanding of why prairie species are important for channeling water, holding soil, encouraging pollinators, and do not use additional watering once established. The management plan for the area was also explained.

KMS has a representative on the MCPASD Sustainability Committee that drives sustainability projects districtwide.