2019

LEED for Cities Pilot Program: Atlantic Beach, Florida Case Study

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LEED FOR CITIES

Pilot Program

Atlantic Beach, Florida
Case Study

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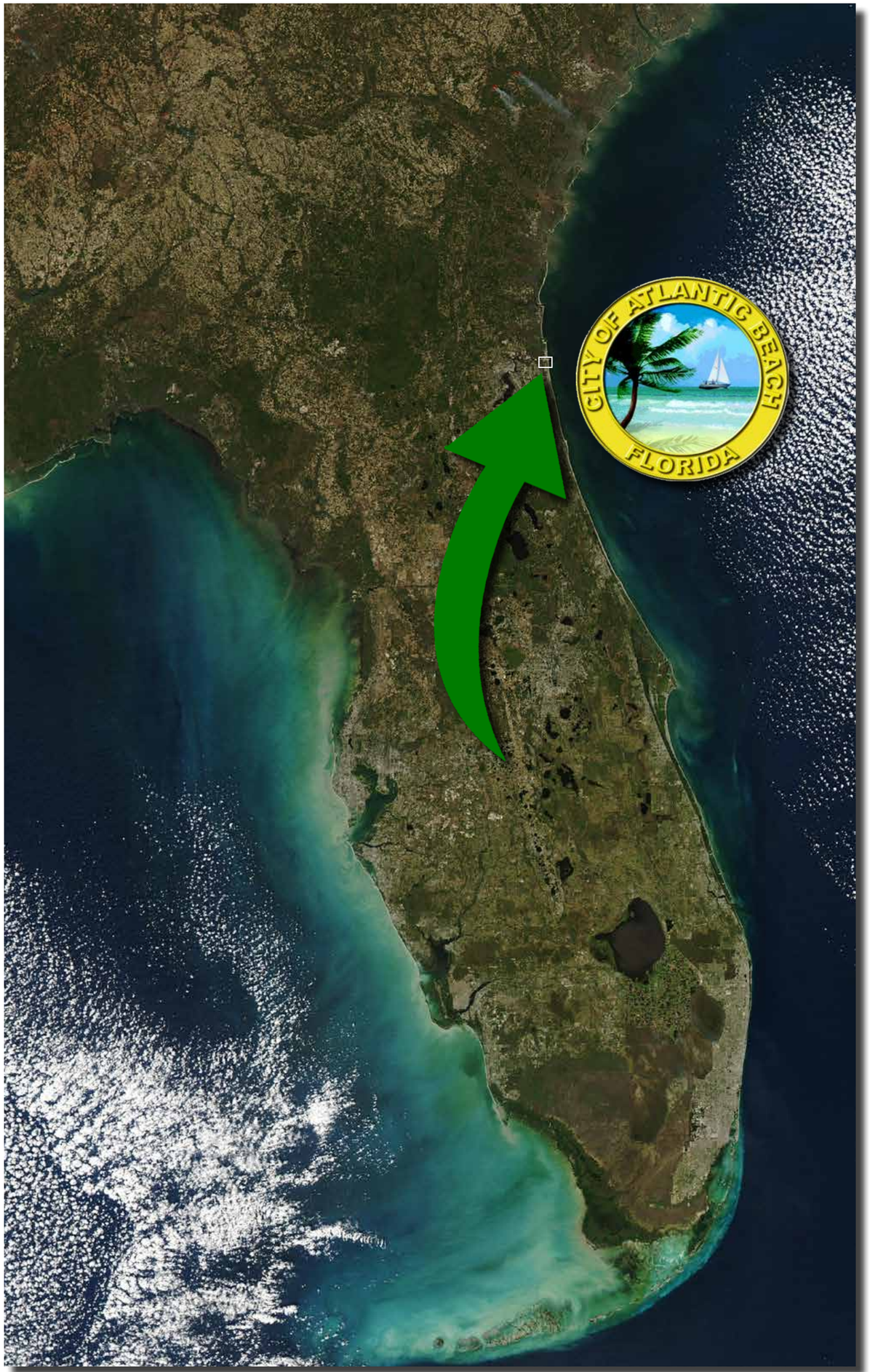

Letter From the Mayor

Greetings!

Atlantic Beach, Florida is a charming, eclectic coastal town just east of Jacksonville, Florida. We are a family-friendly city of almost 14,000 residents with a keen sense of place. We love art, our neighborhoods, our parks and green spaces, our public beaches, and our lush maritime forest.

Early in 2018, elected officials in Atlantic Beach voted unanimously to pursue LEED for Cities certification because we believed that government - at federal, state and local levels - must take affirmative steps toward a more sustainable future. Our project was conducted in 2018 and 2019 in conjunction with the U.S. Green Building Council (USGBC).

To start, we assigned our existing environmental stewardship committee, comprised of local citizens, to oversee the initiative. A special subcommittee was formed to tackle the certification process. In a very collaborative effort, our team collected and scored a wide variety of data that were used to create performance metrics. Data ranged from overall greenhouse gas emissions to median household income to water usage. Results were assessed and finalized into an overall performance score. Our certification packet was successfully submitted for review this past March.

Cities in Florida should be actively engaged in developing adaptive resiliency and sustainability planning roadmaps for the future. Government actors must not be reticent in addressing these extremely urgent challenges. Through programs like LEED for Cities, we can work together to transform the future of our great state.

Here in Atlantic Beach, we are actively planning for a better tomorrow. We are proud that our city is “LEEDING” the way with our commitment to the LEED for Cities program. We will use what we have learned to create plans, policies and strategies as part of a cohesive roadmap for the future with actionable and measurable outcomes.

In closing, we have many people to thank who were committed to this project. They include: Atlantic Beach City Manager Joe Gerrity; city planners Shane Corbin, Brian Broedell, and Derek Reeves; consultant Linda Chipperfield; our subcommittee chair (founding member and former Director of our local USGBC Chapter) Sarah Boren; academic consultant (Director of the UNF Environmental Center) Dr. David Lambert; LEED for Cities & Communities Director Dr. Vatsal Bhatt; and members of the Environmental Stewardship Committee.

Finally, UNF Public Administration graduate student Sean Lahav deserves a special commendation for his exemplary work and for taking ownership of this project through a rigorous, directed independent study.

We hope you find this case study helpful.

Best regards,

Ellen Glasser
Mayor, City of Atlantic Beach

#WeAreAB

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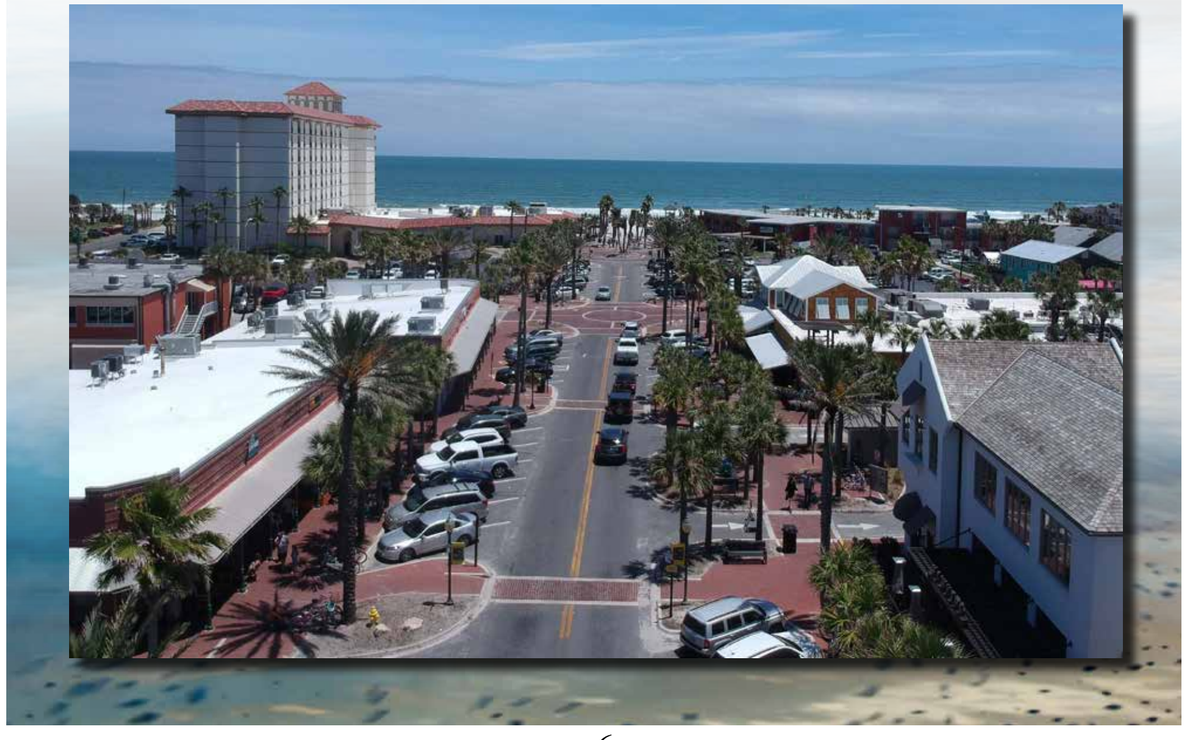


Introduction

The LEED for Cities certification program is revolutionizing city planning, development and operations, while also improving life for citizens around the world. Using the Arc performance platform, LEED for Cities projects can measure and manage their city's water consumption, energy use, waste, transportation and human experience.

LEED-certified cities and communities encompass sustainability and much more: quality of life, health, prosperity, equity, access, empowerment, safety, education, resilience, infrastructure, and energy. They are designed to support continuous progress and ensure a higher quality of life for all residents.

Certification brings a new level of leadership to cities around the world. Use it to benchmark your city's current performance, and transform your city into the place to be.

Home in on the targeted metrics for a particular initiative and communicate continuous improvement; educate residents, visitors and business owners to enable continuous improvement; demonstrate your city's commitment to sustainability, human health and economic prosperity.

Verify leadership
Track and report progress towards meeting your city's emissions targets. By submitting greenhouse gas emissions based on energy consumption and other sources, you can also support your country in meeting its climate action goals. In addition, you'll be able to communicate your city's sustainability performance and goals in a globally consistent format.

Improve sustainability performance
Adopt LEED-based strategies that help to reduce energy, water, waste, pollution and CO2 at the city scale, and in turn improve air and water quality. Learn innovative strategies from a global network of projects and partners.

Stay flexible and become scalable
Start with a modest number of data streams and metrics, and ramp up as your city seeks deeper engagement. The program functions at multiple scales. Focus your efforts on an eco-district or micro grid, a neighborhood, a business improvement district, a disadvantaged area of the city, or use the program city wide. The scale is up to you.

Enhance your existing engagement
LEED for Cities aims to be an aggregator of and supplement to other important initiatives and tools. The program engages everyone, from private sector businesses and NGOs, public partners, to utilities.

Process Overview

General Overview:
1) Register city in Arc
2) Form a subcommittee to tackle process
2) Complete all precertification requirements listed below
3) Provide category data to receive a Performance Score in Arc

To generate a score, participants input data across five categories – Energy, Water, Waste, Transportation, and Human Experience.

Cities must complete all precertification requirements and may provide additional information to achieve points to increase the Base Score, which contributes to the total Performance Score.

1. PRE-CERTIFICATION:
Earn all precertification requirements by completing and submitting information through the Arc platform.

2. DATA and PERFORMANCE SCORE:
Input city data in the performance categories (energy, water, waste, transportation, and human experience) through the Arc platform. Maintain accurate documentation that verifies the data.

3. BASE SCORE:
Achieve an optional Base Score of up to 10, by pursuing strategies listed in the following guidance and submitting information through the Arc platform.

4. REVIEW and CERTIFY:
Submit supporting documentation for the Precertification to GBCI for review. Upon successful review, GBCI can award LEED for Cities Precertification, which lasts for 1 year.

How is a City Scored?

A city's performance score in Arc determines its LEED certification level:

Certified, Silver, Gold or Platinum

Arc uses a methodology called supervised scoring with monotone multidimensional splines which combines different quantitative attributes of a community into a single meaningful value. This approach allows an expert in a particular domain (in this case, cities) to assign scores along a scale (1 to 100) to objects (cities) based on various attributes.

An algorithm produces a complex scoring function for all potential inputs in order to provide a score along the same scale to any new community with the required attributes. The function identifies a "network" of cities with closely related attributes; which provide context that informs the score of a new community.

The new community's score is an intelligently guided weighted combination of the scores of the nearby communities in the network. The function operates so that small changes in the data inputs result in small changes in the score, and scores only increase if a community becomes more efficient.

Introduction to Arc

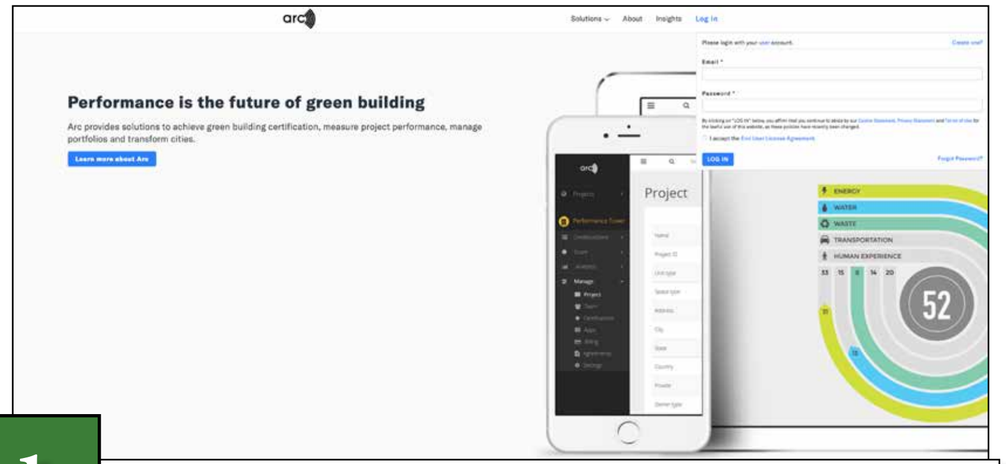
With Arc, cities can input their data to benchmark themselves and improve performance levels.

Arc is for cities that are not yet certified but looking to improve sustainability and human health, and take steps toward earning LEED certification. Ultimately, Arc will eliminate complexities and barriers that will enable you to make smarter decisions.

Arc calculates a performance score out of 100, based on a global data set and action-oriented strategies across five categories:

Once all data has been inputted, the Arc platform will provide a city with a Performance Score that will then determine its Certification Level:

40-49 is Certified
50-59 is Silver
60-79 is Gold
80-100 is Platinum

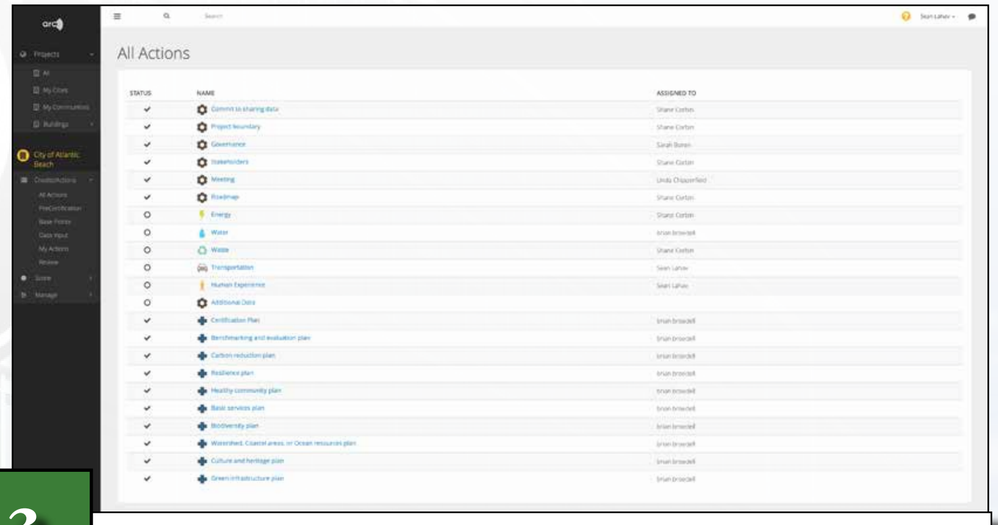


1

Project members must first register for a USGBC account via:
www.usgbc.org/registration/create-user
Once an account is created, log-in to Arc via:
www.arcskoru.com

2

Project members will then select the name of the project that the log-in credentials gave them access to.



3

Project members will then gain access to the Arc online data-driven platform. This interface functions as the central-hub for the LEED for Cities certification process.

Forming a Subcommittee

Before starting the LEED for Cities certification process, a project subcommittee was formed to engage it. A subcommittee should be made of several internal and external actors who each possess working knowledge of topics related to governmental affairs, urban planning, sustainability, resiliency or local government. The most ideal subcommittee is made up of an interdisciplinary team.

The subcommittee chair, Sarah Boren in this case study, facilitated meetings, assigned tasks to other members and acted as the primary contact for USGBC throughout the certification process.

Other subcommittee members were assigned tasks to be completed throughout the process, including, but not limited to: collecting meeting minutes, gathering data and uploading data documentations.

Sarah Boren, MEM
U.S. Green Building Council;
Atlantic Beach Resident

Linda Chipperfield
Vice President of Marketing and
Outreach at Green Seal

Shane Corbin, MPA
Planning Director at
City of Atlantic Beach, Florida

Sean Lahav, MPA
Public Policy Graduate Student at
University of North Florida

Brian Broedell
Urban Planner at
City of Atlantic Beach, Florida

Certification Prerequisites

Cities fulfill **6 requirements** (supported by uploaded documentation on to Arc) in order to achieve precertification:

1. Commit to sharing data

- Commit to measuring each metric in the score on an ongoing basis.

2. Project boundary

- Upload a map showing the limits of the area that will receive a performance score and LEED for Cities certification, and;
- Describe the city and the land use types and building types it includes.

3. Governance

- Describe the body or entity that conducts the policies, actions and affairs for the city.
- Describe the level of control/influence over infrastructure, operations, policies and individual buildings for the project, and;
- Upload or link to the relevant community charter documents.

4. Stakeholders

- **Project Team**. Identify the names of individual stakeholders within the city who will work on the certification and describe their role.
- **Community Engagement**. Identify key stakeholder groups within the city that the city has engaged or will engage as part of its planning.

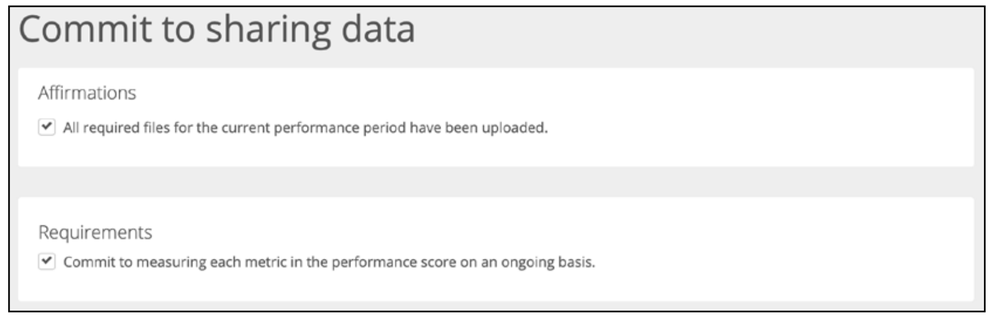
5. Meetings

- Describe or upload documentation describing relevant planning meetings, including dates, times, locations, agenda, and attendee lists.

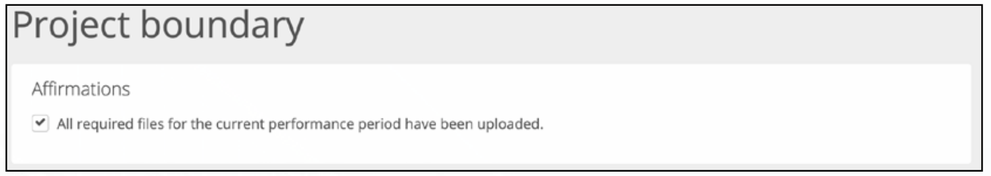
6. Roadmap

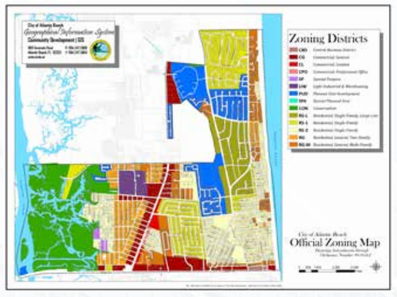
- For cities with existing plans: upload or link to relevant documents:
  - Upload a crosswalk between goals and strategies in the relevant planning documents and categories in the performance score.
- For cities that are developing plans: upload a document that:
  - Lists goals
  - Lists strategies under each goal
  - Lists the performance score metric associated with each strategy

1. Commit to Sharing Data



2. Project Boundary





Project Boundary

The City of Atlantic Beach is a small coastal community consisting of approximately three square miles of land area and a population less than 14,000. The City is located between two miles of Atlantic Ocean beachfront on the east and the expansive marsh and estuarine environment of the San Pablo Creek / Intracoastal Waterway on the west. The City is a near fully-developed municipality where the predominant land use is residential consisting of stable and well-established neighborhoods. The City possesses a unique character and "personality" where a high quality of life, diverse recreational activities, preservation of community character and protection of natural resources are day-to-day priorities to residents and elected officials as well.

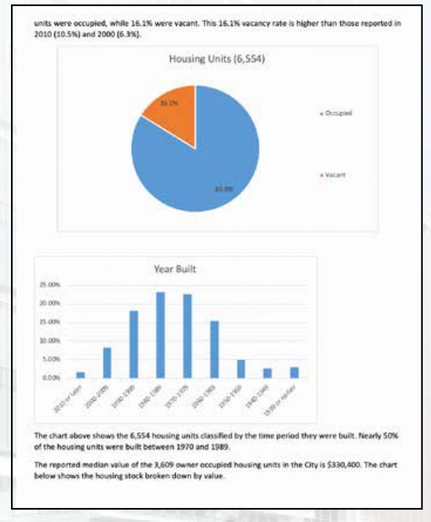
The City contains two commercial corridors: the north side of Atlantic Boulevard (SR10) extending from the ocean westerly to the Intracoastal Waterway, and Mayport Road (SR A1A), extending from Atlantic Boulevard northerly to the municipal limits of the City at Dutton Island Road. Both corridors continue to experience a solid level of market-driven redevelopment. The appropriate redevelopment and aesthetic enhancements to the Mayport Road corridor continue to be strategic planning priorities to the City. In 2018, a community driven Mayport Road Visioning Implementation Plan (MRVIP) was completed to guide future development along the Mayport Road corridor. The MRVIP includes recommendations for new design standards and activity programming.

Of the 11,239 residents 16 years old and over in Atlantic Beach, 7,329 reported to be in the labor force. Of these 7,329 residents, 381 reported being unemployed and 46 reported being in the Armed Forces. The chart below breaks down the occupation for the remaining 6,902 residents that are employed in the civilian labor force.

Occupation
(Civilian employees 16 years old and over)

Housing

In 2016, here were 6,554 housing units in the city, which is up from the 6,174 housing units reported in 2010 and the 6,003 housing units reported in 2000. The chart below shows that 83.9% of the housing



units were occupied, while 16.1% were vacant. This 16.1% vacancy rate is higher than those reported in 2010 (10.5%) and 2000 (6.3%).

Housing Units (6,554)

The chart above shows the 6,554 housing units classified by the time period they were built. Nearly 50% of the housing units were built between 1970 and 1989.

The reported median value of the 3,609 owner occupied housing units in the City is $330,400. The chart below shows the housing stock broken down by value.

3. Governance

Governance

Affirmations

☑ All required files for the current performance period have been uploaded.

Requirements

Describe the body or entity that conducts the policies, actions, and affairs for the city.

The City of Atlantic Beach is governed by a five member commission that includes a mayor that are elected by the registered voters residing within the City. The mayor and other members of the commission are equal voting members. The commission appoints a City Manager to act as the chief of staff and insure the enforcement of the policies and actions designated by the commission.

Describe the level of control/influence over infrastructure, operations, policies, and individual buildings for the project.

ENERGY
The City has policies in place to purchase fuel efficient vehicles for its fleet whenever possible. The City also allows property owners to install renewable resource power generation such as solar panels, while also providing land use allowance for electric vehicle charging. Electricity is provided throughout the City by a third party outside of the City.
WATER

Upload or link to the relevant community charter documents.

City of Atlantic Beach Charter- https://library.municode.com/fl/atlantic_beach/codes/code_of_ordinances?nodeId=PTICH

4. Stakeholders

Stakeholders

Affirmations

☑ All required files for the current performance period have been uploaded.

Requirements

Project Team. Identify the names of individual stakeholders within the city who will work on the certification and describe their role.

Joe Gerrity, City Manager
Shane Corbin, Director of Planning and Community Development
Brian Broedell, Planner, Department of Planning & Community Development
Derek Reeves, Principal Planner, Department of Planning & Community Development
Jennifer Johnson, Operations Supervisor, Building Department
Linda Chipperfield, COAB Environmental Stewardship Committee Member
Sarah Boren, COAB Environmental Stewardship Committee Member & Director of Market Transformation and Development, USGBC Florida
Sean Lahav, Master of Public Administration Graduate Student, University of North Florida

Community Engagement. Identify key stakeholder groups within the city who the city has engaged or will engage as part of its planning.

City Commission includes the Mayor (all meetings are recorded with video and audio)
City Manager
All Department Heads
Environmental Stewardship Committee (all meetings are recorded with video and audio)
City's citizenship

Memo

To: LEED for Cities
From: Shane Corbin, AICP, Planning and Community Development
Date: March 5, 2019

Re: Stakeholder and Public Engagement

The City of Atlantic Beach regularly engages stakeholder through a variety of formats including but not limited to public hearings, live stream videos, surveys, charrettes, workshops, and open houses. The department of Planning and Community Development maintains a project webpage that documents many of these projects and processes.

The department projects webpage can be found at: https://coab.us/808/Department-Projects

Two projects that document the stakeholder and public engagement process the best are the Parks and Trails Master Plan and the Mayport Road Visioning Implementation Plan.

1) Parks and Trails Master Plan: https://www.coab.us/854/Parks-Master-Plan-Project-Page

2) Mayport Road Visioning Implementation Plan:
https://www.coab.us/DocumentCenter/View/10209/Final-Mayport-Road-Vision-Implementation-Plan

5. Meeting

Meeting

Affirmations

☑ All required files for the current performance period have been uploaded.

Requirements

Describe or upload documentation describing relevant planning meetings, including dates, times, locations, agenda, and attendee lists.

LEED Committee meetings include city staff members, USGBC personnel, Environmental Stewardship Committee members, and a student from the University of North Florida. These meetings are held bi-weekly and provide status updates and allow project team members to discuss steps moving forward.
Community Development Board (CDB) meetings were held to discuss the 2030 Comprehensive Plan as well as hold a public hearing on the plan. Along with the CDB, city staff and citizens engaged in these meetings and reviewed proposed updates to the Plan.

6. Roadmap

Roadmap

Affirmations

☑ All required files for the current performance period have been uploaded.

Requirements

Planning documents:-

- For Cities with existing plans:
  - Upload or link to relevant planning documents.
  - Upload a crosswalk between goals or strategies in the relevant planning documents and categories in the performance score.
- For Cities that are developing plans:
  - Upload a document that:
    - Lists goals
    - Lists strategies under each goal
    - Lists the performance score metric associated with each strategy

Sample Roadmap Elements

LEED for Cities Roadmap for City of Atlantic Beach, Florida

ENERGY – Metric: Greenhouse Gas Emissions (CO2 equivalent); Unit: Tons/Year/Person

COAB plans to:

- Improve our Energy Performance above original certification score or at least be comparable to global average by:
    1. Measure the annual energy consumption and GHG emissions for COAB on an annual basis. The inventory should cover emissions for one whole calendar year or fiscal year. Several metrics to be measured:
        a. Greenhouse gas emissions per capita (tons CO2 per capita).
        b. Annual energy consumption from all sectors along with the source of energy.
        c. Emissions co-efficient for electricity and all fuel types.
        d. Total population of the city or community.
    2. Develop a sustainability action plan with public and private sector stakeholders with specific goals in:
        a. GHG reductions
        b. Energy efficiency
        c. Water conservation
        d. Waste reduction and recycling
        e. Renewable energy
        f. Land use and transportation (multimodal development, green fuels, and electric vehicles).
- Lead by example by reducing local government greenhouse gas emissions:
    1. Demonstrate local government building stock energy use is below the regional aggregated energy use intensity per building type.
    2. Demonstrate an annual decrease in local government public infrastructure energy use.
    3. Adopt alternative fuel guidelines and/or targets for locally owned facilities and vehicles.
    4. Explore a sustainable building ordinance. (Medium Term)
    5. Require employees responsible for the public buildings and infrastructure to participate in training programs on energy efficiency techniques.
    6. Track local government building and infrastructure energy use annually.
    7. Require that public infrastructure and facility managers consider energy consumption implications for new or upgraded infrastructure investments.
    8. Make retrofits and upgrades to local government buildings and/or infrastructure systems that will increase energy efficiency.
    9. Provide incentives for new building projects to achieve at least the LEED Gold standard certification or equivalent. (Medium Term)
    10. Incorporate best practice sustainability principles into neighborhood planning. (Short Term)
    11. Strive for one pilot net-zero or LEED Zero public building. (Medium Term)
    12. Replace all street and public lighting with high-efficiency fixtures that meet the efficiency related requirements of 'ANSI/IESNA RP-8-14 Roadway Lighting. In addition, lamps should have a minimum Luminous Efficacy of 100 lumens per watt. (Short Term)
    13. Meet the recommended energy efficiency requirements for a minimum of 50% of the pumps used in water supply, drainage and wastewater treatment.
    14. Retrofit government properties with renewable energy sources where feasible.

VULNERABILITY, ADAPTATION & RESILIENCY PLANNING – Metric: Adoption and Implementation of Plan

COAB plans to:

- Develop a Vulnerability, Adaptation, and Resiliency Plan to address impacts related to climate change and extreme weather events. The plan should address the following topics:
    a. Inventory of vulnerable land, buildings, and infrastructure predicted for impacts or in high risk areas.
    b. Adaptation and mitigation recommendations.
    c. Fundamental Emergency Planning and Preparedness: Access to basic needs - first aid, emergency supplies, water, food communication, temporary shelter.
    d. Early Warning Systems: Strategies for early warning systems and operation of critical facilities during the extreme event and post-event rehabilitation. Demonstrate at least one early warning system in practice.
    e. Education and outreach to the community.
- 2. Develop data driven policies, codes, and ordinances to address predicted climate change impacts and extreme weather events:
    a. To be determined

2) **EQUITABLE DEVELOPMENT** -- To foster equitable economic prosperity, be responsive to all sociocultural groups and reduce disparities within the city.
    a) Explore Equitable Income Distribution by the disclosure of the income distribution across individuals or households based on the following categorization:
        i) Age and gender – Report the median income for age groups (i) 16 to 30 years (ii) 30 to 65 years and (iii) 65+ years for males and females.
        ii) Neighborhood – Report the Area median income for all the neighborhoods within the city.
        iii) Sociocultural groups: Report the median income for various socio-cultural groups present within the city or community.
    b) Explore Equitable Education by demonstrating the Graduation Rate for each of the following categories is proportional to the overall graduation rate for population above 25 years of age.
        i) Males and females.
        ii) Sociocultural groups present within the city or community.
    c) Explore Equitable Employment by demonstrating that the unemployment rate for each of the following categories is proportional to the overall unemployment rate of the city.
        i) Age groups (i) 15 to 24 years (ii) 25 to 54 (iii) 55 to 65 years for males and females.
        ii) Sociocultural groups present within the city.
3) **PUBLIC HEALTH** -- To support positive health outcomes, minimize health risk factors associated with behaviors and reduce health inequities within the city. Demonstrate progress through trend line for the following indicators from five continuous years, with the most recent year no more than a year and a half prior to certification. Aggregated data for overall population and segregated data for each of the categories (i) A minimum of three age groups – under 19 years, 19 to 65 years and 65+ years for males and females separately (ii) Sociocultural groups segregated into males and females must be provided. In cases where ranges are calculated as a margin of error, the most beneficial value can be submitted.
    a) **Health Outcomes**
        i) Persons affected with following types of diseases. Report the number as persons per 1000 people:
        i)Communicable diseases.
        ii) Non-communicable diseases.
        ii) Mortality measures:
        iii) Life Expectancy – The average number of year one is expected to live.
        iv) Premature Death – Years of potential life lost before age 70 or greater per 100,000 population.
        v) Infant Mortality – Number of all infant deaths, per 1,000 live births.
        vi) Maternal Mortality – Maternal mortality per 100,000 live births.
        vii) Low Birth Weight – Percent of live births with a weight of less than 5.5 pounds (2500 grams).

WASTE – Metrics and Units: Municipal Solid Waste Generated as Amount/Year/Person & Municipal Solid Waste Diverted from Landfill as Percentage of Total Amount Collected

COAB plans to:

- Improve our waste generated and waste diversion performance score above original certification score
- Reduce the volume of waste generated and disposed:
    1. Develop an education and outreach program on proper rethink, refuse, reduce, reuse, recycle and benefits.
    2. Develop waste reduction targets and recycling targets for all waste streams within 1 year (short term).
        a. Common household
        b. Recycling
        c. Organic
        d. Construction
    3. Develop a Waste Action Plan for all citywide waste streams. (Medium Term)
    4. Explore a Pay-As-You-Throw program for waste collection services. (Long Term)
    5. Ban Styrofoam and non-recyclable plastic containers from food and retail outlets. (Medium Term)
    6. Implement Sustainable Sites Initiative (SITES) guidelines for park maintenance. (Medium Term)
    7. Allow nearby businesses to share containers for landfill waste, recycling, and composting. (Short Term)
    8. Create communitywide incentives for waste reductions targets.
    9. Provide services to enable residents and businesses to recycle and reduce their waste footprint.
    10. Create at least 3 targeted recycling programs at key locations.
    11. Introduce construction waste management requirements. (Medium Term)
    12. Explore reuse of biosolids created in COAB (Short Term)
    13. Establish a new organics transfer station (Short Term)
    14. Increase the size of recycling bins, reduce size of trash cans and add a compost bin. (Medium Term)
    15. Increase recycling receptacles in the public realm. (Long Term)
    16. Provide incentives for residential composting and recycling. (Medium Term)
    17. Transport organic waste comprising of all food waste and yard waste to an organic waste treatment facility for converting it into compost via composting or biogas via anaerobic digestion.

LAND USE & TRANSPORTATION – Metric: Distance Traveled in Individual Vehicles Daily; Unit: Distance Per Day (Vehicles Miles Traveled and Average Daily Trips)

COAB plans to:

- Reduce the amount of VMTs and ADTs while increasing opportunities for multimodal transportation:
    1. Improve transit connections to activity centers from underserved areas. (Medium Term)
    2. Develop VMT and ADT reduction targets within 1 year (short term).
    3. Define and secure permanent funding for transit planning and improvements. (Long Term)

Metric Categories

1. Energy

2. Water

3. Waste

4. Transportation

5. Human Experience

Inputting Data

Data points are manually inputted by project members into the Arc platform. Once data is collected, a project member must input numerical data points.

In addition to inputting, all uploaded data must be explained by an appropriate justification. This can be done through a Word document or PDF that explains: (1) where the data was retrieved from; (2) how any calculations were formulated; and (3) any other justifications for the findings.

Data Sources

1. Energy

Greenhouse gas (GHG) emissions data was obtained from the U.S. Department of Energy:

- Accessed via: **https://www.eere.energy.gov/sled/#/**
- 32233 (Atlantic Beach zip-code) was typed into search field.
- Under "Emissions" tab, "Annual Energy GHG Emissions" was selected to retrieve GHG data for the City of Atlantic Beach in 2016.

2. Water

Data was obtained from internal sources:

- Planners contacted the IT/Utility Billing Department.

3. Waste

Data was obtained from external waste service company:

- Planners contacted Advanced Disposal Services.

4. Transportation

Data was obtained from the Florida Department of Transportation:

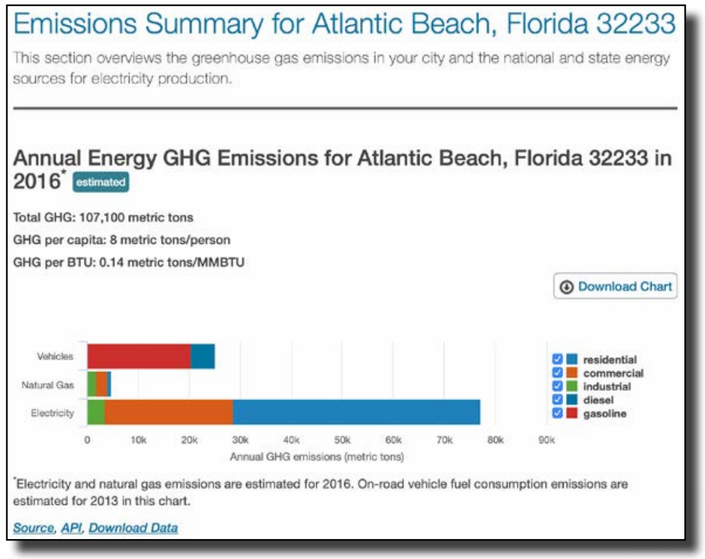
- Accessed via: **https://tdaappsprod.dot.state.fl.us/fto/**
  Used 2017 annual average daily traffic counts (AADT) from the Florida Department of Transportation for available road segments within the City. Multiplied the AADT for each road segment by the length of the road (in miles) to get the VMT of each segment. Then totaled all VMTs and divided by the 2017 Census estimated population of 13,608 to get the VMT per capita.

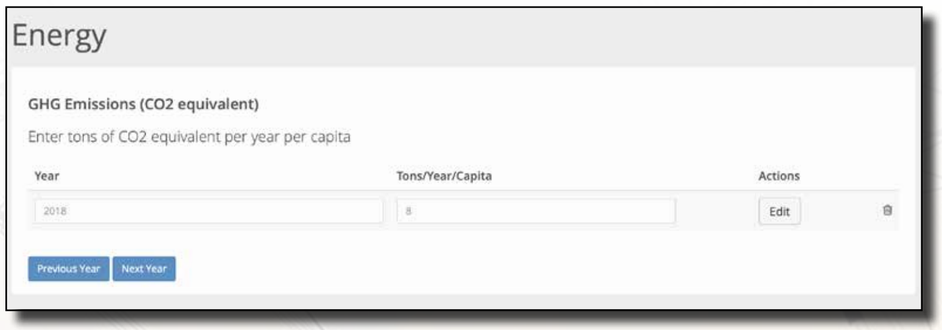
5. Human Experience

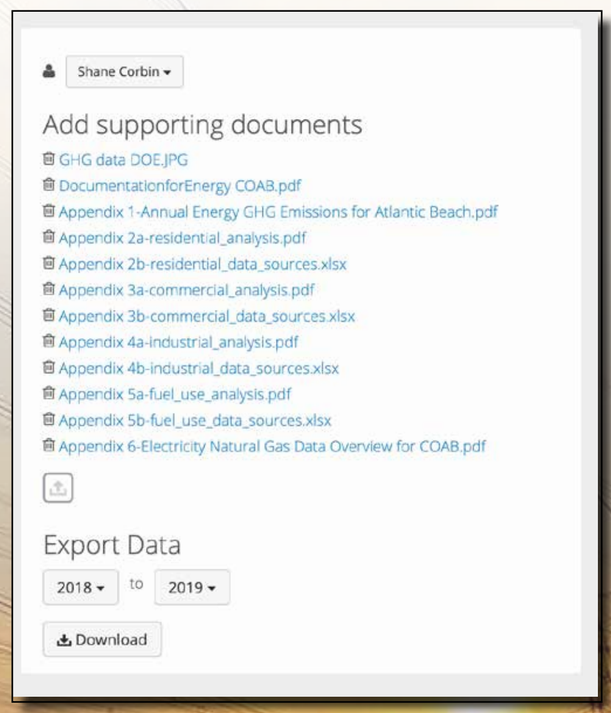
Data was obtained from several external, online database systems:

- Educational Attainment: **https://factfinder.census.gov/**
- Gini Coefficient: **https://factfinder.census.gov/**
- Household Characteristics: **https://factfinder.census.gov/**
- Crime Data: **www.fdle.state.fl.us/FSAC/UCR-Reports**
  Added murder, rape, robbery, and aggravated assault then divided by Atlantic Beach population (13,600)
- Air Quality Index: **aqs.epa.gov/aqsweb/airdata/download_files.html**

1. Energy

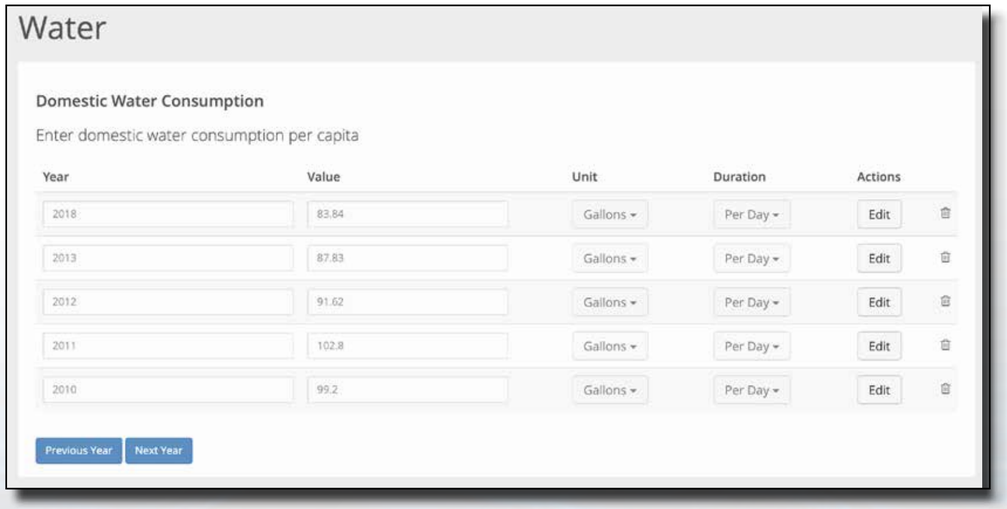


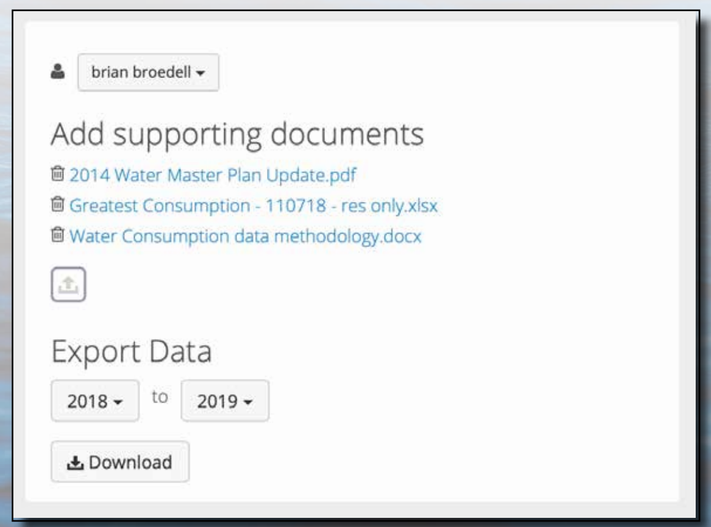




2. Water

Water Consumption data for Atlantic Beach was derived from the City's Utility Department. The data consists of 2018 consumption for each address that the City's Water Utility serviced in that year. Since the Atlantic Beach Water Utility services citizens outside of city limits, Brian Broedell then eliminated all addresses from this data that were outside of the Atlantic Beach boundary. Next, the total consumption from Atlantic Beach addresses was divided by the Atlantic Beach population, which was then divided by 365 to get the daily rate. Finally, this number was multiplied by 1,000 because the data was reduced by 1 thousandth when entered in the spreadsheet.

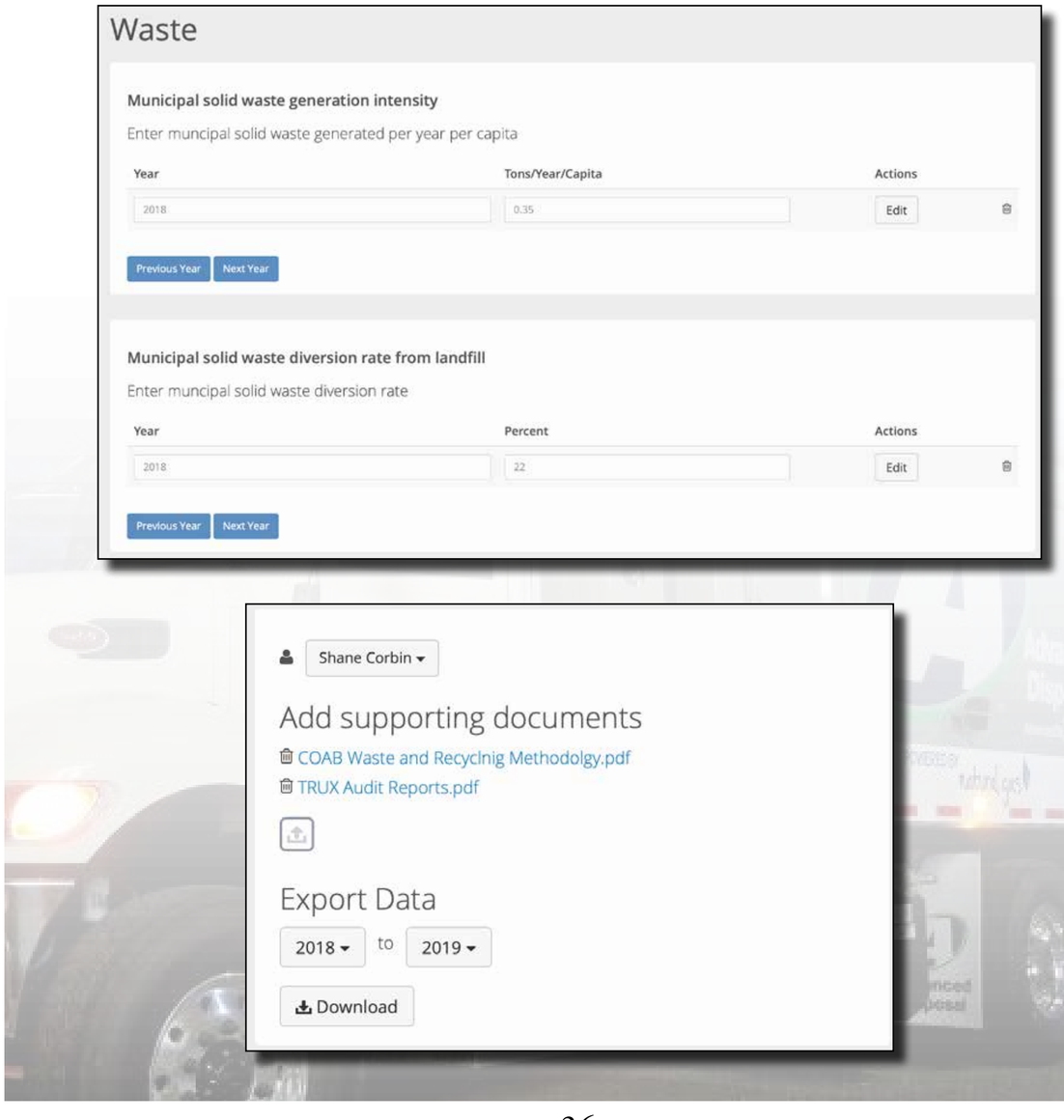




3. Waste

I contacted Mr. Derick Redding, the General Manger of Advance Disposal, to obtain the waste and recycling information required for our LEED for the Cities certification application. Advance Disposal provides the physical hauling of solid waste and recycling materials for the City of Atlantic Beach. Mr. Redding provided both data and methodology for Advance Disposals calculations. Below describes their physical process of hauling materials and their data calculation methodology:

- Trucks collect curbside material at each household
- Trucks arrive at a recycling or landfill facility and are weighed
- Trucks dump their materials at facilities
- Trucks are weighed as they leave facilities
- TARE weights (weight of materials) are collected for each truck
- Drivers are given total weight tickets at the end of each day
- Drivers give their daily collection of tickets to Advance Disposal dispatch
- Dispatch inputs total weights for solid waste and recycling into TRUX waste management software
- Management runs TRUX audit reports that provide lifts, tons, and hours per route day for specific time frames and route locations
- Tonnage of solid waste, tonnage of recycling, and diversion rates are calculated from the TRUX audit reports

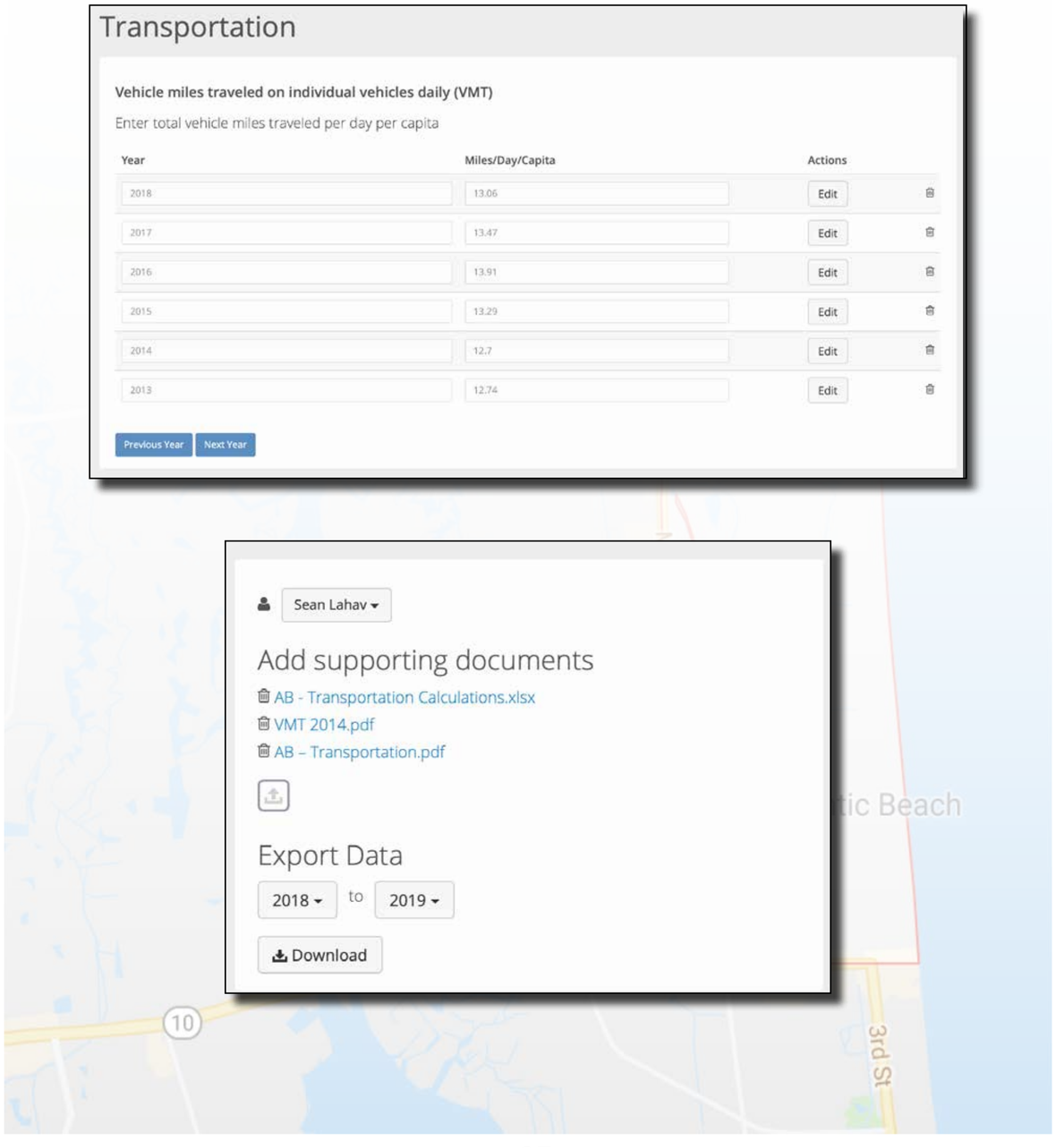


4. Transportation

Used annual average daily traffic counts (AADT) from the Florida Department of Transportation for available road segments within the City:

- Atlantic Boulevard 1, 2, & 3
- Mayport Road 1, 2, & 3
- Mayport Flyover
- Sherry Drive
- Seminole Road

Multiplied the AADT (respective to each year) for each road segment by the length of the road (in miles) to get the VMT of each segment. Then, totaled all VMTs and divided by the Census estimated population (respective to each year) to get the VMT per capita for each year between 2013-2018.



5. Human Experience

Human Experience

Education

Population with (at least) High School degree

Year	Percent	Actions
2018	94	Edit

Population with (at least) Bachelor's degree

Year	Percent	Actions
2018	51	Edit

Equitability

Median gross rent as % of household income

Year	Percent	Actions
2018	31	Edit

Gini coefficient (for income distribution)

Year	Value (Between 0 And 1)	Actions
2018	0.543	Edit

Prosperity

Median household income

Year	US Dollars/Year	Actions
2018	72946	Edit

Unemployment rate

Year	Percent	Actions
2018	3.2	Edit

Health & Safety

Median air quality index (AQI)

Year	Value (Between 0 And 500)	Actions
2018	41	Edit

Air quality days unhealthy for sensitive groups

Year	Value (Between 0 And 365)	Actions
2018	2	Edit

Violent Crime per year per capita

Year	Value	Actions
2018	0.0038	Edit

United States Census Bureau — AMERICAN FactFinder

MAIN | COMMUNITY FACTS | GUIDED SEARCH | ADVANCED SEARCH | DOWNLOAD CENTER

Guided Search - Step-by-step access to Census Information

1 Start | 2 Dataset | 3 Topics | 4 Geographies | 5 Race/Ethnic Groups | 6 Industry Codes | 7 Search Results | 8 Table Viewer

Choose from one of the following and click **Next**.

- I'm looking for information about **people**. (age, sex, income, poverty, education, ...)
- I'm looking for information about **housing**. (housing units, houshold type, value of home, ...)
- I'm looking for information about **businesses or industries**. (annual payroll, sales and receipts, number of employees, ...)
- I'm looking for information from a specific **dataset**. (2008-2010 American Community Survey 5-Year Estimates, 2007 Economic Census, 2010 Census Summary File 1, ...)
- I want to search for a **table number** or a **table title**. (P1, EC0700A1, b04*, Social Characteristics, ...)

*Note that the guided search searches for tables using a subset of search methods and most requested geographies. For more search options and to select from all available geographies, use the **Advanced Search**.*

PREVIOUS | NEXT | CANCEL

FLORIDA DEPARTMENT OF LAW ENFORCEMENT

SERVICE ◆ INTEGRITY ◆ RESPECT ◆ QUALITY

Rick Swearingen, Commissioner

Search

COUNTY AND MUNICIPAL OFFENSE DATA

January - December 2016
Annual Report

	Year	Population	Total Crime Index	% Index Change 2015/2016	Murder	Rape	Robbery	Aggravated Assault	Burglary	Larceny
Duval County	2015	905,574	39,686		97	496	1,454	3,629	6,335	25,229
FL016	2016	923,647	39,605	-0.2	106	540	1,523	3,586	6,166	24,466
Atlantic Beach Police Department	2016	13,244	391	23.0	0	1	16	29	64	251

Annual Summary Data

Year	Concentration by Monitor	AQI by CBSA	AQI by County
2018	annual_conc_by_monitor_2018.zip 59,409 Rows 3,542 KB As of 2018-11-27	annual_aqi_by_cbsa_2018.zip 527 Rows 15 KB As of 2018-11-27	annual_aqi_by_county_2018.zip 1,038 Rows 21 KB As of 2018-11-27

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Sean Lahav

Add supporting documents

- AB - Educational Attainment.pdf
- AB - Gini Coefficient.pdf
- AB - Health Metrics.zip
- AB - Median Gross Rent.pdf
- AB - Median Household Income.pdf
- AB - Unemployment Rate.pdf
- AB - Violent Crime.pdf

Export Data

2018 to 2019

Download

Sample Documentations

City of Atlantic Beach, Florida
LEED for Cities Data Documentation

Median Gross Rent Data
2017-2009

Obtained From: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

Source: U.S. Census Bureau, 2005-2017 American Community Survey 5-Year Estimates

Metric: Median Gross Rent as % of Household

Versions of this table are available for the following years:

2017
2016
2015
2014
2013
2012
2011
2010
2009

1 - 1 of 1

	Atlantic Beach city, Florida	
	Estimate	Margin of Error
Median gross rent as a percentage of household income	31.1	+/-5.8

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

City of Atlantic Beach, Florida
LEED for Cities Data Documentation

Violent Crime Data
2018-2009

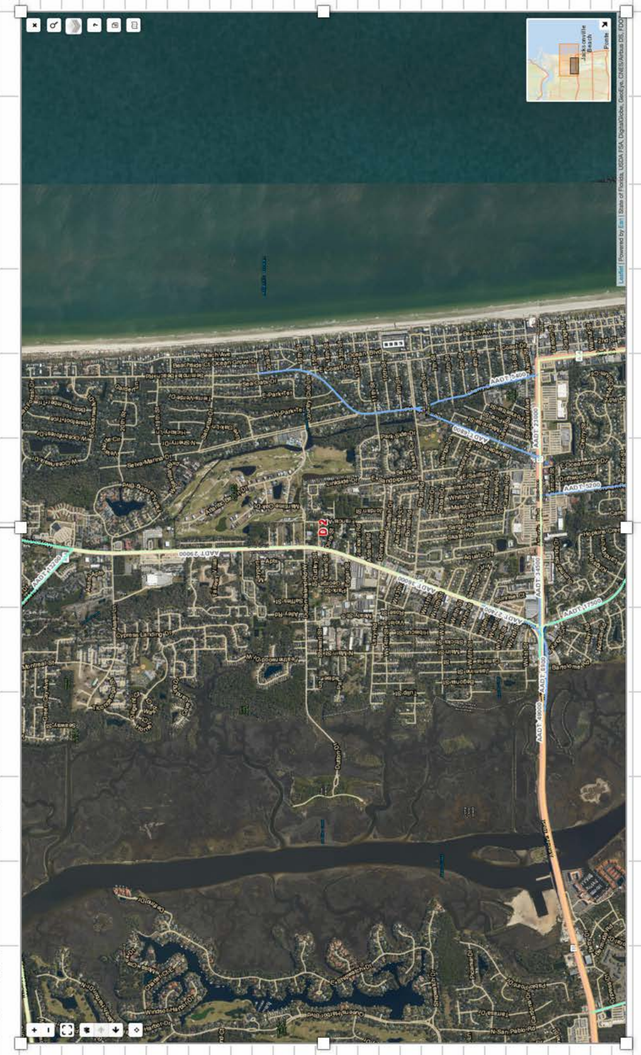
Obtained From: http://www.fdle.state.fl.us/FSAC/UCR/UCR-Annual-Archives.aspx

Metric: Violent Crime

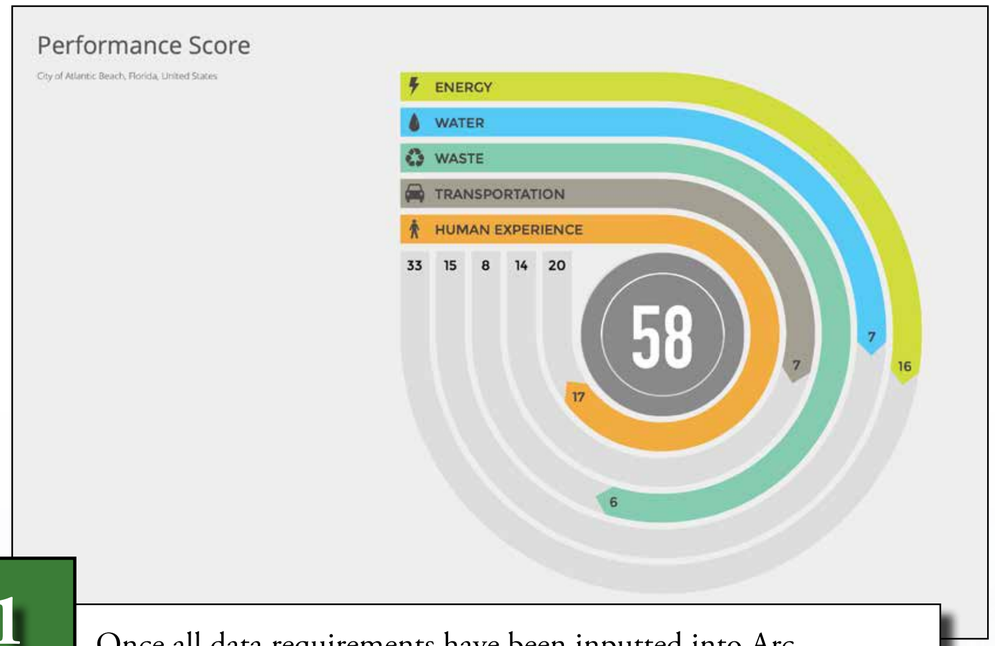
	A	B	C	D	E	F	G	H
1		MURDER	RAPE	ROBBERY	AGGRAVATED ASSAULT	TOTAL	POPULATION	Violent Crime (Total/Population)
2	2018	0	2	1	12	15	13,600	**0.0011**
3	2017	0	3	7	42	52	13,224	**0.0039**
4	2016	0	1	16	29	46	13,089	**0.0035**
5	2015	0	4	8	35	47	12,961	**0.0036**
6	2014	0	6	13	28	47	12,840	**0.0037**
7	2013	0	6	13	42	61	12,783	**0.0048**
8	2012	0	2	12	41	55	12,799	**0.0043**
9	2011	1	6	18	56	81	12,861	**0.0063**
10	2010	0	5	18	49	72	12,967	**0.0056**
11	2009	0	5	14	64	83	13,271	**0.0063**

Formula: (Murder + Rape + Robbery +Aggravated Assault) / Year Population

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	STREET		Atlantic 1	Atlantic 2	Atlantic 3	Atlantic 4	Atlantic 5	Sherry	Seminole	Mayport 1	Mayport 2	Mayport 3	Mayport Flyover			
2	AADT	2017	23,000	34,500	49,000	12,000	5,800	5400	6800	29,000	36,000	27,400	8,900			
3		2016	25,000	36,500	51,000	12,500	5,900	5300	6700	28,500	36,000	27,300	8,900			
4		2015	25,000	36,500	46,500	4,000	3,000	5200	6600	28,000	35,500	26,800	6,000			
5		2014	25,000	35,500	47,000	-	-	5100	6500	27,000	33,500	24,900	-			
6		2013	25,500	36,000	45,500	-	-	5100	6500	27,000	34,000	25,700	-			
7	LENGTH		0.64	0.78	0.98	0.16	0.17	0.6	1.44	1.38	0.38	0.44	0.76			
8														VMT TOTAL	POPULATION	Distance Per Person
9	VMT	2017	14,720	26,910	48,020	1,920	986	3,240	9,792	40,020	13680	12056	6764	178,108	13,224	13.47
10		2016	16,000	28,470	49,980	2,000	1,003	3,180	9,648	39,330	13680	12012	6764	182,067	13,089	13.91
11		2015	16,000	28,470	45,570	640	510	3,120	9,504	38,640	13490	11792	4560	172,296	12,961	13.29
12		2014	16,000	27,690	46,060	-	-	3,060	9,360	37,260	12730	10956	-	163,116	12,840	12.70
13		2013	16,320	28,080	44,590	-	-	3,060	9,360	37,260	12920	11308	-	162,898	12,783	12.74
14	Methodology															
15	Used annual average daily traffic counts (aadt) from the Florida Department of Transportation for available road segments within the City.															
16	Multiplied the aadt for each road segment by the length of the road (in miles) to get the VMT of each segment. Then, totaled all VMTs and divided by the Census estimated population to get the VMT per capita.															
17																
18	*Data taken from 2017 FDOT traffic data															
19	https://tdaappsprod.dot.state.fl.us/fto/															

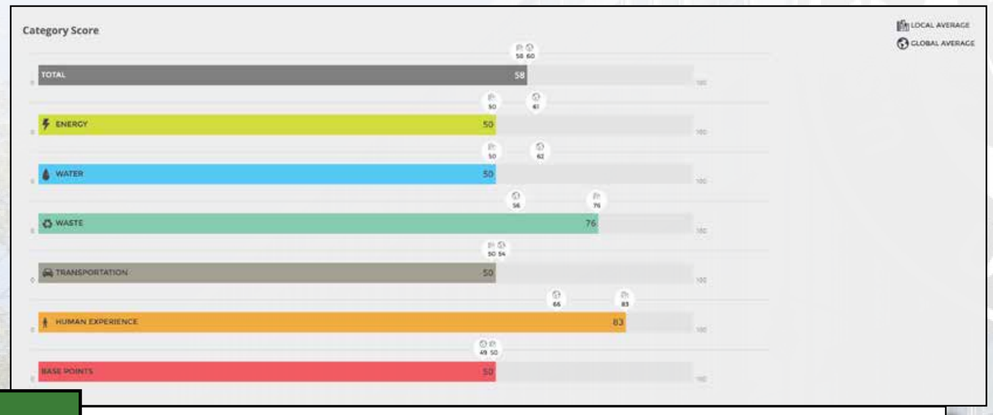


Applying for Certification



1

Once all data requirements have been inputted into Arc, the platform will provide a project with an overall "Performance Score." This score (which can be monitored at any time throughout the process) will determine if a city receives certification, and at what level (Certified, Silver, Gold or Platinum).



2

Featured below the data-visual is a secondary data-visual that enables project members to see how their project compares to other projects at the local and global levels. This visual can be utilized as a benchmark for improving performance levels moving into the future.

Once all prerequisites and data metrics have been inputted into Arc, a city project is ready for review. The review process takes approximately 40 days to complete.

Without review by Green Business Certification Inc., communities cannot claim a score in marketing or other communications.

GBCI can review documentations submitted by the community for the performance score in order to award a verified performance score.

GBCI also can review documentations submitted by the community for precertification and for the performance score in order to award LEED for Cities or LEED for Communities precertification and certification.

GBCI review is optional for all Cities and Communities projects registered in Arc.

Public Outreach

1. **Request LEED Logo use:** Get permission to use & print logo.

2. **Order a certificate, & digital badge for website:** All projects will receive a high-resolution download of their LEED Certificate. Cities can order a free set of five or 10 hard copy certificates and a formal certification letter.

3. **Distribute a press release:** Task a subcommittee member to draft a press release and publish once approved by city government.

4. **Hold a certification ceremony**: USGBC's management team may be available. Complete the Speaker Request Form.

5. **Send USGBC photos:** USGBC will feature certified cities with high-res digital photos of certified projects for use in marketing efforts including promotional advertisements, literature, websites and news articles. Contact the USGBC communications department.

6. **Activate Social Media:** Promote your city's achievement and join USGBC's conversation on Twitter, Facebook, LinkedIn, Pinterest, Instagram and Google+, and tweet @USGBC with the hashtag #LEED or #LEEDforCities. Here are some sample tweets:

Proud to announce Atlantic Beach FL has been certified #LEEDforCities! @USGBC and Atlantic Beach Florida are working to create healthier, more resilient cities for residents.

7. **Create a Project Profile:** Through a USGBC form, Cities will provide basic project details, a slideshow of project photos, and a link to the projects' LEED scorecard.

Moving Forward Into a Sustainable Future

Dear Community Members & Leaders,

In the years to come, cities across Florida and the wider U.S. will face emerging public policy challenges that will threaten future opportunities. In order to prepare for a more sustainable future, new technology-driven approaches can be utilized by local governments to ensure that cities are both resilient and readily able to combat these challenges.

In 2018 and 2019, the City of Atlantic Beach, Florida was able to lead the way towards a more sustainable future by participating in LEED for Cities.

By engaging a wide array of performance metrics, the City of Atlantic Beach was able to assess its current performance levels in an all-encompassing manner. Within the requirements of the program, urban planners assimilated ongoing plans, policies and strategies from various sectoral approaches into a cohesive roadmap for the future with actionable outcomes and were able to paint a picture of the progress that has been made in the city over the past decade; by collecting 2009-2019 data values and comparing the ebbs and flows that occurred each year (a secondary benefit of the Arc performance platform).

With numerous challenges faced by cities, now is a more important time than ever for mayors, city managers and urban planners to start engaging the discussion of how local governments in Florida can prepare to tackle future public policy challenges. By utilizing a cutting-edge, emerging-technology, cities of all sizes will be able to establish more adaptive planning roadmaps; and will also be able to receive state-wide and nation-wide recognition from USGBC for "leadership in planning, management and continuous improvement of sustainability and quality of life of all people."

The future for cities is clear: there will be an increased number of public policy challenges that will require new, innovative solutions. While these challenges are certainly problematic, what the future holds in store ultimately relies on how governmental actors strategically prepare in the present time. LEED for Cities can help transform this great country.

Thank you for reading this case study. I hope that it can assist you in making your community a better place.

Sean Lahav, MPA
Resiliency Coordinator
Northeast Florida Regional Council

Sean Lahav joined the Northeast Florida Regional Council (NEFRC) as Resiliency Coordinator following his graduate studies. He holds a B.A. in Political Science, summa cum laude, and an M.P.A. in Public Policy. He is also the producer of "Exploring Northeast Florida's Special Places," a video series on WJCT (PBS) that highlights the public parks of Northeast Florida. He has experience in development, congressional lobbying, strategic planning, and higher education administration. Sean's work has been highlighted by different magazines, television & radio appearances, and newspapers. Beyond his work with organizations and agencies at the local, state, and Federal levels, he is a professional landscape photographer with a portfolio that highlights scenic wilderness landscapes. Sean was recognized by the U.S. Green Building Council (North Florida Chapter) as the "Green Student of the Year" in 2019.

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Dr. David Lambert is an Associate Professor in the Department of Economics and Geography at the University of North Florida. He has taught courses at UNF related to green construction, environmental issues, sustainability, building codes, and geographic information systems. He currently serves as the Director of the UNF Environmental Center. For the past 25 years, he has concentrated on building interdisciplinary teams to develop and evaluate emerging technologies that can help us study society's impact on the environment, and the impact of the environment on society. Since arriving at UNF in 1999, he founded, and has been the Director of, the Environmental Monitoring, Mapping, Analysis, and Planning Systems Lab (EMMAPS Lab) and the Advanced Weather Information Systems Lab (AWIS Lab). Over the years, both labs attracted considerable external funding for their research agendas. His teams have completed research contracts with over 40 different local, state, federal, and international organizations, and all of these projects have been interdisciplinary in nature.

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Dr. Vatsal Bhatt consults with the U.S. Green Building Council as the Director of Cities and Communities, where he helped conceptualize and make operational the LEED for Cities and LEED for Communities certification systems. He co-leads the Application Frameworks working group on the National Institute for Standards and Technology led efforts for developing "IoT Enabled Smart Cities Frameworks" and serves on the US technical advisory group for the ISO's technical committee 268 for sustainable cities. As a senior energy policy analyst at the Brookhaven National Laboratory, Dr. Bhatt has worked on various national and international assignments for energy systems analysis and low-carbon development for the U.S. Department of Energy, the U.S. Department of State, the U.S. Environmental Protection Agency, the National Science Foundation, universities, foundations, and international governments.

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Sarah Boren is USGBC Florida's Director of Market Transformation and Development. She works closely with volunteers and leadership, as well as other partners, to advance the green building movement through programs, events, education and advocacy efforts throughout the state. Sarah has more than 20 years of professional experience in the environmental sustainability field in the nonprofit, private and government sectors, including at the Smithsonian Institution and Capitol Hill in Washington, DC, green-business consulting in California, and, between 2009-2015, as Executive Director of the USGBC North Florida Chapter before it merged into a statewide nonprofit Chapter from 2015-2017. A fifth generation Californian (pre-Gold Rush), Sarah received her BA in Politics with a minor in Chinese from the University of California, Santa Cruz, in 1991, and a Masters of Environmental Management in Resource Economics, Policy and Business, including corporate environmental management, from Duke University in 1999.

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