

2015-2016 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 2015-2016

Public Charter Title I Magnet Private Independent Rural

Name of Principal: Dr. Terrence Charlton

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

Official School Name: Egg Harbor Township High School (As it should appear on an award) Official School Name Mailing Address: 24 High School Drive, Egg Harbor Twp., NJ 08234 (If address is P.O. Box, also include street address.) County: Atlantic State: New Jersey School Code Number *: 005 Telephone: 609-653-0100 Fax: 609-927-8844

Web site/URL:www.eht.k12.nj.usE-mail:charltot@eht.k12.nj.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.

Tum of Chartter

(Principal's Signature)

Date: 01/28/2016



GreenRibbonSchools

Name of Superintendent: Dr. Scott McCartney

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

District Name: Egg Harbor Township

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

Swind. Mulartay, & D.

(Superintendent's Signature)

Nominating Authority's Certifications

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

- 1. The school has some configuration that includes grades Pre-K-12.
- 2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
- 3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: New Jersey Department of Education

Name of Nominating Authority: Mr. Bernard E. Piaia, Jr.

(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.

Bernard E. Piana p.

_____Date: January 29, 2016

(Nominating Authority's Signature)

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 <u>ed.green.ribbon.schools@ed.gov</u> 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.

Date: 01/28/2016



New Jersey 2015-2016 Green Ribbon Schools Application

School Contact Information								
School Name: Egg Harbor Townshi	D	District: Egg Harbor		rbor Township				
Street Address: 24 High School Drive	2							
City: Egg Harbor Township	S	State: N	J	Zip:	08234			
Website: <u>www.eht.k12.nj.us</u>	F	Facebook page: www.facebo			acebook.com/EHTSD			
Principal Name: Dr. Terry Ch	arlton							
Principal Email Address: CHARLTOT@	<u>Øeht.k12.nj.us</u>	Р	hone Number:	:	609-653-6899 Ext: 1600			
Lead Applicant Name (if different): _								
Lead Applicant Email:Phone Number:Phone Number:								
Level	School Type		How would y	ou desc	ribe District Name			
[] Early Learning Center	(X) Public		your school?		Egg Harbor Township			
[] Elementary (PK - 5 or 6)	() Private/Independ	lent	() Urban (X) Suburban		() Largest 50 Districts in the nation?			
[] K - 8	() Charter	(X)						
[] Middle (6 - 8 or 9)			() Rural		Total Enrolled:			
[X] High (9 or 10 - 12)					2325			
Does your school serve 40% or more students from	% receiving FRPL47.4% % limited English proficient1.4% Other measures			Graduation rate: 93.9%				
disadvantaged households? (X) Yes () No					Attendance rate: 95.49%			

<u>SUMMARY NARRATIVE</u>: Provide an 800 word maximum narrative for publication describing your school's efforts to reduce environmental impact and costs, improve student and staff health, and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships. (See <u>examples</u> from prior year)

Egg Harbor Township High School (EHTHS), a suburban school serving 2,325 students, has invested in the development of sustainable practices, development of student awareness of environmental stewardship, and reducing our impact on the environment. Egg Harbor Township School District has been a leader in school energy education initiatives. The district has implemented an energy monitoring and savings program, hired a full-time Energy Specialist, developed both district wide and building level Green Teams, and has provided support for building level initiatives. EHTHS has been recognized as the New Jersey High School Sustainability Champion in 2015, Silver Certification (highest awarded) Sustainable New Jersey in 2015, the Nation's Most Improved School in the 2013 Recycle Bowl, and seventh in New Jersey in the 2014 Recycle Bowl.

EHTHS' Green Team has developed several programs to raise awareness of environmental stewardship. The Green Team introduced students to composting during a series of science labs geared towards sustainability. Students took the concept one step further and built a program to encourage composting throughout the school. This program has students collecting, measuring, and monitoring the composting process from the classroom to the final product for use in our school garden and in lab activities across several fields of study. A school garden has been designed and is being used as an outdoor teaching area where students are receiving hands-on instruction in designing, planting, maintaining, and harvesting the crops.

Recycling is another major focus of the Green Team and the student body. Students have led the way for developing more efficient recycling management techniques in the school. They have identified areas where we could improve our recycling, such as athletic and theatrical events. Recycling bins have been established at various locations to accommodate for events occurring during and after school hours. Through the efforts of the students, we have increased the amount of recycling within the school by over 4,000 percent in the last four years.

Over the last four years, EHTHS has reduced utility costs through energy management, education, developing more efficient HVAC system management techniques, installation of motion activated lights, retrofitting areas with LED lighting, installation of a 454 kW solar array, and purchasing more efficient equipment. These actions have led to an overall decrease of 35% in energy usage. The school also encourages the residents in the township to analyze their personal impacts on the environment. The school offers a free service called GreenQuest for residents, so they can see how their impact compares to other homes in the area. The program provides information on how to reduce monthly bills and energy waste.

EHTHS has adopted an outdoor Air Quality Index flag program. It provides a convenient and easy way for both parents and students to determine if a child may have trouble breathing while participating in physical education and after school athletics. The AQI program brings awareness about the importance of reducing pollution and limiting automobile idling. Indoor air quality has been improved through the installation of Guardian Air UV air purifiers which help to reduce the number of microbes in the HVAC systems.

Students are exposed to sustainability in various science classes where they research renewable energy and resource management opportunities. Course sequences in Environmental Science and Oceanography are accessible to all students and a new course dedicated entirely to the concept of Sustainability will be offered starting September 2016. Students recognize how globalization affects the quality of life in areas around the world in Contemporary Issues and Economics classes. Students also participate in Art classes creating works using recycled materials.

EHTHS offers its staff opportunities for sustainable professional development. Teachers have attended the Kean University Environmental and Sustainability Science Educator Workshop, Sustainable Jersey for Schools trainings and webinars, Public School Works training, school based and district wide green team strategy meetings, and district professional learning days. Students involved in the Green Team are involved in many environmental activities outside of the traditional classroom. They participate in NJ Science League competitions, Recycle-Bowl Competition, and NJ Envirothon Competition. Environmental efforts are led by the Key Club, Honor Society, and Interact Club.

EHTHS has a wellness committee that meets to develop goals to improve student and staff health. The committee developed a "Couch to 5k" program to teach students about diet, exercise, and goal setting. Another program focused on encouraging students to eat breakfast by providing families with educational materials, assemblies, and announcements through our community cable television channel. The addition of two new breakfast kiosks helped to facilitate the implementation of this program. A nutritionist was brought in to help students understand how to develop good eating habits and learn about organic foods. EHTHS students are involved in 220 minutes of physical education per week. Guest speakers are brought in routinely to discuss topics related to health and physical education.

SCHOOL PROFILE: GREEN SCHOOL PROGRAM AND AWARDS (Cross-Cutting Question)

 Has your school participated in a local, state, or national program, which asks you to benchmark progress in some fashion in any or all of the Pillars? Yes_X_No___ If yes, please explain what program(s) and what level you are currently at, and state the years you have been involved in these programs. (e.g. EPA Energy Star Portfolio Manager, Eco-Schools USA, PLT Green Schools, NJPALS, Green Schools Leadership Institute, NJ Sustainable Schools Project, and NJ Learns).

Egg Harbor Township High School participates in local, state and national programs that require benchmark progress to form a deeper understanding of the balance between the three pillars of sustainability: environment, society, and economy. Reducing our carbon footprint by creating a healthy, energy-efficient school environment reinforced with sound environmental and sustainability education practices has been an ongoing initiative of the Egg Harbor Township School District, a leader in sustainable green initiatives in the areas of energy-efficient construction and building practices, solar energy, recycling, and academic conservation instruction.

Egg Harbor Township High School participated in the district's grassroots aggressive cost-saving efforts during the summer of 2010 that included changing the summer schedules of 12-month employees from five 8-hour days to four 10-hour days, requiring all employees to work the same hours and days of the week, and therefore reducing air conditioning, electricity, water, computer and printer use. Based on energy bill data comparisons from 2009, it was estimated more than \$70,000 was saved districtwide in 2010 alone through that pilot summer program leading to its continuance.

The following year, Egg Harbor Township High School and the entire EHT School District partnered with Energy Education[®], now called Cenergistic[®], to build a customized benchmark progress and sustainable energy conservation school-based program that reduces consumption of electricity, natural gas, fuel oil and water through changes in organizational and human behavior. Since 2011, Egg Harbor Township School District has saved \$6,198,199 in energy costs by reducing its electricity consumption by 36.9 percent, its natural gas usage by 40.9 percent, and its water usage by 5.1 percent [Numbers represent Cost avoidance and Usage Avoidance Percentage from March 2011 to October 2015].

Additionally, the High School has been certified as an Energy Star facility by the U.S. Environmental Protection Agency since March 2014. The Energy Star certification signifies that EHTHS outperforms 75 percent of similar facilities nationwide for energy efficiency, and meets strict energy efficiency performance levels set by the EPA.

The High School achieved Sustainable Jersey for Schools certification in the fall of 2015, one of only 59 schools in the state to attain this prestigious accreditation. As New Jersey faces issues of climate change, overpopulation, energy crises, water pollution and water shortage, Sustainable Jersey for Schools' certification allows Egg Harbor Township High School to be a part of the solution to the challenges and demonstrate its commitment to environmental stewardship. Certification aligns EHTHS with community initiatives to protect and preserve, while also opening doors to funding opportunities to introduce new sustainability practices and STEM curriculum without raising the tax burden of community members.

2. Has your school, staff or student body received any awards for facilities, health or environment?

Yes_X_ No___ Award(s) and year(s)

*2015 SILVER Certification/Sustainable Jersey for Schools – Of the 126 districts and 308 schools registered to participate in the program in the inaugural year of the Sustainable Jersey for Schools program, only 59 schools across NJ achieved certification. This includes 54 bronze and only 5 silver certified schools. Five school districts emerged as sustainability leaders by successfully supporting the efforts of multiple schools in their district to achieve program certification including Egg Harbor Township.

*2015 Sustainability Champion/Sustainable Jersey for Schools – The Champion award recognizes schools that have made significant progress toward sustainability and have been certified with the most Sustainable Jersey for Schools points in three categories: elementary, middle and high school. Egg Harbor Township High School was one of only three schools in the state to receive the prestigious award.

*2014 EPA's Certification Nation-Energy Star Building – One of our 8 District Buildings to help us qualify for this 15 year Anniversary Award as a Member of Certification Nation for Buildings. EHT HS has been certified every year they have sought the EPA building certification. Vice what is said below.

*2014 EPA Energy Star Building – The national certification signifies that these buildings perform in the top 25 percent of similar facilities nationwide for energy efficiency and that they meet strict energy efficiency performance levels set by the EPA.

*2013 Most Improved Recycling Rates in the Country/Keep America Beautiful Recycle-Bowl – Keep America Beautiful's Recycle-Bowl is a state and national competition between schools that measures how much schools recycle with the goal of establishing and increasing recycling programs and awareness in schools.

*AtlantiCare High School Youth Led Wellness Initiative – AtlantiCare is the region's largest healthcare provider. This award is providing assistance to our high school's efforts in providing safe driving education and related activities. *AtlantiCare Healthy Schools AtlantiCare-- supports the High School through Healthy Schools Breakfast initiative.

- Has your school identified or created a place for teachers to go to share lessons on Sustainability?
 Yes If yes, where? E-109 Professional Learning Community. The Energy and Sustainability Webpage and Facebook site are available for use for these type activities and others with regards to lessons etc. The EHT HS Webpage Computer Class is a Co- Webmaster for District Energy Conservation and Sustainability page.
- Has your School Board adopted a Green Strategic Plan or sustainability policy? Yes X No____ If yes, please describe. (Max 50 words) The District and High School follow District Board of Education Energy Conservation and Sustainability Policies 7000 and 7460 – adopted 5/25/2010 and revised 12/14/2010 and 9/13/2011 Our Sustainability Policy was formed for the Sustainable Jersey for Schools Certification in 2015.
- 5. Has your school created a Green Team? If yes, list team members and their roles. Yes, prior to 2015, the District had a District Energy Conservation Team. Since engaging in Sustainable Jersey for Schools we have created a District Green Team and Schools have specific Green Teams. District Participation in the HS Green Teams are on an as needed basis, with Director of Facilities, Director of Development, District Energy Manager and Director of Transportation among others. Jim House (Environmental Science Teacher) recycling coordinator, Christa Delaney (Environmental Science Teacher) sustainability curriculum, Vernon Clark (Head Custodian) daily operations, Jonelle Scardino (Biology Teacher) composting co-coordinator, Kristi Troster (Biology Teacher) composting co-coordinator

JUL -JUN	Electric Energy Consumption (kwh)	Natural Gas or Fuel Oil Consumption (therms)	Electric Utility Costs (\$)	Natural Gas Utility Costs (\$)	Total Utility Costs (\$)	Annual Savings (\$)	% Reduction from Baseline Year
							Baseline
						Baseline	BATCC
						BATCC	ELECTRIC/GAS
FY '11-'12		116,296	\$572,521.00	\$110,247.00	\$682,768.00	\$171,811	22.8/5.1%
FY '12-'13	4,259,120	147,028	\$530,099.00	\$129,560.00	\$659,659.00	\$217,415	28.1/6.0%
FY '13-'14	4,526,004	138,159	\$597,417.00	\$141,509.00	\$738,926.00	\$233,373	26.7/22.6%
FY '14-'15	4,366,130	135,808	\$588,014.00	\$135,831.00	\$723,845.00	\$256,486	29.3/23.2%
Mar 2011-						Total Savings	26.5%
Oct 2015*						\$1,135,635*	Cost Avoidance

6. Has your school seen a cost savings from green initiatives? Yes

If yes, input cost savings data into table:

PILLAR I: REDUCED ENVIRONMENTAL IMPACT

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

Energy (Please convert energy data to Portfolio Manager format if possible)

7. Can your school document a reduction in **Greenhouse Gas emissions**? *Please fill in table below first.* Table is based on School data taken from **Utility Bills & ECAP ENERGY SOFTWARE REPORTS which are submitted to ENERGY STAR for our ENERGY STAR Certifications (Portfolio Manager, district utility bills, etc.), as reported by** <u>ECAP/ACE and South Jersey Gas & District Energy Manager</u> (Vendor or School/District Personnel).

	Electric Energy Consumption (kwh)	Natural Gas Consumption (therms)		Carbon Dioxide from Electric 1.52 lbs/kwh	Carbon Dioxide from Natural 11.7 lbs/therms	Carbon Dioxide from Fuel Oil 26.033 lbs/gal	Total # of Staff & Students	MT eCO2 /person	% Decrease
Example	100,000	15,000	5,000	100,000 x 1.52	15000 x 11.7 =	5000 x 26.033 =	250	(152000+	(Current Yr –
				= 152,000	175,500	130165		175500+	Pior Yr)/
<u>Jul-Jun</u>								130165)	Prior Yr
								/250/1000	
FY '11-'12	4.407,228	116,296	N/A	6,698,987	1,360,663	N/A	2810	2.87	
FY '12-'13	4,259,120	147,028	N/A	6,473,862	1,720,228	N/A	2745	2.99	.04
FY '13-'14	4,526,004	138,159	N/A	6,879,526	1,616,460	N/A	2645	3.21	.07
FY '14-'15	4,366,130	135,808	N/A	6,636,518	1,588,954	N/A	2590	3.17	01

Carbon Footprint EHT High School

The District Energy Program in Egg Harbor Township began a baseline of energy utilities (Natural Gas and Electric, and greenhouse gas emission in July of 2009. Utility bills with cost and usage etcetera have been kept since that date. The first full year of our data would have been from July 2009 to June 2010. For this submission we will use as our District FY of July 1st to Jun 30th of each year. Our efforts have paid off. EHT High School is our largest Energy user and cost center so this shows significant improvement. Our data is noted in total MMBTU's/Metric Tons of CO2E. Also on GHG 01 reports include both direct and indirect emissions for gas and electric broken into CO2 Carbon dioxide, CH4 methane and N20 nitrous oxide on a combo report. EHTHS has reduced from 2,342.43 Mt emitted per year to 1778 in 2014. A 25% reduction

8. Has your school conducted an energy audit of its facilities? Yes X No____

EHT School District has conducted hundreds of audits of this facility as part of our comprehensive District Energy Policy. Egg Harbor Township School District performed an original energy audit in conjunction with a private firm, Energy Education, Inc. (Now Cenergistic Inc), in 2009. Buildings were measured for basic square footage and utilities usage. After these initial walk through audits, which was equivalent to an ASHRAE Level 1, prior to entering contract, more substantial audits were completed. Square footage, all HVAC, kitchen, boiler room, electrical, solar generation systems, lighting systems, and building structures. Data was entered by Cenergistic Engineering teams into Energy CAP data baseline tracking system ASHRAE Level 2. This information is protected proprietary information & cannot be made public per contract. We use this system still and it adjusts the information based on weather conditions, temperature etcetera called baseline adjustment to current conditions (BATCC). Audit information is also entered into the Environmental Protection Agency's (EPA) and ENERGY STAR portfolio for EHT HS. These also have been updated over the years with additions of Solar systems, new HVAC equipment, meters, trailers, & building additions. We continuously audit our buildings energy usage throughout the year with a dedicated District Energy Manager. We have these audits back as far as 2010 for all our buildings. We will include samples of your energy audit reports, Electric demand audits, billing audits, and system audits as needed. The High School has seen renovations to our D Wing in a Metal Shop to Alternative School project, added HVAC to our HS Gyms EHT High School has had 168 audits this past year and 256 over the last 24 months. The High School continues to improve and as our largest cost center this magnifies our savings and usage avoidance greatly when it does.

Percent reduction: <u>21.3</u> Measurement unit used (kBTU/sq ft or kBTU/student): kBTU/sq ft

Time period measured: from March 2011 to October 2015

9. Has your school received EPA ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification? (score of 75 or above) Yes Year(s) and score(s) received: *2013, 2014 and 2015 EPA Energy Star Building Certification – The national certification signifies that these buildings perform in the top 25 percent of similar facilities nationwide for energy efficiency and that they meet strict energy efficiency performance levels set by the EPA. In the Case of the EHT HS they have performed in the top 14 percent of High Schools Throughout the nation.

10. What percentage of your school's energy is obtained from:

On-site renewable energy generation: _____15%_____Type___Solar_____

Purchased renewable energy: _____Type_____Type_____

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy programs: (Ex. ACES) Yes X_ No _____ If yes, what programs? ACES

Our school has a 454 kW rooftop solar system installed. It has been in operation since April of 2011. Since that time it has generated approximately 2.4 MW of energy. This system is tied in with a monitoring program that gives the community a visual of how much energy is being generated and the resulting reduction in greenhouse gases due to the solar panels. When the project was first proposed, science classes from the high school developed PSA's that were displayed at various polling locations to encourage support of the bond referendum to put this project through. Students now use the information and data gathered using the Insight View program that monitors the system to work on yearly energy projects. The EHT School District Solar program came out of the 2006 & 2009 audit. We have been tracking generation since as early as Jan & Nov 2010, & July 2011. Our larger schools have a lesser percentage but generate a good amount of solar. EHT HS generated about 15% of annual usage since inception. For most EHT schools the documentation includes an ENERNOC kW graph showing solar generation picks up 100% of the school's kWh needs. We also have generation worksheets for each school. For some schools I have included a digital flyer called solar Structural Engineering for Solar featuring all our schools. All Schools should show an aerial photo of the school's roof with the solar panels on them. We have included a file on the kiosk page and all our schools have a kiosk. All of this information is added to our Energy Program "Energy Cap" software and calculated into our Energy Program numbers and ENERGY STAR portfolio. EHT HS is an ENERGY STAR Certified School now 3 years in a row (2013, 2014 and 2015). Additionally, the High School has been certified as an Energy Star facility by the U.S. Environmental Protection Agency since March 2013. The Energy Star certification signifies that EHTHS outperforms 86 percent of similar facilities nationwide for energy efficiency, and meets strict energy efficiency performance levels set by the EPA.

now and you document this reduction: ENERGY CAP (ECAP) Software & Cenergistic, inc Energy Program									
	Electric Energy	Natural Gas	Fuel Oil	Total kBtu	kBTU/sq.ft.	kBTU/	% Reduction		
	Consumption	Consumption	Consump-tion		448,229	sq.ft.	From Baseline		
	(kwh)	(therms)	(gallons)						
	1kwh=3.412 kBtu	1therm=100kBtu	1 gal. = 139 kBtu						
FY '11-'12	4.407,228 kWh	116,296 Therms	N/A	26,667,062	59.50		Baseline		
FY '12-'13	4,259,120 kWh	147,028 Therms	N/A	29,234,917	65.22		.10		
FY '13-'14	4,526,004 kWh	138,159 Therms	N/A	28,258,626	63.05		.06		
FY '14-'15	4,366,130 kWh	135,808 Therms	N/A	28478036	63.53		.07		

11. Has your school reduced its total non-transportation energy use from an initial baseline? Yes_X_ No____ How did you document this reduction? ENERGY CAP (ECAP) Software & Cenergistic, INC Energy Program

Our Documentation is based on our baseline numbers and Baseline Adjusted to Current Conditions.

In 2011 EHT Schools implemented an energy conservation program to reduce energy usage district wide in an attempt to reduce the budgetary impact of school operation. The district hired a District Energy Manager to complete audits of the schools, identify areas of improvement for the reduction of energy use, and relay the information to the school board and community. As part of this program the schools have implemented energy savings programs in the school. Motion sensors have been installed in the hallways and classrooms lighting systems. Inefficient incandescent lighting in the auditorium is being replaced with modern low energy LED lighting. Ongoing programs to educate staff and

students about shutting down computers, monitors, and printers has been successful in reducing our overall power consumption. Efforts are made especially during long weekends and breaks to shut off all unnecessary systems and appliances. The High School is making great improvement and is up to 25.6% Cost Avoidance and Usage Avoidance of about 21.3% which is up from about 18% and 15.5% respectively in FY 2011-2012. Being this is our largest cost center/facility over 448,229 sqft. Etc any minor or major improvements at the HS which uses anywhere from 36-60% of our electrical and gas supply and demand from the district is great.

12. What year was school originally constructed? 1983 Total building area (sq.ft) 476,000 sq.ft

13. Has your school constructed or renovated building(s) in the past ten years? (X) Yes () No

For new building(s): Which green building standard was used? LEED for Schools (LEED for Schools, CHPS Operations Report Card, Green Globes or other)

Percentage building area that meets green building standards:______Certification and level: ______Total constructed area: ______For renovated building(s): Percentage of the building area that meets green building standards: ______Total renovated area: ______Total renovated area: _______Which green building standard was used?

(LEED Existing Buildings: Operation & Maintenance, CHPS Operations Report Card, Green Globes or other)

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

JUL-JUN	Water Consumption (kgallons)	Total Occupants	Gallons Per Occupant	% Reduction from FY 2011	
FY '11-'12	2,671 Kgal	2810	951	Baseline 3.2%	
FY '12-'13	2,612 Kgal	2745	952	5.8%	
FY '13-'14	2,922 Kgal	2645	1105	(-6.1%)	
FY '14-'15	2,953 Kgal	2590	1140	(-7.2%)	

14. Can you demonstrate a reduction in your school's total water consumption (measured in gal/square foot) from an initial baseline? Yes _____ No __X ___ If yes, please complete the table below. If no, please explain. (max 50 words) Initially the EHT HS has reduced the Water Consumption 3.2 and 5.8%. In the last two years this trend has turned negative due to added irrigation and use of City water for Irrigation and the EHT Pool and unforeseen leaks and problems, which recently came to our attention. We are at 2.9% cost avoidance and 0% in Usage increase to date.

Do you include after-hour activities in your water consumption calculations? (adult sport leagues, adult education, scouting, other community events etc.?) Yes____X___ No_____

How did you document this reduction (i.e. Energy Star Portfolio Manager, utility bills) **ECAP Software water** usage/Avoidance

15. Describe any strategies you use to discourage single-use beverage containers on school property. Describe how you assure the recycling of those containers if/when purchased and used at athletic locations, or other outdoor events. (Ex. Hydration Stations, bottle refilling fountains) Students are encouraged by the teachers to use reusable water bottles. Students are permitted to fill their water bottles at the water fountains. Every athletic team is issued 6 squirt bottles and one 5 gallon water jug to reduce the dependence on single use water bottles. During athletic events recycling containers are provided on site in many locations to encourage recycling.

- 16. What percentage of your landscaping is considered water-efficient and/or regionally appropriate? 17%
- What types of plants are used and where are they located? Have you preserved any areas with native vegetation with minimal disturbance? The high school campus is comprised of approximately 87 acres. Of this, 1 acre is dedicated to a Wildlife Habitat Incentive Garden sponsored by the NRCS. This area is made up of Beach plums, Loblolly pines, Forsythia, Purple Cone Flowers, Trident maples, Post oaks, Goldenrods, and Easter red cedars. Another 14 acres is preserved as a wetland area and upland area. This area contains native vegetation and has remained untouched.
- 17. How have you incorporated plants that are native to your geographic location into your landscaping? Native trees have been planted in various locations around the campus. Many of these locations lack access to water, therefore care is taken to plant species that are native to the region since there is no irrigation available.
- 18. Describe alternate Non-potable water sources used for irrigation (e.g. roof or parking lot run-off). (50-words max)
- 19. Describe efforts to reduce storm water run-off or reduce impervious pavement (e.g. rain gardens, bio swales, storm water basins). (50-words max) A storm water basin was added next to the faculty parking lot to collect runoff from the area. A rain garden was planted in an area close to the school to mitigate the effects of runoff from the roof.
- 20. Our school's drinking water comes from: (X) Municipal water source () Well on school property () Other:

If Well on school property, school complies with all monitoring requirements? Yes___ No___ If Well on school property, drinking water meets all applicable standards? Yes___ No___ Have all drinking water violations been corrected, if applicable? Yes___ No___

21. Describe how the water source for your school is protected from potential contaminants. (Ex. Backflow preventers) (50-words max) There are two backflow preventers located where the water supply enters the building. The water comes from a municipal water source that is monitored by NJ American Water. Water quality is tested periodically in the school pool. NJ American Water also tests the water regularly and the Annual Test report can be found on www.amwater.com.

22. Describe the program you have in place to control lead in drinking water (e.g., pipe flushing, old plumbing solder). (50-words max)

- 23. Describe how your school's site grading, irrigation system and schedule is appropriate for your climate, soil conditions, and plant materials, with an emphasis on water conservation and/or improved storm water management. (50-word max) The grounds department monitors all irrigation for the campus. Irrigation for the athletic fields is operated manually. The groundskeepers measure the soil moisture prior to using irrigation and only turn it on as needed. During storm events, they do not turn on the irrigation. Various locations on campus have been modified to mitigate storm water runoff away from areas where it traditionally would pool.
- 24. What percentage of school grounds are devoted to ecologically beneficial (ex. Green roof, rain gardens, native plantings, native plants, solar panels, fish farms, etc.)? (50 word max) 21% of the school grounds is devoted to solar panels, a Wildlife Habitat Garden, educational pond, a School Garden, Rain Garden, two open air courtyards, and an upland and lowland/wetland Outdoor Learning Area.

Element 1C: Reduce waste production – Waste/Hazardous Waste

25. What percentage of solid waste (including food service waste) is diverted from landfills or incinerating due to reduction, recycling and/or composting? Complete all the calculations below to receive points.

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): 4 x 4 x 21 x 0.95 = 319 cy/month

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): $30 \times 2 \times 11 \times 0.95 = 627$ cy/month

C - Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected): 0.47 x 3 x 4 x 1 = 5.64 cy/month

Recycling Rate = $((B + C) \div (A + B + C) \times 100)$: $((627 + 5.64) / (319 + 627 + 5.64) \times 100) = 67\%$

Monthly waste generated per person = (A/number of students and staff): 319 / 2625 = 0.12 cy/person/month

- What percentage of your school's total office/classroom paper content <u>contains at least 30%</u> post-consumer material, <u>or</u> fiber from forests certified as responsibly managed and/or chlorine-free? <u>100%</u>
- 27. Do you include after-hour activities in your garbage reduction calculations? (adult sport leagues, adult education, scouting, other community events etc.?) Yes_X___ No____
- 28. Describe how you have reduced your paper consumption, and how you measured that reduction or other uses you created for the materials (e.g. working and reviewing online, white boards). (50-word max) **Our district utilizes an online teacher observation program. The high school has a copy center where the number of copies are monitored and prevents excess copies due to operational error. We have also installed projectors, screens, and teaching software, and teachers are encouraged to utilize websites and programs to reduce paper usage.**

29. List the types and amounts of hazardous waste generated at your school:

Flammable liquids	Corrosive liquids	Toxics	Mercury	Other:
500 gallons				

How is this calculated? There is a 250 gallon used oil storage tank outside our auto shop. This is collected twice a year, once in January and again in June.

How is hazardous waste disposal tracked? The oil is collected by a hazardous waste company SafetyKleen.

- 30. Describe other measures taken to reduce or eliminate solid waste and hazardous waste (on-site composting etc.). (100-word max) (ex. Switching to re-usable cafeteria trays, silverware, etc.) The school has an on-site composting program that composts material from the kitchens, School Flower Shop, classrooms, and Bagel Shop. We are currently implementing Tray less Tuesdays in an effort to reduce our use of Styrofoam trays and allow for the purchasing of more environmentally friendly cardboard trays, which cost more.
- 31. Which green cleaning custodial standard is used? ____Green Seal Standards _____ What percentage of all products is certified? ____75%_____

What specific third party certified green cleaning product standard does your school use? **Green Seal Certified** Describe the measures your school has taken to use only green cleaning product. **The Director of Facilities sought out products that would provide a safe and healthy environment for students, staff and visitors. Training on the use of green cleaning products has been provided for facilities staff and custodians.**

- 32. If your school has a nurse's office, how does the nurse track regulated medical waste? Describe the <u>tools or</u> <u>mechanisms</u> used to track this waste.
 - X Does the school have a Generator ID number, unless exempted; Yes

- X Does the school manage the regulated medical waste on-site properly? (Use the proper containers, properly segregate the regulated medical waste, and properly store the containers) Yes, we use SHARPS containers to dispose of any used needles. We use supplied red medical waste bags and have a red medical waste metal container to dispose of any saturated blood waste.
- X Does the school use a licensed and registered regulated medical waste transporter, unless exempted? Yes we use STERICYCLE as our licensed and registered medical waste transporter.
- X Does the school ship the regulated medical waste to a facility authorized to accept the regulated medical waste? We do not ship the regulated waste to a facility. STERICYCLE picks up our containers on site.
- X Does the school complete the proper paperwork to document the shipment and maintain records for 3 years? Yes we document the STERICYCLE pick ups and keeps paperwork for at least 3 years.
- X Does the school file the generator annual report, unless exempted? No we do not have to file a report.
- 33. Is a Hazardous Waste Policy for storage, management and disposal of chemicals in laboratories and other areas with hazardous waste, in place and actively enforced? Yes_X___ No____
- 34. Do you have Underground Storage Tanks located at your School?
 - X Yes, Active. Are tanks properly <u>registered</u>? Yes X_No___ Are monitoring systems operating? Yes X_No___
 - Yes, Inactive. Are tanks buried? Yes____ No____ Are tanks scheduled for removal? Yes___ No____
 - None
- 35. Is your school compliant with the New Jersey Department of Environmental Protection's (DEP) Air Quality Permit requirement? (Equipment at schools that require air permits include boilers, emergency generators, space heaters and hot water heaters that have a maximum rated heat input of 1 million BTU/Hr or greater, to the burning chamber. Also, some schools might require an air permit for certain woodshop operations. Most of these pieces of equipment can be permitted.) Yes X_ No____ List Permits:

Element 1D: Use of Alternative Transportation

36. What percentage of your students walk/bike/skateboard, ride a school bus/use public transportation, or carpool (2+ students per car) to/from school? (Note if your school does not use school buses). How were these percentages collected and calculated? (50-word max) 94% of the students ride a school bus. The other 6% are students on an early release senior option, or senior ambassador program that allows students to drive to school.

37. Has your school implemented?

- Designated carpool parking spaces
- X A well-publicized no idling policy that applies to all vehicles (including school buses, cars and delivery trucks)
- A policy that encourages walking and/or bicycling to school
- X Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows
- A Safe Routes to School program or a School Travel Plan. Describe: (max 100 words)_____
- Walk and Bike to School Days
- A Walking School Bus program
- X Walking and bicycling safety curriculum
- Electric vehicle charging stations have been installed to encourage the use of these vehicles
- Secure bicycle storage (such as bicycle lockers, racks, or rooms) is provided to encourage bicycling to school
- 39. If your school has only bus transportation, describe how your school transportation use is efficient and has reduced its environmental impact (e.g. more efficient bus routes, diesel retrofits for buses, use of biodiesel fuel, electric

vehicles). (50-word max) We work closely with Atlantic County Government, EPA, ACUA, AtlantiCare and Sustainable Jersey for Schools to educate employees, conserve diesel fuel, install diesel retrofits on all buses, reduce emissions, scrap replaced vehicles, utilize ultra-low sulfur diesel fuel, and generated a three-tiered bus route system for more efficient bus routes.

Summary

Question for Pillar 1

40. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (100-word max) Students are participating in the Lexus Eco Challenge identifying ways to reduce vampire power loss. Several green team members and students developed a composting program at the school. Two grants were awarded to build and maintain a school garden to develop an outdoor learning area. The green team was awarded a grant to reduce the amount of trays used in the school. The school is retrofitting many hallways and rooms with high-efficiency LED lighting.

PILLAR 2: IMPROVE THE HEALTH AND WELLNESS OF STUDENTS AND STAFF

Element 2A: Integrated School Environmental Health program

Environmental Health

- Has your school conducted any "Occupant Survey" with teachers and students? If so, please state the date(s) and over results of the survey.(CHPS Occupant Survey) Yes. We use a School Climate Survey from the NJ Dept of Education. School Staff/Student survey results; Physical Environment Domain 75.8/55.1. Emotional Environment Domain 73.4/53.9. Teaching and Learning 66.7/53.8. Relationships Domain 70.5/48. Community Engagement Domain 62.8/62.1. Morale in the School Community Domain 67.9/61.9.
- 2. Do you have an Operations & Maintenance Policy for your building? Yes, we have a preventative maintenance program in place, an IPM program, and we have an energy plan in place.
- 3. Does your school have an Integrated Pest Management plan? Yes_X___ No____ Date last updated: May 2015
- 4. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of actions taken for each checked practice.
 - X Our school conducts both indoor (structural) and outdoor (turf and ornamental) IPM to reduce student exposure to chemical pesticides.
 - Our school reduces or does not use fertilizer on our property
 - **X** Our school prohibits smoking on campus and in public school buses
 - X Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school.
 - Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO)
 - X Our school does not have any fuel burning combustion appliances (e.g. boilers, emergency generators, hot water heaters, etc.)
 - Our school has tested all frequently occupied rooms in contact with the ground, and first floor rooms above basement spaces that are not frequently occupied for radon gas and has fixed and retested rooms with levels that tested at or above 4 pCi/L. <u>NJ Recommends School Radon Testing</u> Yes ____ No
 - X Our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L. Yes
 - X Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure to this pesticide/wood sealing preservative.

- 6. Describe how your school controls and manages chemicals routinely used in the school, as well as construction or cleaning activity that produces odors or dust, to minimize student and staff exposure. (100-word max) The custodial staff have designated storage spaces where the chemicals used for cleaning are stored. There is a nighttime crew that comes in after hours when there is a minimal number of students and staff in the building. Stripping and waxing of the floors is done during summer break and winter break when the building is least occupied. When contractors are needed for upgrades or repair work inside the building, they are brought in after school hours when possible to complete the work.
- 7. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (100-word max) Carpeting is only installed in key areas to minimize the buildup of allergens. The HVAC system is monitored and preventative maintenance is completed regularly to replace air filters. HVAC systems also have Guardian Air UV systems installed to reduce live microbes in the ductwork.

Is your school signed up to receive air quality alerts through <u>Enviroflash</u> which issues notifications of days when poor air quality is forecasted to occur? <u>Learn more</u> Yes_X_ No____

Has your school developed a plan for implementation to modify activities to protect the health of students and teachers when poor air quality is forecasted? Yes, We use AIRNOW.GOV and EPA AQI Flag /NJ CLEAN Air Flag Program Our Outdoor and Indoor Air Quality Programs are more robust and fast moving. All our schools display our EPA AQI Flags on the main Flag pole and each School and District Energy Page display the Air Now.gov site which gives us our Air Quality Index information each day. All our School Nurses, Physical Education Staff, and remaining Staff have been sent the Air Quality Coordinator's Handbook and we are educating our Students, Staff, Community especially parents with work through Parent Clubs, Wellness Teams, Local Media, Social Media (FACEBOOK PAGE on EHT Energy Conservation and Sustainability). We have a Widget all our schools Pages and a District Link under Energy Program to check Outdoor Air Quality.

Have you provided <u>brochures</u> to students, teachers and parents to educate them about air quality and steps they can take to protect their health and decrease their contribution to ozone pollution? Yes_X_ No____

Most definitely, besides educational Handbooks and handouts, we are holding poster contests on awareness of Indoor and Outdoor Air Quality and Asthma friendly schools in conjunction with Nurses Green and Wellness teams. Also we are working with Parents club to get the word out to Parents and the community to educate and protect all in our District.

- 8. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup any visible mold or remove moldy materials when found. (100-word max) **Our school has several** maintenance workers who are here during the day and they are called as a leak develops. They perform preventive maintenance and inspect air filters regularly. They are also responsible for monitoring the HVAC air handler system to maintain comfortable humidity levels. The custodial staff is also on hand to handle any cleanups needed from leaks to prevent the development of mold.
- 9. Our school has installed local exhaust systems for major airborne contaminant sources. Yes_X_No___ Describe (max 100 words) Our school uses fume hoods in the chemistry labs to exhaust chemical fumes during labs. Each interior science room has an exhaust fan to ventilate to the outside. The kitchen areas are equipped with exhaust hoods over each cooking surface. The auto shop also has car exhaust ventilation systems installed in the auto shop.
- 10. Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly. (100-word max) The Cenergistic Engineer and our District Energy manager do a Separate Energy Star Audit, Checking CO2, Filters and other indicators of poor ventilation to include kitchen Exhaust hoods. Three years in a row without issue. Our maintenance department completes routine preventative maintenance on the HVAC systems.

- 11. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with filtered outside air, consistent with state or local codes, or national ventilation guidelines. (100-word max) Our maintenance department actively monitors the HVAC system and makes adjustments as necessary to maintain adequate ventilation. Filters on all HVAC systems are replaced twice a year. Each HVAC system has a Guardian Air UV air purifier installed.
- 12. What steps has your school taken to protect indoor environmental quality?
 - Implementing US EPA IAQ Tools for Schools and/or
 - X Conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action.
 - Participating in the Pediatric/Adult Coalition of NJ's Asthmas Friendly Awareness Program
 - X Other (max 100 words) Our school has Guardian Air ultraviolet air purifiers installed in the HVAC system to help reduce microbes
- 13. Does your school engage in green procurement practices as it pertains to the following? (Buy Recyled / Buy Green)
 - Building & Construction
- X Fleets Food Services

- Carpets X Cleaning

- X Landscaping X Meetings & Conferences
- **X** Office Supplies
- X Paper

X Electronics

- Other _____ (50 word max)
- 14. What system do you use to determine if the above products and services are considered sustainable?
 - X DOE Purchasing for Energy Efficient Products
 - CHPS High Performance Database
 - Electronic Product Environmental Assessment Tool (EPEAT)
 - | Other

Element 2B: Nutrition and Fitness

Food and Nutrition, Fitness and Outdoor time

- 15. Which practices does your school employ to promote nutrition, physical activity and overall school health? Provide specific examples of actions taken for each checked practice, focusing on innovative or unique practices and partnerships. (100-word max each)
- Our school participates in the USDA's Heathier US School Challenge. Level and year:
- Our school participates in a Farm to School program to use local, fresh food.
- X Our school has an on-site food garden that teaches nutrition and environmental education, describe. We have a raised bed garden that grows various produce. Students maintain and harvest the crops while learning about nutritional values and organic practices.
- Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community.
- X Our students spent at least 120 minutes per week over the past year in school supervised physical education. Yes. All students have between 165 and 220 minutes of physical education per week.
- X At least 50% of our students' annual physical education takes place outdoors. Yes students spend at least 50% of their annual physical education outdoors.
- Our school participates in the NJ Safe Routes to School Resource Center. Level and year:
- Our school participates in International Walk to School Day in October or National Bike to School Day in May. Year(s):
- Our school has a School Wellness Policy that addresses both nutrition AND physical activity.

- X Our school has a School Wellness Committee that meets at least once a year. Our school does have a school wellness team that meets at least once a year. Last meeting was 10/16/15
- Health measures are integrated into assessments.
- At least 50% of our students have participated in the EPA's Sunwise, or equivalent program.
- Some food purchased by our school food service is locally sourced from regional farms.
- Describe:
- 16. Does your school compost lunch waste on-site? Yes <u>X</u> No What percent? <u>50</u> How much is used in your outdoor classroom? All composted material from the school goes to the outdoor classroom.
- 17. What environmental technology is used at your school? (e.g. weather station, energy monitoring systems, etc.) An energy monitoring station "Insight View" is used to measure the power generated by the solar array. We also use PASCO Spark handheld units to take measurements of atmospheric conditions. We also use ENERNOC demand response and interval data to audit electrical demand usage and participate in the demand response program in the region to decrease electrical demand when needed to reduce stress on the electrical grid to prevent brown and black outs!
- 18. Describe the type of outdoor education, exercise and recreation available. (100-word max) Our students have the opportunity to participate and learn outdoor adventure activities within our Project Adventure outdoor course. Our students also have the unique opportunity to learn safe outdoor bicycling throughout our grounds. Students also have the opportunity to participate in outdoor recreational games including horseshoes, ladder golf, and beanbag toss. Students also participate in outdoor activities including football, golf, archery, field hockey, soccer, tennis, softball, track/field.

Coordinated School Health, Mental Health, School Climate, and Safety

- Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? <u>X</u> Yes <u>No If yes</u>, describe the health-related initiatives or approaches used by the school:
- 20. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health, school garden education and/or safety? _X_Yes ____ No If yes, describe these partnerships: Our school partners with AtlanticCare Health Systems. We are part of their healthy Schools program. We also partner with the HERO campaign which promotes having a designated driver.
- 21. Does your school have a school nurse and/or a school-based health center? X_Yes ____ No
- 22. Describe your school's efforts to support student mental health and school climate (e.g. anti-bullying programs, peer counseling, etc.): Our school is part of BIU (Believe in You) character education program. Our school also hosts the Teen Center which is an outreach of Family Service Association.

Summary Question for Pillar 2

23. Describe any other efforts to improve coordinate health and safety, nutrition and fitness, highlighting innovative or unique practices and partnerships. (100-word max) We also partner with the Brain Alliance of New Jersey. We are linked to a program called "U GOT BRAINS" which provides support for driver education teachers to enforce the seatbelt laws and safe driving practices. SHARE THE KEYS is another driver education partnership that we participate in with the teenagers and their parents to teach them about communication and trust in setting limitations and consequences for breaking the driving agreements.

PILLAR 3: EFFECTIVE ENVIRONMENTAL AND SUSTAINABILITY EDUCATION

<u>Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human</u> <u>systems.</u>

- Which practices does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.
- Our school has an environmental or sustainability literacy requirement. (200-word max)
- X Recurring environmental and sustainability concepts are integrated widely throughout an interdisciplinary curriculum. (200-word max) Environmental and sustainability concepts are integrated within all science classes taught at the school. They are also integrated into the Special Education, Business, and Consumer Science courses where the School Bagel Shop participates in terracycling, recycling, and composting, while learning about nutrition. The School Flower Shop focuses on composting of leftover material. The Special Education department also developed a school Thrift Store where students and staff may bring used clothing and equipment that is resold demonstrating the importance of reusing items rather than throwing them away. The contemporary issues and economic classes focus on the importance of understanding the influences of globalization and the market place has on sustainability. The English department has a school newspaper that has a column that focuses on Environmental and Sustainable efforts in the school.
- X Student learning of environmental and sustainability concepts is evidenced by authentic assessments. (200-word max) Students are required to complete hands-on inquiry based labs in each of the science courses offered at the school. Each science course has a designated double period lab each week. Students work in groups to identify problems and develop unique solutions that solve environmental problems.
- X Students evidence high levels of proficiency in these assessments. (100-word max) Students must demonstrate understanding of the concepts discussed. This may be done through lab reports, summative assessments, Socratic discussions, project presentations, etc.
- X Professional development in environmental and sustainability education are provided to teachers. (200-words) Egg Harbor Township High School offers opportunities for staff sustainable professional development. Teachers have attended KEAN University Environmental and Sustainability Science Educator Workshop, Sustainable Jersey for Schools trainings and webinars, Public School Works training, school based and district wide green team meetings, district professional learning days, and weekly Professional Learning Communities.
- X Environmental/Sustainability Education is offered in after-hour school programs **Our school participates in the NJ** Envirothon Competition, Composting collection, NJ Science League competition, Key Club has an environmental arm that completes adopt a road cleanups and other environmental programs

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

2. For schools serving grades 9-12, provide:

Percentage of last year's eligible graduates who completed the Environmental Science / Earth Systems (or similar environmental course) course during their high school career: **71%** Percentage of those completing course scoring a 3 or higher: **88%**

3. How does your school use sustainability and the environment as a context for learning science, technology, engineering and mathematics (STEM), and art thinking skills and content knowledge? (200-word max) As part of our district goal, we encourage STEM learning in each of our classes. Our Biology classes use composting, as a method of hands-on learning. Our environmental and oceanography classes incorporate several authentic assessments throughout the year that specifically focus on solving real-world sustainability issues. Our consumer science classes participate in a terracycling program and are also involved in the composting within our school. Our STEM 2.0 classes use a 3D printer to make different objects during class. Many of these 3D projects deal with designing solutions to help develop green technologies. The art classes have developed projects that they have incorporated into their lessons using recycled materials to try to make different objects. We have offered the past several years an independent study class for students who are pursuing sustainability when they graduate. These students were and are heavily involved in the Sustainable Jersey for Schools application, this Green Ribbon Schools application, and the school and district Green Team, which provides them with real world experience. Our high school also has developed a maker's space in our media center where students can collaborate on projects using equipment they may otherwise not have access to.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? (200-word max) In each of our classes we discuss what majors would lead to a job in STEM technology. One example of this would be that we have a group of students taking a class called Clinical Research and Observation. These students are students that are in their fourth year of our Medical Science Academy. These students not only go out and observe people who are actually working in the medical field but they also invite guest speakers to come and speak about their jobs. We have had speakers that include genetic counselors, and educators from AtlantiCare. Our environmental science classes meet with representatives from Stockton University, both professors and students from the sustainability track and discuss the options students have when pursuing the degree. We also take a tour of the various green technologies and innovative makers space that Stockton offers.

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

- 5. Describe students' civic/community engagement projects integrating environment, environmental justice (as defined by EPA) and sustainability topics. (200-word max) The students are involved every year in a Campus Clean UP that takes place on school grounds and is motivating students to see how just one piece of trash that they may litter builds up over time. We time the Campus Clean UP to coincide during the same time as Earth Day. The students have also participated in Recycle Bowl held in conjunction with the ACUA. Once students saw how much they could be recycling our recycling rates improved 4000% over the last 4 years. We also have a Memorial Garden on school grounds that is in memory of students that have passed away and it is maintained by Student Council. Numerous organizations in our school including the baseball team have volunteered at soup kitchens and food banks and this has led to a discussion on food availability in the future. Our cross country team volunteered to cleanup a local nature reserve where they practice. The key club has sponsored a beach cleanup project over the summer and has done cleanups through the Adopt a Road project. Finally, the thrift shop located within the school encourages students and staff to donate old clothes so that others may wear them instead of throwing them away.
- 6. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (200-word max) (ex. citizen science, field trips, overnight camping, retreats) Our environmental science classes perform a biodiversity study of three different habitats including our WHIP garden that is located on school grounds. Our students have also attended events at the Atlantic County Utilities Authority on their own time to help promote recycling and Earth day festivities. Our key club has an environmental arm that is involved in roadside cleanups, environmental awareness programs and providing support and volunteer efforts for environmental events in the community. Our students have attended training sessions and participates in NJ Envirothon including overnight camping the night before the competition. Students from the science department have attended numerous field trips to Forsythe National Wildlife Refuge, Cape May County Zoo, and Stockton University. The High School has also provides support and participates in a water festival that is held at one of our middle schools.
- 7. Describe students' meaningful outdoor learning experiences at every grade level. (200 word max) In 9th grade, students complete a Botany field exercise identifying native species of trees and plants found on campus. In 10th grade students complete a field study of waterways to complete a chemical analysis to determine the

water quality. 11th grade students complete a multi-week biodiversity study of three quadrants located in 3 different stages of succession. In 12th grade students complete a project to design and build an efficient solar or wind powered machine. Also in 11th and 12th grade students have the option to participate in an Introductory SCUBA class that covers basics of SCUBA and underwater research techniques.

8. Describe how your partnerships helps your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 200-words) (Ex. student exchange forum, sister school program, global project based learning program, state-wide professional learning communities)Our partnerships with AtlantiCare help us focus on developing innovative health and wellness activities throughout our school. Our consumer science classes have a program involved in terracycling where granola wrappers are collected and is then sent to Terracycle Inc. who recycles them. The consumer science classes as well as the Special Education Departments then donate the money raised to the Wounded Warrior Project. We have partnered with Stockton University and their sustainability programs and offer dual credit opportunities for students in sciences and mathematics. The high school has partnered with the ACUA for projects involved with community outreach. Our partnership with Cenergistic has allowed us to analyze our energy usage and implement effective reduction strategies. We have become heavily involved in the Sustainable Jersey for Schools initiative and have worked closely with them to develop new sustainability programs within the school. As an outreach to the community to raise awareness we have partnered with GreenQuest, an online tool to help community members identify their carbon impact on the environment.

Summary Questions for Pillar 3

- 9. Describe any other ways that your school integrates core environment, sustainability, STEM, equity and environmental justice issues (as defined by EPA), green technology and civics into curricula to provide effective environmental and sustainability education, highlighting on innovative or unique practices and partnerships. (Maximum 200-words) In environmental science our students build solar cars, and planes and then see how their design works. They also look at resource use specifically mining, water use and forestry. Our environmental and oceanography science classes also spend a whole unit on laws and regulations relating to environmental and marine science. Our Oceanography classes build Sea Perch Robots .These robots are part of a national program and deal with the idea of underwater research and conserving resources. Our biology students are currently involved in a composting program. Stem 2.0 focuses on building objects that utilize used/recycled materials. Our physics classes participated in Real World Design Challenge to build a UAV that could detect crop pest infestations from altitude to help better manage agricultural IPM programs. We also partner with our elementary schools in a district wide Catawba project, designed to introduce students across all grade levels to environmental and sustainable practices. This project as created a unique partnership between the schools, environmental groups, businesses, and public utilities in the area.
- 10. How are your descriptions in number 8 supported or enhanced by your efforts in Pillar 1 to reduce environmental impact and costs for your school. (Maximum 100-words) Our school is creating a sustainable culture for our students. The goal is to demonstrate to the students why sustainability is important, and then provide the students with opportunities to take the knowledge they are gaining and applying them to real world scenarios. By creating meaningful experiences for our students they will develop a deeper understanding and appreciation to continue these efforts after they have graduated. By reducing the costs associated with running the building systems, we can apply the money saved to programs and activities that better enhance student learning.
- 11. In what ways is your school sharing & promoting (outside of school) its efforts to uphold all 3 Pillars? Our school has several outreach programs through academic courses, community based groups and athletic teams that bring projects to the community. We have a TV studio that broadcasts to the community that highlights the different events and activities the high school is promoting. We have developed online tools and partnered with companies to provide educational resources about sustainability to the community. We encourage parents, students, and staff to attend panel discussions, and other assemblies provided by the many organizations we work with. We have a weekly newsletter that is posted in our Infinite Campus parent portal to provide ongoing updates about the events our school presents. We provide health and wellness activities for parents, students and staff to encourage a healthier lifestyle.