



AGENDA REQUEST FORM

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ITEM No.:
JJ-1.

MEETING DATE	2017-11-07 10:05 - School Board Operational Meeting
AGENDA ITEM	ITEMS
CATEGORY	JJ. OFFICE OF FACILITIES & CONSTRUCTION
DEPARTMENT	Environmental Health & Safety Department

Special Order Request <input type="radio"/> Yes <input checked="" type="radio"/> No
Time
Open Agenda <input checked="" type="radio"/> Yes <input type="radio"/> No

TITLE:
Partnership Agreement Between Broward County and - The School Board of Broward County, Florida - NatureScape Program

REQUESTED ACTION:
Approve the partnership agreement with the Board of County Commissioners of Broward County for the NatureScape Program.

SUMMARY EXPLANATION AND BACKGROUND:
See Exhibit 1 (Summary Explanation and Background).

SCHOOL BOARD GOALS:

Goal 1: High Quality Instruction Goal 2: Continuous Improvement Goal 3: Effective Communication

FINANCIAL IMPACT:
Funding for this item totaling \$222,216 (\$55,554. per quarter) is included in the Adopted District's Educational Facilities Plan (September 6, 2017) and in the District's Capital Budget. One-Hundred (100%) percent is funded from EH&S Capital Budget's Environmental Sustainability-Water Conservation. There is a proposed three (3) percent increase for each subsequent term.

EXHIBITS: (List)
(1) Summary Explanation and Background (2) Executive Summary (3) Partnership Agreement (4) Letter from Dr. Jennifer Jurado (5) Return on Investment (6) Tenth Annual Progress Report (7) Collaboration Form

BOARD ACTION:
APPROVED
(For Official School Board Records Office Only)

SOURCE OF ADDITIONAL INFORMATION:

Name: Roger Riddlemoser	Phone: 754-321-4200
Name: Robert Jindracek	Phone: 754-321-4220

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
Senior Leader & Title
Leo Bobadilla - Chief Facilities Officer

Signature
Leo Bobadilla Jr
Thursday, October 26, 2017 4:05:35 PM

Approved In Open Board Meeting On: NOV 07 2017
By: *Wm. Freedman*
School Board Chair

Exhibit 1

The purpose of this partnership agreement between Broward County and The School Board of Broward County, Florida (SBBC) is to continue the ten (10) year NatureScape Program in support of Environmental Stewardship. The scope of work is to deliver environmental programs and facility improvements within the SBBC. The initial term of the agreement is for a period of one (1) year commencing December 12, 2017. The School Board may elect to renew the agreement for up to four (4) additional, one (1) year terms upon the conclusion of the initial twelve (12) month term. This agreement has been reviewed and approved as to form and legal content by the Office of The General Counsel. The Broward County Board of Commissioners will execute this agreement after SBBC approval.

EXECUTIVE SUMMARY

Partnership Agreement Between Broward County and The School Board of Broward County, FL

GENERAL OVERVIEW:

For the past 10 years, The School Board of Broward County, Florida (SBBC), working in partnership with Broward County's NatureScape Broward Program within Environmental Planning and Community Resilience Division (EPCRD), has made substantial progress in implementing measures that promote greater environmental sustainability, including the protection and conservation of water resources, landscape and habitat improvements to SBBC facilities. The NatureScape Broward Program has actively engaged the student population, teachers, and staff by instilling values associated with environmental stewardship and sustainability through classroom lessons, outdoor learning opportunities, training and implementation of best management practices. The approval of this item will begin the third 5-year NatureScape Broward Program partnership agreement with Broward County.

School Board Policy 7014 requires environmental stewardship as "an economic, environmental, and social priority to be taught, practiced and implemented throughout the District". The District's Student Progression Plan (District Policy 6000.1), Curriculum and Instructor's Character Education is supported by these Broward County services and programs to promote the reduction of greenhouse gas emissions, improve environmental protection, and enhance resource conservation.

Through March of 2017, the program has educated more than 50,000 students and provided training for more than 1,000 leaders and SBBC staff. Major accomplishments include a delivery of 1,779 educational programs and workshops and staff training. There was a creation of 35 learning gardens with a total of 164 certified National Wildlife Foundation school yard habitats. Broward County's public schools is the largest school district in the nation, certified by the National Wildlife Foundation, based on education and training. The annual District/County joint delivery of the County's premier environmental showcase events, Broward Water Matters Day and the annual P3 Eco-Challenge awards ceremony highlights the District's teachers and students for their environmental recognition and achievements.

Conservation of water resources involved an evaluation of 588 existing irrigation systems at 268 school facilities for efficiencies and recommended improvements. The potential total water savings exceeded 375 million gallons of water annually. Indoor water audits and improvements were conducted at 17 schools with a potential total water savings exceeding 20 million gallons of water annually.

The overall NatureScape Broward Program effort is guided by the SBBC's Applied Learning and Environmental Conservation/Utility Management departments and the EPCRD's team of 2.5 FTEs (Full Time Employees), and is supported by additional Broward County technical resources, as needed.



**AGREEMENT BETWEEN BROWARD COUNTY AND SCHOOL BOARD OF BROWARD COUNTY FOR
A NATURESCAPE PROGRAM IN SUPPORT OF ENVIRONMENTAL STEWARDSHIP WITHIN THE
SCHOOL BOARD OF BROWARD COUNTY**

This is an Agreement ("Agreement"), made and entered into by and among Broward County, a political subdivision of the State of Florida ("County") the School Board of Broward County, a political subdivision of the State of Florida ("SBBC") (collectively referred to as the "Parties").

WHEREAS, the purpose of this Agreement is to implement certain terms of this partnership between the County and SBBC, as described herein and in the Exhibits hereto; and

WHEREAS, a high quality and adequate water supply is key to the current and continued support of urban and natural systems in Broward County; and

WHEREAS, consumptive use water demands county-wide are projected to increase significantly by 2025, resulting in a potential water deficit of over 100 million gallons per day based on current rates of consumption and permitted pumping from the Biscayne Aquifer; and

WHEREAS, the County-wide Integrated Water Resource Plan seeks to optimize the beneficial uses of local water resources by effectively and efficiently managing water to make our water resources go further; and

WHEREAS, the conservation of water quality and quantity is a principle objective of the integrated Water Resource Plan and is demonstrated to be one of the most cost effective and immediate means of producing water for meeting future water supply needs; and

WHEREAS, successful implementation of the integrated Water Resource Plan as a strategy for protecting the quality and quantity of local water resources is dependent upon community-wide participation; and

WHEREAS, it is estimated that twenty-five to fifty percent (25-50%) of total water consumption in Broward County is due to outdoor irrigation, and landscape runoff associated with over-irrigation and poorly maintained irrigation systems have been identified as primary sources of surface water pollution; and

WHEREAS, as part of the Integrated Water Resource Plan, the NatureScape Broward initiative is designed to assist property managers and landscape professionals in the implementation of environmentally sound landscape practices that serve to reduce total irrigation demands, improve the efficiency of irrigation systems, provide education regarding proper fertilizer and pesticide application, and create native habitat; and

WHEREAS, the County and SBBC have previously committed to a partnership in support of water conservation, including the NatureScape Broward principles; and

WHEREAS, this Agreement provides a third five (5) year agreement period that focuses on creating sustainable schools in a holistic approach that brings the County's efforts, resources, and programs under an umbrella initiative, thereby maximizing access and the use of various tools; and

WHEREAS, this Partnership Agreement provides for the implementation of a Green Schools Recognition Program that acknowledges and rewards schools and teachers for participating/implementing environmentally sustainable measures and green initiatives within their schools; and

WHEREAS, this Partnership Agreement provides for coordinated access and delivery of environmental resources and programs to support the SBBC's educational and sustainability goals; NOW, THEREFORE,

IN CONSIDERATION of the mutual terms, conditions, promises, covenants, and payments hereinafter set forth, the Parties agree as follows:

ARTICLE 1. DEFINITIONS

- 1.1 **Board**. The Board of County Commissioners of Broward County, Florida.
- 1.2 **Contract Administrator**. The Director of the Environmental Planning and Community Resilience Division.
- 1.3 **County Administrator**. The administrative head of County appointed by the Board.
- 1.4 **County Attorney**. The chief legal counsel for County appointed by the Board.
- 1.5 **Services**. All work required by Parties under this Agreement, including without limitation all payments, deliverables, consulting, training, project management, or other services specified in Article 2 and Exhibit A.

ARTICLE 2. SCOPE OF SERVICES

2.1 The Parties shall perform all work identified in this Agreement including without limitation the Scope of Services described in Exhibit A. The Scope of Services stated in this Agreement is a description of the Parties' obligations and responsibilities and is deemed to include preliminary considerations and prerequisites, and all labor, materials, equipment, and tasks which are such an inseparable part of the work described that exclusion would render performance by the Parties impractical, illogical, or unconscionable. The Parties shall meet or

exceed all applicable federal, state, and local laws, ordinances, codes, rules, and regulations in performing the Services.

2.2 The Parties acknowledge that the Contract Administrator has no authority to make changes that would increase, decrease, or otherwise modify the Scope of Services to be provided under this Agreement except as expressly set forth in this Agreement.

ARTICLE 3. TERM AND TIME OF PERFORMANCE

3.1 The term of this Agreement shall begin on December 12, 2017, ("effective date") and shall end on December 11, 2018, ("Initial Term"). SBBC may elect to renew this Agreement for four (4) additional one (1) year terms under the terms and conditions set forth herein by providing written notice to County at least sixty (60) days prior to the end of the current term. The continuation of this Agreement beyond the end of any fiscal year of the Parties is subject to both the appropriation and the availability of funds in accordance with Chapter 129, Florida Statutes.

3.2 Unless otherwise agreed by the Parties in writing, all duties, obligations, and responsibilities of the Parties required by this Agreement shall be completed no later than December 11, 2018, extendable for four (4) additional one (1) year terms as provided for in Section 3.1, above. Time is of the essence in performing the duties, obligations, and responsibilities required by this Agreement.

ARTICLE 4. COMPENSATION

4.1 SBBC will pay County up to a maximum amount as follows:

Services/Goods	Not-To-Exceed Amount
Initial Term	\$55,554 quarterly (\$222,216 term total)
1 st Renewal Term	\$57,221 quarterly (\$228,884 term total)
2 nd Renewal Term	\$58,937 quarterly (\$235,748 term total)
3 rd Renewal Term	\$60,705 quarterly (\$242,820 term total)
4 th Renewal Term	\$62,527 quarterly (\$250,108 term total)
Total Services	\$1,179,776

Payment shall be made only for work actually performed, completed, and invoiced pursuant to this Agreement, as set forth in Exhibit B (Payment Schedule), which amount shall be accepted by County as full compensation for all such work. County acknowledges that the amounts set forth herein are the maximum amounts payable and constitute a limitation upon SBBC's obligation to

compensate County for its work under this Agreement. These maximum amounts, however, do not constitute a limitation of any sort upon Second Party's obligation to perform all items of work required under this Agreement.

ARTICLE 5. GOVERNMENTAL IMMUNITY

Nothing herein is intended to serve as a waiver of sovereign immunity by any Party nor shall anything included herein be construed as consent to be sued by third parties in any matter arising out of this Agreement or any other contract. Parties are state agencies or subdivisions as defined in Section 768.28, Florida Statutes, and shall be fully responsible for the acts and omissions of its agents or employees to the extent permitted by law.

ARTICLE 6. INSURANCE

County and SBBC are entities subject to Section 768.28, Florida Statutes, and shall furnish each other with written verification of liability protection in accordance with state law prior to final execution of said Agreement.

ARTICLE 7. TERMINATION

7.1 This Agreement may be terminated for cause by the aggrieved party if the party in breach has not corrected the breach within ten (10) days after receipt of written notice from the aggrieved party identifying the breach. This Agreement may also be terminated for convenience by either of the Parties. Termination for convenience by the Board on behalf of County or by any of the Parties shall be effective on the termination date stated in written notice provided to the other Parties, which termination date shall be not less than thirty (30) days after the date of such written notice. This Agreement may also be terminated by the County Administrator upon such notice as the County Administrator deems appropriate under the circumstances in the event the County Administrator determines that termination is necessary to protect the public health, safety, or welfare. If County erroneously, improperly, or unjustifiably terminates for cause, such termination shall, at County's sole election, be deemed a termination for convenience, which shall be effective thirty (30) days after such notice of termination for cause is provided.

7.2 Notice of termination shall be provided in accordance with the "NOTICES" section of this Agreement except that notice of termination by the County Administrator, which the County Administrator deems necessary to protect the public health, safety, or welfare may be verbal notice that shall be promptly confirmed in writing in accordance with the "NOTICES" section of this Agreement.

7.3 In the event this Agreement is terminated for convenience by any Party, County shall be paid for any services properly performed under the Agreement through the termination date specified in the written notice of termination. The Parties acknowledge that each have received good, valuable, and sufficient consideration, the receipt and adequacy of which are hereby acknowledged, for the right to terminate this Agreement for convenience.

ARTICLE 8. EEO COMPLIANCE

8.1 No party to this Agreement may discriminate on the basis of race, color, sex, religion, national origin, disability, age, marital status, political affiliation, sexual orientation, pregnancy, or gender identity and expression in the performance of this Agreement.

8.2 By execution of this Agreement, County represents that it has not been placed on the discriminatory vendor list as provided in Section 287.134, Florida Statutes. The Parties hereby materially rely on such representation in entering into this Agreement.

ARTICLE 9. MISCELLANEOUS

9.1 Rights in Documents and Work. Any and all reports, photographs, surveys, and other data and documents provided or created in connection with this Agreement are and shall remain the joint property of County and SBBC, and, if a copyright is claimed, County grants to SBBC a non-exclusive license to use the copyrighted item(s) indefinitely, to prepare derivative works, and to make and distribute copies to the public. In the event of termination of this Agreement, any reports, photographs, surveys, and other data and documents prepared by County, whether finished or unfinished, shall be the joint property of County and SBBC.

9.2 Public Records. To the extent County is acting on behalf of the Parties as stated in Section 119.0701, Florida Statutes, County shall:

- a. Keep and maintain public records required were SBBC performing the services under this Agreement;
- b. Upon request from SBBC, provide SBBC with a copy of the requested records or allow the records to be inspected or copied within a reasonable time and at a cost that does not exceed that provided in Chapter 119, Florida Statutes, or as otherwise provided by law;
- c. Ensure that public records that are exempt or that are confidential and exempt from public record requirements are not disclosed except as authorized by law for the duration of the Agreement and following completion of the Agreement if the records are not transferred to SBBC; and
- d. Upon completion of the Agreement, maintain at County, at no cost to SBBC, all public records in possession of County upon termination of this Agreement or keep and maintain public records required were SBBC performing the service. If County transfers the records to SBBC, County shall destroy any duplicate public records that are exempt or confidential and exempt. If the County keeps and maintains public records upon completion of the Agreement, County shall meet all applicable requirements for retaining public records.

All records stored electronically must be provided to SBBC upon request in a format that is compatible with the information technology systems of County.

A request for public records regarding this Agreement may be made directly to any Party, who will be responsible for responding to any such public records requests.

IF SBBC HAS QUESTIONS REGARDING THE APPLICATION OF FLORIDA STATUTES CHAPTER 119 TO COUNTY'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, NORMA ELLISON AT (954) 519-1466, nellison@broward.org, 115 S. ANDREWS AVE., SUITE 329H, FORT LAUDERDALE, FLORIDA 33301.

9.3 Truth-In-Negotiation Representation. County's compensation under this Agreement is based upon representations supplied to SBBC by County, and County certifies that the information supplied, including without limitation in the negotiation of this Agreement, is accurate, complete, and current at the time of contracting.

9.4 Public Entity Crime Act. The Parties represent that each is familiar with the requirements and prohibitions under the Public Entity Crime Act, Section 287.133, Florida Statutes, and represents that its entry into this Agreement will not violate that Act. In addition to the foregoing, each Party further represents that there has been no determination that it committed a "public entity crime" as defined by Section 287.133, Florida Statutes, and that it has not been formally charged with committing an act defined as a "public entity crime" regardless of the amount of money involved or whether it has been placed on the convicted vendor list. Notwithstanding any provision in this Agreement to the contrary, if any representation stated in this paragraph is false, each Party shall have the right to immediately terminate this Agreement and be paid for all services delivered through the date of termination.

9.5 Independent Contractor. County is an independent contractor under this Agreement. In providing Services under this Agreement, neither County nor its agents shall act as officers, employees, or agents of Municipalities. County shall not have the right to bind SBBC to any obligation not expressly undertaken by County under this Agreement.

9.6 Third Party Beneficiaries. The Parties do not intend to directly or substantially benefit a third party by this Agreement. Therefore, the Parties acknowledge that there are no third party beneficiaries to this Agreement and that no third party shall be entitled to assert a right or claim against any Party based upon this Agreement.

9.7 Notices. In order for a notice to a Party to be effective under this Agreement, notice must be sent via U.S. first-class mail with a contemporaneous copy via e-mail to the addresses listed below and shall be effective upon mailing. The addresses for notice shall remain as set forth

herein unless and until changed by providing notice of such change in accordance with the provisions of this Section.

FOR COUNTY:

Broward County Environmental Planning and Community Resilience Division
Attn: Dr. Jennifer Jurado, Director and Chief Resilience Officer
Governmental Center, Room 329H
115 South Andrews Avenue
Fort Lauderdale, Florida 33301
Email address: jjurado@broward.org

SBBC:

Robert Runcie, Superintendent
Broward County Public Schools
600 S. E. Third Ave.
Fort Lauderdale, FL 33301
Email address: r.r@browardschools.com

Leo Bobadilla,
Chief Facilities Officer
Broward County Public Schools
600 SE 3rd Avenue
Fort Lauderdale, FL 33301
Email address: leo.bobadilla@browardschools.com

9.8 **Assignment and Performance.** Neither this Agreement nor any right or interest herein may be assigned, transferred, subcontracted, or encumbered by any Party without the prior written consent of the Parties. If any Party violates this provision, each Party shall have the right to immediately terminate this Agreement. County represents that each person and entity that will provide services under this Agreement is duly qualified to perform such services by all appropriate governmental authorities, where required, and is sufficiently experienced and skilled in the area(s) for which such person or entity will render services. County agrees that all services under this Agreement shall be performed in a skillful and respectful manner, and that the quality of all such services shall equal or exceed prevailing industry standards for the provision of such services.

9.9 **Materiality and Waiver of Breach.** Each requirement, duty, and obligation set forth herein was bargained for at arm's-length and is agreed to by the Parties. Each requirement, duty, and obligation set forth herein is substantial and important to the formation of this Agreement, and each is, therefore, a material term hereof. Any Party's failure to enforce any provision of this Agreement shall not be deemed a waiver of such provision or modification of this Agreement. A waiver of any breach of a provision of this Agreement shall not be deemed a waiver of any subsequent breach and shall not be construed to be a modification of the terms of this Agreement.

9.10 Compliance with Laws. The Parties shall comply with all applicable federal, state, and local laws, codes, ordinances, rules, and regulations in performing the duties, responsibilities, and obligations pursuant to this Agreement.

9.11 Severability. In the event any part of this Agreement is found to be unenforceable by any court of competent jurisdiction, that part shall be deemed severed from this Agreement and the balance of this Agreement shall remain in full force and effect.

9.12 Joint Preparation. This Agreement has been jointly prepared by the Parties hereto, and shall not be construed more strictly against either Party.

9.13 Interpretation. The headings contained in this Agreement are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement. All personal pronouns used in this Agreement shall include the other gender, and the singular shall include the plural, and vice versa, unless the context otherwise requires. Terms such as "herein," "hereof," "hereunder," and "hereinafter" refer to this Agreement as a whole and not to any particular sentence, paragraph, or section where they appear, unless the context otherwise requires. Whenever reference is made to a Section or Article of this Agreement, such reference is to the Section or Article as a whole, including all of the subsections of such Section, unless the reference is made to a particular subsection or subparagraph of such Section or Article.

9.14 Priority of Provisions. If there is a conflict or inconsistency between any term, statement, requirement, or provision of any document or exhibit attached hereto or referenced or incorporated herein and any provision of Articles 1 through 9 of this Agreement, the provisions contained in Articles 1 through 9 shall prevail and be given effect.

9.15 Law, Jurisdiction, Venue, Waiver of Jury Trial. This Agreement shall be interpreted and construed in accordance with and governed by the laws of the state of Florida. The Parties agree that the exclusive venue for any lawsuit arising from, related to, or in connection with this Agreement shall be in the state courts of the Seventeenth Judicial Circuit in and for Broward County, Florida. If any claim arising from, related to, or in connection with this Agreement must be litigated in federal court, the Parties agree that the exclusive venue for any such lawsuit shall be in the United States District Court or United States Bankruptcy Court for the Southern District of Florida. **BY ENTERING INTO THIS AGREEMENT, THE PARTIES HEREBY EXPRESSLY WAIVE ANY RIGHTS EACH PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY ANY OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTIES IN CONTESTING THE REQUEST FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

9.16 Amendments. No modification, amendment, or alteration in the terms or conditions contained herein shall be effective unless contained in a written document prepared with the same or similar formality as this Agreement and executed by the Parties or others delegated authority or otherwise authorized to execute same on their behalf.

9.17 Prior Agreements. This Agreement represents the final and complete understanding of the parties regarding the subject matter hereof and supersedes all prior and contemporaneous negotiations and discussions regarding that subject matter. There is no commitment, agreement, or understanding concerning the subject matter of this Agreement that is not contained in this written document.

9.18 Payable Interest

9.22.1 Payment of Interest. The Parties waive, reject, disclaim and surrender any and all entitlement each has or may have to receive interest in connection with a dispute or claim arising from, related to, or in connection with this Agreement. This paragraph shall not apply to any claim for interest if such application would be contrary to applicable law.

9.22.2 Rate of Interest. If, for whatever reason, the preceding subsection is determined to be invalid or unenforceable by a court of competent jurisdiction, the annual rate of interest payable by any Party under this Agreement, whether as prejudgment interest or for any other purpose, shall be, to the full extent permissible under applicable law, 0.25% (one quarter of one percent) simple interest (uncompounded).

9.19 Incorporation by Reference. Any and all Recital clauses stated above are true and correct and are incorporated herein by reference. The attached Exhibits are incorporated into and made a part of this Agreement.

9.20 Representation of Authority. Each individual executing this Agreement on behalf of a Party hereto hereby represents and warrants that he or she is, on the date he or she signs this Agreement, duly authorized by all necessary and appropriate action to execute this Agreement on behalf of such party and does so with full legal authority.

9.21 Counterparts and Multiple Originals. This Agreement may be executed in multiple originals, and may be executed in counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same agreement.

9.22 Use of County Logo. SBBC shall not use County's name, logo, or otherwise refer to this Agreement in any marketing or publicity materials without the prior written consent of County.

9.23 Contract Personnel Screening. County agrees to comply with all requirements off Sections 1012.32 and 1012.465, Florida Statutes, and that County and all of its personnel who (1) are to be permitted access to school grounds when students are present, (2) will have direct contact with students, or (3) have access or control of school funds will successfully complete the

background screening required by the referenced statutes and meet the standards established by the statutes. This background screening conducted by SBBC in advance of County or its personnel providing any services under the conditions described in the previous sentence. County will bear the cost of acquiring the background screening required by Section 1012.32, Florida Statutes, and any fee imposed by the Florida Department of Law Enforcement to maintain the fingerprints provided with respect to County and its personnel. The Parties agree that the failure of County to perform any of the duties described in this section shall constitute a material breach of this Agreement entitling SBBC to terminate immediately with no further responsibilities or duties to perform under this Agreement.

(Remainder of page intentionally blank.)

IN WITNESS WHEREOF, the Parties hereto have made and executed this Agreement: County through its BOARD OF COUNTY COMMISSIONERS, signing by and through its Mayor or Vice-Mayor, authorized to execute same by Board action on the 12 day of December, 2017, and SBBC, signing by and through its chair, duly authorized to execute same.

COUNTY

ATTEST

[Signature]
Broward County Administrator, as
Ex-officio Clerk of the Broward County
Board of County Commissioners

BROWARD COUNTY, by and through
its Board of County Commissioners

By: [Signature]
12 day of December, 2017

Insurance requirements approved by
Broward County
Risk Management Division:

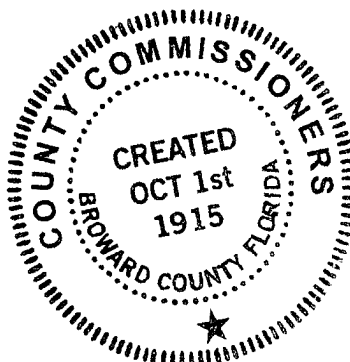
By: [Signature]
Name: Tim Crawley
Title: Property Specialist

Approved as to form by
Andrew J. Meyers
Broward County Attorney
Governmental Center, Suite 423
115 South Andrews Avenue
Fort Lauderdale, Florida 33301
Telephone: (954) 357-7600
Telecopier: (954) 357-7641

By: [Signature] 11/14/17
Michael C. Owens (Date)
Senior Assistant County Attorney

By: [Signature] 11/14/17
Maite Azcoitia (Date)
Deputy County Attorney

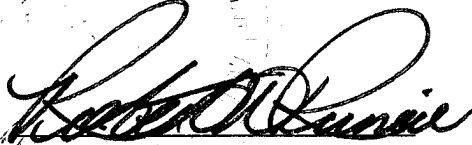
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AGREEMENT BETWEEN BROWARD COUNTY AND SCHOOL BOARD OF BROWARD COUNTY FOR A NATURESCAPE PROGRAM IN SUPPORT OF ENVIRONMENTAL STEWARDSHIP WITHIN THE SCHOOL BOARD OF BROWARD COUNTY

SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

Attest:



A large, stylized handwritten signature in black ink, appearing to read "Robert W. Runcie".

Robert W. Runcie
Superintendent of Schools

By Abby M. Freedman
Abby M. Freedman, Chair

7th day of November, 2017

Approved as to form and legal content:

By M. C. Coney
Office of the General Counsel

24th day of October, 2017

Exhibit "A"
STATEMENT OF WORK

**Scope of Services for Broward County's NatureScape Broward Program
in support of
Environmental Stewardship within the School Board of Broward County**

1.0 INTRODUCTION

During the past ten years, The School Board of Broward County, Florida (SBBC), working in partnership (the Partnership) with Broward County's (County) NatureScape Broward program, a program of the County's Environmental Planning and Community Resilience Division (EPCRD), has made substantial progress in implementing measures that promote greater environmental sustainability throughout SBBC, including the protection and conservation of water resources, landscape and habitat improvements, and energy conservation. Concurrent with physical improvements to SBBC facilities, NatureScape Broward has actively engaged the student population, teachers, and staff by instilling the values associated with environmental stewardship and sustainability through classroom lessons and outdoor learning opportunities, and through trainings and the implementation of best management practices.

NatureScape Broward has also worked hand-in-hand with SBBC to further foster a culture of environmental stewardship and sustainability through coordination with a number of other Broward County agency initiatives. In addition to NatureScape's educational offerings, both inside and outside of the classroom and advancement of sustainable practices at SBBC facilities, other support includes services and programs provided by EPCRD's Beach and Marine Resources and Climate and Energy Programs, as well as the County's Environmental Engineering and Permitting Division's Air Monitoring and Outreach and Water and Solid Waste and Recycling Services. All of these efforts promote the reduction of greenhouse gas emissions, environmental protection, and resource conservation and directly support Curriculum and Instruction's Character Education embedded in the District's Student Progression Plan (District Policy 6000.1) which states that:

The concepts and practices of environmental stewardship are embedded into the current character traits and should be reinforced throughout the Character Education curriculum (SBBC Policy 7014).

School Board Policy 7014 recognizes environmental stewardship as "an economic, environmental, and social priority to be taught, practiced, and implemented throughout the District."

Further support for many of the Partnership activities is found in Title XLVIII of the Florida Statutes which provides that State-required instruction be taught within prescribed courses of study through mandated standards and benchmarks including "Conservation of natural resources" (F.S. 1003.42(2)(m))

Currently, the District's operations are driven by the 2016-2019 Strategic Plan, which builds upon the earlier 2012-2015 Strategic Plan. SBBC's Strategic Plan for 2016-2017 includes three goals – High Quality Instruction, Continuous Improvement, and Effective Communication. The Partnership efforts support these goals through numerous tasks embodied in the current and proposed Agreement.

High Quality Instruction: Per the SBBC Strategic Plan, High-Quality Instruction requires:

- standards-driven content;
- a commitment to teacher development;
- effective teaching practices;
- appropriate learning environments and experiences;
- appropriate monitoring of performance; and
- ongoing professional learning at all levels.

While providing education to students at all grade-levels, the NatureScape partnership has historically focused on middle school students, which best aligns with many of the curriculum standards found in the Next Generation Sunshine State Standards for Science that address natural resources, the environment, and the impact that humans have had on Earth. Initially, in order to provide greater exposure to South Florida's natural environment, learning gardens were installed in conjunction with SBBC horticulture programs at all but one middle school. Since that time, and in the absence of dedicated funding or support for students and landscape materials, NatureScape Broward has been instrumental in identifying additional funding as opportunities become available to improve landscaping on campus environments (see summary below). Along with these physical improvements, NatureScape staff have worked closely to provide outdoor classroom experiences for students as well as training to teachers and other school personnel to enhance their level of understanding of our environment and how best to care for it. It has been observed by NatureScape staff that both teachers and students greatly appreciate the outdoor classroom experience as it helps address, at least in part, the growing problem of "nature deficit disorder" as first described by Richard Louv in his 2005 book "Last Child in the Woods".

With a focus on the application of learning and skills with projects and problems that integrate prior knowledge and extend understanding through new experiences, the Partnership has evolved to be organized around project- and problem-based interdisciplinary learning.

Additionally, the Partnership promotes careers in the environmental fields and exposes students to opportunities in environmental fields by regularly participating in school career days and helping to organize attendees for these events, as well as the annual Water Matters Day, in which students are exposed to a wide variety of professionals in environmental careers.

Continuous Improvement: The Partnership between the District and the County helps better leverage scarce public resources. In particular, the NatureScape staff provides the SBBC with access to numerous experts who participate in training opportunities for teachers and staff, as well as securing venues at Broward County Parks and Recreation facilities for school meetings and events. Additionally, the Partnership has been able to identify and successfully secure grants to enhance the sustainability of school facilities (see summary below).

NatureScape staff, working with SBBC staff at Environmental Conservation/Utility Management Department, have realized efficiencies to improve the work order and maintenance costs associated with irrigation systems and indoor water fixtures. Ultimately, these efforts will result in both water and energy savings, with associated cost avoidance. Additionally, the Partnership, through development and implementation of the P3 Eco-Challenge, has provided resources to further engage all facets of the school community.

Effective Communication: Through the Partnership, NatureScape has always sought to enhance communication and engagement with students, teachers, schools, and the communities in which they work and live. NatureScape has brought numerous outside resources to help forge partnerships that support SBBC students, schools, and programs. For example, the NatureScape partnership has been able to coordinate the delivery of environmental programming from various agency and non-profit groups, as well as bringing in municipal utility personnel to share their jobs and work experiences with teachers and students. As another example, through NatureScape's close association with the National Wildlife Federation, the Partnership was able to capitalize on an opportunity for teachers and students to work with counterparts in Taiwan on shared projects via the Internet. Several SBBC teachers were able to travel, at no cost to themselves or SBBC, to Taiwan to learn firsthand about sustainability education in that country and in turn, teachers from Taiwan were able to visit Broward schools and see what we are doing. Moving forward, NatureScape intends to work closely with SBBC staff on improving website communications, including revising the P3 Eco-Challenge application process to make it more user-friendly.

2.0 THE NATURESCAPE/SCHOOL BOARD ENVIRONMENTAL PARTNERSHIP

Since May of 2007, Broward County's EPCRD has partnered with the SBBC in an Environmental Partnership Agreement, with benefits being realized not only in "greener" school campuses, but in education, economics, and the strengthening of the environmental community. These activities have resulted in significant cost avoidance to the SBCC, while educating more than 50,000 students, and providing training for more than 1,000 teachers and SBBC staff.

Originally, with a focus on 7th grade students, targeted programming was delivered in all middle schools in an annual cycle which focused on 7-8 schools per school year. At each of these schools, learning gardens were installed, professional development and training was provided to teachers and staff, and students received education promoting environmental stewardship and sustainability through lessons on water conservation, the Everglades, and native flora and fauna. As the students trained through the Partnership move through the grades, the importance of returning to these schools and to new students, and often, new teachers and administrators, cannot be underestimated. Maintaining a strong environmental foundation with a focus on conservation of natural resources and environmental stewardship requires these types of continuous intervention efforts.

Additionally, given the number of properties managed and acreage owned by the School Board, the District serves as a critical partner with the County in working to achieve sustainability and promote conservation through appropriate management of District properties and staff training.

Through March of 2017, the following are highlights of the major accomplishments of the Environmental Partnership with NatureScape:

- Delivery of 1,779 educational programs and workshops and staff training directly benefitting over 53,000 students and 57 trainings for 1,061 teachers and SBBC staff. These include classroom and outdoor programs, teacher in-service training, custodial and facility maintenance training, and Habitat Steward training.
- Creation of 35 learning gardens, with a total of 164 schoolyard habitats certified by the National Wildlife Federation.
- Certification of the Broward School District as the largest certified school District in the nation by the National Wildlife Federation based on the education and trainings provided through the Agreement, the percentage of students receiving instruction using the schoolyard habitats, and commitments by SBBC to environmental education.

- Collaboration in the joint delivery of the County's premier annual environmental showcase event, Broward Water Matters Day, which has evolved to include prominent recognition of teachers and students in the Water Matters Day literary contest, participation by numerous schools as exhibitors, and volunteer opportunities for dozens of students. In addition, hundreds of students attend the event annually, all of which enhances the environmental education of students while also providing a unique exposure to the diversity of environmental careers locally and regionally. In 2017, a record 4,320 residents, including students, teachers, and their families attended Water Matters Day. School Board Member Nora Rupert presented the Literary Contest winners and their teachers with prizes solicited by NatureScape staff.
- In the past five years, over \$100,000 in cash and in-kind prizes awarded to schools, teachers, students, and school staff through the annual P3 Eco-Challenge awards ceremony.
- A total of \$324,687 in grant awards and sponsorships secured by Broward County on behalf of the Broward School District, including:
 - \$160,262 in sponsorship fees and in-kind prizes to support the P3 Eco-Challenge Awards program.
 - \$55,500 in Broward County Tree Trust Grant Funding to provide trees to increase tree canopy and habitat connectivity at Broward schools.
 - \$40,157 in Community Foundation of Broward grant funding (\$11,520) along with matching funds (\$28,637) to create butterfly gardens at 48 schools as part of Broward County's Centennial Anniversary activities.
 - \$47,768 in Community Foundation of Broward grant funding (\$28,759) along with matching funds (\$19,009) to create tree canopy and wildlife habitat at 7 Broward schools.
 - \$11,000 in South Florida Water Management District grant funding for native plant installations at Broward schools.
 - \$10,000 in other grant funding associated with the installation of learning gardens at two Broward middle schools and the creation of three tropical fruit gardens at three middle schools.
- Evaluation of 580 existing irrigation systems at 266 school facilities to determine system efficiencies and provide recommended improvements to

support water conservation, as well as overall consistency with NatureScape principles. Staff provided recommendations and reports to schools and administration. The total water savings exceeded 375 million gallons of water annually. Cost avoidance in annual water utility fees and energy savings are estimated at over \$750,000. Additional annual cost avoidance of over \$440,000 were identified through indoor water audits at 13 schools.

3.0 SCOPE OF WORK – PHASE III IMPLEMENTATION

The proposed scope of work for a third 5-year agreement period continues to build upon the efforts and achievements to date. The new agreement focuses on continued implementation of tasks designed to instill the values of environmental stewardship throughout the entire school community as well as providing a new opportunity for greater student involvement through a student-driven project-based learning initiative to develop a Climate Action Plan for SBBC. Complementing this new proposed task is the continuation of the successful P₃ Eco-Challenge which acknowledges and rewards schools, teachers, students, and support staff for implementing environmentally sustainable measures and green initiatives within their schools. This program recognizes that educational enhancement and fostering of sustainability as a core value provides students with critical life skills that jointly support economic, environmental, and social priorities – the foundation for success and measured performance in the public and private sectors – and is fundamental to future planning, business practices, and personal behaviors in support of long-term economic competitiveness, preservation of vital resources, and our quality of life. In addition, this scope of work promotes the delivery of an approach focused on problem-solving, discovery and exploratory learning, and one which requires that students actively engage in a situation in order to find solutions.

The new agreement continues to provide access to delivery of the County's environmental resources and programs that support the SBBC's educational and sustainability goals, inclusive of services offered by Solid Waste and Recycling, Air Quality, and Environmental Planning/NatureScape programs.

For its part, EPCRD proposes to continue to provide education and outreach through its Water Matters, NatureScape Broward, NatureScape Irrigation Services, Know-the-Flow, and Energy and Sustainability initiatives to achieve greater awareness of the connections between students and their environment, to achieve significant cost avoidance, and to support an overall greater environmental stewardship ethic within the facilities owned and operated by SBBC. This effort will be guided by a collaboration of both SBBC and Broward County staff.

The development and delivery of educational programs will aim to support science instruction through increasing students' knowledge about ecosystem sustainability, water

conservation, climate change, the Everglades, water quality protection, and the importance of environmental stewardship. South Florida's fragile ecology is an especially relevant topic for middle school teachers to discuss with their classes. This provides a wealth of possible topics for classroom discussion about such matters as the balance between environmental and economic concerns, as well as the global challenge of climate change, and how local initiatives can be part of the solution. Middle school students confronting these issues will develop a capacity for critical thinking. All programs will be developed and delivered to meet state and SBBC educational standards. Many of the lessons shared in the classroom will be reinforced on school properties throughout the County as native tree canopy and Florida-friendly landscaping is utilized to provide hands-on-educational opportunities on resource sustainability.

Additionally, continued facility improvements through introduction of native landscaping, accompanied with sustainable landscaping practices, such as those promoted by NatureScape Broward, will remain an important component of the new agreement, although funding availability will continue to dictate the extent of new landscaping improvements. EPCRD will continue to seek funds for landscape improvements through various grant opportunities and will work with SBBC staff and NatureScape's volunteer base to install appropriate trees and plant material. Along with these efforts, continued training of SBBC staff will ensure that sustainable practices are the norm and not the exception. All of these efforts are designed to improve water and energy conservation and reduce resource demands throughout school facilities, thereby resulting in documented operational cost avoidance.

The overall effort will be guided by the SBBC's Applied Learning and Environmental Conservation/Utility Management Departments and the EPCRD's program team of 2.5 FTEs, supported by additional County technical resources as determined to be beneficial to the overall goals of the Partnership.

4.0 WORK BREAKDOWN SCHEDULE:

The Scope of Work in support of this new Partnership Agreement between SBBC and the EPCRD will be undertaken through the following series of tasks.

Task 1 **P₃ Eco-Challenge Program.** Five years after the inaugural P₃ Eco-Challenge Recognition Ceremony, this task is designed to continue the successful implementation of the recognition program that acknowledges and rewards schools, teachers, students, and school staff for participating/implementing environmental measures and green initiatives within their schools.

Schools are eligible for points based on certain indicators which fall under each of these broad rubric categories, depending on their level of implementation. The indicators include:

- Outdoor learning labs/structures
- Habitat improvement/restoration
- Energy
- Water
- Solid Waste
- Transportation
- Interdisciplinary Approach
- Environmental Topics Issues
- Field Studies
- Partnerships within the School Building
- Service Learning Projects
- Community Partnerships in School Activities
- School Philosophy and Culture
- Professional Development
- Planning
- Sharing Success and Lessons Learned

Historically, teachers have had to demonstrate how their school and students meet the rubric criteria by entering their application information on the SBBC P₃ Eco-Challenge website. This has been a challenge for some individuals as they find the process difficult and the application "times-out" if not in use for a period. Moving forward, it is proposed that the application process be simplified to encourage entries by alternative methods such as smartphones and tablets. This will be coordinated with the Information Technology Department at SBBC.

Under this Task, NatureScape will coordinate fundraising efforts for the P₃ Eco-Challenge Awards program; assist in maintenance and enhancement of the rubric; solicit and review submissions for the P₃ Eco-Challenge; and develop the awards package, secure the venue, and host the annual ceremony.

Task 2 Development of new programs, tools, and Teacher Trainings.

Under this task, EPCRD will work with SBBC staff to develop programs, resources, and trainings to promote environmental education and stewardship throughout the school system. Curriculum materials will be developed by SBBC staff to ensure consistency with academic standards and EPCRD will provide assistance to identify resources to enhance lessons, with a focus on providing an interdisciplinary learning experience designed to produce a new generation of scientists, engineers, policy makers, advocates, inventors, entrepreneurs, and problem solvers. In particular, EPCRD staff will work with SBBC staff to provide assistance in the development and refinement of the new Environmental Science curriculum, including the modules that address Water Resources and Management and Global Climate Change. While NatureScape's primary involvement will continue to focus on middle grades learning (see Task 3), additional involvement with the high schools is expected to occur based on the subject matter.

The NatureScape Education Specialist will provide teachers with resources that can be utilized over the course of the school year. Educational programs that support NatureScape and environmental stewardship will be incorporated in the resources and will include a number of "hands-on" activities, including, where resources are identified, the planting of additional native landscaping at schools.

Additional technical resources (e.g., local governments, Parent Teachers Organizations, businesses, non-profit groups, volunteers, etc.) will be identified by NatureScape to support the overall program. The County will maintain a list of environmental professionals that can be made available to promote student engagement in environmental issues across Broward County. Upon request and based upon availability, opportunities will be identified for mentoring by business, industry, and research organization leaders.

Teacher trainings will be offered during the school year to teachers from the selected middle schools as well as other schools as space allows. An

intensive one-week Summer Teacher Habitat Steward Workshop will provide training on lessons to be brought into the classroom and to introduce and refine curriculum. Fundamental to the teachers' education will be incorporating lessons and activities from established resources, as well as others identified by the NatureScape team.

NatureScape will offer its "Know the Flow" workshop, a comprehensive course in local water management developed in conjunction with the South Florida Water Management District that can be presented in four one-hour parts or as a single abbreviated one-hour presentation. The abbreviated version of the course will be available on request by teachers for classroom presentations as well as being offered in teacher education trainings for National Wildlife Habitat Steward certification and in-service trainings.

Periodically, County and SBBC representatives will review the year's progress and discuss opportunities for refinements and program improvement.

Additional supporting services and tools will be identified and/or made available to effectively deliver these programs, as needed. These might include Powerpoint presentations, instructional videos, software, and use of various Smartphone applications that might be useful in engaging students in science.

In addition, the County will also work closely with SBBC to continue identifying grant opportunities that further support these programs.

Task 3

NatureScape presentations in the schools. This task provides for the continuation of NatureScape-based presentations in the classroom that are supportive of environmental stewardship. Under this task, County will work with the SBBC, school administration, teachers, and other environmental professionals to deliver and coordinate environmental programming.

Partnership activities will be organized to provide engagement and delivery of programming across all middle schools within the 5-year timeframe of this agreement. Prior to the start of the school year, the NatureScape Education Specialist will coordinate with SBBC to identify middle schools for focused programming during the school year and seek contacts with representative(s) from each school, to discuss expectations and to describe the resources available. As opportunities and requests arise, other schools, including elementary and high schools, will be included in programming.

EPCRD will assist in the development and delivery of a variety of lesson plans based on the interactions of living things, cycles in nature, water resources, Florida's Everglades, climate change, and caring for Florida's environment in a sustainable manner.

Programs prepared under this task include a series of approximately one hour/period programs that will focus on different environmental issues and themes (e.g., climate change, invasive plants, native landscaping, ecology, nonpoint source pollution, water resource management in South Florida). All presentations will be developed to promote the connections between individuals and their environment and to promote an ethic of environmental stewardship. Where appropriate, NatureScape staff will utilize the school campus as an outdoor classroom.

Over the years that the Partnership has been in effect, a number of teachers and schools have taken advantage of having NatureScape staff present to their students on a regular annual basis, ranging from a single classroom presentation to presentations for an entire grade level.

Task 4

Youth Climate Summit. Climate change is becoming a topic of increasing concern, destined to have a greater influence on many aspects of society moving forward. Despite a lack of direction/guidance from the State on how Climate Literacy should be taught in our schools, the importance of its implications to South Florida's environment, economy, and people justifies a greater understanding and involvement by our teachers, future student leaders, and community in general. This new task will be for the County to serve as the overall coordinator to guide the development of an initial Youth Climate Summit in which students will have the major role in developing their own forum and climate action plans for their schools. The Youth Climate Summit will be based on the Adirondack Youth Climate Summit format and will be modified to address the challenges facing Southeast Florida/Broward County. This effort will eventually result in youth-developed Climate Action Plans, providing opportunities for youth to learn through project and real-world problem learning. The Summit is intended to be an empowering experience which will require the development of teams to serve in different capacities including development of a format, budgeting, fundraising, securing a venue, identification of speakers, and execution of a major youth-based event and action plan. Depending on the success of the initial Youth Climate Summit, additional summits may be held.

To introduce students to what a Climate Summit is about, approximately 30-50 students will be invited to participate in the 9th Annual Southeast Florida

Regional Climate Leadership Summit in December 2017 at the Broward County Convention Center. Although this two-day summit will primarily involve participation by local and state elected officials, city managers, agency partners, academia, private industry, nonprofit representatives, and other community leaders, and include high-level discussions centered around the business of resilience, there will be several opportunities for student participation. At the end of the second day of the summit, students may participate in an open discussion to talk about what they have learned and how they might approach planning for and implementing a Youth Climate Summit and creating their own Climate Action Plan.

Planning for the Youth Summit will involve a number of steps including County staff, School Board staff, interested teachers, and others. Steps include, but are not limited to, the following:

- Work with SBBC to create steering committee with students, teachers, post-secondary institutions, and community members
- Define audience including number of students and age group(s) to be reached
- Identify venue
- Event Planning Logistics
- Develop budget and fundraising

- Plenary and Workshop Presenter Planning
- Communications
- Post Summit follow up/progress report
- Develop Climate Action Plans with tasks and timelines

It is envisioned that the initial Youth Climate Summit will be held in either the second or third year of this agreement. This will provide for the time to promote the concept and identify the support of teachers, administration, and community resources, including funding, necessary to successfully deliver the Summit.

Task 5

Staff training for custodial staff, facilities managers and support personnel. This task is intended to provide for trainings for custodial staff, facilities managers, and school support personnel. Under this task, NatureScape staff will work with SBBC staff to provide both classroom and hands-on training in water conservation, including landscaping maintenance, irrigation system repairs, and indoor plumbing repairs and

retrofitting. As part of the classroom portion of these trainings, NatureScape will provide the abbreviated version of the "Know the Flow" workshop.

Trainings for any maintenance/custodial staff involved in managing irrigation systems will also, in conjunction with appropriate SBBC facilities staff, include exposure to a hands-on section on irrigation system repairs and landscape maintenance fundamentals.

New to this scope of work, this task also proposes the development of training videos on best management practices for custodial, maintenance, and facilities staff, including an introductory video on who NatureScape is and the services provided by NatureScape to SBBC. The NatureScape Irrigation Service staff will also provide for SBBC staff training on any smart irrigation systems that may be installed on SBBC properties.

Task 6

Environmental Recognition/School Certifications. The primary goals of this task are to: a) work with schools to achieve recognition for various environmental initiatives and achievements and, b) to maintain certifications, as required, through various programs such as National Wildlife Federation's Schoolyard Wildlife Habitat certification and Eco-Schools USA programs. While the P₃ Eco-Challenge Awards program will remain the primary opportunity to recognize environmental stewardship achievements amongst peers, other recognition programs such as the County's Emerald Awards program, will be considered as well for awards.

In July 2012, during the initial implementation period of the Partnership Agreement, NatureScape was instrumental in helping to achieve certification of the School Board of Broward County as a Schoolyard Wildlife Habitat by the National Wildlife Federation, the first school district in the nation to receive this recognition. Through the implementation of NatureScape principles, additional school facilities will be eligible for recognition by both the County's NatureScape Broward program and the NWF's Schoolyard Wildlife Habitat certification program. Maintaining the NWF certification requires the submittal of various documentation on an annual basis. NatureScape staff will work with SBBC to ensure that this certification is maintained.

The Foundation for Environmental Education developed the Eco-Schools program in 1994, which was recognized by the United Nations Environment Program in 2003 as a model initiative for Education for Sustainable Development. In 2008, the National Wildlife Federation was granted host status for K-12 schools in the United States. Through Eco-Schools USA,

the National Wildlife Federation has supported the registration and certification of 50 Eco-schools in Broward County. Through school-based action teams of students, administrators, educators and community volunteers, Eco-Schools combines effective "green" management of the school grounds, facilities and the curriculum. The program currently provides recognition for completion of each of ten pathways to Sustainable Development: Biodiversity, Climate Change, Consumption and Waste, Energy, Healthy Living, Healthy Schools, Schoolyard Habitats, Sustainable Food, Transportation, and Water. Two new pathways are being developed currently. NatureScape staff will work with schools to help them achieve recognition, in particular, for the Water, Schoolyard Habitats, and Climate Change pathways.

The County shall work with schools and SBBC staff to evaluate school facilities, programs, and provide recommendations for achieving various certifications/recognition as appropriate. These recommendations will be reviewed and discussed with school staff and SBBC and plans and schedules will be developed to achieve these certifications, along with necessary follow-ups and re-assessments. The ultimate goal of all of these recognition efforts is to create a culture that values the incorporation of sustainable practices, recognizes these achievements, and serves as a model for adjacent communities and neighboring school districts.

Working with schools and teachers to increase the amount of native and drought-tolerant landscaping at school facilities can serve as a starting point for many schools. As landscaping improvements are made, students will be engaged in the process by applying lessons learned in the classroom to providing assistance in the planting of landscaping on their campuses. Plant materials for new landscaping/landscaping renovations will be sought through grant opportunities and planted and maintained in accordance with sound NatureScape landscaping principles, designed to minimize the usage of unnecessary irrigation, fertilizers, and other chemicals, while providing opportunities that can be used as part of class instruction and encouraging student participation in healthy, outdoor activities.

Task 7 **Water Matters Day partnerships.** Broward Water Matters Day, the County's premier environmental event, is a unique opportunity for students to interact with a full range of environmental professionals representing federal, state, and local agencies and to explore career options in the environmental field. This task is intended to provide opportunities for schools and students to participate in various aspects of Water Matters Day. Under this task, and based on NatureScape staff recommendations, a

limited number of schools will be invited to host a booth/display at the event to showcase their environmental programs or bring attention to environmental issues. In addition, the County will solicit interested students and those seeking to earn volunteer hours to participate in and/or volunteer at the County's annual Water Matters Day event. This could include assisting in the tree giveaway area, conducting participant surveys, assisting in staffing a booth, etc. The County reserves the right to limit the number of volunteer students to those that are necessary for successful management of the event. Extra credit forms will also be made available for other students that visit all exhibitor booths. In 2017, there were over 55 exhibitors providing information and education on various environmental programs that are offered throughout the County.

Additionally, the County will continue to solicit entries from middle and high school students for essays, poems, and written works as part of the Water Matters Day Literary Contest and that relate to an environmental theme associated with either the annual event or the P₃ Eco-Challenge. Students that submit winning entries, along with their teachers, will be eligible for prizes donated by one or more Water Matters Day co-sponsors.

The County shall provide all support services related to the execution of Water Matters Day, including fundraising, planning, administration and coordination of activities and participants in advance of and during the event. The County shall develop promotional materials for the annual Water Matters Day, including such items as posters, programs, multi-media advertisements, and t-shirts, as well as appropriate promotional spots for Water Matters Day for radio and/or television. The County shall prepare a summary of the annual Water Matters Day event including information on attendance, survey results, and overall success in providing outreach to the community in the Annual Report prepared under Task 10. The County will provide SBBC with a summary of Water Matters Day school-related activities, including number of volunteers and student participation.

Task 8 **Irrigation System Design & Operational Evaluations.** This task is intended to implement and provide for irrigation system evaluations to improve efficiency and reduce water usage outdoors. Landscape irrigation accounts for up to 50% of the potable water usage in Broward County. As an entity that manages significant acreage within Broward County, the SBBC is a major water user. Reducing irrigation demands by adjusting irrigation systems to operate more efficiently has proven to be effective in realizing water savings, reducing energy costs, and reducing runoff and its adverse effects, while still meeting plant needs. In this task, County,

through its Water Conservation Specialist, will work closely with Environmental Conservation/Utility Management staff to thoroughly evaluate the efficiency of the irrigation systems at each school facility.

County's Water Conservation Specialist will work with Environmental Conservation/Utility Management staff to develop schedules for evaluation of the irrigation systems, based primarily on usage, with priority given to those systems that are using municipally-sourced potable water. Recommendations will be provided to Environmental Conservation/Utility Management staff, and improvements will be scheduled/provided as manpower and budgets allow. In addition, EPCRD staff will be available to train new and existing SBBC staff in proper irrigation system maintenance. This task will be undertaken on a continuous basis throughout the term of the agreement.

Task 9 **Water Audits within Schools.** Under this task, the County's Water Conservation Specialist will work with Environmental Conservation/Utility Management staff to conduct a minimum of three (3) water audits annually within the schools using the South Florida Water Management District's audit guidelines as found in "A Water Efficiency Improvement Self-Assessment Guide for Commercial and Institutional Building Facility Managers".

County will work with Environmental Conservation/Utility Management staff to schedule indoor water audits of plumbing fixtures and water-using appliances. Recommendations will be provided to SBBC, and improvements/retrofits will be scheduled as manpower and budgets allow (as determined by appropriate SBBC staff).

Task 10 **Coordination/Administration.** Under this task, the County will meet with appropriate SBCC personnel to establish joint protocols, contacts, tools, and educational programs that best integrate environmental stewardship and sustainability principles within the District. This effort will include a commitment of County's Environmental Planning and Community Resilience Division, and appropriate SBBC Divisions, as well as other identified individuals to convene on an as-needed basis.

This task also includes overall administration of the agreement, including financial and annual reporting. Quarterly summary reports will be provided with invoices and summarize the major activities for the quarter under each of the task areas. An Annual Report will be provided to SBBC that will include additional information, including an estimate of annual avoidance in

water and energy costs based on the documented water savings achieved at each facility, number of students taught, and number of staff trained through the program.

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Exhibit "B"

Fees to be Paid to County for Services

County shall be paid according to the Rates and Fees listed below:

Total Cost of Services

For the initial twelve (12) month term of this Agreement, County shall provide services described in the Statement of Work at a not to exceed fee of Fifty Five Thousand Five Hundred and Fifty Four Dollars (\$55,554.00) per quarter year, paid in arrears.

Following the initial twelve (12) month term, SBBC shall have the option of extending this Agreement for four (4) additional years. Rates established for each additional year of implementation are as follows which includes a three percent (3%) increase per annum.

Year 1 renewal: A not to exceed fee of Fifty Seven Thousand Two Hundred Twenty One Dollars (\$57,221.00) per quarter, paid in arrears.

Year 2 renewal: A not to exceed fee of Fifty Eight Thousand Nine Hundred Thirty Seven Dollars (\$58,937.00) per quarter, paid in arrears.

Year 3 renewal: A not to exceed fee of Sixty Thousand Seven Hundred Five Dollars (\$60,705.00) per quarter, paid in arrears.

Year 4 renewal: A not to exceed fee of Sixty Two Thousand Five Hundred Twenty Seven Dollars (\$62,527.00) per quarter, paid in arrears.



**ENVIRONMENTAL PROTECTION and GROWTH MANAGEMENT DEPARTMENT
ENVIRONMENTAL PLANNING and COMMUNITY RESILIENCE DIVISION**

Mailing Address: 115 S. Andrews Avenue, Room 329H • Fort Lauderdale, Florida 33301
954-519-1270 • FAX 954-519-1496

August 28, 2017

Mr. Guy Barmoha
Director, Math, Science & Gifted Department
Broward County Public Schools
KC Wright School Board Building
600 SE Third Avenue
Fort Lauderdale, Florida 33301

**RE: Extension of Partnership Agreement in Support of NatureScape Broward
Programming in Broward Schools**

Dear Mr. Barmoha,

Over the past year, we have continued to make great progress in implementing NatureScape and other environmental stewardship programs in Broward County Public Schools under the terms of our partnership agreement (copy attached). To date, we have facilitated the certification of 164 landscapes at school facilities, delivered over 800 classroom educational programs, trained approximately 700 District teachers and over 900 custodial/facilities staff in School Board-endorsed training sessions, and provided valuable environmental information to an additional 2000+ teachers, administrators, custodial staff and other School Board employees through personal contact. This year saw the implementation of the Fifth Annual P₃ Eco-Challenge, an event that strengthens the ties between our agencies and encourages students, teachers, and support staff to actively engage in sustainability measures.

During this past school year, we saw continued growth in the number of students that directly received educational lessons intended to raise their consciousness on the importance of water conservation, native landscaping, and environmental stewardship, and which are grounded in STEM-based skills. To date, over 75,000 students have participated in classroom and outdoor environmental activities directly related to our partnership agreement. The P₃ Eco-Challenge Awards Ceremony and Broward Water Matters Day events which we have jointly collaborated on have been a great success, enjoyed by students, teachers, and members of the community. These ongoing achievements and program opportunities are promoted through the semi-annual *SchoolScapes* newsletter that outlines our partnership activities over the past year as well as the attached Annual Progress Report.

As you know, the evaluation of irrigation systems on school properties is another important component of the partnership. This past school year, the NatureScape Irrigation Service conducted 92 irrigation system evaluations at 38 school facilities, resulting in over 68 million gallons of annual water savings and cost savings of \$254,619 annually in reduced potable

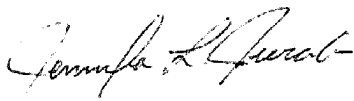
NatureScape Broward Agreement
August 24, 2017
Page 2 of 2

water fees. Since initiating the NatureScape Irrigation Service within the schools, over 260 school campuses have been evaluated with over 382 million gallons of annual water savings. In addition, water audits addressing indoor water conservation were conducted at three schools this past year and have provided recommended improvements for an additional 4,182,496 gallons of annual water savings. These efforts collectively provide real water, energy, and cost savings to the School Board of Broward County which are reflected on the attached Return on Investment documentation.

We hope you concur that through our partnership agreement, we have realized great success in implementing the NatureScape Broward initiative in our public schools. As such, the County would very much like to continue providing these services for an additional five-year period, and kindly requests the School Board consider renewal through approval of this Agreement, to become effective at the end of the current term on December 11, 2017.

We look forward to continuing our partnership in this very important initiative. Should you have questions or need additional information, please contact Robert Rudolph at (954) 519-0328.

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer Jurado".

Jennifer Jurado, Ph.D., Director and Chief Resilience Officer
Broward County Environmental Planning & Community Resilience Division

cc: Rob Jindracek, Manager, Environmental Conservation/Utility Management
Leo Bobadilla, Chief Facilities Officer

Attachments

Broward Schools/NatureScape Broward Environmental Partnership Agreement
Return on Investment
July 2016 - June 2017

This past school year (2016-2017) saw implementation of the fifth year of the current partnership agreement between the School Board of Broward County and the NatureScape Broward program. This agreement continues to build upon the progress and achievements realized during the original agreement and focuses on enhancing sustainability measures within schools in a holistic approach that brings all of the County's efforts, resources, and programs under an umbrella initiative, thereby maximizing access and the use of various tools. Among the most notable program accomplishments during the reporting period were:

- The delivery of the Fifth Annual P₃ Eco-Challenge, a school-wide competition that entails demonstrating participation in or implementation of different sustainability metrics based on a rubric composed of six comprehensive categories. The P₃ Eco-Challenge Recognition Awards Ceremony, which was held in May 2017, encourages, recognizes, and rewards schools, teachers, students, administrators, and volunteers for their efforts in addressing the challenge.
- Irrigation Service evaluations resulting in actual water savings of over 68,000,000 gallons of water annually and over \$250,000 in annual cost savings.*
- Water audits conducted at two Broward schools identified \$45,502 worth of potential annual cost savings that could be made by retrofitting/replacing various fixtures within the schools and, in addition, save over 4,000,000 gallons of water annually.
- The development of new curriculum resources for teachers to utilize in presenting Climate Change science education and Water Resources Management to students.
- The completion of six Habitat Connectivity landscapes on school campuses to support wildlife and enhance tree canopy.

During the past year of program implementation, reimbursement paid to Broward County for delivery of program services per the terms of the Agreement averaged \$53,205.50 per quarter for a total annual cost of \$212,822. Funding provides for the dedicated support of 2.5 FTEs and program operational expenses (e.g., print materials, office supplies, vehicle expenses, etc.).

Environmental Planning & Community Resilience Division (EPCRD) program staff dedicated to implementing the Environmental Partnership with Broward Schools include:

- 1 FTE – Delivering environmental programming and teacher training (Victor Suarez)
- 1 FTE – Providing Irrigation System Assessments, Indoor Water Audits, and Facilities Management Training (Maena Angelotti)
- 0.5 FTE – Providing NatureScape Broward program and office support (Kimberly Mayo)

**Additional funds that would be incurred annually in the absence of changes made as a result of irrigation evaluations.*

Additional EPCRD personnel providing program management and administrative support include:

- Director, Environmental Planning and Community Resilience Division (EPCRD), (Jennifer Jurado, Ph.D.)
- Water Resources Manager, EPCRD (Carolina Maran, Ph.D.)
- Water Planning Program Manager, EPCRD (Robert Rudolph)
- NatureScape Outreach Coordinator, EPCRD (Rose Bechard-Butman)
- NatureScape Irrigation Service Coordinator, EPCRD (Robert Wanvestraut)
- Administrative Support, EPCRD (Andrew Tucker/Carole Wilschke/Norma Ellison)
- GIS/Technical Support, EPCRD (Katie Lelis)

This additional program support represents the additional dedication of 0.8 FTEs provided as a Broward in-kind cost share.

Other measurable program accomplishments for the past school year include:

- The delivery of 236 educational programs and workshops (exclusive of Water Matters Day) and staff training to directly benefit 5,830 students, 51 teachers, and 520 facilities managers. These include classroom and outdoor programs, teacher in-service training, Habitat Steward training, facility maintenance training, and the Facilities Servicepersons' Conference.
- 92 Irrigation system evaluations conducted at 38 schools to achieve a total water savings of 68,149,425 gallons of water. Along with this, an estimated annual additional cost savings of \$254,619 derived from irrigation system evaluations and associated reductions in energy and water usage.
- \$111,444 in grant awards and other funding and in-kind services secured by Broward County on behalf of the Broward School District, including:
 - \$35,899 in cash and in-kind prizes to support the P₃ Eco Challenge awards and ceremony.
 - \$38,590 for 1,700 hours of NatureScape-solicited volunteer time to assist with environmental programming and school landscaping improvements and projects.
 - \$36,955 in grant funding for landscape improvements at Broward schools

In addition to the in-kind cost share provided by other EPCRD staff, annual operational cost savings, grant awards, funding secured for the P₃ Eco-Challenge awards and ceremony, and volunteer hours provided by NatureScape volunteers for school projects, a return-on-investment (ROI) of 122.91% was realized this reporting period.

There are other benefits provided by the Partnership Agreement as well which are more difficult to quantify. On the academic side, these include opportunities for students to learn about their natural environment through outdoor classroom experiences; exposure to career opportunities in various environmental fields; and, the development of a strong foundation in environmental stewardship to be shared at home and in the communities in which we live. On the physical side, benefits of improved irrigation efficiency include improved resiliency of our aquifer system to saltwater intrusion, reductions in use of fertilizers, fungicides, and other landscape care chemicals, as well as development of more resilient school landscapes.

The following provides additional details on the return-on-investment for the 2016-2017 school year:

Description	SBBC Funding	Return-on-Investment
Staffing	\$192,206	\$60,107 (Additional County in-kind)
Operational	\$20,616	\$254,619 irrigation savings \$45,502 water audit savings (actual and potential annual cost savings)
P ₃ Eco-Challenge Awards and Ceremony		\$35,899 (secured sponsorships)
Other grants and services provided external to agreement		- \$36,955 for landscaping and materials from various grants - \$2,100 deferred meeting room fees - \$639 Water Bottle filling station for Low Water Challenge winner – Orange Brook Elementary School
Volunteer time (NatureScape-solicited)		\$38,590 (1,700 hours @ \$22.70/hr) (https://www.independentsector.org/volunteer_time)
Annual Total	\$212,822	\$474,411



**10th Annual Progress Report
NatureScape Broward/Broward Schools Environmental Initiative
Covering the Period July 1, 2016 – June 30, 2017**



Executive Summary

This is the tenth annual progress report prepared under the Partnership Agreement to implement the terms for support of the NatureScape Broward program within the Broward County School District areas as originally approved by the School Board of Broward County (SBBC) in May 2007 and by the Broward County Board of County Commissioners in June 2007. NatureScape Broward is a program of the Environmental Planning & Community Resilience Division (EPCRD). A second five year agreement, currently in effect, was executed in December 2012.



The scope of work focuses on creating sustainable schools in a holistic approach that brings all of the County's efforts, resources, and programs under an umbrella initiative, thereby maximizing access and the use of various tools. A key component of this Agreement is the P₃ Eco-Challenge, which acknowledges and rewards schools and teachers for participating/implementing environmentally sustainable measures and green initiatives within their schools. Other tasks within the Partnership Agreement as discussed herein include: Development of tools and trainings to enhance curriculum; NatureScape presentations in schools; Trainings for facilities managers; NatureScape learning gardens/certifications; Water Matters Day partnerships; Irrigation system evaluations; Water audits; and Coordination/Administration.

Primary support for implementation of the Partnership Agreement during the reporting period included the following:

- Jennifer Jurado, Ph.D., Division Director, EPCRD
- Carolina Maran, Ph.D., Water Resources Manager, EPCRD
- Robert "Rudy" Rudolph, Water Planning Program Manager, EPCRD
- Victor Suarez, NatureScape Broward Education Specialist
- Maena Angelotti, NatureScape Broward Water Conservation Specialist, EPCRD
- Kimberly Mayo, NatureScape Program Assistant, EPCRD
- Guy Barmoha, Director of Math Science, & Gifted Department, SBBC liaison for the Environmental Partnership, SBBC
- Lisa Milenkovic, PhD, Supervisor, STEM+Computer Science, SBBC
- Merylyn Johnson, PhD, Science Supervisor, SBBC
- Rob Jindracek, Manager, Environmental Conservation/Utility Management, SBBC
- Ed See, Environmental Conservation/Utility Management, SBBC

A review of task progress under the current renewal period follows. This report covers the period July 1, 2016 through June 30, 2017.

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Task 1 – Green Schools Recognition Program

This task supports SBBC’s efforts to educate its community and engage in environmental practices within the schools through a Green Schools Sustainability/Recognition Program that acknowledges and rewards schools, teachers, and students for implementing environmental measures and green initiatives within their schools and communities. The task consists of four subtasks.



Coordinate Fundraising Efforts

Working with the SBBC’s Math, Science & Gifted Department staff, NatureScape Broward staff within the County’s Environmental Planning and Community Resilience Division (EPCRD), made approximately 80 solicitations to agencies, public and private companies (local, national and international), financial institutions, and nonprofit groups to seek funds for a Green Schools Recognition Awards program - P₃ (Preserving Our Planet for Posterity) Eco-Challenge. These solicitations were made in person, by phone, by letter, and by email. Sponsors were provided the opportunity to participate at five different levels of sponsorship. Each sponsorship level provided for increasing levels of recognition based on the amount of contribution. These solicitations resulted in approximately \$36,000 in cash, prizes and in-kind items for the Broward P₃ Eco-Challenge Awards Ceremony and have provided a foundation for continued support and future sponsorships.

 <p>PLATINUM SPONSOR</p> <p>Platinum Sponsor</p> <ul style="list-style-type: none"> ◦ Whole Foods Market 	 <p>GOLD SPONSOR</p> <p>Gold Sponsors</p> <ul style="list-style-type: none"> ◦ National Wildlife Federation ◦ JIM Family Enterprises ◦ Hazen & Sawyer ◦ Everglades Holiday Park ◦ Wacky Wild Science 	 <p>SILVER SPONSOR</p> <p>Silver Sponsors</p> <ul style="list-style-type: none"> ◦ Marine Industries Association of South Florida ◦ FIU SEAS program ◦ South Florida Audubon Society ◦ National Geographic Learning ◦ Diamond Del's Gem Mining Adventure 	 <p>BRONZE SPONSOR</p> <p>Bronze Sponsors</p> <ul style="list-style-type: none"> ◦ Calvin Giardino Associates ◦ Citrix ◦ Curriculum Associates ◦ Allstate Resource Management ◦ Alexander's Plant Farm ◦ Educational Resource Solutions ◦ Miller Legg ◦ Explore Learning ◦ Florida Ag in the Classroom ◦ Museum of Discovery & Science ◦ Broward County Parks and Recreation ◦ Broward Sierra Group ◦ National Geographic Learning ◦ Broward County Drone League ◦ Promethean
<p>+ 8 Eco Friends</p>			

Once again, Whole Foods Market was the Platinum Sponsor for the awards ceremony. The Gold sponsors remained the same as in previous years as well, although Wacky Wild Science, a former Eco-friend sponsor increased its in-kind sponsorship and this year became a gold level sponsor. Their prize is an in-school field trip bringing a museum experience to the whole school. In addition, a new Silver sponsor, Diamond Del's Gem Mining Program, offered a mobile gem mining adventure for up to 150 students. There were two new bronze sponsors this year – Alexander's Plant Farm donated a garden installation with wildlife gardening lessons and the Drone League donated a drone presentation and training.

Maintain and Enhance the Rubric

During the first year of the current agreement, a matrix or rubric was developed through extensive coordination with County agencies and SBBC staff in order to recognize schools, teachers, and students that are implementing sustainable environmental practices. Each year, the rubric is reviewed and modified to reflect changes in programs and comments from teachers and administration. The rubric was revised this school year to add a "Custodial" category and is currently being reviewed once again to identify what modifications need to be made to reflect existing opportunities for the school community to showcase environmental stewardship within their schools and communities and how it might be modified to increase its use amongst teachers and schools. Plans are underway to make major changes to the P₃ Eco-Challenge application process and are expected to be implemented in the 2018-2019 school year. The application is not expected to be available online in the 2017-2018 school year due to major modifications being made to the Broward County Public Schools website.

Coordinate Solicitation and Review of Submissions

NatureScape staff actively promoted the P₃ Eco-Challenge throughout the school year and encouraged participation from the teachers and schools. The P₃ Eco-Challenge was featured in the *SchoolScapes* e-newsletter as well as being promoted on the SBBC's environmental and STEM web pages. While School Board staff was directly responsible for collecting submissions, NatureScape and other County staff met regularly with them to help identify and encourage schools and teachers that should apply, as well as discuss other issues. The County staff also identified environmental professionals to serve as judges for the P₃ submissions.

Develop Awards Package and Host Ceremony

The P₃ Eco-Challenge is promoted as a contest offering a prize of \$2,000 to the top school, \$500 to the top teachers, and \$250 for winning students. However, as in past years, NatureScape staff was extremely successful in soliciting significant sponsorship funds, which allowed for additional cash awards and prizes to all the applicants of the P₃ Eco-Challenge. By the time of the Awards Ceremony on May 10, over \$35,000 in cash, materials, and in-kind prizes and services had been secured for the event.

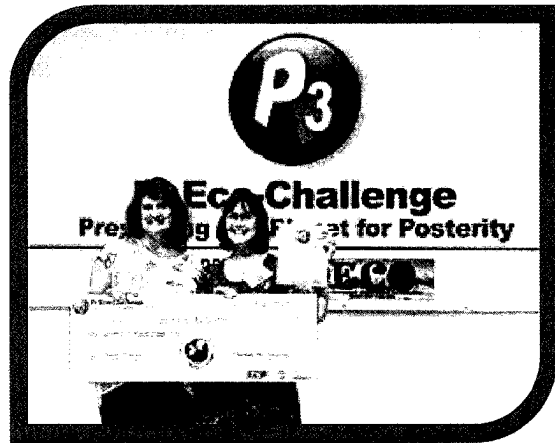
NatureScape staff arranged for the Broward County Park Division's Long Key Nature Center in Davie to serve once again as the venue for the Awards ceremony. Multiple P₃ Eco-Challenge

Committee planning meetings were held with EPCRD, SBBC, and the Environmental Conservation Organization (ECO) staff in order to develop the Awards Ceremony Program. SBBC staff was able to arrange for Charles Webster, Broward County Public Schools (BCPS) Legislative Affairs, to serve as Master of Ceremonies. NatureScape staff arranged for Mr. David Mizejewski to serve as the Keynote Speaker. Mr. Mizejewski is a media personality, author, blogger and a naturalist with the National Wildlife Federation. He is a regular guest on numerous television shows including *Conan*, *Inside Edition*, and *Today* and is a regular speaker at environmental conferences both on the national and local level. Mr. Mizejewski presented information about National Wildlife Federation, Broward County's successful partnership with NWF and shared some information about several wildlife ambassadors that joined him on stage. The local wildlife was provided by the staff at Flamingo Gardens, which serves as a venue for fieldtrips with 28,000 students visiting last year.

On May 10, 2017 over 200 guests, Broward County Commissioner Beam Furr and School Board Member Laurie Rich Levinson congratulated prize winners. Over-all winner Tequesta Trace Middle School won \$2,500 and runner-up Beachside Montessori Village won \$1,500. Forty-Six (46) other cash prizes ranging from \$50 to \$500 were awarded to schools, teachers, custodians and students. In addition, numerous schools and teachers received certificates for in classroom programming by professional environmental educators. Guests took home door prizes, native wildflowers and trees.



Thanks to a generous sponsor, there was a Native Tree Giveaway at P₃ Eco-Challenge Awards Ceremony



Board Member Laurie Rich Levinson presents \$2,500 check to Carolyn Sant Angelo of Tequesta Trace Middle School

Task 2 - Development of Tools and Trainings to Enhance Curriculum

Under the partnership agreement, EPCRD is continually exploring opportunities for new curriculum, programs, tools, and trainings to offer to students, teachers, and staff to improve programming to the school community.



NatureScape frequently updates its Educator Resource List which is provided to teachers and includes local, state and national environmental educational resources that can assist them in enhancing their curriculum. New resources are added to the list as they are identified. During the reporting period, the Educator Resource List was updated as appropriate and posted on Edmodo for the use of all teachers. Edmodo is a website that helps connect students, educators, and parents with the people and resources needed to reach their full potential.

Per the direction of SBBC staff, NatureScape trainings have continued to include additional resources to help teachers inform their students about Climate Change. This includes references to climate change concepts and lessons that can be shared in the classroom as well as science-based referenced websites.

NWF also has a website where climate smart educational resources and learning opportunities can be found at <http://climateclassroom.org/> and has recently released a second website focused on grades 3-6 which can be found at <http://climateclassroomkids.org> .

In addition, with the inclusion of Citizen Science as the Special Projects/Innovation category in the P₃ Eco-Challenge, EPCRD staff has prepared a list of popular Citizen Science websites, where teachers and students can provide information from their mobile devices or laptops to assist researchers in scientific data gathering. One excellent source to help get teachers started can be found at <https://scistarter.com/> .

Trainings remain an integral part of the Environmental Partnership. Over 50 teachers received some type of NatureScape-based training during the reporting period, including two NatureScape one-day teacher training workshops that were held on August 2, 2016 and June 27, 2017. There were a total of 36 teachers that attended these in-service trainings. Teachers who completed the trainings and their follow-up assignments were eligible for in-service points.



During the 2017 Habitat Stewards class, teachers helped remove invasive plants and assisted in dune planting at Hollywood Beach

During this reporting period, the NatureScape staff also hosted a National Wildlife Federation Habitat Steward 5-day training for 15 teachers (June 2017.) Habitat Steward teachers Jacqueline R. Sanchez from Griffin Elementary School and Linda Gancitano from Driftwood Middle School, former P3 Eco-Challenge winners, shared strategies for accessing environmental opportunities within the school district and how to green their campuses. They also shared ideas about the projects that are happening at their own schools with suggestions on how the soon-to-be stewards can implement these or similar programs on

their campuses. Staff also participated in an invasive plant removal project and dune planting as a new part of the Habitat Steward program this year.

In conjunction with the Broward County Parks & Recreation Division, NatureScape Broward helped host the math and science teacher meetings for the year at Long Key Nature Center and Tree Tops Park. This also provided an opportunity to introduce teachers to the County Parks staff, as well as introducing them to potential new field trip locations and opportunities for volunteer hours for students and others at these locations. NatureScape staff introduced its programs to teachers and also coordinated with SBBC to offer a list of suggested agencies that they might invite to this event so that teachers could meet representatives from local environmental groups and agencies.

Staff shared information with teachers about the free GLOBE Training for Eco-Schools USA offered through NWF. This training provides learning opportunities that are scientifically rigorous while allowing students to address sustainability through service learning.

http://www.nwf.org/Eco-Schools-USA/GLOBE/On-Line-Course-Information.aspx?s_email_id=20161012_ECO_ENG_GLOBE_ProjectPB|STedu.

Staff also shared information with teachers about the U-FUTuRES (UF Unites Teachers to Reform Education in Science) program, a professional learning opportunity for 4th – 8th grade teachers to transform how science is taught in Florida's middle schools. U-FUTuRES is a certificate program offered by the University of Florida, College of Education, School of Teaching and Learning.

During the school year, NatureScape staff also encouraged high school students, through their science teachers, to participate in the Aquatic Plant Management Society's Scholarship Fund.

Following up on last year's "100 Days to Save" water conservation contest, this year schools were asked to create a 30 second PSA video with the focus *#watermatters – Water Conservation: what students can do?* The contest was designed to inspire and empower students to educate others about the importance of water conservation. The videos had to show water conservation-minded behavior happening at schools and include water conservation facts. The winning school was Orange Brook Elementary School which won a water bottle filler for their entry "Water You Wasting It For?" Other top finishers won educational science kits.



As winner of the "100 Days to Save" water conservation contest, Orange Brook Elementary School won a water bottle filler to help reduce the use of plastic bottles at their school.

Maena Angelotti also coordinated the "How Low Can You Go Contest", assisting schools with monitoring and reducing their water consumption for a new Water Conservation category as part of the contest. How Low Can You Go has a partnership with the Miami Heat Basketball franchise which rewards schools that win, among other things, tickets to a Heat home game. Nine schools entered the water conservation section which challenges schools to reduce water at their schools during an approximately three month period. Lauderdale 6-12 STEM-MED won for reducing the most water and was recognized during a Miami heat game.

In addition, EPCRD staff provided Dr. Marilyn Blair-Johnson, the Science Supervisor for SBBC, with resource materials including lessons and case studies, to assist in creating the new Climate Change and Water Management modules for the Environmental Science Honors program.

EPCRD invited teachers to participate in a Climate Education Teach-In. The Alliance for Climate Education hosted a global climate teach-in on April 24th. Teachers were able to stream videos from their interactive climate assembly, Our Climate Our Future and participate in a Q&A session with climate scientist Dr. Scott Denning of Colorado State University. EPCRD, working with SBBC, is also helping to organize student participation at the December, 2017 9th Annual Southeast Florida Regional Climate Leadership Summit.



Task 3 - NatureScape Presentations in the Schools

NatureScape continued to maintain an active presence in the schools, providing presentations and support for projects throughout the year. During the reporting period, 236 programs were delivered to approximately 5,830 students and included the following:



During summer 2016, NatureScape staff was able to engage students by providing presentations at libraries and summer camps on an as requested/as available basis. A new program in summer 2016 was presented at James S. Hunt Elementary School. Called "Summer Break Spot", it is hosted by the Coral Springs Police Department, and it allowed NatureScape to provide outreach to many Title I students. The program works in conjunction with the Meals on Wheels Program.

NatureScape staff participated in the Science Night at Challenger Elementary School in September which had approximately 500 participants. Our staff provided lots of information to an energetic audience about water and energy conservation, habitat certification and county programs available to the public.

A new program that was presented to students this year by Victor Suarez was held in conjunction with "Working Forests Week" sponsored by the Florida Forestry Association during the third week in October. This program served to introduce and remind students about products that come from our Florida forests and the role they play in our economy and the available careers in the industry. Staff made 17 of these presentations to 355 students at three different schools.

During the reporting period, campus tour programs were also delivered to elementary, middle, and high schools. It has become increasingly evident that exposure of teachers to the NatureScape Teacher In-service and/or the NWF Habitat Steward training opportunities has helped drive requests for these tours as many of these were scheduled as a result of teachers attending these trainings.

Another activity that is popular with teachers is the Everglades Food Web activity, a program that involves students playing the role of flora and fauna in the Everglades. They learn about adaptation, habitat and interdependence, as well as human impacts to that fragile ecosystem.

At their request, Maena also met with SBBC staff to discuss water conservation strategies for the Greening Athletic Events meeting in August 2016. In November, Maena judged the American Water Works Association's Water Tower Competition which provides students with a fun-filled, science-oriented competition aimed at introducing high school and middle school students to Engineering and professions in the water industry fields.

Career Days are always an opportunity to interact with students and teachers. This year, Maena presented at Royal Palm and Oriole Elementary schools Career Days. Several other schools also requested NatureScape's assistance in finding presenters for their Career Days. Staff helped arrange participation from Agriculture in the Classroom, Broward County Air Quality, local municipalities, Florida Forest Service, the South Florida Water Management District, South Florida Audubon Society, and the South Florida Public Archaeology Network which helped make these events a success.

The container garden program, one of the most popular NatureScape programs, was presented to elementary and middle school students. In this program, school students learn about plant structures and create their own container gardens. This program also incorporates and explains the concepts of reduce, reuse and recycle and presents action steps that students can take to incorporate sustainable behaviors into their daily lives.

The use of the EnviroScape model, another often-requested program, continues to be a popular means of presenting information about nonpoint source pollution and water quality to students. This model is used to help people better understand the sources and prevention of water pollution through visual, hands-on interaction.

Victor, along with other County staff, assisted School Board staff and members of the Environmental Conservation Organization in hosting the 2017 Regional Envirothon, a problem-solving, natural resource education program for high school students in February. The Envirothon is a field-oriented program in which students, working in teams of five, learn to use critical thinking skills, work as a team, and develop problem-solving and communications skills to answer written questions or conduct hands-on investigations about environmental issues, the focus of which shifts each year. These interrelated and broad study areas teach a holistic approach to natural resource conservation and can easily be incorporated into a teaching curriculum.

NatureScape staff served as mentors for high school seniors in the Everglades Restoration Magnet program at South Plantation High School. Staff helped to guide students along with their projects and oversaw their work throughout the year. One senior student installed a garden to benefit pollinators after she read an article about how they are declining around the world. Another student wanted to increase shade in the student parking and researched which trees, plants and palms would work best. Staff reviewed their research with the students to help ensure success. Staff were then invited back to the judging of the senior class projects later in the year.

NatureScape staff and volunteers provided seven programs in the Broward Municipal Services District beginning at the end of June 2017. This 8-week summer program for children ages 6-10 at the Boulevard Gardens Community Center engaged approximately 50 children in connecting with nature, starting in their own backyards and community. The members of Boulevard Gardens Homeowner's Association attended a NatureScape presentation to learn about the summer Butterfly Garden program and take home native plants to start their own backyard wildlife habitat. Maena also participated in summer camp for students at Lauderdale Lakes Library twice during this period, presenting a water conservation program at this location.



Task 4 - Trainings for Facilities Managers

During the reporting period, NatureScape Water Conservation Specialist Maena Angelotti organized two custodial irrigation training sessions that were held in October 2016 and March 2017 at McArthur High School which allowed for actual field repair lessons. A total of 40 facilities staff attended these trainings. During the six-hour trainings, NatureScape and SBBC staff provided information on improving the efficiency of school

irrigation systems to save water and money, along with maintenance fundamentals. Additionally, training on indoor water conservation best management practices was provided this year to BCPS staff which were also taught about high rates of water consumption in the schools, retrofits available for faucets, toilets, and kitchen use including Somat machines and pre-rinse spray valves.

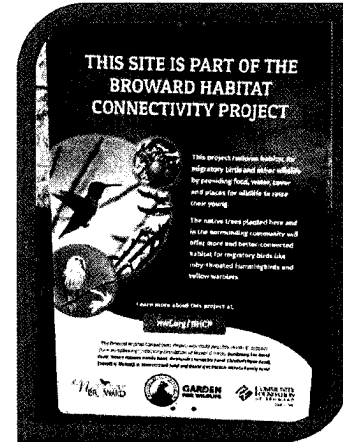
The trainings also provide an introduction to NatureScape Broward, an overview of the County's "Know the Flow" outreach program, and information on landscaping best management practices. Custodial staff are able to identify and fix minor repairs on the hosting school's campus, as well as providing an opportunity to do some planting, mulching, and pruning at the host school. NatureScape plans on continuing to host these trainings at schools to enable the hands-on experience for the staff as well as providing landscape improvements at the same time.

At the request of SBBC staff, Maena served as a presenter at the 2017 Facilities Servicepersons' Conference held on June 21 and 22 at South Plantation High School. Approximately 480 head and assistant head custodians attended the event. Maena stressed the importance of reporting water leaks and items that need repair to appropriate SBBC personnel, as well as ways to combat high water use at the schools.

Task 5 – NatureScape Learning Gardens/Certifications

During the reporting period, NatureScape staff continued to provide assistance in the form of training, labor, landscaping projects and identifying potential sources for plants and trees. Much of this year's efforts were centered on lower income communities which lack wildlife habitat. NatureScape Broward, in conjunction with the National Wildlife Federation and a grant from the Community Foundation of Broward, launched the Broward Habitat Connectivity Project, with the following goals:

- Create new islands of habitat for migratory birds travelling through urban Broward County by planting trees that will provide food and cover;
- Provide interested residents in the neighborhoods surrounding the new "islands of habitat" free trees to plant in their own garden and strengthen the network of habitat in the area;
- Plant native trees to increase tree canopy in the areas of Broward County that have the lowest percentages of tree canopy in the County;
- Create outdoor learning laboratories for students to learn STEM (science, technology, engineering and math) subjects through hands-on environmental education in the newly planted areas;
- Help meet specific County goals for increasing tree canopy and community resilience.



In April, more than 150 students and volunteers removed weeds, spread mulch and top soil, and planted 40 native Jamaican Caper and Simpson Stopper trees at Lauderdale Lakes Middle School.

Utilizing GIS data compiled by the County's Environmental Planning & Community Resilience Division, NatureScape staff identified areas in the County that lacked tree canopy, native habitat and participation in NWF's Garden for Wildlife program. Target areas included North Lauderdale, Lauderdale Lakes where existing tree canopy is in the 0-19 percent category (the County has a goal of achieving 40 percent tree canopy throughout the County). NatureScape Broward was able to successfully secure match funding for the project from the Broward County Tree Trust and the schools selected for landscape improvements included Lauderdale Lakes Middle School, Oriole Elementary School, Silver Lakes Middle School, North Lauderdale PK – 8, Wingate Oaks Center, and Larkdale Elementary School.

Plants attractive to hummingbirds were also planted at these six schools to supplement the tree plantings. Several tree giveaways were also held in the communities where these schools are located to encourage greater participation in the Habitat Connectivity project.

Additionally, while not within the target areas for the Habitat Connectivity grant, Tequesta Trace Middle School, received canopy trees this year as a result of a previously approved grant that NatureScape had secured through the Broward County Tree Trust. More than 50 students, teachers and NatureScape Broward staff helped plant trees and hummingbird plants.

Landscaping installed this SY through NatureScape-secured grants and expenditures

School	No. large (8'-12') trees installed	3 Gallon Trees	Butterfly Plants	Tree Trust/CFB/Other Grant Funds
Silver Lakes Middle School	38	10	-	\$8,056
North Lauderdale PK-8	7	3	-	\$894
Larkdale Elementary School	14	3	23	\$3,884
Wingate Oaks Center	10	-	23	\$2,130
Oriole Elementary School	18	N/A	20	\$4,000
Lauderdale Lakes Middle School	22	40	26	\$6,329
Tequesta Trace Middle School	18	30	25	\$4,132
Other Schools (5)	7	1	25	\$1,300
Miscellaneous*			145	\$1,730*
TOTALS	127	87	287	\$36,955

* Additional landscaping materials were also provided to schools, teachers, and students including tools, hoses, and mulch.

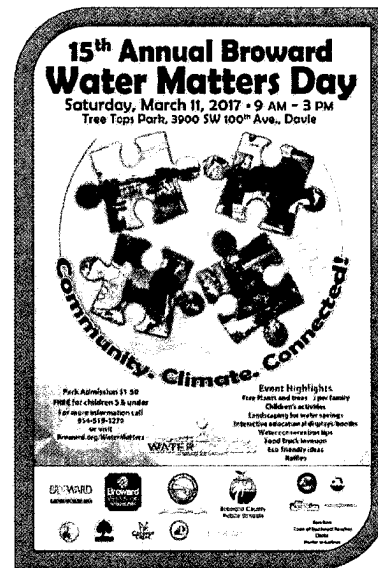
Other landscape installations and wildlife advice provided by NatureScape staff during the reporting period include:

- NatureScape was able to again successfully secure \$1,000 in funding from the South Florida Water Management District for trees for Arbor and Earth Day celebrations at schools including Pine Ridge Center, Beachside Montessori Center, and Driftwood Middle School. Trees were also provided to Hollywood High School and New River Middle School.
- Staff organized a committee of Community Wildlife Habitat Team Leaders, City Staff, Master Gardeners, and Habitat Stewards to meet with school staff at Wilton Manors Elementary School to enhance and redo parts of their interior gardens using a portion of the prize money that they won from the 2016 P₃ Eco-Challenge.
- Staff introduced the Project Perch Team to the staff at Orange Brook Elementary School for the installation of an artificial owl burrow on their campus to provide new homes for the soon-to-be displaced owls as a result of a new development nearby.

A map showing certified school landscapes can be found in *Appendix A*.

Task 6 – Water Matters Day Partnerships

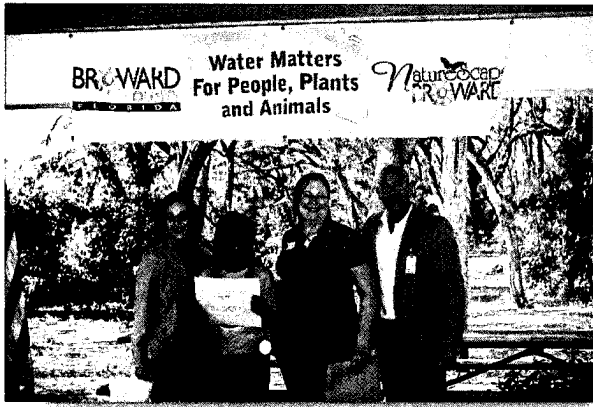
The Fifteenth Annual Broward Water Matters Day was held on March 11, 2017, with the theme of “*Water Matters Day – Community. Climate. Connected.*” A record 4,320 Broward County residents joined this celebration. In addition to the large number of students and their parents that attended, numerous water conservation and environmental stewardship activities were directly supported by students. Approximately 80 students from McNicol and Tequesta Trace Middle Schools, as well as Cypress Bay, Plantation and Monarch High Schools assisted with the distribution of 2,300 trees, shrubs, groundcovers and wildflowers in the plant giveaway area.



Many schools hosted and/or assisted in booths providing educational activities, displays, games and fundraising.

School	Activity
Monarch High School Environmental Club	Relay for Life Booth, Tree Giveaway, Event Surveys
Tequesta Trace Middle School	(1) National Wildlife Federation Taiwan Project (2) Eco-Partners' School Environmental Activities
McNicol Middle School	Growing Awareness in All (conservation and upcycling)
McArthur High School	Agriculture in the Classroom – Tree Giveaway
Griffin Elementary ECO Patrol	Micro Plastics in Our Environment
South Broward High School	Plastic Free Mermaids
South Plantation High School	Water conservation and Everglades restoration
Everglades Magnet Program	
Coral Springs High School	National Wildlife Federation – Ranger Rick

An estimated 800 students attended the event as well for extra credit. As always, a literary contest for students is part of the event. For the invited middle schools, the topic for this year’s school literary contest was “*How is our school community and our climate connected? What kind of things can we do at our schools and at home to protect and conserve water?*” High school students were asked the following: “*Recognizing that each member of our community, whether at school, at work, or at home, has an impact on our climate and the future of our planet, we as individuals must do our part to conserve water and other resources. Calculate your family’s “water footprint” at <http://environment.nationalgeographic.com/environment/freshwater/change-the-course/water-footprint-calculator/>. How does your family’s water usage compare to the average family? What kinds of things can you do to conserve and protect our water resources and how will this help our climate?*”



School Board Member Nora Rupert (L) poses with Jude Crosby-Darling, winner of the Literary Contest from Nova Middle School along with her teacher, Susan McKinney and principal, Rayner Garranchan.

School Board Member Nora Rupert presented the prizes during the opening ceremonies at the event. Winning students and their teachers from Pines Middle, William Dandy Middle, Nova Middle, McArthur High, Western High, and South Plantation High Schools were awarded tickets to educational venues, natural area attractions and airboat tours. The prizes were solicited by NatureScape staff with assistance from the outreach coordinator for the Central Broward Water Control District. The top middle school winner won a week of "Teen Eco Experience"

day camp from Camp Live Oak which includes hands-on leadership experience, field trips, environmental projects, and team building opportunities. The top high school winner won four passes for a snorkeling trip from Dixie Divers.

Promotions for Water Matters Day were extensive and included a press release distributed to local media and Broward's public information office, radio and newspaper advertisements, and posters in English and Spanish that were distributed to public libraries, parks, and all of the Broward County Public Schools. Additional promotions for the event included a feature on the Broward County website and mention at numerous events hosted by the EPCRD that led up to Water Matters Day. An article promoting the event also appeared in the *SchoolScapes* newsletter prior to the event.

Partners and sponsors of the 2017 Water Matters Day event, including the School Board, were recognized by the Broward County Board of County Commissioners in a proclamation ceremony on February 14, 2017.



Lisa Milenkovic, Supervisor STEM and Computer Science (bottom, third from right) received the Water Matters Day partner proclamation on behalf of SBBC



Task 7 – Irrigation System Evaluations

During the reporting period, (92) irrigation evaluations were conducted at (38) school facilities. Maena Angelotti, Water Conservation Specialist, encourages the schools' custodial staff to be present during the evaluation and when feasible, to make repairs as the evaluation takes place. This provides an opportunity to provide information regarding best management practices for the irrigation system as well as reminders regarding efficient irrigation. In addition to

assessing the irrigation system, landscaping advice is often requested. Resource materials to enhance the school's landscaping are also provided as available.

Actual annual water savings realized through irrigation system evaluations conducted at those schools exceeded 68,000,000 gallons providing an annual estimated cost savings of over \$250,000. A large number of this year's evaluations were on systems utilizing municipal water supplies as the irrigation source and which produced considerable cost savings for the District, especially when settings were modified to comply with the Mandatory Year-Round Landscape Irrigation Rule. To date, irrigation evaluations have been conducted at 268 schools on 588 irrigation systems. Annual water savings realized through irrigation system evaluations conducted at all schools since June 2009 is providing an annual estimated cost savings of over \$770,000 and over 380 million gallons of water saved. (See *Appendices B and C*).

Through coordination of joint training workshops and sharing of information included in the irrigation evaluation reports, NatureScape and site-based custodial staff, along with SBBC staff have developed an excellent working relationship. Information developed during evaluations has been made available to staff at each facility and to School Board management.



Broken sprinkler heads are a common problem encountered during irrigation evaluations at schools.

Task 8 – Water Audits



During the reporting period, NatureScape staff conducted indoor water use audits at two schools-Indian Ridge Middle School and Thurgood Marshall Elementary School. Where available, students are asked each year to participate in the water audits. This year, students participating in a CareerSource internship were trained in doing the audits in the school bathrooms.

The indoor water audit program follows procedures outlined in SFWMD's *Water*

Efficiency and Self-Conducted Water Audits at Commercial and Institutional Facilities: A Guide for Facility Managers. This guidebook was prepared by the South Florida Water Management District (SFWMD) based on its own experience assessing water use efficiency at its own facilities.

The water audit is a systematic survey of all water-using fixtures, appliances, equipment, and practices at a campus. The audit can identify leaks, areas of excessive consumption, and other opportunities for efficiency improvements; it can also identify the degradation of previously efficient devices. Audits can form the basis of efficiency improvement and investment planning, and provide a benchmark for measuring water efficiency program successes.

Specific recommendations on efficiency improvement measures for most points of water use have been prepared and are provided to these schools as well as SBBC administration. Estimates of their costs, savings, and investment recovery periods have been included whenever possible. Data collected during the assessment were entered into the SFWMD's water use and savings calculators associated with its water use self-conducted water audit guide to generate these savings estimates.

This year, SBBC provided a plumber to accompany NatureScape staff as Maena conducted the water audits. SBBC staff was able to work with Maena to ensure that recommendations were within the framework of what can be accomplished at the School District. Additionally, retrofitting of school restrooms that have been previously audited were completed at Northside, Sunland Park, Meadowbrook, Maplewood, and Bayview Elementary schools.

The findings of this year's audits are as follows:

The total cost estimate to follow the recommended water-use efficiency improvement measures at Indian Ridge Middle School is \$3,057. The total annual potential savings is \$30,022 and the potential annual water savings is estimated at 2,761,922 gallons.

The total cost estimate to follow the recommended water-use efficiency improvement measures at Thurgood Marshall Elementary School is \$2,135. The total annual potential savings is \$15,480 and the potential annual water savings is estimated at 1,420,574 gallons.

Additional indoor audits are pending approval by Energy Conservation/Utility Management staff.

At the request of Ed See of the Energy Conservation/Utility Management Division, EPCRD staff assisted in the development of Standard Operating Procedures for Irrigation and Water Audits along with a *BCPS Alert* focusing on water conservation in the schools.

Task 9 – Coordination/Administration

Several formal coordination meetings and conference calls between SBBC and County staff were held to discuss the implementation of the various tasks associated with the Partnership Agreement, as well as to address issues of shared interest.

These meetings included one or more of the following representatives from EPCRD:

- Jennifer Jurado, Ph.D., Division Director
- Carolina Maran, Ph.D., Water Resources Manager
- Robert “Rudy” Rudolph, Water Planning Program Manager
- Victor Suarez, NatureScape Broward Education Specialist
- Maena Angelotti, NatureScape Broward Water Conservation Specialist
- Kimberly Mayo, NatureScape Program Assistant
- Rose Bechard-Butman, NatureScape Broward Outreach Coordinator
- Robert Wanvestraut, NatureScape Irrigation Service Coordinator

Key members of SBBC that attended coordination meetings included:

- Guy Barmoha, Director of Math Science, & Gifted Department, SBBC liaison for the Environmental Partnership Agreement
- Susan Cantrick, Director Applied Learning
- Lisa Milenkovic, PhD, Supervisor, STEM+Computer Science
- Meryl Johnson, PhD, Science Supervisor
- Rebecca Malones, Instructional Facilitator Math, Science, & Gifted Department
- Rob Jindrcek, Manager, Environmental Conservation/Utility Management
- Ed See, Environmental Conservation/Utility Management

Partnership and P₃ Eco-Challenge planning meetings were held as needed during the reporting period. Early in the school year, Victor met with Guy Barmoha and other Math, Science and Gifted staff to review the list of potential P₃ Eco-Challenge sponsors and to determine if additional groups that routinely interact with the School Board might be potential sponsors.

Rudy and Maena met with Rob Jindrcek and Ed See to talk about installing irrigation controllers and general program coordination, and Maena and Rudy coordinate closely with Ed See regarding programmatic plans and opportunities. NatureScape staff has worked diligently to address issues with particular facilities as they have arisen.

Dr. Jurado, Dr. Maran, and Rudy met with Guy Barmoha and Lisa Milenkovic to discuss the upcoming (December 2017) 9th Annual Southeast Florida Regional Climate Leadership Summit and possible participation from students.

Dr. Jurado, Dr. Maran, and Rudy met with Susan Cantrick and Lisa Milenkovic to introduce Susan to the Environmental Partnership Agreement.

In addition to this high-level coordination, throughout the reporting period, NatureScape staff coordinated extensively with numerous teachers and other SBBC staff to ensure continued advancement of the partnership goals. During the many visits made by NatureScape staff to the schools, staff took the time to discuss the value of the P₃ Eco-Challenge and encouraged them to participate. Additionally, Victor promoted the P₃ Eco-Challenge at the Broward County Science Fair where he addressed teachers, judges, and fair sponsors about the Challenge and how they can participate and serve as potential event sponsors. These efforts resulted in securing additional P₃ Eco-Challenge funds this year, as well as providing an opportunity to promote Water Matters Day.

NatureScape staff were also able to identify numerous grant opportunities for teachers interested in receiving awards and improving their campus landscapes, as well as assisting on applications for various competitions and prizes.

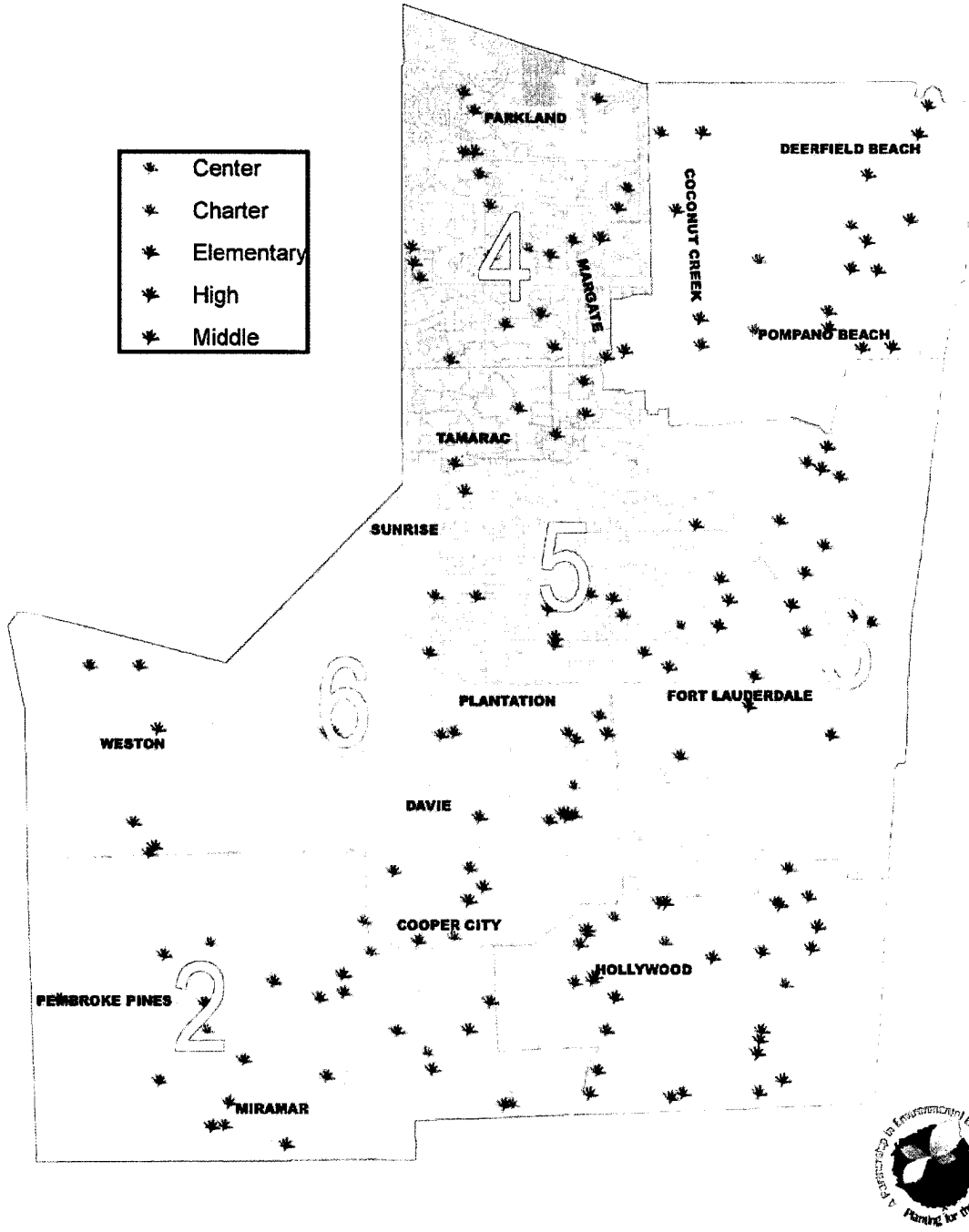
Two editions of the *SchoolScapes* e-newsletter were distributed throughout the school system in January and June. This e-newsletter shares updates on the activities of the Environmental Partnership and is distributed to hundreds of teachers and administrators, as well as school district personnel such as curriculum staff and custodians. It is also sent to school staff after initial meetings have taken place to educate them about the Partnership and activities associated with it and other teachers and staff, upon request. The January 2017 edition of *SchoolScapes* announced the upcoming Water Matters Day and 2017 P₃ Eco-Challenge events, shared professional development training opportunities, programs being done in the schools, and introduced the upcoming Habitat Connectivity Project. The June 2017 edition of *SchoolScapes* highlighted the 2017 P₃ Eco-Challenge Awards Ceremony and achievements, Water Matters Day, and the Habitat Connectivity Project.

In accordance with the terms of the agreement, the annual report for the 2015-2016 School Year was provided to SBBC administration in September 2016 along with additional information to support the annual renewal of the current Partnership agreement.

Finally, there have been several coordination meetings between EPCRD staff and SBBC staff in advance of preparing a new 5-year agreement to go into effect in December 2017.

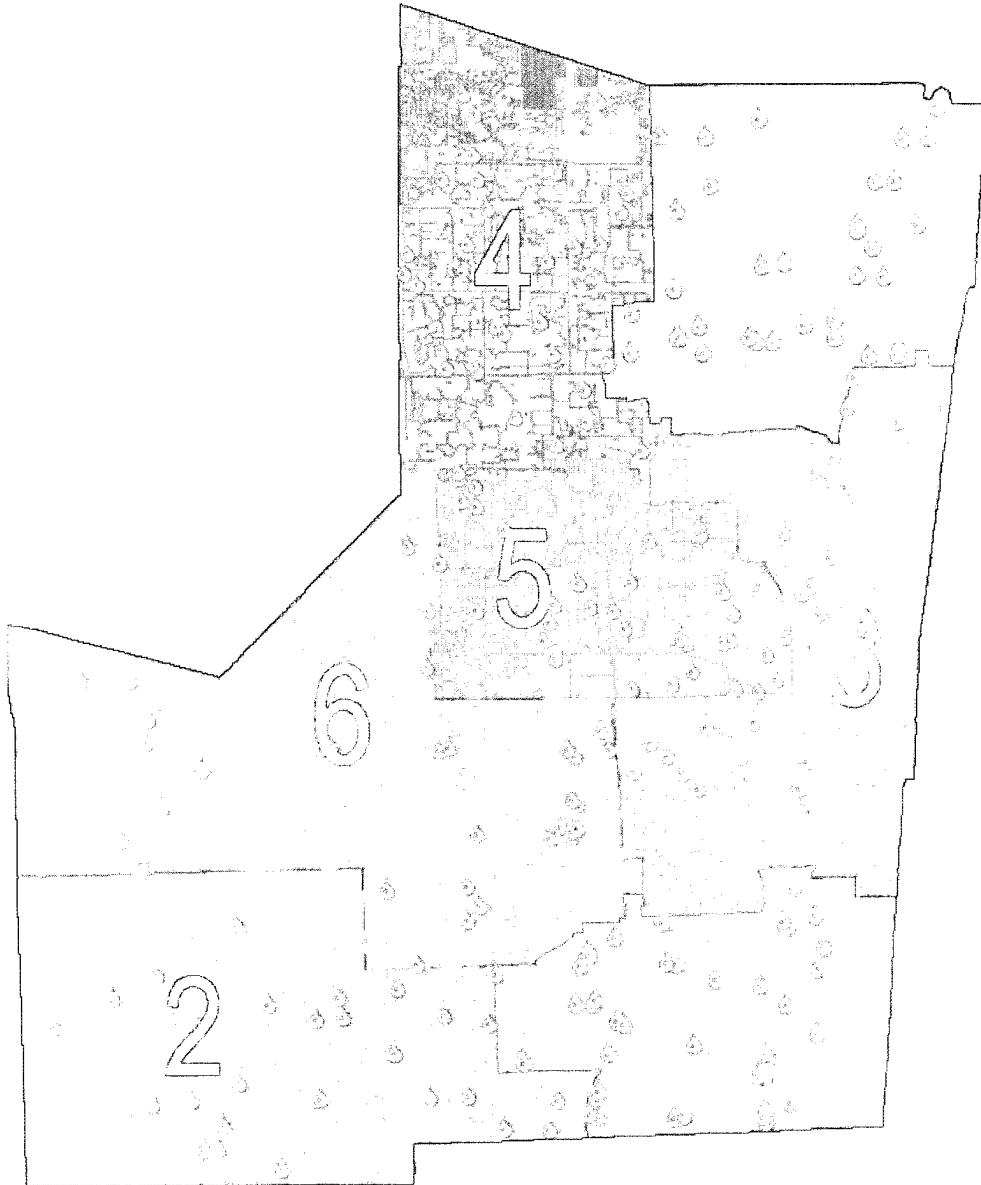
Appendix A – Landscape Installations

Environmental Partnership School Certified Gardens



Appendix B – Irrigation Evaluations

Environmental Partnership School Irrigation Evaluations Completed By School District



Appendix C – Summary of Activities

School Programs Summary

Reporting Period Totals	Number of Programs	Number of Students Reached
SY 16-17 School Programs (District wide)	236	5,830
Cumulative Totals		
School Programs (District wide)	1853	56,033
Community Outreach, NatureScape Education Days, and Special Events	44	14,379

Teacher Training Summary

Reporting Period Totals	Number of Programs	Teachers Trained
Teacher In-service Training	2	36
Cumulative Totals		
Teacher In-service Training	22	446
Reporting Period Totals	Number of Programs	Teachers Trained
NWF Habitat Steward Training	1	15
Cumulative Totals		
NWF Habitat Steward Training	11	189

Custodial/Facilities Training Summary

Reporting Period Totals	Number of Programs	Custodial/Facilities Staff Trained
Custodial/Facilities Training	4	520
Cumulative Totals		
Custodial/Facilities Training	28	938

NatureScape Certifications Summary

Reporting Period Totals	Number of Programs
NWF Habitat Certification	1
Cumulative Totals	
Schoolyard Habitat Certifications	164

Irrigation Evaluations Summary

Reporting Period Totals		
Irrigation System Evaluations	68,149,425	GPY saved through irrigation evaluations
	38	Schools receiving irrigation evaluations
	92	Irrigation systems evaluated
	\$254,619	Annual Savings
Cumulative Totals		
Irrigation System Evaluations	382,025,819	GPY saved through irrigation evaluations
	268	Schools receiving irrigation evaluation visit
	588	Irrigation systems evaluated
	\$773,501	Annual Savings

Water Audits Summary

Reporting Period Totals		
Water Audits	4,182,496	Potential annual water savings (GPY)
	2	Schools receiving water audits
	\$5,192	Cost of Retrofits/One time investment
	\$45,502	Identified Potential Annual Savings
Cumulative Totals		
Water Audits	20,425,212	Potential annual water savings (GPY)
	17	Schools receiving water audits
	\$184,567	Cost of Retrofits/One time investment
	\$487,243	Identified Potential Annual Savings

For more information, please contact:
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 Environmental Planning and Community Resilience Division
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 Fax: (954) 519-1496
rrudolph@broward.org



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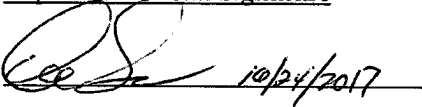
COLLABORATION

SIGN-OFF FORM

Title of Agenda Request Item: **Partnership Agreement between – The School Board of Broward County, Florida and – Broward County Board of Commissioners – (Environmental Planning and Community Resilience Division)**

School Board Meeting Date: **11/7/2017**

- All projects have been appropriated in the Adopted District Educational Facilities Plan (September 6, 2017) and in the District's Capital Budget.
- The following project(s) have not been appropriated in the Adopted District Educational Facilities Plan (September 6, 2017) and in the District's Capital Budget.
- Comments: An additional financial impact of \$_____ will come from the Capital Projects Reserve.**

<u>Department Name</u>	<u>Department Head Name</u>	<u>Department Head Signature</u>
Capital Budget	Omar Shim Director	 10/24/2017

Note: By signing this collaboration the Capital Budget Department is acknowledging that the budget impact as stated is correct. Other aspects of the agenda item are the responsibility of the department submitting the item.