



## District Nominee Presentation Form

### CERTIFICATIONS

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#### District's Certifications

The signatures of the district superintendent on the next page certify that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the superintendent's knowledge.

1. The district has been evaluated and selected from among districts within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district is providing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
3. OCR has not issued a violation letter of findings to the school district concluding that the nominated school district has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
4. The U.S. Department of Justice does not have a pending suit alleging that the school district has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school district in question; or if there are such findings, the state or school district has corrected, or agreed to correct, the findings.
6. The district meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

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

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Name of Superintendent: Dr. Nikolai P. Vitti

District Name: Duval County Public Schools

Address: 1701 Prudential Drive, Jacksonville, Florida 32207

Telephone: (904) 390-2115 Fax: (904) 390-2586

Web site/URL: [www.duvalschools.org](http://www.duvalschools.org) E-mail: [vittin@duvalschools.org](mailto:vittin@duvalschools.org)

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



Date: January 5, 2017

(Superintendent's Signature)



## Nominating Authority's Certifications

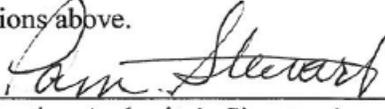
The signature by the Nominating Authority on this page certifies that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

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

Name of Nominating Agency: Florida Department of Education

Name of Nominating Authority: Commissioner Pam Stewart

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

  
Date: 1/24/17

(Nominating Authority's Signature)

## SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

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

## SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to [green.ribbon.schools@ed.gov](mailto:green.ribbon.schools@ed.gov) according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2018

### Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email [ICDocketMgr@ed.gov](mailto: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.

## Duval County Public Schools Highlight Report

DCPS reduces environmental impact and costs (**Pillar I**) through effective conservation, waste management and transportation strategies. Activities include:

- Building, renovating and maintaining facilities that are comfortable, efficient and productive while occupied and economical when unoccupied.
- Benchmarking performance metrics amongst peer schools and addressing outliers.
- Creating friendly competition between schools so they strive for continuous improvement.
- Creating and managing DCPS Green Champions Network (teachers and staff who voluntarily facilitate green teams to incorporate sustainability concepts at their school).
- Teaching and putting into practice the 3Rs at every school.
- Creating and managing the award-winning Teacher Supply Depot to make sure teachers have needed supplies by re-purposing donated materials.
- Enabling employees to “go green” by allowing them to charge electric vehicles while at work.
- Use of native landscaping, rain barrels and smart irrigation to save water.

Implementing no-cost strategies first and DCPS’s forward-thinking use of capital dollars to fund sustainability results in immediate operating cost savings and maximum results. DCPS has reduced annual utility costs from \$26 million to \$20 million. That’s an additional \$6 million annually that now goes into classrooms rather than to utility companies.

DCPS improves student and staff health (**Pillar II**) by providing safe, comfortable, productive facilities and an educational culture that makes leading a healthy lifestyle second nature. Facilities are maintained in a healthy manner by:

- Using Integrated Pest Management strategies.
- Paying close attention to proper ventilation and indoor air quality.
- Closely following processes that ensure students and staff with medical conditions are comfortable and safe.

Healthy educational culture is accomplished by:

- Encouraging students and staff to be health-minded.
- Participation in the many assistance programs offered.
- Offering healthy, nutritious meals.
- Ensuring a safe, bully-free environment for students and staff to learn and thrive.

DCPS provides effective environmental and sustainability education (**Pillar III**) by using STEM-based curriculum, encouraging sustainability-based school themes, supporting Green Champions, nurturing local community and business partnerships and operating Parent Academy.

DCPS’s use of STEM-based curriculum increases sustainability literacy and brings science, technology, engineering and math into everyday life. This encourages environmental stewardship.

Sustainable school themes allow students to choose an area of interest and then have that area of interest incorporated into daily school activities. This deepens students’ understanding of the concepts and maintains students’ interest in science and math fields.

DCPS supports and appreciates the endless activities facilitated by Green Champions. These teachers are passionate about sustainability and willing to work tirelessly, on a volunteer basis, to make sure the next generation understands the importance of environmental stewardship. Green Champions are encouraged

to compete for the DCPS Green Champion of the Year contest. Winners are recognized by DCPS School Board and other senior leadership ([http://dcps.duvalschools.org/board message to green champions](http://dcps.duvalschools.org/board-message-to-green-champions)).

Community and business partnerships are an integral component of DCPS's sustainability efforts. DCPS partners provide resources, industry expertise, new ideas and insight into cutting edge technologies for students and staff.

DCPS's investments in sustainability are paying off in many ways, including lower costs, efficient, productive building environments, healthy students and staff, and students who are good environmental stewards and well-versed in sustainability concepts. DCPS believes that these accomplishments, and the many more to come as the sustainability journey continues, make DCPS the district-of-choice for students and staff. Innovative collaboration between Operations, Academics and DCPS executive leadership differentiates DCPS's sustainability program from others. When facility expertise meets teachers passionate about sustainability using STEM-focused curriculum, the result is **sustainable education for every school, every classroom, every student, every day.**

# Duval County Public Schools

## District Contact Information

1701 Prudential Drive, Jacksonville, Florida, 32207

**Website:** [duvalschools.org](http://duvalschools.org)

**Facebook page:** Duval County Public Schools

**Superintendent Name:** Dr. Nikolai Vitti

**Phone Number:** (904) 390-2115

**Superintendent Email Address:** [vittin@duvalschools.org](mailto:vittin@duvalschools.org)

**Lead Applicant Name:** Susan P. Carew, Director, Facility Engineering & Energy

**Lead Applicant Email:** [carews@duvalschools.org](mailto:carews@duvalschools.org)

**Phone Number:** 904-858-6362

**Number of Elementary Schools:** 101

**Number of Middle Schools:** 24

**Number of High Schools:** 19

**Number of K-6 Schools:** 1

**Number of 6-12 Schools:** 2

**Number of K-12 Schools:** 0

**Number of Other Schools:** 51

**Total Sq. Ft.:** 18.2 million

**Total Students Served:** 128,463

**How would you describe your district?** Urban

**Does your district serve 40 percent or more students from disadvantaged households as measured by percent receiving FRPL? Yes**

**Percent FRPL:** 75.81%

**Cross Cutting Questions: Participation in green school programs**

**If your district is participating in a local, state, or national program, such as Florida Green School Awards, EPA ENERGY STAR Portfolio Manager, Eco-Schools, Project Learning Tree or others, which asks you to benchmark progress in some fashion in any or all of the pillars, then indicate the program(s), level(s) achieved, and year(s):**

DCPS participates in green-themed local, state and national recognition programs. Highlights include:

- Florida Green School Awards
  - 10-11 Finalist
  - 11-12 Winner
  - 12-13 Sustainable Legacy Circle Award
  - 13-14 Participant
  - 14-15 Silver level plus 2 schools in top 4
  - 15-16 Silver level plus 1 school in top level recognition

- Sustainable Florida
  - 14-15 Best Practices Award Finalist and Guest Speaker
- Energy Star Portfolio Manager
  - DCPS, in collaboration with USGBC, recently used volunteers to input data from 150 schools into Portfolio Manager. 69 schools earned a preliminary score of 50-74 and 50 schools earned a preliminary score of 75-98. DCPS is working towards validating scores of the 50 highest rated schools in order to apply for Energy Star Label.
- Florida Energy Summit
  - 2015 Guest Speaker and exhibitor
- USGBC
  - 2010 Move-the-Needle Award
  - 2011 Green Hero Award

**If your district received any awards for facilities, health or environment, list the award(s) and year(s) below:**

Facility Recognition – The table below shows electricity cost per FTE trends for several large Florida school districts (**ranked lowest to highest in SY14-15**). DCPS consistently spends less per FTE on electricity than other large Florida school districts. And DCPS is one of only a few districts where electricity cost per FTE is consistently declining.

Florida School District	SY 10-11 E\$/FTE	SY 11-12 E\$/FTE	SY 12-13 E\$/FTE	SY 13-14 E\$/FTE	SY 14-15 E\$/FTE	SY 15-16 E\$/FTE (estimated)
<b>Duval</b>	<b>\$184.16</b>	<b>\$176.75</b>	<b>\$158.32</b>	<b>\$162.37</b>	<b>\$151.42</b>	<b>\$146.14</b>
Hillsborough	\$197.34	\$202.18	\$204.91	\$194.27	\$190.17	
* Palm Beach	\$214.43	\$203.31	\$197.55	\$208.25	\$211.64	
<b>State Average</b>	<b>\$223.13</b>	<b>\$215.88</b>	<b>\$206.29</b>	<b>\$210.88</b>	<b>\$ 215.71</b>	
Dade	\$201.25	\$201.80	\$199.05	\$209.04	\$216.97	
* Broward	\$218.63	\$215.97	\$210.49	\$215.84	\$219.32	
* Orange	\$241.76	\$238.06	\$228.50	\$232.23	\$242.61	
Pinellas	\$253.35	\$247.83	\$238.94	\$243.82	\$267.56	
* Alachua	\$316.15	\$307.65	\$283.54	\$295.10	\$316.18	

Notes:

\* indicates previous US Department of Education Green Ribbon Schools, district winner.

Data is from State of Florida published annual reports (State has not yet published SY 15-16 report.)

Health Recognition –

- Florida Healthy School District
  - **Silver** Level Recognition 2014-2016
  - **Gold** Level Recognition 2016-2018
- Health Promotion for Staff
  - First Coast Worksite Wellness Council Healthiest Companies
    - **Bronze** Level Recognition 2013 and 2014
    - **Silver** Level Recognition 2015 and 2016
- Health Education, Physical Education and Nutrition Services
  - Alliance for a Healthier Generation Healthy School
    - New Berlin Elementary ES Program **Bronze** Level Certification and has applied for Healthier US School Challenge (HUSCC) Bronze Certification

Environmental Recognition

- City of Jacksonville
  - Keep Jacksonville Beautiful 11-12 and 14-15 winner Government Category plus many individual school winners every year
- Mayor’s Environmental Awards
  - Multiple years -- recognition, guest speaker and exhibitor
- Environmental Protection Board
  - 2014 Winner of Environmental Achievement Award

## Pillar I: Reduced Environmental Impact and Cost

### Reduce or eliminate GHG emissions

**Describe how your district is reducing environmental impact and costs by reducing or eliminating greenhouse gas emissions.**

DCPS reduces GHG emissions through impactful conservation initiatives, recycling and transportation strategies.

Energy Conservation – DCPS started focusing on conservation in 2005 by tightening building schedules and developing standard temperature setpoints.

- Occupied -- 75 cooling, 68 heating (in degrees F)
- Unoccupied -- 85 cooling, 55 heating (in degrees F)

These no-cost strategies produced immediate reductions in consumption, GHG emissions and expenditures. DCPS now uses innovative financial methods (ARRA grant, Revenue Anticipation Note, Reserve Fund Balance) to fund quick payback conservation improvements -- HVAC commissioning, Energy Management Control System modifications, occupancy sensors, high-efficiency HVAC and lighting, etc. to keep consumption, GHG emissions and costs declining. Continuous analysis of consumption per square foot determines project priorities.

As strategies are proven, DCPS Design Guidelines are updated to ensure schools being built or renovated adhere to strict standards. DCPS staff frequently survey existing schools to ensure savings are maintained and to look for new ways to minimize consumption.

DCPS uses Utility Manager Pro to track consumption. Each school’s consumption trends are updated monthly. Consumption per square foot metric is used to compare performance and create friendly competition between schools. DCPS is piloting Lucid Storyboards in 10 schools. Lucid Storyboards, large-screen displays located just inside school main entrances, provide real-time consumption data, show sustainability goals and progress, inform visitors about green features and are used to enhance science and math curriculum. Energy awareness further helps to reduce consumption and GHG emissions.

Solar panels at 25 schools, including a 25 KW system at Westview K8 (LEED Gold) further reduce consumption and GHG emissions. Data is shared with Green Champions to enhance curriculum.

Implementing no-cost strategies first and **DCPS’s forward-thinking use of capital dollars to fund conservation results in immediate operating cost savings and maximum reductions in consumption and GHG emissions.** This system of benchmarking, implementing improvements, maintaining savings and re-benchmarking has resulted in 32% reduction in consumption and GHG emissions. Since DCPS’s focus started in 2005, and US DOE GRS baseline is limited to the previous three years, it would be easy to overlook DCPS’s substantial reductions. Information is provided for consideration.

	<b>KWH (millions)</b>	<b>\$ (millions, adjusted to today’s rates)</b>	<b>Greenhouse Gas Emissions (CO2 tons)</b>
<b>June 2005 program start</b>	<b>250.0</b>	<b>\$24.0</b>	<b>193,669</b>
<b>12 months ending June 2013 USDOE GRS baseline</b>	<b>180.2</b>	<b>\$18.6</b>	<b>139,597</b>
<b>12 months ending June 2016 current</b>	<b>171.1</b>	<b>\$16.7</b>	<b>132,547</b>
<b>Annual Reduction (program start vs. 15-16)</b>	<b>78.9</b>	<b>\$7.3</b>	<b>61,122</b>
<b>Annual Reduction (GRS baseline vs. 15-16)</b>	<b>9.1</b>	<b>\$1.9</b>	<b>7,050</b>

3R – DCPS reduces GHG emissions with single-stream recycling at every school and by optimizing dumpster pick-ups. DCPS uses metrics calculated by school population as well as custodial and staff observations to determine most accurate pick-up frequency. In 15-16, DCPS saved \$47,607 due to route optimization/elimination and waste reduction which reduced truck emissions and methane gases.

Transportation – DCPS reduces GHG emissions through transportation strategies like non-idling policy for busses, National Walk Safely to School Day, bike racks and reserved parking spots for fuel-efficient vehicles. DCPS outsources bussing so the Transportation Department ensures that bus companies comply with Board policy limiting idling to 5 minutes. DCPS has an Electric Vehicle Charge-at-Work policy for employees. Employees use existing electrical outlets to recharge their EVs. This makes EV use feasible for more employees. DCPS outsources bussing services and is considering requiring bidders to propose alternatively-fueled busses during the next solicitation. DCPS fleet vehicles are upgraded frequently to ensure high fuel efficiency.

Administration and Purchasing -- DCPS uses DemandStar and other on-line tools to reduce travel and paper use. Webinars and conference calls are routinely used to further reduce cost and GHG emissions.

**Amount of kWh saved:**

12 months ending June 2005 (start):	<u>249,992,886</u>
12 months ending June 2013 (baseline):	<u>180,177,902</u>
12 months ending June 2014:	<u>179,386,326</u>
12 months ending June 2015:	<u>178,820,075</u>
12 months ending June 2016 (current):	<u>171,139,456</u>
<b>Annual saved (start vs. June 2016):</b>	<b><u>78,853,430</u></b>
<b>Annual saved (baseline vs. June 2016):</b>	<b><u>9,038,446</u></b>

**Total value of the savings (in US\$):**

12 months ending June 2005 (start):	<u>\$24,000,000</u> (rate adjusted)
12 months ending June 2013 (baseline):	<u>\$18,600,553</u>
12 months ending June 2014:	<u>\$18,368,478</u>
12 months ending June 2015:	<u>\$17,565,540</u>
12 months ending June 2016 (current):	<u>\$16,740,729</u>
<b>Annual saved (start vs. June 2016):</b>	<b><u>\$ 7,259,271</u></b>
<b>Annual saved (baseline vs. June 2016):</b>	<b><u>\$ 1,859,824</u></b>

**Total value of savings adjusted per student (e.g. calculated by COFTE):**

12 months ending June 2005 (start):	<u>\$194.17</u> (rate adjusted)
12 months ending June 2013 (baseline):	<u>\$158.32</u>
12 months ending June 2014:	<u>\$162.37</u>
12 months ending June 2015:	<u>\$151.42</u>
12 months ending June 2016 (current):	<u>\$146.14</u>
<b>Annual saved (start vs. June 2016):</b>	<b><u>\$48.03</u></b>
<b>Annual saved (baseline vs. June 2016):</b>	<b><u>\$12.18</u></b>

Water quality, efficiency, conservation

**Describe how your district is improving water quality, efficiency and conservation.**

DCPS reduces water consumption and cost through leak detection and repair, benchmarking, conservation, bill analysis and meter size optimization. DCPS evaluates each school's water consumption and cost monthly. High use or cost compared to peers is investigated and resolved.

Conservation – DCPS has reduced water consumption substantially. Tactics include:

- Use of native landscaping

- Use of rain barrels/cisterns. (Rain barrels are available free from Teacher Supply Depot or Alden Road Exceptional Center. Green Champion at Alden Road taught special needs students to make rain barrels for schools unable to make their own.)
- Installation of automated irrigation controls with rain sensors
- Operating irrigation systems in compliance with watering restrictions
- Replacing irrigation field devices with low flow type
- Replacing old-style flow valves with low-flow types
- Finding and repairing leaks. (While leaks are repaired quickly, DCPS is investigating affordable methods of monitoring real-time usage to expedite repairs.)

Cost Savings – DCPS has reduced water expenses substantially over the last few years. (Increase in 15-16 is due to school garden initiative and new, more accurate meters being installed by utility.) High cost with normal consumption is usually attributed to an oversized meter or sewer charges on a pool or irrigation. DCPS’s water utility severely penalizes customers with large meters. Cost cutting tactics include:

- Down-sized meters at approximately 30 schools (2 to 24 month payback)
- Separated swimming pools from domestic services to eliminate sewer charges
- Bill error correction. Errors are found by benchmarking like schools and investigating anomalies. This no-cost tactic results in significant refunds. Examples are:
  - HS Glen ES – overbilled for 10+ years, nearly \$200,000 refund
  - Fletcher MS – overbilled since 1998, \$23,000 refund

**Amount of gallons saved:**

12 months ending June 2005 (start):	<u>414,114,686</u>
12 months ending June 2013 (baseline):	<u>310,644,557</u>
12 months ending June 2014:	<u>259,147,570</u>
12 months ending June 2015:	<u>238,259,595</u>
12 months ending June 2016 (current):	<u>247,098,681</u>
<b>Annual saved (start vs. June 2016):</b>	<b><u>167,016,005</u></b>
<b>Annual saved (baseline vs. June 2016):</b>	<b><u>63,545,876</u></b>

**Total value of cost savings:**

12 months ending June 2005 (start):	<u>\$6,142,984</u> (rate adjusted)
12 months ending June 2013 (baseline):	<u>\$4,608,107</u> (rate adjusted)
12 months ending June 2014:	<u>\$3,844,199</u> (rate adjusted)
12 months ending June 2015:	<u>\$3,539,960</u>
12 months ending June 2016 (current):	<u>\$3,665,466</u>
<b>Annual saved (start vs. June 2016):</b>	<b><u>\$2,477,518</u></b>
<b>Annual saved (baseline vs. June 2016):</b>	<b><u>\$ 942,641</u></b>

**Reduced waste production**

**Describe how your district is reducing waste production.**

Recycling – Every DCPS school participates using classroom recycling bins (re-purposed 5 gallon wax buckets) and cafeteria recycling zones. Curriculum enhancement materials and single-stream recycling center field trips are provided. Nearly 100% of cardboard is recycled (about 65% of recycling stream.) DCPS scrutinizes FTE-based metrics, billing and pick up frequencies. Billing discrepancies are resolved using container dump counters. In 15-16, DCPS saved over \$47,000 using these practices and is currently evaluating new initiatives:

- Styrofoam -- Piloting recycling Styrofoam lunch trays.
- Cardboard – Working on no-cost approach to remove cardboard from recycle stream, cutting volume by 60%, saving DCPS \$130,000 annually.
- E-Waste -- Working on no-cost approach to removing electronics from recycle and waste streams to salvage precious metals.

Re-purposing – DCPS’s Teacher Supply Depot (TSD) is a warehouse of donated materials which are given to DCPS teachers. Started in 1996, TSD now receives 25 pallets of materials weekly, gets 5,500 teacher visits annually and

benefits from 21,000+ volunteer hours annually. TSD developed a "How To" packet and presents at national forums so other districts can replicate. Dozens of supply centers are now flourishing, especially in Florida. DCPS TSD was recognized nationally by SWANA, and locally by Environmental Protection Board and Mayor of Jacksonville. TSD now hosts international tours annually.

**Hazardous Waste** – In addition to compliance with state and federal waste regulations, metals and other recyclables are salvaged during renovation projects. Contractors discount their bids based on the value. DCPS stores recovered refrigerant in a secure, unoccupied facility providing safe, secure storage of DCPS assets for future use.

Additional initiatives --

- Email and website are used to distribute information and two-sided printing is encouraged.
- Community organizations use DCPS facilities (reimbursing DCPS for utility and custodial costs) to delay or avoid facility construction.
- Schools compost cafeteria waste to nourish school gardens and landscaping.
- DCPS’s custodial contractor, GCA, uses “Custom Green” cleaning products.
- DCPS Purchasing uses Demandstar to distribute solicitations and requires vendors to use USB drives to submit proposals.



**Amount of waste production saved (in cubic yards):**

DCPS started districtwide recycling in 2009. DCPS reduced solid waste by approximately 20,000 cubic yards in 15-16 compared to 14-15. This is an estimate because DCPS just recently started benchmarking and analyzing solid waste and recycling data.

**Total value of cost savings:**

DCPS saved approximately \$47,000 in 15-16 compared to 14-15 as a result of bill analysis and optimizing container pick up frequency. This is an estimate because DCPS just recently started benchmarking and analyzing solid waste and recycling data.

**Recycling Rate (%):**

DCPS recycling rate is approximately 42%.

**Use formulas below to calculate amount of materials recycled, amount of waste disposed, and recycling rate.**

1. Amount of Materials Recycled (for calendar year 15-16 )
  - a) Category A = Paper (including newspaper, corrugated paper, cardboard, office paper, and other paper), metals, glass, plastics, textiles, rubber materials, and mulch 4019 tons
  - b) Category B = Food waste, electronics, tires, construction & demolition debris 2000 tons
2. Amount of Waste Disposed 8582 tons
3. Recycling Rate = (Line 1a+Line 1b)/(Line 2+Line 1a+Line 1b)x100 = 42%

Element 1D: Use of Alternative Transportation

**Describe how your district is using alternative transportation.**

Alternative Fuel for Busses -- Kipp Charter School currently operates 14 propane buses. Student Transportation of America currently uses biodiesel busses. DCPS outsources bussing services. The next solicitation will offer options for firms to propose use of alternative fueled busses.

Hybrid Vehicles (Staff) – DCPS is the **first Florida school district to pass an Employee Charge-At-Work policy.** Employees who drive electric vehicles can utilize DCPS’s existing electrical outlets to charge their vehicles while at

work. Employees pay an annual fee to reimburse DCPS for electricity used. Program is modeled after the US Department of Energy “EV Everywhere Workplace Charging Challenge”.

Hybrid Vehicles (Fleet) – DCPS downsizes fleet vehicles from full-sized sedans to compacts when possible. DCPS is currently evaluating financial viability of purchasing alternative fueled vehicles for site and fleet use. DCPS will utilize the local utility’s rebate program to help fund purchase of alternatively fueled vehicles.

Clean Site-Based Transportation – DCPS Consolidated Services Warehouse Operations uses bicycles, electric carts, electric forklifts and electric pallet jacks to conduct their everyday tasks. Many large schools use electric golf carts to get around campus in a clean, effective, efficient manner.

Additional Methods – DCPS encourages carpooling, walking and biking to school. DCPS celebrates National Walk Safely to School Day. Schools have bike racks to encourage biking to school. Many schools have designated parking for fuel efficient vehicles.

**Reduction of fuel cost (percentage):**

Fleet -- Using year 14-15 as a baseline, DCPS fleet fuel costs **declined by 24%** in year 15-16.

Busses – Since DCPS outsources bus services, only a portion of fuel used is tracked by DCPS. Gallons used:

2014 – 1,065,986

2015 – 965,961

**Saved – 100,025 gallons or 9%**

**Pillar II: Improve Health & Wellness of Students & Staff**

**Facility – Healthy School Environment**

**Describe how your district improves health and wellness of students and staff by implementing a school environmental health program.**

DCPS provides a healthy environment for students and staff through IPM, ventilation and contaminant control, IAQ, dehumidification and moisture control and careful chemical management.

IPM -- DCPS uses IPM principles to prevent pest activity and damage with the least hazard to occupants, property and the environment. Non-chemical pest management methods are implemented whenever possible. Pesticide is used only after other available options have been evaluated and determined to be unacceptable or impractical. When a pesticide must be used, the least hazardous product is selected.

Contaminant Controls and Ventilation – DCPS uses a variety of methods to control contaminants and ensure proper ventilation. DCPS outsources air filter replacement and DCPS mechanics and/or third-party service companies provide quality assurance inspections. Labels placed on equipment casings indicate dates when filters are changed. DCPS uses bipolar ionization technology to provide higher levels of filtration when needed. HVAC systems use CO2 and occupancy sensors to ensure spaces are adequately ventilated when occupied. When spaces are unoccupied, ventilation is reduced to save energy.

Asthma Controls – DCPS uses The PLAYERS Center (Wolfson Children’s Hospital) for asthma education. DCPS promotes the Open Airways program through the district School Health Advisory Committee Approved Speakers List to health education teachers. Students with asthma or other breathing difficulties may carry prescription medication for emergency self use if approved by physician and parent/guardian. Approvals must be on file in the school office/clinic. Principals must notify bus drivers and Transportation Department regarding such students. To assist students and staff who have asthma or other breathing difficulties, DCPS prohibits use of air fresheners, strong cleaning solutions and other products that tend to aggravate these conditions.

IAQ, dehumidification and moisture control -- DCPS recognizes that proper IAQ, dehumidification and moisture control are vital to ensure a favorable learning environment for students, as well as, productivity for teachers and staff. So, DCPS adopted U.S. EPA IAQ Tools for Schools program for guidance. Most issues are resolved by evaluating and correcting

deficiencies in housekeeping, HVAC systems, roofing and building maintenance. DCPS Director of Environmental Services coordinates efforts of Facility Administrators, Maintenance, Custodial Services, Safety, contract service providers and others to investigate and remediate IAQ, dehumidification and moisture control problems.

Chemical Management (Custodial, Science Labs, Classrooms) – DCPS science curriculum staff manages use of the Chemical Hygiene Plan from Florida DOE for Science Labs.

Chemical Management (Maintenance) -- DCPS consolidates recovered refrigerant from renovation projects and stores it in a central, secure, unoccupied facility for future use. This saves money and provides safe, secure storage of DCPS assets.

Florida Asthma Friendly School Award – Currently no DCPS schools have pursued this award, however, DCPS Wellness Department is working with schools to submit for this award this year.

Environmental Awareness (Green Champions) – Students and teachers form green teams and conduct green-themed activities throughout the year. Activities include energy and water patrol where students survey the school and report water leaks, energy waste, etc. Work orders are created so Facility Maintenance Department can make repairs. This program bridges the gap between Operations and Academics within DCPS and is an impactful differentiator.

### **Culture and Climate – Student and Staff Wellness**

**Describe policies, practices and procedures your district has in place to support the Coordinated School Health approach.**

DCPS accomplishes coordinated school health in several ways.

Florida Healthy School District Assessment Gold Level – Members of the School Health Advisory Council, alongside district staff, worked collaboratively to earn Gold Level recognition. Chair positions of SHAC and sub-committees are held by parents and community members demonstrating collaboration between all parties.

Nutrition Services and Education– DCPS contracts with Chartwells to provide healthy meals to all students. DCPS offers the Farm to School program which allows students to experience the process from harvest to consumption. Another program allows students the opportunity to experience new, healthy foods and learn ways to shop, prepare and cook the items. DCPS and Chartwells K12 chefs and dietitians collaborate to create progressive, new menus that focus on healthy, fresh, and locally-sourced ingredients. DCPS offers salads in every school, every day, using dark, leafy greens. Every school has locally grown produce daily including Satsumas, cucumbers, zucchini, etc. DCPS’s menu also includes intact, whole grain items. DCPS and Chartwells have partnered in a new Garden Harvest program. Produce from DCPS school gardens is cleaned and served in school cafes (garden to plate) and paired with a culinary demonstration and educational presentation from dietitians. DCPS and Chartwells conduct focus groups, student surveys, and host an annual Food Show where thousands of students taste test and provide valuable feedback on potential new menu items.

Student Health -- DCPS is committed to education and development of the “Whole Child.” DCPS contracts with Duval Department of Health for various health services. DCPS increased internal funding to allow for new medical staff and expansion of the medical director position into a full-time role to support both DOH nursing staff and DCPS nursing staff. Multiple school and community based programs are used to support student health. DCPS actively participates in programs such as NFL Play 60, Fuel Up to Play 60, nutrition education, physical activity enhancement, Action for Healthy Kids, Alliance for Healthier Generation, Let’s Move Jacksonville, Active Schools, and more.

Staff Health – Health of DCPS staff is provided by collaboration between the Wellness Department and the Benefits team. Wellness staff supports programs for tobacco cessation, disease prevention and management, weight loss/control and blood pressure control by offering health screenings, flu shots, education, and other support services. DCPS staff are also supported through Employee Assistance Program which provides counseling services for a variety of needs. Staff members are encouraged to increase physical activity daily by participating in the many intramural offerings throughout the year. Sports offerings include basketball, volleyball, bowling, golf, kickball, softball, flag football and tennis. Employees are excited and engaged in this unique program. Staff frequently participates in local 5K events representing DCPS.

Wellness, Recess & Physical Education – DCPS Wellness Policy supports health and well-being of students and staff. DCPS Board recently approved a Recess Resolution to support daily physical activity for all students. DCPS recognizes the importance of quality physical education and the differences associated with recess and physical education. DCPS has a physical education teacher assigned to every school. Training is provided at least three times per year to keep teachers informed of best practices.

Health Education -- DCPS maintains health education courses in all secondary schools where students receive comprehensive health instruction from certified educators on nutrition, interpersonal communication, goal setting, self-management, advocacy, and sexual health. DCPS also supports Teen Health Centers designed to provide on-site access for sexual health services.

Bullying Prevention -- DCPS maintains a Bullying Hotline. Counselors, and staff that are specifically trained to address needs of schools, students, and families. DCPS Board Policy and Student Code of Conduct address expectations and consequences related to bullying. Students from Wolfson, Atlantic Coast and Paxon high schools competed for best anti-bullying public service announcement. This year's theme is "Kindness, acceptance and inclusion."

Wellness Ambassadors -- DCPS has Healthy School Teams at each school. Wellness Ambassadors at each school collaborate with central office staff to provide updates, special programs, and encourage staff to stay engaged and involved with healthy initiatives. Schools can participate in a grant program that provides funding to run programmatic events or provide incentives.

### **Pillar III: Effective Environmental & Sustainability Education**

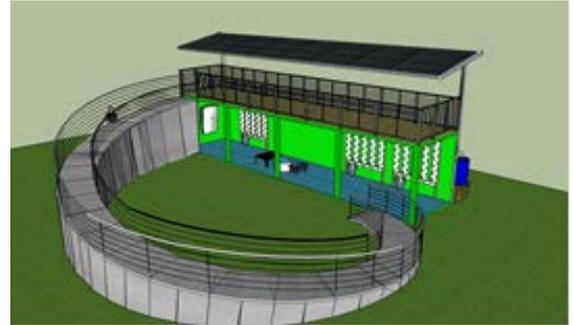
**Interdisciplinary learning about the relationships between dynamic environmental, energy and human systems**  
**Provide examples of interdisciplinary learning about the relationships between dynamic environmental, energy and human systems.**

DCPS has many grade-appropriate educational programs and activities aimed at learning about relationships between environmental, energy and human systems. Each includes technology and connects students to the outside world.

Sustainable Themes --

- **Sandalwood HS Green State program** is being **recognized by 15-16 Florida Green School Awards** and is the **only repeat winner of DCPS Green Champion of the Year**. SHS Green State students and faculty are passionate about improving quality of life at Sandalwood, its feeder pattern schools and all Jacksonville citizens. Green State participated in over 35 community service events logging over 3,800 service hours in 15-16. Sandalwood's Green Champion receives more requests for community assistance than weekends in the school year. Green State collected over 1,000 pounds of plastic and aluminum during Pepsico Recycle Rally and also recycles printer cartridges and toner containers. Green State partners with City of Jacksonville to help clean-up St. Johns River tributaries. **Green State grew by over 100 members in 15-16 to a total of 276 members (9% of students!)** Green Champions are asked to work with feeder pattern schools, especially schools are just starting up green programs. Sandalwood's feeder pattern partners include:
  - Alden Road Exceptional Student Center
  - Kernan Trail ES
  - JA Axson ES
  - Brookview ES
  - Sabal Palm ES
  - Alimacani ES
- **Mayport ES and Mayport MS** emphasize **Coastal Sciences**. One unit studies sand from around the world, manatees, and Guano Tolomato Matanzas National Estuarine Research Reserve. Another focuses on the St. John's River with topics such as force of motion, forms of energy, and how humans, animals, and natural environmental changes impact the St. John's River. Mayport MS students spent six months writing a grant proposal entitled "The Wonderful World of Plankton Project." The proposal was among four in Florida and 63 nationwide to be selected out of more than 900. Mayport MS was awarded a \$97,000 grant to study St. Johns River plankton and propagate bioluminescent algae. Data from this project will be used by the St. Johns Riverkeeper.

- **Grasp Academy** is the **first and only public school for students with dyslexia**. GRASP is developing and building a **net zero mini-farm** which blends innovative environmental waste solutions with the needs of dyslexic students. This project provides dyslexic students the appropriate environment needed for their learning style. GRASP is partnered with Urban Mining and Beaver Street Fisheries for this project. Urban Mining is a local, waste collection firm focused on recovering precious metals from the waste stream. Beaver Street Fisheries is a leading wholesale seafood and meat supplier. This collaboration integrates multi-sensory, hands-on, field experience with sustainable living, gardening and environmental stewardship. The result will be a net-zero energy, mini aquaponics and vermiculture farm and learning lab. This replicable project uses two state-of-the-art technologies, FarmBot and Tesla Powerwall and follows Florida's middle school STEM standards.
- **Louis Sheffield ES 4H** program is part of their **Academy of Life Sciences** theme. Students participate in poultry judging contests, raise award winning rabbits, and engage in a nurturing and enriching program that teaches the fundamentals of farm life.
- **Mathew Gilbert MS Eco-Architecture** program enables students to explore sustainable construction methods used by designers and engineers. Students learn how to evaluate benefits and drawbacks of building materials based on the Six Question Sustainability Test. They learn why sustainable building is vital to reduce, reuse, recycle, and rethink when planning construction. Students design and create their own Eco-home that represents their environmentally friendly design choices.
- **Darnell-Cookman MS/HS** offers a rigorous **Medical Arts Program** that focuses on studying the human body, diseases and their processes, and other fields of professional practice. The students who graduate from this program are prepared for college admission with the intent to pursue professional medicine.



**Green Champions** -- This districtwide program is a collaboration between central office facilities staff, teachers, school staff, and students to promote recycling, conservation, and sustainability. Green Champion objectives are:

1. Save money by eliminating waste.
2. Conserve natural resources.
3. Incorporate sustainability into curriculum.

This program helps students and teachers learn to be better stewards of Earth's resources and live in sustainable ways. The program inspires children to reduce, reuse, recycle, turn off lights and not waste water, and realize how their actions affect the environment. Schools with Green Champions integrate the school's facility needs with their science curriculum. For instance, Green Champions provide leads to Facilities Maintenance such as the need for occupancy sensors, repair of leaky faucets, controlling lights that stay on too long, etc. Workorders are created so Facility Maintenance can address. This program bridges the gap between Operations and Academics within DCPS and is an impactful differentiator.

**Professional Development** -- DCPS conducts Professional Development courses throughout the year including an Environmental Science Professional Development course that keeps teachers up to date on current trends related to teaching about the environment.

**Sustainable Curriculum** – DCPS provides students with opportunities to participate in a variety of environmentally-focused field trips. STEAM Cultural Passport, in partnership with St. Johns River Keeper, allows fifth grade students to engage in science-based, hands on learning experiences that help develop a better understanding of local ecosystem. This also exposes students to water quality testing equipment and techniques used by local scientists. Also included are University of North Florida Eco Adventure and Tree Hill Nature Center. These experiences enhance environmental education in classrooms since visits are aligned with topics and standards in the DCPS curriculum guide. Second grade students visit Cummer Museum of Art & Gardens to study interaction between people in a natural and man-made world and how people affect it. DCPS recognizes and takes advantage of the tremendous opportunities available in the Jacksonville area to engage students in studying the environment.

**Use of the environment and sustainability to develop STEM content, knowledge and thinking skills**  
**Demonstrate how your district uses the environment and sustainability as a context for learning science, technology, engineering and mathematics content, knowledge and thinking skills.**

DCPS provides effective environmental and sustainability education through science curriculum. Some life science units teach students about our impact on the environment and ways to preserve the environment for future generations. In fifth grade curriculum, students learn about renewable and non-renewable resources. Knowledge about the differences between these types of resources helps students understand the importance of conservation efforts. Many high school freshmen are enrolled in environmental science courses. These courses immerse students in a full year of in-depth environmental study of how technology and human activity affect the environment. Knowledge of resource limitations, as well as political and social issues are also explored.

DCPS has two coastal science academies that are deeply involved in the community and support environmental sustainability throughout all content areas. Mayport Elementary School Coastal Science Academy is a place where all K-5 students learn about our local coastlines, preserving coastal environments, understanding key coastal science concepts, and encountering career specialists in the coastal sciences. Coastal science learning is integrated in all content areas (reading, writing, mathematics, social studies and science) through inquiry-based lessons, hands-on lab experiences, field explorations and projects. In addition to the interdisciplinary curriculum, students also participate in various extracurricular activities like River Keepers, recycling, sea turtle rescue, water conservation, environmental causes, etc.

Mayport Coastal Sciences Middle School uses its proximity to Northeast Florida's main waterways, as well as partnerships with Mayport Naval Station, Jacksonville University, the University of North Florida, the U.S. Coast Guard, and the professional maritime community, to help students study and understand our impact on the local ecosystem. Students become self-directed researchers, analytical thinkers, problem solvers, prolific readers and writers, and lifelong stewards of the coastal environment. The program is inquiry-based and aligned with preparing students to enter any high school accelerated program with content knowledge and critical thinking skills needed to be successful.

In addition to a robust curriculum designed to promote environmental sustainability, as a context for learning STEM content, students participate in field studies designed for student success and based on three tenets: 1. collect and analyze real scientific data; 2. share scientific data with local, state and federal partners; 3. promote change to empower stewardship. Students participate in the following field studies:

- St. Simon's Island, Ga
- Florida Aquarium
- St. John's River
- Sherman's Creek
- Dutton Island
- Hanna Park
- University of Florida's Tropical Aquaculture Laboratories
- Jacksonville University's Marine Science Research Institute

Environmental studies and sustainability are high interest topics for DCPS students. Having this as a context for student learning helps make learning fun and relatable to students. These programs create well rounded individuals who are able to think critically and problem solve; skills that are needed to be successful in life.

### **Development and application of civic knowledge and skills**

#### **Describe how your district promotes civic/community engagement projects integrating environmental and sustainability topics.**

DCPS promotes sustainability-focused civic and community engagement through partnerships, Green Champions, Parent Academy, Career Pathways and more.

Business and community partnerships are vital to DCPS's sustainability focus. A few examples include:

- City of Jacksonville Environmental Protection Board (JEPB) -- DCPS is partnered with JEPB on a number of initiatives, including the education of students and families about the critical role they play as it relates to the environment. JEPB, having been particularly encouraged with DCPS's Green Champions program, took steps to further solidify that partnership with creation of a unique award – the JEPB-DCPS Environmental Champion Award. Those eligible to receive the award are Green Champions who achieve Gold or Platinum level distinction within DCPS's Green Champion program.

- Johnson Controls – Johnson Controls is a leading HVAC and energy firm with a local branch office in Jacksonville. Staff from the local office assist Peterson Academy teachers on HVAC instruction. Johnson Controls built and donated an HVAC control test board and uses it in the classroom to help students troubleshoot electronic controls. This hands-on experience is valuable to all students, especially students interested in pursuing a career in HVAC or controls fields.
- Trane - Trane is a leading HVAC equipment provider with a local office in Jacksonville. They provides their patented BTU Crew energy curriculum free of charge to schools to enhance science curriculum. They also provide a free campus beautification day for one lucky Green Champion door prize winner.
- GCA – GCA provides custodial services for DCPS. GCA provide a campus clean up, mascot statue or custom entryway mat to every Green Champion of the Year.
- JEA – JEA is Jacksonville’s primary energy and water utility. JEA provide curriculum materials energy and water conservation as well as waste reduction. JEA also sends their “green alien” named Reduce to schools to talk about sustainability. Reduce brings along his cousins, Re-Use and Recycle to help. This entertaining presentation teaches students about the importance of living green.
- Carton Council – Carton Council is a non-profit organization focused on making sure cartons are recycled. They provide free materials and assistance to school to help get them started on recycling cartons.
- US Green Building Council (USGBC) – USGBC and DCPS team up on many sustainability events throughout the year. USGBC’s Green Apple Day of Service every September helps kick off DCPS’s Green Champion activities. In 15-16, USGBC adopted Kirby Smith MS. Over 100 volunteers helped Kirby Smith’s Green Champion and green team build raised bed gardens using rain barrels for irrigation.

Green Champions Business Partners -- Green Champions, with assistance of many business partners, engage students in programs such as Beach Cleaning Day, various Green Apple Day of Service events, campus beautification, construction of school gardens and more. Many sustainable Green Champion activities throughout the year are made possible by donations of materials, money and hundreds of service hours from our Green Champion business partners. They include Lowe’s, USGBC, Johnson Controls, JEA, Trane, Haskell, CSX, GCA, Carton Council and many more.



Parent Academy promotes parental involvement and enhances student achievement. Free Parent Academy courses are offered in schools, libraries, community centers and faith-based institutions. The Parent Academy's focus is in three strands: Student Achievement, Parenting & Advocacy, and Personal & Individual Growth. Classes related to environment and sustainability include All About STEM, Early Childhood-Planting the STEM in VPK, World Languages and Cultures and Healthy Minds, Healthy Kids. Parent Academy is a true differentiator for DCPS.

Teacher Supply Depot is a warehouse of reusable materials donated by businesses and individuals. These items are re-purposed and given away free to DCPS teachers. TSD processes 25 pallets of items weekly and receives over 5500 teacher visits annually and benefits from 21,000+ volunteer hours. TSD has been recognized nationally by SWANA, and locally by Environmental Protection Board and the Mayor of Jacksonville. TSD works because of the donations from many generous businesses and individuals who are passionate about limiting what goes into our landfills.



Career Pathways provides students with a context for studying traditional academics and learning the skills specific to a career. Career Pathways provides essential knowledge and skills for 16 Career Clusters, including several related to sustainability. It also functions as a useful guide in developing programs of study bridging secondary and postsecondary curriculum and for creating individual student study plans for a complete range of career options, including careers in sustainability fields. In addition, it help students discover their interests and passions, and empowers them to choose the educational pathway that can lead to success in high school, college and career.