



Sustainable Jersey for Schools Certification Report

This is the Sustainable Jersey for Schools Certification Report of Delran Middle School (Burlington), a Sustainable Jersey for Schools bronze certified applicant.

Delran Middle School has had a strong homegrown interest in conservation and greening the buildings and grounds for staff and students. The programs which have been in place have not been directed by a "plan" up until this point. As of today, the district is beginning to generate the interest in joining the Sustainable Jersey for Schools program. The teachers have shown great interest in being a part of the program. The union is now in negotiations to add the positions of Green Team Advisor to their paid stipend positions. In the meantime, our practices and curriculum continue to acknowledge the goals of the program, while we wait for the negotiations to finalize their position, role and responsibilities.

Contact Information

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Actions Implemented

Each approved action and supporting documentation for which Delran Middle School (Burlington) was approved for in 2020 appears below. Note: Standards for the actions below may have changed and the documentation listed may no longer satisfy requirements for that action. Additionally, points associated with actions prior to 2013 certifications may not be accurate.

Board Leadership & Planning

School District Foundation

10 Points

School District

Program Summary: The Delran Education Foundation, Inc., a 501(c)(3) nonprofit corporation, was formed early in 2015 with the support of the Delran Board of Education and the district's superintendent, Dr. Brian Brotschul. Their website can be found at www.delranedfoundation.org (Although the Foundation has the district's support, they operate independently.) The Foundation was modeled after other local education foundations, such as the Medford Education Foundation, the Moorestown Education Foundation and the Mount Laurel Public Education Fund, all of which have provided significant financial support to their respective districts. Since New Jersey schools face constant funding challenges and operating costs are increasing rapidly, government our funding is decreasing. With such tight resources, school districts are often unable to fund the kinds of innovative programs that would develop and enhance skills necessary for success in the 21st century. In order to combat these financial strains, the Foundation raises money from local businesses, corporate sponsors, parents, alumni, and other supporters throughout the community. These contributions are used to support educationally sound, cutting-edge programs designed to better prepare Delran students for the rapidly-changing world. One of the main initiatives of the foundation is to support our programs in sustainability and STEAM initiatives. Each year, teachers and other professionals within the district are encouraged to apply for grants to be used for innovative educational programs. Grants are awarded competitively for projects and ideas that will have the greatest positive impact on students' educational experience. Included in the uploads below are summaries of the chosen projects, a spreadsheet showing the funding, as well as a slideshow (pages 30-37), which is shown to ALL staff in the Delran Township Public Schools in the opening day of school. From there, Tweets from Delran Township Schools as well as Principal Broadcasts note the achievements. A grant FAQ for this year's grant cycle can be accessed here: <https://www.delranedfoundation.org/grants/faq/>

WORD: [SCHOOL DISTRICT FOUNDATION DOCUMENTATION](#)

EXCEL: [SCHOOL DISTRICT FOUNDATION DOCUMENTATION](#)

PDF: [SCHOOL DISTRICT FOUNDATION DOCUMENTATION](#)

Climate Mitigation & Renewable Energy

Onsite Renewable Generation System - Solar

30 Points

School

Program Summary: As part of the Energy Savings Improvement Program (ESIP), Delran Township Public Schools went through a competitive RFP process to hire a power purchase agreement provider (PPA). The goals were to reduce energy costs, transition to sustainable energy, and if possible, help fund roofing replacements (where necessary). All of these goals are currently being met through the PPA. When construction is complete, this project will account for 80% of the District's electrical needs. This action sends a powerful message to the community about fiscal stability and sustainability. See the attached documentation for more information.

PDF: [SOLAR LAYOUTS](#)

PDF: [SOLAR CERTIFICATION LETTER](#)

PDF: [PPA CALCULATIONS](#)

Energy Efficiency

Energy Efficiency for School Facilities

50 Points

 Bronze Priority  Silver Priority School District

Program Summary: Delran Township School District has seen significant energy savings by implementing several energy conservation measures as part of their ESIP project with Schneider Electric. Together, the district successfully installed solar panels on all four school buildings. After obtaining the solar power, they were able to reduce energy consumption by 32.57% across the district. This has helped to reallocate energy and capital elsewhere. The EUI spreadsheet shows a significant reduction of 32.57% from 2016 to 2018, the time periods before the ESIP project, and after 1 year of measurement and verification.

PDF: [LGEA](#)

EXCEL: [EUI SPREADSHEET - 12/16 - 8/18](#)

Building Efficiency Measures

30 Points

 Bronze Priority  Silver Priority School

Program Summary: Delran Township Public Schools has had a history of successful energy projects, including lighting upgrades and lighting controls and a comprehensive energy tracking and management system. In January 2015, Delran began exploring the possibility of an Energy Savings Improvement Program (ESIP). Several other School Districts had success with ESIP, and Delran saw this as a way to reduce energy use and become more sustainable. The District selected an Energy Services Company in the Fall of 2015, developed a District-wide Energy Savings Plan, and is currently in the Construction phase of this project. The Energy Savings Improvement Program will allow Delran Township Public Schools to reduce energy costs by 32%, produce 80% of its electric needs through on-site solar, and save taxpayers \$5.6 million over the next 15 years. Furthermore, this project will reduce Delran's GHG emissions by 47%. This ESIP project will directly benefit students through a kiosk and energy dashboard system, provide awareness to the community about preserving the environment, and most importantly, free up funds for Delran schools to provide the best education possible. Through a combination of energy conservation measures and on site renewable energy, each school will see its EUI decrease by over 40%. See the attached documentation for more information.

PDF: [ENERGY SAVINGS PLAN](#)

EXCEL: [EUI CALCULATOR](#)

PDF: [CONSTRUCTION SCHEDULE](#)

Green Cleaning

Green Cleaning Equipment

10 Points

School District

Program Summary: Delran Township Public Schools and T.U.C.S Cleaning services began their service contract for the 2015-2016 school year. The details of the contract specified Green Cleaning Supplies as a requirement for the bid to be accepted. The RFP included Custodial and Black Seal Operator Services to ensure proper training and protocols. T.U.C.S servicing contract outlines management, custodial operations, Green equipment utilized includes the attached list of scrubbers, vacuums and extractors. The T.U.C.S Green Cleaning Program utilizes products that are non-toxic, biodegradable and made from renewable resources, as well as microfiber systems and powdered equipment that capture and/or collect particulates while operating at a sound level of less than 70dBA. The custodial staff inspect the dust bag every two hours and replace the bag when full to ensure proper dust collection and removal. Auto scrubbers limit worker exposure to chemicals and the green solutions used by the staff are non-toxic and non-corrosive. Most importantly, these products are effective, in addition to the benefits of being environmentally safe. The Green Cleaning Equipment includes: the Advance EcoFlex system floor scrubber model SC750 REV, Tennant Floor Machine FM-17SS, Tennant Upright Vacuum V-SMU-14, Nobles Dry/Wet Vacuum V-WD-15 and 16B, and the Tennant Self-Contained Extractor EX-SC-412. The contract with T.U.C.S is contract dated in the attachment through June 30, 2021. the latest BOE approval for their service is attached, dated 10/7/19 as public notice. Additionally, the documented equipment is what is used for the purposes of the contracted cleaning agreement.

PDF: [GREEN CLEANING EQUIPMENT DOCUMENTATION](#)

PDF: [GREEN CLEANING EQUIPMENT DOCUMENTATION](#)

IMAGE: [GREEN CLEANING EQUIPMENT DOCUMENTATION](#)

School Grounds

Biodiversity Audit & Management Plan

10 Points

School

Program Summary: In the 7th grade science classes, approximately 120 students completed the Eco-Schools Biodiversity Audit (Attached). The classes discussed the Green Team and its objectives. The class reviewed biodiversity and brainstormed if our campus had a large biodiversity. These answers were recorded on the board and had to have specific examples from the school grounds. The students discussed the base map and learned how to calculate the different percentages of hard surfaces, school building, grassland areas, forested areas, garden beds and other. The students created their maps and map keys in preparation of the next day's audit. On day two, each period went outside to audit different areas of the school grounds. They completed the Habitat Health Observation Survey and School Grounds Vertebrate Animal Observation Survey. The students completed this in groups of two or three kids. Afterward, they went back into the lab and discussed their findings. In addition to the biodiversity audit, the DMS Green Team conducted a tree audit. Using several maps, the students broke into groups to identify each tree on the campus. For each tree, the students took pictures of the whole tree, a leaf, the bark, and measured its circumference. These findings were uploading to a Google Doc and then the trees were identified at a subsequent green team meeting. We used the website,

<https://www.arborday.org/trees/whattree/fullonline.cfm> to identify our trees. The trees were identified by answering several questions describing each tree. Using the data found during these audits, the team plans on planting native trees to increase the flora and fauna around the middle school. Creating small tree and flowerbeds will increase the biodiversity of our campus. The Delran Green Team has verbally committed funds to purchase these new trees. We plan on planting the saplings in the spring, after the threat of frost.

POWERPOINT: [BIODIVERSITY AUDIT & MANAGEMENT PLAN DOCUMENTATION](#)

WORD: [BIODIVERSITY AUDIT & MANAGEMENT PLAN DOCUMENTATION](#)

PDF: [BIODIVERSITY AUDIT & MANAGEMENT PLAN DOCUMENTATION](#)

POWERPOINT: [BIODIVERSITY AUDIT & MANAGEMENT PLAN DOCUMENTATION](#)

PDF: [BIODIVERSITY AUDIT & MANAGEMENT PLAN DOCUMENTATION](#)

PDF: [BIODIVERSITY AUDIT & MANAGEMENT PLAN DOCUMENTATION](#)

Biodiversity Project

10 Points

School

Program Summary: A group of enthusiastic eighth graders participated in a differentiated project that challenged them to design and conduct an action plan to solve a local environmental problem. The project was a student competition through Scholastic called, The Lexus Eco Challenge. (<http://lexus.scholastic.com/>) This group tasked themselves to expand the biodiversity of native plant species, especially those that will provide a habitat for butterflies. They planned to plant and upkeep native species into the school courtyard, maintain/support their growth, and upkeep the current beds with the help of the green team. With their help of their teacher the group reached out to the town Green team for a referral to a local nursery that could help them make the best plant selections. As part of their action plan, these students organized a Pajama Day at DMS on Halloween, Oct 31st. Students brought 1 dollar to school in order to wear pj's to school. The girls met with the principal about their idea, and planned and executed the entire fundraiser. Students raised \$225 to use for tools and supplies to maintain the gardens and for the plants themselves. The installation will occur in spring 2017. In addition to their planting, the group charged themselves with educating others in the school about the special school habitat they plan to expand on. They prepared and presented a slideshow and lesson plan, and came up with key assessment questions to gauge learning. The group visited seventh grade classrooms at the middle school. They discussed why the school had the pajama day and why expanding biodiversity is so important. They also discussed some butterfly species in NJ that are at risk for becoming extinct. Students were awarded candy for responding to questions to increase their engagement.

POWERPOINT: [BIODIVERSITY PROJECT DOCUMENTATION](#)

PDF: [STUDENT BIODIVERSITY PRESENTATION](#)

PDF: [SUMMARY OF PROJECT MAINTENANCE](#)

PDF: [BIODIVERSITY PROJECT DOCUMENTATION](#)

PDF: [BIODIVERSITY PROJECT BUDGET](#)

PDF: [BIODIVERSITY PROJECT PLAN](#)

Student & Community Outreach

Green Team

10 Points

 Bronze Required School District

Program Summary: Since 2009, the Green Team at Millbridge became the precursor to all work being done throughout the district. As energy savings became an important district initiative, the Business Administrator, Dr. Chris Russo established the need for continuing to develop our sustainability goals. When Dr. Brian Brotschul, Superintendent of Schools, started in the summer of 2014, he also made it clear that Delran Schools would put human resource into our programs in sustainability. As a result, he developed a Sustainability Leader position, which incorporates two stipend positions for each of the four schools. The responsibilities of the Sustainability Leader include school level duties, as well as attendance and contribution in district wide initiatives. Professional development opportunities for these leaders has begun in earnest in the 2016-2017 school year. The community outreach and curricular connections being built by these leaders with our partners in administration, support services, food service (Nutriserve), and our Energy Savings Improvement Program, with Schneider Electric, have proven to be quite successful. The iteration between our leaders at the four schools, both cooperatively and competitively (such as our Energy Savings Week program), provides excitement and a new cultural experience in Delran. Additionally, all four schools maintain their own Annual Summary pages, websites and the district provides quarterly meetings for all important parties to collaborate. Each year, Sustainability Project Managers are chosen through a submission of intent to the building principal at each of the four schools. These eight individuals are Board approved in the spring meeting (May/June) each year, for the proceeding year. See the documentation for the meetings in the Annual Summaries- * Delran Township Schools District Green Team Strategic Plan 2019-2020: https://docs.google.com/document/d/1lXK8RztN2KvlopAmsQhWy8JfnEv6O_jPg31UNlriGk/edit?usp=sharing * The attached Board of Education approval for the Sustainability Project Managers for 2019-2020.

PDF: [GREEN TEAM DOCUMENTATION](#)

IMAGE: [GREEN TEAM DOCUMENTATION](#)

PDF: [GREEN TEAM DOCUMENTATION](#)

PDF: [GREEN TEAM DOCUMENTATION](#)

Community Education & Outreach

10 Points

 Bronze Priority  Silver Priority School

Program Summary: On May 20th, the DMS Green Team participated in the third annual Delran STEM Fair from 5:30-7:00 pm. Green Team students set up a series of 3 stations at the STEM fair under the themes of Reduce, Reuse, Recycle. Students educated the public on the use of the Recycle Coach App and website for all their recycling questions. This helped residents make informed decisions about recycling their waste. Students had supplies, that would otherwise be discarded, for kids to reuse to create crafts. Egg cartons were used to create flowers, lady bugs, turtles or anything these wanted to create! Many kids made something out of recycled waste that night under the guidance of the DMS Green Team students. Finally, the students made a recycling trivia game. They made of large colorful wheel for STEM fair participants to spin. They also developed a list of questions to ask them depending on which color they landed on. They had some easier back up questions for the younger kids and also had a visual they could let them look at for help. This was a huge hit! Many people, mostly kids, came to spin the wheel and learned something about recycling. A big draw was the candy reward for answering a question. Green Team Students also helped out with a STEM wide scavenger hunt. They helped students fill in a

collection sheet about the STEM lessons learned at the table and gave them a sticker. This could earn the participants free STEM Camp. In addition to the STEM Fair DMS Green Team students educated the public at their 1st ever yard sale. Students shared information about the Rodrigues Fruit Bat to the public and connected their efforts of reducing landfill waste with helping to preserve biodiversity on our planet. The students also had a recycling info sheet there for the yard sale clean up to help prevent items getting tossed away in the trash that shouldn't be. Students educated their classmates as well with a recycling lesson. The administered a google form quiz about recycling to over 300 students throughout the school and shared the answers to aid in any misconceptions. Finally, multiple science fair projects are presented to the public annually at a science fair that educate the public on various environmental topics.

PDF: [COMMUNITY EDUCATION & OUTREACH DOCUMENTATION](#)

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PDF: [COMMUNITY EDUCATION & OUTREACH DOCUMENTATION](#)

Civic & Stewardship Volunteer Initiatives

10 Points

School

Program Summary: The Green Team along with the assistance of the Student Council worked with the Delran Community Green Team as well with members of local business at 3 locations in our community to pick up 29 bags worth of trash, 2 bags of recycling, and additional miscellaneous trash. Students began their day learning safety procedures when dealing with waste and received gloves that can be washed and reused. There was an immense amount of small and large trash that had built up next to the Swedes Run creek. The students identified this as a high need area and would like to work at this location again in the future. The need to clean at this location was initially identified by the DMS Cross Country Team as this is an area they run by daily. The Township in collaboration with the Municipal Green Team provided the bags and garbage grabbers to borrow. They already gave us gloves last year that we washed and reused this year. The efforts and community issue was communicated with our school and community. Students felt connected to their community and great pride over what they accomplished. The DMS Green Team also participated in several Green Drop initiatives. We hosted our own Green Drop event at our yard sale where we opened up this opportunity to the community and to the school staff. After the yard sale participants were encouraged to donate anything they didn't sell or want instead of throwing items in the garbage. We collected 120 bags to donate to Green Drop. The proceeds of this event went to the American Red Cross. We also partnered up with the district green team to advertise and inform the public about the green drop taking place at the STEM fair. Communications took place with the Sustainability Supervisor, DMS Administration, Custodians, Secretaries, DMS Staff, and the Green Drop Coordinator to make this all happen. An email with information was sent to the staff and parents. A drop off box was also set up in the lobby and arranged to be put out for pick up. DMS donated 1 large box.

PDF: [CIVIC & STEWARDSHIP VOLUNTEER INITIATIVES DOCUMENTATION](#)

PDF: [CIVIC & STEWARDSHIP VOLUNTEER INITIATIVES DOCUMENTATION](#)

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IMAGE: [CIVIC & STEWARDSHIP VOLUNTEER INITIATIVES DOCUMENTATION](#)

Green Challenges

10 Points

School

Program Summary: Description: The People's Ecochallenge took place from October 2 - October 23, 2019. During an NGSS unit of study on Human Impact to the environment, students work to understand humans impact on the Earth and how to lessen it. DMS 8th graders chose a small action to take on that challenged them to change their daily habits to lessen their impact on the environment. Students designed a PSA to advertise the challenge to others, prior to the event. They were shared in the school. They used technology such as google slides and google drawing for this task. Students were encouraged to get their families and friends involved as well. Students participated in this three week challenge, logged their progress on paper, obtained a parent signature proving their compliance, and logged into the eco challenge online program. Students were able to post about their experience, view our teams ranking in the challenge, compete with other teams, and see the impact they were making! At the end of the challenge students saw their personal impact and also the collective impact of everyone participating in this challenge. Out of the 814 teams, worldwide, that were signed up for the challenge, Delran placed third, obtaining 65,946 points. This taught them that with just a small effort from everyone, a huge change can be made. During the three week challenge, students developed claims that their small action was benefiting their health or the Earth's. Students researched reliable sources and found evidence to support their claims. This lesson helped students understanding of why their small change was so important.

PDF: [EMAIL TO STAFF](#)

PDF: [STUDENT CHALLENGE CHOICES](#)

PDF: [STUDENT MADE FLYER](#)

PDF: [DMS IMPACT DATA](#)

Student Learning

Education for Sustainability Grades 4-12 Science

5 Points

School

Program Summary: Students in 8th grade engaged in a unit of study from the Next Generation Science Standards that explored the question, "How do human activities affect Earth Systems?". The enduring understanding for the unit was that human activities collectively have a huge impact on the Earth and a growing human population increases the consumption of Earth's natural resources. Another major take away is that students learn the necessity of looking towards alternative forms of energy for the future, that we can't continue our same path and reliance of fossil fuels if we want to lessen our impact. Students learned about the pros and cons of using different energy types. They studied and analyzed U.S. use of energy, what percentage of each energy source was used, and what the different sources were used for. One class activity that helped learning was an online energy lab video assignment by NOVA (<http://www.pbs.org/wgbh/nova/labs/lab/energy/1/1>). Another activity was the Energy Enigma guessing game from the NEED Project. (www.need.org). Students worked in groups to make clues about their designated energy source and challenged the class to guess with the least number of clues. Additionally students investigated the source of wind energy in-depth as a possible leading

option for future alternative energy. Eighth graders partook in an engineering design challenge to determine, “How can we increase the energy output of a wind turbine?”. This was after conducting a lab that explored, “How does a wind turbine work?” and looking at how engineers work to make the most efficient and cost effective design possible. To further enhance their learning students took a field trip to the ACUA Wastewater Treatment Plant and Coastal Wind Farm to learn how they use wind turbines to produce the energy needed to treat the wastewater.

PDF: [LESSON PLAN](#)

PDF: [STUDENT WORK AND RUBRIC](#)

PDF: [ACUA EFS QUESTIONNAIRE](#)

PDF: [ACUA PICTURES](#)

Student and Staff Wellness

Staff Wellness Program

10 Points

School District

Program Summary: As a part of the districts health insurance benefits, the opportunity to partner with our insurance carrier, Conner Strong, gave us the chance to work with Wellness Coaches USA, for the benefit of all staff. The program began on July 1, 2017 and has been an incredible success! The Wellness Coach met the staff on June 12, 2017, between the hours of 12 p.m. and 3:30 p.m. at the Performing Arts Center of Delran High School. At that time, the Business Administrator billed it as, “a voluntary program” In addition to weekly visits and staff one on one coaching, the Wellness Coach has provided a PD training on mindfulness, including meditation to the entire staff, as well as four training sessions during our in-service days this year. The overall staff feedback about the coach has been extremely positive, and we are pleased to have their guidance to support all of our health needs. For instance, in a one on one session with the coach, I was able to speak to him about needing stress relief and my interest in meditation to aide me in relaxation. We spoke about the technique, he forwarded me a flyer, he helped me download an app then we met and discussed again. Staff have gotten an increased level of services from the program as Erica DeMichele, K-12 Sustainability Coordinator, and Alex Giampapa, of Wellness Coaches USA, work to develop the opportunities for staff. See the attached slide show, including the data analysis of staff using the service and the School Health Index Survey report from the staff involved in increasing services. Additionally, flyers and documents of the work completed this year are attached.

PDF: [STAFF WELLNESS PROGRAM DOCUMENTATION](#)

PDF: [STAFF WELLNESS PROGRAM DOCUMENTATION](#)

POWERPOINT: [STAFF WELLNESS PROGRAM DOCUMENTATION](#)

PDF: [STAFF WELLNESS PROGRAM DOCUMENTATION](#)

IMAGE: [STAFF WELLNESS PROGRAM DOCUMENTATION](#)

PDF: [STAFF WELLNESS PROGRAM DOCUMENTATION](#)