

CITY OF SATELLITE BEACH, FLORIDA

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INCORPORATED 1957

AGENDA

SUSTAINABILITY BOARD

SATELLITE BEACH COUNCIL CHAMBERS
565 CASSIA BOULEVARD, SATELLITE BEACH, FL 32937

SEPTEMBER 28, 2016
7:00 P.M.

1. CALL TO ORDER BY CHAIRMAN JEFF CHESTINE
2. PLEDGE OF ALLEGIANCE
3. PUBLIC COMMENT
4. STAFF UPDATE ON SUSTAINABILITY INITIATIVES
5. DISCUSS/TAKE ACTION ON BEAUTIFICATION BOARD PLANT SALE
6. DISCUSS/TAKE ACTION ON SUSTAINABILITY ASSESSMENT
7. DISCUSS/TAKE ACTION ON BALLOON BAN
8. DISCUSS/TAKE ACTION ON COMMUNITY GARDEN COMMITTEE RECOMMENDATIONS
9. DISCUSS/TAKE ACTION ON RECYCLING CONTAINERS AT BEACH ACCESSES
10. DISCUSS/TAKE ACTION ON FOUNDERS DAY PARTICIPATION
11. PROJECT UPDATES FROM BOARD MEMBERS
12. AGENDA ITEMS FOR NEXT MEETING
13. ADOPTION OF THE MINUTES: JULY 27, 2016
14. ADJOURNMENT

NEXT MEETING: OCTOBER 26, 2016

(One or more Council members may be present at this meeting)

Pursuant to Section 286.0105, FSS, if an individual decides to appeal any decision made by this Sustainability Board with respect to any matter considered at this meeting, a verbatim transcript of the proceedings may be required and the individual may need to insure that a verbatim transcript of the proceedings is made. In accordance with the Americans with Disabilities Act and Section 286.26, FSS, persons with disabilities needing special accommodation to participate in this meeting should contact the City Clerk's office.

Satellite Beach Coastal Garden Fair

When: March 18, 2017

Where: David Schechter Community Center

Objective: Bring the community together to enjoy an outdoor fair which promotes embracing nature, nurturing our environment while beautifying our surroundings.

Vendors

Plant:

Who will call?

Dr. Lawrence Apotheker	Melbourne	Nancy
B & B Exotics Plumeria	IHB	Nancy
Bonsai by Penjing Bonsai Garden	Malabar	Nancy
Exotica Tropicals	IHB	Nancy
Florida Native Plant Society	Melbourne	Kay
GNC Palms (Okie LoPresti)	Merritt Isl	Kay
Green's Nursery	Apopka	Kay
Alice Hawksworth	Melbourne Beach	Judie
New Visions Nursery	Melbourne	Kay
Otter Creek Nursery	Melbourne	Amy
Palm House	Malabar	Nancy
Rockledge Gardens	Rockledge	Amy
Space Coast Nursery	Merritt Island	Nancy
Sun Harbor Nursery	IHB	Nancy
Tropic Greenery	Melbourne	Amy
Valkaria Gardens	Valkaria	Nancy

Food:

Hot Dogs/Hamburgers - Lion's Club (if not, Longdoggers)	Kay L
Egg Rolls - Lady from Cocoa Farmer's Market?	Judie
Water, Doughnuts/Danish - Cub Scouts (free w/donation)	Kay V
Mexican Food - Lil Dos Amigos Food Truck	Kay L

For the Kids

Texas Roadhouse - Armadillo w/tokens for free meal	Kay V
Lowe's - "build a project" (to be determined)	Kay V
Face painting - need to find someone	Judie
Sat Bch Fire Dept - truck tours	Kay L
Police car	Kay L
Dunking Booth - victims to be determined	

Educational

Sally w/Ag Ext - soil seminar	Judie
Linda w/Ag Ext - garden pest seminar?	Judie
Sustainability Board - community garden	Jeff
Waste Mgt - recycling (or Recycle people)	Judie
Clifton Best - bees in backyard	Kay L
Charlie Kraemer - rain barrels	Judie
Shari Blissett-Clark - bat houses	Jeff
Surfrider Foundation - reusable cloth shopping bags	
Rare Fruit Society (they usually don't sell plants, just exhibit fruits and hand out info)	Kay L
Anglers for Conservation - Love Our Lagoon signs	Kay L
High Tec Garden Supply - hydroponics	Nancy
Kraig & Lisa Radesi - plant towers	Amy

Garden Art

Windchimes - Bud Springer	Kay L
Yard/Patio Art - various artists from An Owl's Bazaar	Kay L
Tiki Sculptures - Ed Volonino	Kay L
Steel Drum Player - Franke Lutz	Kay L

Administrative Needs

Diagram of parking lot layout (obtained)
 Advertising - banner, signs, Facebook, newsprint, radio
 Logo - Carlsen's in Sat Bch (obtained)
 Vendor Invitation Letter (obtained)
 Vendor Contract (food & plant) - under construction
 Treasurer - Kay L
 ID Badges for Volunteers
 Police involvement needed?

Manpower

Beautification Board - 7
 Sustainability Board - TBD
 Boy Scouts - TBD
 Sat High ROTC - TBD

Specifics

Rain or shine
 Vendor spaces are \$10 for 10 x 10 area or two parking spots in parking lot (can purchase multiples)
 Cub Scouts, City Boards and 501(c) groups - free booth
 Free booth for people not selling merchandise
 No alcohol permitted (family friendly event)
 Designate "No Parking" zone for Post Office area
 Electric is available
 We have permission to use sidewalk area in front of building (under cover

**Assessment and Measurement of City Sustainability:
Categories, Indicators, Metrics and Associated Factors,
City of Satellite Beach, Florida**

Report to the
City of Satellite Beach

Sept. 15, 2016

J. Morse and K. Lindeman
Dept. of Education & Interdisciplinary Studies
Florida Institute of Technology

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Introduction: Assessment and Measurement of City Sustainability

As local governments adapt to 21st century challenges, more cities are increasingly aware of the value of city-scale sustainability plans to develop better communities for the long term. Sustainable development at any scale must be equitable, livable, and maintained through best management practices suited for systems at a city scale (Tanguay 2009). A fundamental component of the development of government sustainability plans is the measurement and assessment of best practices. This requires the identification of primary categories and subcategories of specific components that capture the goals and culture of the community with a focus on indicators and specific metrics to measure performance.

Formal sustainability assessments and action plans are part of improving city sustainability while at the same time planning for future sustainability efforts. According to ICLEI (Local Governments for Sustainability), *sustainable cities* work towards environmentally, socially, and economically healthy systems for existing populations, without compromising the ability of future generations to experience the same. Determining proper city indicators and metrics is key and requires a measurement framework based on city expertise and both near- and long-term priorities (Woodbridge, 2015).

In Florida, a low-lying peninsula, there are 67 counties, 35 of these are coastal, with 410 municipalities. At least eighteen municipalities were identified in the present study to have sustainability plans, the majority on the east coast (Table 1); this represents less than 5% of Florida cities overall. In Brevard County, there currently is one other city with a sustainability plan, Palm Bay, in the southern county. Appendix 1 has links to all of these documents.

Table 1. Florida sustainability plans at the city-scale.

 Florida City Sustainability Plans							
County	City	Sustainability Plan Draft Year	Sustainability Assessment	Plan Updates	Climate Change Reference	Length	
East Coast							
Volusia	DeLand	2009	Not Available	No	No	5 pgs.	
Brevard	Palm Bay	2010	Not Available	No	Yes	62 pgs.	
Palm Beach	West Palm Beach	2012	Not Available	No	Yes	123 pgs.	
Palm Beach	Delray Beach	2013	Not Available	No	No	6 pgs.	
Broward	Coconut Creek	2009	Yes	2009-2014	Yes	36 pgs.	
Broward	Fort Lauderdale	2011	Not Available	2015	Yes	128 pgs.	
Broward	Davie	2011	Not Available	No	Yes	136 pgs.	
Broward	Hollywood	In Progress					
Miami - Dade	Pinecrest	2010	Not Available	No	Yes	14 pgs.	
Miami - Dade	Miami Beach	2010	Not Available	No	Yes	32 pgs.	
Miami - Dade	Key Biscayne	2014	Not Available	No	Yes	33 pgs.	
Monroe	Marathon	2012	Not Available	No	Yes	111 pgs.	
West Coast							
Hillsborough	Tampa	Annual Since 2013	Yes	2013 - 2014	No	33 pgs., 52 pgs.	
Clearwater	Pinellas	2011	Not Available	No	Yes	68 pgs.	
Largo	Pinellas	2011	Not Available	No	No	138 pgs.	
Central							
Leon	Tallahassee	2015	Not Available	No	No	28 pgs.	
Orange	Winter Park	2012	Not Available	2015	Yes	67 pgs.	
Orange	Orlando	2012 (municipal)	Not Available	No	Yes	32 pgs.	

Table 1 lists various Florida cities which have developed city sustainability planning documents, with multiple attributes stratified. A few cities produce annual assessment reports, e.g. the City of Coconut Creek, that display progress in achieving sustainability plan initiatives. The structure, content, length and focus on measurement varies widely among these plans (Table 1 and Appendix 1). Many of the cities with sustainability plans are located in the vulnerable South Florida coastal region where climate change will have prominent long term impacts and various local governments are acting proactively. Local sustainability planning also occurs at the county scale, with at least 9 of 67 Florida counties having plans (see Appendix 2). As with the city sustainability plans, the county plans vary greatly in content and length but are generally longer than city plans.

The City of Satellite Beach (CSB) is a small coastal community in Brevard County, east-central Florida, with an area of approximately 2.9 square miles and a population of just over ten thousand people. The city is located on a barrier island, parallel to the Indian River Lagoon one of the most bio-diverse estuarine systems within the United States. The closest neighboring local governments are the City of Indian Harbor Beach to the south and unincorporated Brevard County to the north.

Coastal cities in many regions of the US are dealing with sustainability challenges including energy efficiency, lower tax revenues, stormwater and groundwater issues, and vulnerability to coastal hazards (City of Charleston, 2010). Because of the scale of Satellite Beach's area and population, it can be challenging to gauge and compare with other cities around Florida and the US. It is important for the CSB community to maximize adaptive capacity and assess progress towards its sustainability goals with an eye on both the unique features of the CSB and lessons learned from other cities (Table 1; Appendix 1). Using lessons from the larger municipal sustainability literature and unpublished examples from other forward-thinking cities can help enhance and protect the human community along with the natural environment.



As a barrier island community focused on the future, the CSB has long enacted or examined multiple sustainability initiatives. Continuous improvements can be made in all aspects of sustainable governance in order to maintain and excel in leadership on the Space Coast of Florida. The CSB City Council created a citizens Sustainability Board in 2015 which has committed to an ambitious agenda involving diverse sustainability projects that will help the community as a whole while also benefiting the adjacent Indian River Lagoon which is undergoing a variety of challenges from decades of intensive land development and run-off.

In September 2015, the board unanimously identified the need for a city sustainability plan, which would be in part based on an initial sustainability assessment report to create a starting point to begin to benchmark and measure long term performance of city sustainability initiatives. This initial sustainability assessment developed a consensus-based, multi-scale structure to identify and prioritize the measurement needs for the city. This document not only provides a foundation for the measurement components of the larger city sustainability plan but will evolve through lessons learned from future performance measurement and broader city planning.

Prioritization of actions will be important due to factors limiting the resources currently available to monitor the many sustainability opportunities and challenges that exist. Therefore, it is also important that indicators for CSB performance measurement are specific, measurable, attainable, realistic, and time-bound (the SMART paradigm of project management). Highlighting priorities, specific indicators, and how they can be measured will be a key component in the CSB sustainability assessment plan and in addressing the city's ecological footprint and how to reduce future impacts.

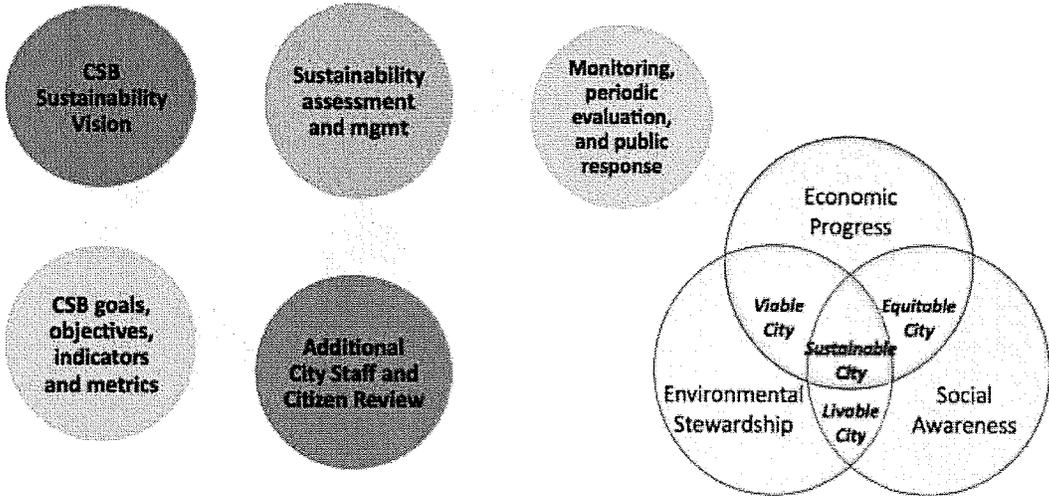
Development of Assessment and Measurement Framework

In September 2015, the future Sustainability Board (known as the Ad Hoc Green Committee at that stage) identified this vision statement: “Provide the Satellite Beach community and the City with leadership, guidance, and inspiration to create more sustainable, environmentally-friendly neighborhoods by reducing consumption and waste, protecting our environmental assets and accommodating hazards associated with our vulnerable coastal location.” During this time period, the project team was charged with developing a report that identified assessment and measurement options as a foundation for a future city sustainability plan.

Evaluations of sustainability performance can employ many techniques (e.g. case studies, benchmarking, quasi-randomized studies, surveys, and questionnaires) and the use of often hierarchical indicator systems has become the most commonly accepted approach to identify and track essential metrics to assess sustainability efforts (Lynch 2011).

At the highest scales of the framework for the CSB, primary and secondary categories of assessment were developed from drafts by the project team based on literature reviews, discussions with Sustainability Board members, and multiple reviews by city staff and the vice-chair of the board (Figure 1). A draft of the first two assessment tiers was then presented to the board for formal review from December 2015 to January 2016. We

Figure 1. Process for developing preliminary and final assessment framework.



processed verbal comments from the board meeting and, later, written review comments from four sustainability board members and additional staff review. Woodbridge (2015)

emphasizes that metrics have to be developed which can monitor changes in diverse areas including housing, transportation, health, environmental degradation and other areas at frequent intervals to understand how city-level indicators are progressing.

Five primary assessment categories for community sustainability were developed by consensus through these reviews. With consensus on the first two tiers (Categories and Subcategories), we then addressed the additional finer-scale tiers: Indicators, Metrics, Time Period, Priority and Point of Contact by drafting over 100 hierarchically placed indicators based on literature reviews, additional discussions with Sustainability Board members, and multiple reviews by city staff. A draft of these final five assessment tiers was then presented to the board for formal review from February 2015 to March 2016. Based on all of the comments, a sustainability assessment and indicator matrix was developed to logically stratify the all of the assessment framework details (Appendix 3).

Primary Category, Subcategory, and Indicator Totals in the Framework

Overall five primary components were identified: Built Environment, Land and Water systems, Energy and Transportation, Community Outreach, and Quality of Life. Each primary category had from 5 to 8 secondary levels within:

Built Environment (1st tier)

- Municipal Structures (2nd tier)
- Local Businesses
- Residential Housing
- Public Spaces
- Community Standards/ Policies

Land and Water Systems

- Stormwater Runoff
- Low Impact Landscaping
- Coastal Margins
- Community Resource Consumption
- Municipal Resource Consumption
- Business Resource Consumption
- Residential Resource Consumption
- Community Standards/ Policies

Energy and Transportation

- Community Energy Consumption
- Municipal Energy Use and Consumption
- Business Energy Use and Consumption
- Residential Energy Use and Consumption
- Roads
- Pedestrian and Bicycle Resources
- Public Transportation
- Community Standards/ Policies

Community Outreach

- Public events
- Sustainability Education

- Primary Education
- Community Gardening/ Composting
- Community Standards/ Policies

Quality of Life

- Senior Residents
- Social Wellbeing
- Affordability/ Cost of Living
- Employment Availability
- Public Safety
- Government
- Community Standards/ Policies

There was a total of 33 subcategories (second tier) and 121 indicators (third tier) (Table 2; Appendix 3). This total number can change with further iteration and evolution of the consensus structure as monitoring is formalized and expanded.

Table 2. Primary assessment categories with secondary and tertiary levels within.

Categories	Sub-Categories	# of Indicators
Built Environment	5	28
Land and Water Systems	8	22
Energy and Transportation	8	32
Community Outreach	5	17
Quality of Life	7	22
Total	33	121

As a part of the 121 indicators identified, at least 15 are directly related to the Indian River Lagoon. Due to current challenges to the health of the lagoon, this number of indicators is expected to grow. Focus on such future additional indicators should mirror goals and strategies of community resilience that are addressed by other city boards as well (e.g., the Comprehensive Planning and Advisory Board which is responsible for land use planning).

It is important to note that these fundamental categories and indicators may change over time. This assessment matrix and report, as well as the final sustainability plan, can be viewed as living documents, requiring updates and modifications over time with adjustments as progress is made (City of Miami, 2010). These dynamics should be anticipated as potential changes to the assessment structure and plan at any scale; categories, sub-categories, indicators, metrics, and priorities over time to adapt to evolving political scenarios, funding opportunities, and other municipal system drivers.

The Assessment Framework and Details

The following sections summarize the primary categories, sub-categories and indicators identified in Appendix 3. Due to the sheer number of subcategories (33) and indicators (121), not all are detailed at the individual level. The focus below is on the subcategories and indicators of highest potential near-term priority (currently estimated in column 8 of the assessment matrix in Appendix 3) based on evaluations with city staff, Sustainability Board members, and other citizens.

We also identified or estimated the a) metric(s) specific to each indicator, b) time periods of measurement, c) generic importance of the indicator, d) ease of measurement (expenses and city staff time) and d) points of contact, for the 121 indicators, columns 4, 5, 6, 7, and 9 in Appendix 3. These estimates were based on literature review and discussions with city staff, the Sustainability Board and other CSB citizens.

These priority rankings, time periods of measurement and points of contact are nonetheless estimates for this August 2016 document, periodic re-evaluation by city staff and the Sustainability Board will help revise and codify, at least for the near-term, the priority ranks and other attributes currently estimated in the assessment matrix (Appendix 3).

Built Environment

Sub-Category: Municipal Structures

Indicators: Municipal buildings, Building code conformity, Indoor-air quality, Low impact development, Energy accounting, Water resource accounting, Green building certification, Hazard vulnerability.

For municipal structures, the focus includes water resource accounting, green building certification, and hazard vulnerability due to the city sustainability literature and the high levels of interest in these indicators among city staff and sustainability board members.

Multiple metrics can be used in regards to these indicators including:

- ❖ Water resource accounting – Total amount of municipal water use.
 - Water data provided by Satellite Beach Public Works indicates that from April 20, 2015 to March 18, 2016 city buildings consumed 1,867,000 gallons of water. Within this timespan, the months of July and August were most intensive with nearly identical monthly totals of 181,400 and 181,700 gallons respectively (Appendix 4 provides numbers by month and city building). Of all locations measured for water consumption, the David R. Schechter Community Center (DRS) showed highest annual volume.
- ❖ Green building certification – Number of certified buildings (LEED or some other high level of certification).
- ❖ Hazard vulnerability – Building elevation, sea level rise vulnerability and storm surge.

High priority was placed on these indicators because of an identified need to monitor the data available and adapt plans to oversee future building certification whether it be through LEED (Leadership in Energy and Environmental Design) or Florida Green Building Certification programs. Hazard vulnerability is placed as a high priority as well because the current literature shows expected sea-level rise that could substantially impact the CSB built environment by mid-century.

Sub-Category: Local Businesses

Indicators: Local business density, Local business diversity, Low impact development, Indoor-air quality, Energy accounting, Water resource accounting, Green advertising, Certified Green Businesses (some level of certification), Sea level vulnerability.

For local businesses, the focus is primarily on water resource accounting and sea level vulnerability due to the literature and high levels of interest in these indicators among city staff and sustainability board members.

- ❖ Water resource accounting – Total water use, several metrics can be used.
- ❖ Sea level vulnerability – Minimum base floor elevation: feet above annual high water level (AHWL).

The indicators above for local businesses were agreed upon as having a high priority based on a need to monitor water usage data in part in regards to IRL health and to prepare for sea level rise vulnerability in years to come.

Sub-Category: Residential Housing

Indicators: Dwelling density, Water resource accounting, Low impact development, Green-building initiatives, Sea level vulnerability.

For residential housing, the focus is primarily on dwelling density, water resource accounting, low impact development, green-building initiatives and sea level vulnerability due to the literature and levels of interest in these indicators among city staff and board members.

- ❖ Dwelling density – Number of dwelling units within the city; Dwelling units per residential acre.
- ❖ Water resource accounting – Total amount of water use, several metrics.
- ❖ Low impact development – “Lagoon friendly lawns”- Florida native lawns; Xeriscaping. Percentage of yard space that requires minimal upkeep, e.g., little to no fertilizer, pesticide, herbicide, or water use.
- ❖ Green-building initiatives – Number of homes with solar panels, number of water conservation techniques, etc.
- ❖ Sea level vulnerability – Minimum base floor elevation: feet above annual high water level (AHWL).

The indicators above are higher priority due to a need to establish baseline data for residential homes within the CSB community. It is important to consider future opportunities for low impact re-development and green-building initiatives.

Sub-Category: Public Spaces

The city has a high number of public spaces with 40% of beachfront property in public ownership for city residents and visitors.

Indicators: Outdoor-air quality, Noise pollution, Light pollution, Recreational areas, Amenity standards, Accessibility.

For public spaces, the focus is primarily on light pollution, recreational areas, amenity standards, and accessibility due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Light pollution – Amount of light from built environment; Measured unnatural light.



A frequent destination for city residents, Pelican Beach Park has popular surf breaks and nearshore reef fishing, and is home to volleyball courts, play areas and pavilions.

- ❖ Recreational areas – Areas of recreational facilities, e.g. parks, beaches, etc., per 100 residents.
- ❖ Amenity standards – Per Capita average of features: fields, playgrounds, picnic facilities, water fountains promoting reusable containers.
- ❖ Accessibility – Parking, bike racks, wheelchair ramps.

These indicators were identified to collect baseline data for the city to begin measuring primary public space metrics and determine what protocols may be necessary.

Sub-Category: Community Standards/ Policies

Indicators: City Code Provisions.

For community standards/ policies, the focus is primarily on city code provisions due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ City code provisions – Low Impact Development, allowed density, required open space, required sidewalks. Parks: water fountains, shade trees, lack of invasive species, habitat preservation.

Land and Water Systems

Sub-Category: Stormwater Runoff

Indicators: Elevation, Volumes, Nutrient Load.

For stormwater runoff, the focus is primarily on elevation, volumes, and nutrient loads due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Elevation – Slope, Average cross-island gradient: feet per mile, percent.
- ❖ Volumes – Annual discharge volume.
- ❖ Nutrient loads – Annual Total Nitrogen and Total Phosphate load.

It will be valuable for the CSB to develop protocols to measure, model and monitor indicators listed under stormwater runoff to ensure a measurement framework that allows assessment of status to be made as needed. Understanding the annual amount of runoff and total nutrient loads is a required management tool and can help impact the next set of indicators: low impact landscaping.

Sub-Category: Low Impact Landscaping

Indicators: Horticultural chemical reduction, Nutrient reduction, Water conservation, Invasive removal.

For low impact development, the focus is primarily on horticultural chemical reduction, nutrient reduction, water conservation, and invasive plant removal due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Horticultural chemical reduction – Key chemical types and their concentration in discharge.
- ❖ Nutrient reduction – Reduced use of fertilizer, multiple metrics.
- ❖ Water conservation – Percentage of xeriscaped lawns, Number of FL Yards.
- ❖ Invasive removal – Percent of landscapes with FL-listed Cat-1 invasive plants.

Indicators listed here are important primarily because these can have cascading impacts on the Indian River Lagoon system depending on how managed.

Sub-Category: Coastal Margins

Indicators: Beach and dune, Near-shore reef, Mangrove fringe, Wetlands, Muck quantity.

For coastal margins, the focus is primarily on beach and dune, near-shore reef, mangrove fringe, and muck quantity due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Beach and dune – Total area of dunes and beaches per mile designated as natural shoreline.
- ❖ Near-shore reef – Maximum acres of exposed reef annual.
- ❖ Mangrove fringe – Percent of the shoreline with mangroves.
- ❖ Muck quantity – Cubic yards of muck.

Higher priority was placed on these specific indicators because of the city’s location on a barrier island, with Atlantic Ocean and Indian River Lagoon shorelines. Each of these indicators and their measured data are of importance due to the need to benchmark coastal margin status.

Sub-Category: Community Resource Consumption

Indicators: Water consumption, Solid waste generation, Recycling.

For community resource consumption, the focus is primarily on water consumption, solid waste generation, and recycling due to the literature and levels of interest in these indicators among city staff and board members.

- ❖ Water consumption – Average daily water use: liters/day or month/capita.
- ❖ Solid waste generation – Kilograms/day or month/capita.
- ❖ Recycling – Kilograms/day or month/capita., Percent recycled of total solid waste.

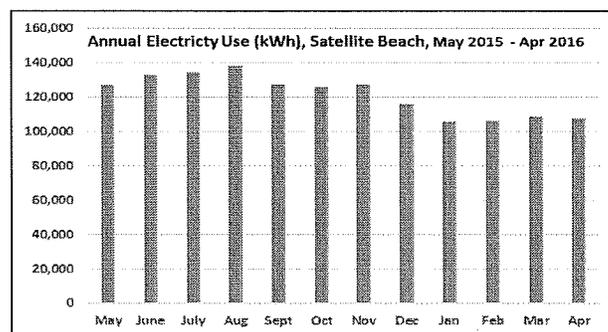
Sub-Category: Municipal Resource Consumption

Indicators: Water consumption, Energy consumption.

For municipal resource consumption, the focus is primarily on water consumption and energy consumption due to the literature and the levels of board interest.

- ❖ Water consumption – Average daily water consumed; liters/day or month/capita.
 - Data provided by Public Works is at the scale of month/building for April 2015 to March 2016. The David R. Schechter Community Center was the most intensive at monthly rates (Appendix 4 provides volumes by month and city building).
- ❖ Energy consumption – Average electricity consumed; kilowatts per capita per year.
 - Electricity consumption data provided by Satellite Beach Public Works for 37 municipal units shows that from May 26, 2015 to April 25, 2016, these units consumed 1,450,814 kWh of power (Appendix 5). Within this time span, the month of August was the most-energy intensive, at 138,366 kWh per month. Of all locations measured the David R. Schechter (DRS) Community Center was the most energy intensive.

Figure 2. Monthly electricity use pooled for 37 municipal units (see Appendix 5).



Sub-Category: Business Resource Consumption

Indicators: Water consumption, Energy consumption.

For business resource consumption, the focus is primarily on water consumption and energy consumption due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Water consumption – Average daily water consumed; Liters per day or month.
- ❖ Energy consumption – Average electricity and gas consumed; kilowatt hours and million therms per year per capita.

Sub-Category: Residential Resource Consumption

Indicators: Water consumption, Energy consumption.

For residential resource consumption, the focus is primarily on water consumption and energy consumption due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Water consumption – Average daily water consumed; Liters per day or month.
- ❖ Energy consumption – Average weekly electricity and gas consumed; kilowatt hours and million therms per year per capita.

Sub-Category: Community Standards/ Policies

Indicators: Comprehensive plan, Policies, **Land development regulations.**

For community standards/ policies, the focus is primarily on comprehensive plans, policies, and land development regulations (LDR's) due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Comprehensive plans, Policies, and Land development regulations – Stormwater requirements, irrigation requirements, fertilizer, businesses (LED outdoor requirements).

Energy and Transportation

Sub-Category: Community Energy Use and Consumption

Indicators: Electricity consumption, Natural gas consumption.

For community energy use and consumption, the focus is primarily on electricity consumption due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Electricity consumption – Average daily electric use: Mega Watts per hour per day per capita. Maximum and minimum daily electric use.

Sub-Category: Municipal Energy Use and Consumption

Indicators: Energy Use, Renewable energy use, Greenhouse gas emissions generated, Fleet energy use, Alternative vehicles owned, Electric vehicle charging stations.

For municipal energy use and consumption, the focus is primarily on energy use, renewable energy use, fleet energy use, alternative vehicles owned, electric vehicle charging stations due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Energy use – Annual energy use (nonrenewable); Mega Watts per year.
- ❖ Renewable energy use – Annual renewable energy use; Mega Watts per year.
- ❖ Fleet energy use – Fleet annual miles per gallon (mpg).
 - According to Satellite Beach Public Works, the city's annual vehicle fleet mpg is 10.3 miles per gallons from June 2015 to May 2016. The city fleet with the

lowest average MPG measurement was the Fire Department with a 7.7 average. Of 47 city vehicles, only 2 had an MPG of over 20. Appendix 6 provides the unit breakdown for vehicles from the Police Department, Fire Department, Public Works, and Building & Zoning.

- ❖ Alternative vehicles owned – Number of fleet miles reduced by electric vehicles or percentage of vehicles owned.
- ❖ Electric vehicle charging stations – Number of charging stations within city limits; charging stations per square mile, and kilowatt hours used.

These indicators are priority because of a need and opportunity to collect baseline data for the CSB on a municipal scale and to stimulate additional interest and potential investment in these alternatives. Through targeted measurement, systematic advances can be made.

Sub-Category: Business Energy Use and Consumption

Indicators: Energy use, Renewable energy use, Greenhouse gas emissions generated, Alternative vehicles owned.

For business energy use and consumption, the focus is primarily on energy use and renewable energy use due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Energy use – Annual energy use (nonrenewable); Mega Watts per year.
- ❖ Renewable energy use – e.g. photovoltaic rooftops. Annual renewable energy use; Mega Watts per year.

Sub-Category: Residential Energy Use and Consumption

Indicators: Energy use, Renewable energy use, Greenhouse gas emissions generated, Alternative vehicles owned.

For residential energy use and consumption, the focus is primarily on renewable energy use due to the literature and levels of interest in these indicators among city staff and board members.

- ❖ Renewable energy use – e.g. photovoltaic rooftops. Annual renewable energy use; Mega Watts per year.

Sub-Category: Roads

Indicators: Condition, Maintenance, Accidents, Sea level vulnerability.

For roads, the focus is primarily on condition, maintenance, accidents, and sea level vulnerability due to the literature and levels of reviewer interest.

- ❖ Condition – Linear miles needing repair, miles repaved or reconstructed every five years.
- ❖ Maintenance – Tons of asphalt; Cubic yards of concrete.
- ❖ Accidents – Total number of roadway accidents per year related to condition or design.
- ❖ Sea level vulnerability – Minimum paved elevation: feet above annual high water level (AHWL).

Roads are important attributes of barrier island sustainability. The CSB is encouraged to measure the indicators listed to build benchmarks for future planning under differing scenarios.

Sub-Category: Pedestrian and Bicycle Resources

Indicators: Sidewalk connectivity, Bicycle network connectivity, Proximity to public spaces, Crosswalk availability. For pedestrian and bicycle resources, the focus is primarily on sidewalk connectivity, bicycle network connectivity, proximity to public spaces, and

crosswalk availability due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Sidewalk connectivity – Percentage of total streets with available sidewalks on both sides: Percent of streets with sidewalks of 125 total streets in the city.
 - Based on information from Satellite Beach Public Works, 56% of all city streets have sidewalks on both sides; 24% percent have no sidewalks; 10% have one sidewalk border; and 10% have partial or incomplete sidewalks.
- ❖ Bicycle network connectivity – Percentage of total street distance with bike routes: Percent of streets with bike routes.
- ❖ Proximity to public spaces – Maximum travel rate from residential areas to closest public spaces; Maximum walking distance and time to closest public space.
- ❖ Crosswalk availability – Percent of protected crosswalks for SR A1A and South Patrick Drive.

The indicators under pedestrian and bicycle network resources are identified due to the interests of many residents of the Satellite Beach area, many of whom use these resources to visit local public spaces. Many residents in the CSB community share an active life style and frequently use pedestrian and bicycle resources to reach varied destinations.

Sub-Category: Public Transportation

Indicators: Bus transit, Bus stops, Proximity to schools, Proximity to public spaces, Connectivity to other public transit and regional destinations, Schedule convenience.

For public transportation, the focus is primarily on bus transit, bus stops, proximity to public spaces, connectivity to other public transit and regional destinations, and schedule convenience due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Bus transit – Total amount of ridership that used the Space Coast Area Transit system that ended or started in the City: Total amount of riders per month.
- ❖ Bus stops – Percent of total households within ¼ mile of a bus stop.
- ❖ Proximity to public spaces – Percent of public spaces within ¼ mile of a bus stop.
- ❖ Connectivity to other public transit and regional destinations – Regional destinations in another part of the County or to another transit.
- ❖ Schedule convenience – Head time difference, number of bus routes.

Public transportation can be a convenient and affordable solution for all ages to get around their community. Due to a need to understand the convenience and proximity of public transportation within and through the city, these indicators are listed as high priority.

Sub-Category: Community Standards/ Policies

Indicators: Comprehensive plans, Transit convenience and Availability.

For community standards/ policies, the focus is primarily on comprehensive plans and transit convenience and availability due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Comprehensive plans, Transit convenience, and Availability – Transportation Planning Organization (TPO) Long Range Transportation, Brevard County spending on transit.

Community Outreach

Sub-Category: Public Events and Outreach

Indicators: Recurring events, One-shot events, Recycling performance.

All of these indicators are important in measuring the transfer of important information among various stakeholder groups within the community. For example, the city's annual Founders Day Marketplace and Parade provides multiple opportunities to inform the public and neighboring institutions, such as Patrick Air Force Base (represented in the 2015 parade), of ongoing city initiatives. See the interdependent comments under the next indicator, Sustainability Education.



Sub-Category: Sustainability Education

Indicators: Within existing events, Annual educational programs, Recreation programs for sustainability, Education programs with Satellite Beach Library, City contracts for schools, Amount of environmental education in local schools, Education for homeowners.

For sustainability education, the focus is primarily on within existing events, annual education programs, recreation programs for sustainability, city contracts for schools, amount of environmental education in local schools, and education for homeowners due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Within existing events – Number of vendors that offer some type of sustainability education tool.
- ❖ Annual education programs – Number of educational programs concerning sustainable living, offered annually and number of residents that voluntarily attend; Resident attendance/educational program.
- ❖ Recreation programs for sustainability – Number of sustainability programs offered by the city or local organizations.
- ❖ City contracts for schools – Number of students reached.
- ❖ Amount of environmental education in local schools – Number of classes offered.
- ❖ Education for homeowners – Number of educational opportunities provided relating to sustainable living.

These indicators are considered high priority due to the many opportunities to engage the local community and measure potential impacts. Many residents have a desire to help and want to learn what sustainability can do for them and their community. High priority has been placed on these indicators to gain insight into the progress of sustainability education and related activities on a city scale.

Sub-Category: Primary Education

Indicators: Student/ Teacher ratio, Percent of residents with higher education, High school graduation rate, High school students attending college.

For primary education, the focus is primarily on high school graduation rate.

- ❖ High school graduation rate – High school graduation success rate. Total percent of graduating high school seniors per school year.

Sub-Category: Community Gardening/ Composting

Indicators: School gardens, School composting.

Another important aspect of community education. A separate committee of the Sustainability Board has been created for a garden site that has been provided adjacent to the city tennis facility.

Sub-Category: Community Standards/ Policies

Indicators: Comprehensive plans, Stormwater plans, Land development regulations.

For community standards/ policies, the focus is primarily on comprehensive plans, stormwater plans, and land development regulations due to the literature, ongoing issues regarding the Indian River Lagoon and high levels of interest in these indicators among city staff and board members.

- ❖ Comprehensive plans, Stormwater plans, Land development regulations – BMAP requirement for education, recycling requirement for events.

These indicators have multiple metrics and require long term measurement and management resources. The city's citizen-based Comprehensive Planning and Advisory Board and other citizen boards will have roles in some of these issues.

Quality of Life

Sub-Category: Senior Residents

Indicators: Community paramedics program, Medicine disposal, Social integration, Transportation, Handyman support (to initiate).

For senior residents, the focus is primarily on community paramedics program, medicine disposal, social integration, transportation, and handyman support due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Community paramedics program – Monitoring at risk senior residents within the City of Satellite Beach; Number of clients.
- ❖ Medicine disposal – Percent of total medicine recycled at designated drop stations.
- ❖ Social Integration – Number of participants in recreational senior citizen programs, Number of clients in Stop by and Say Hi program.
- ❖ Transportation – Number of senior citizens in need of transportation; clients transported.
- ❖ Handyman support – Once initiated, Number of clients served.

With the CSB community having a population of ten thousand residents and a large proportion of 60 years age and older, this is an essential demographic feature of the CSB community. The indicators listed here are to obtain or initiate measurements of the sustainability issues affecting senior residents of the community.

Sub-Category: Social Wellbeing

Indicators: Access to health care.

For social wellbeing, the focus is primarily on access to health care due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Access to health care – Number of uninsured. Number of facilities.

A major issue in terms of social capital. Data is available from several sources and can be stratified in multiple manners.

Sub-Category: Affordability/Cost of Living

Indicators: Housing cost.

For affordability/cost of living, the focus is primarily on housing cost due to the economic importance and high levels of interest among city staff, board members, and the public.

- ❖ Housing costs – Median assessed value of homes.

Sub-Category: Employment Availability

Indicators: Diversity of employment opportunities, Employment rate, Average commute.

For employment availability, the focus is primarily on employment rate due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Employment rate – Percent of residents with full-time employment.

Sub-Category: Public Safety

Indicators: Open water access for boats and kayaks on the lagoon, Police officers, Unlawful incidents, Juvenile crime, Fire suppression.

For public safety, the focus is primarily on police officers, unlawful incidents, juvenile crime, and fire suppression due to the literature and high levels of interest in these indicators among city staff and board members.

- ❖ Police officers – Number of police officers per 1000 residents.
- ❖ Unlawful incidents – Number of violent and property crimes per 1000 residents.
- ❖ Juvenile crime – Percentage of crime committed by residents 18 years and younger.
- ❖ Fire suppression – Annual fire losses as a percent of involved structural value.

These indicators were identified as having a high priority. Public safety is of upmost importance for all within the city and can be enhanced by coordinated measurement of primary variables.

Sub-Category: Government

Indicators: Local government participation, Voter participation, Formal community contacts with city staff directly to office, Opinion on access to government information.

For government, the focus is primarily on local government participation and voter participation due to the literature and interest in these indicators among city staff and board members.

- ❖ Government participation – Total percentage of the population registered to vote.
- ❖ Voter participation – Voter turnout as percentage of registered voters.

Population estimates are available annually from the Bureau of Economic and Business Research and for voters from the Supervisor of Elections.

Sub-Category: Community Standards/ Policies

Indicators: Comprehensive plans, public safety, council standards; Recreational opportunities.

For community standards/ policies, the focus is primarily on recreational opportunities due to the planning literature and interest in these indicators among city staff and board members.

- ❖ Recreational opportunities – Number of participants.

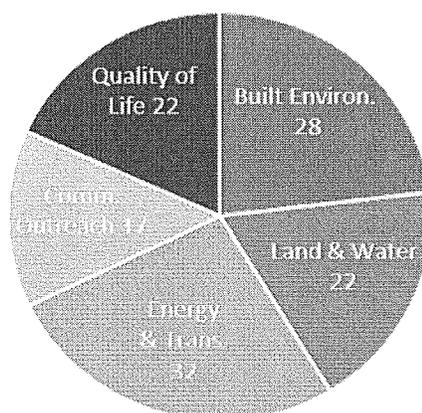
This information can be obtained from the City Recreation Dept. according to the focus of the query (e.g., youth, senior citizens).

Summary

Rigorous sustainability plans have a substantial focus on measurement (Bell and Morse, 2008). This assessment report will serve as the empirical foundation of the city sustainability plan in development. This sustainability assessment includes a nested set of consensus indicators and their metrics (Appendix 3). For project management and measurement, a SMART (specific, measurable, attainable, realistic, and time-bound) approach was sought in the development of all components of this assessment framework.

A total of 121 indicators within five primary measurement categories were identified with over 15 related to the Indian River Lagoon (Appendix 3). The Energy and Transportation category had the most indicators, Community Outreach the least (Figure 3). In application, preliminary benchmarking has identified the largest municipal consumer per annum of both electricity and water as the David R. Schechter (DRS) Community Center (Appendices 4 and 5). The indicators, priority rankings, time periods of measurement and points of contact in Appendix 3 are estimates as of Aug 2016. Further evaluation via the City Sustainability Plan currently in development is necessary to identify the most important working priorities for the near-term and the means to begin or continue their measurement at appropriate periods.

Figure 3. Total number of indicators per measurement category (n = 121).



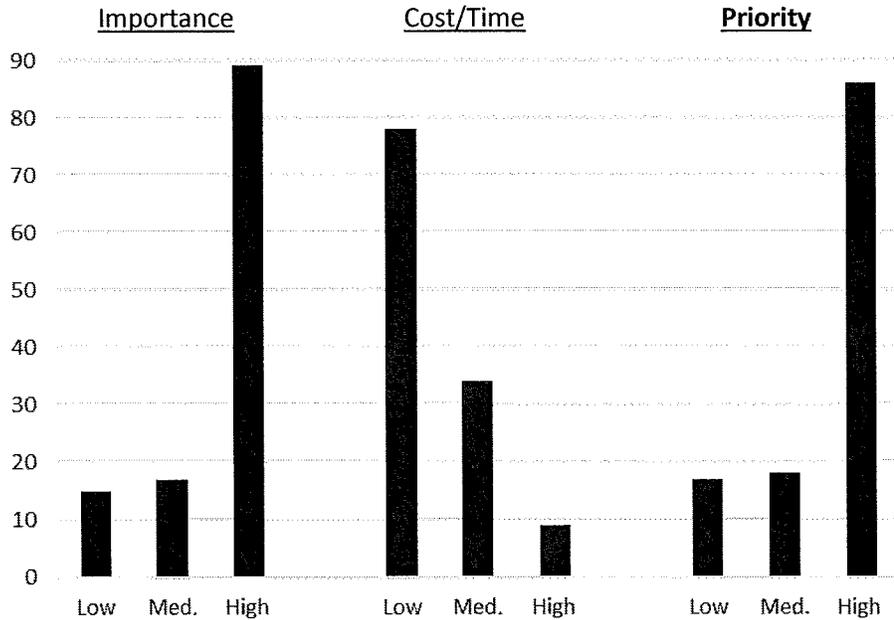
Determining relative priorities for future measurement of selected city indicators is essential for allocating resources for sustainability project management and measurement.

Prioritization of actions is also important due to the high number of indicators identified and the more than 150 metrics that can be used to examine these indicators (see Appendix 3, Column 4). For all indicators, we estimated a total of 17 low, 18 medium and 86 high priority indicators (Appendix 3, Column 8). To reduce the possibility of missing important indicators we oriented towards inclusive, higher rankings, in this first evaluation of priorities.

Given that 70% of all indicators were estimated as high priority, a substantial number of indicators to measure moving forward, we further stratified the estimates for all indicators by assuming that *priority* was a function of: a) the *generic importance* and b) the *ease of measurement* (in terms of relative cost or city staff time). In terms of generic importance, 15 indicators were ranked low, 17 medium, and 89 high. For ease of measurement (expense and staff time), 78 indicators were ranked as low, 34 as medium, and only 9 as high (Figure 4). Significantly, the number of indicators ranked as medium or high in ease of

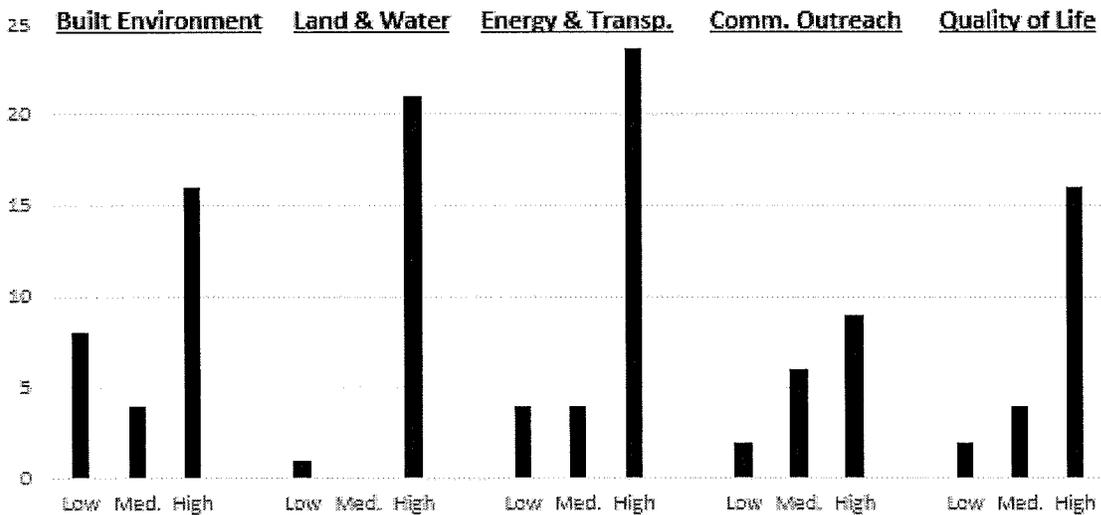
measurement was low compared to the overall number of indicators examined: 43 of 121, 36%, suggesting that pending efforts to fully benchmark and then maintain long term measurements can be feasible without unusually high demands on city resources.

Figure 4. Evaluations of 121 measurement indicators to inform final priority ranks.



Given the relative agreement of the final priority ranks with the component measures (importance and ease of measurement), we examined the five primary assessment categories to identify the distribution of the three priority alternatives (Figure 5). High priority rankings were highest within the Energy and Transportation and Land and Water Systems categories (>20 high priority indicators each), which also had the greatest total of indicators.

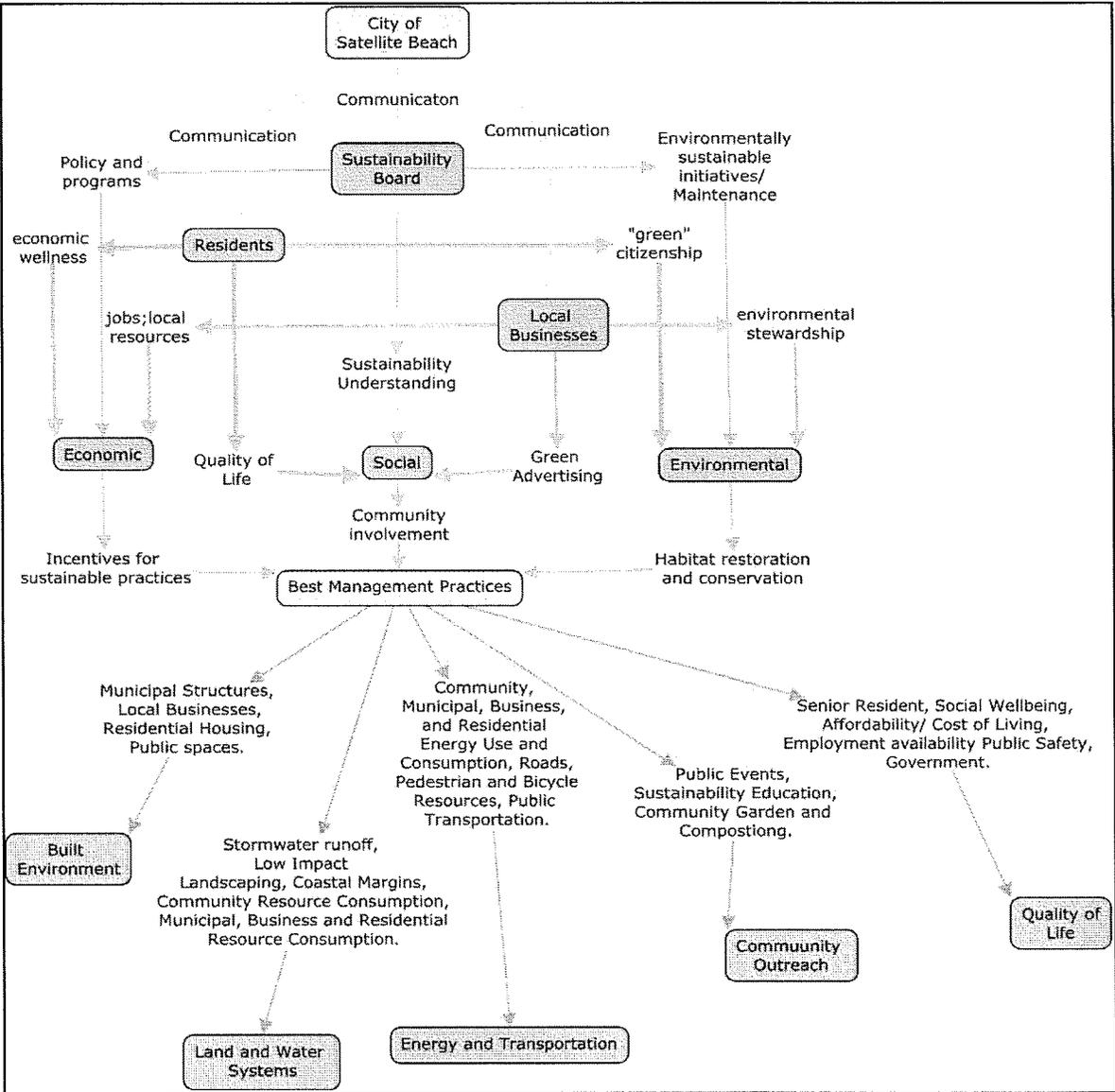
Figure 5. Distribution of priorities within five primary measurement categories.



These data reinforce the importance of these two categories beyond only their absolute total of indicators, and particular attention to the measurement of these categories is implied. Of the other three categories, over 15 high priority indicators were identified for Built Environment and Quality of Life, with only nine identified for Community Outreach (Figure 5). These comparisons can aid the allocation of existing staff time and funding for consultants or new staff.

Construction of the assessment indicator matrix in Appendix 3 involved many stakeholders including sustainability board members, city staff, city council members, and other citizens. Some primary relationships between these systems and various structural components of the city and community are preliminarily represented in Figure 6. The evolving assessment matrix, the city sustainability plan in development, subsequent measurement findings and reviews over time will shape the scope of the city's path and the potential for a sustainable city that is an example for other municipalities.

Figure 6. Selected city structural components and stakeholders relative to assessment. InOf



Of the actors represented in Figure 6, the city's Sustainability Board in particular is designing and implementing new projects with a frequency that will expand upon the currently identified indicators and metrics needed to comprehensively measure sustainability performance. Examples from this board include diverse measurement attributes associated with developing projects involving: reusable bags, sustainable lawn education and certification, community gardening, and expanded residential solar photovoltaic installation. As suggested by Figure 6, the role of diverse private, NGO, and public partners will continue to be essential to both the development and implementation of city sustainability activities.

Acknowledgements

City staff have been essential to this document, in particular, Courtney Barker and Allen Potter. The members of the Sustainability Board have been valuable in terms of both technical contributions and smart enthusiasm, in particular, Dr. John Fergus who reviewed multiple versions of the framework and full document. Zachary Eichholz and Julie Finch also assisted with document production.

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Appendices

Appendix 1. Website links to city sustainability plans in Florida.

[Fort Lauderdale, Broward County, FL: Sustainability Action Plan](#)

[Orlando, Orange County, FL: GreenWorks Municipal Operations Sustainability Plan](#)

[Winter Park, Orange County, FL: Winter Park Sustainability Action Plan](#)

[Pinecrest, Miami - Dade County, FL: Green Action Plan](#)

[Tampa, Hillsborough County, FL: City of Tampa Annual Sustainability Report 2013](#)

[Tampa, Hillsborough County, FL: City of Tampa Annual Sustainability Report 2014](#)

[Key Biscayne, Miami - Dade County, FL: Key Biscayne Sustainability Plan](#)

[Palm Bay, Brevard County, FL: Sustainability Master Plan 2010](#)

[Miami Beach, Miami - Dade County, FL: Sustainability Plan, Energy Economic Zone Work Plan \(plan is downloadable on the linked webpage\)](#)

[Coconut Creek, Broward County, FL: City Green Plan](#)

[West Palm Beach, Palm Beach County, FL: Rethink Paradise: West Palm Beach Sustainability Action Plan](#)

[Marathon, Monroe County, FL: The City of Marathon Sustainability and Climate Plan 2012](#)

[Tallahassee, Leon County, FL: City of Tallahassee Greenprint, A Roadmap to a More Sustainable Future](#)

[Delray Beach, Palm Beach County, FL: 2013 Delray Beach Sustainability Report](#)

[Clearwater, Pinellas County, FL: Clearwater Greenprint: A Framework for a Competitive, Vibrant, Green Future](#)

[DeLand, Volusia County, FL: City of DeLand Sustainability Action Plan](#)

[Davie, Broward County, FL: Town of Davie, Florida Sustainability Action Plan](#)

[Largo, Pinellas County, FL: City of Largo Strategic Plan, Reconnecting the Community](#)

Appendix 2. Florida counties with sustainability plans at the county-scale. Counties are arranged within their respective geographical areas from north to south.



Florida County Sustainability Plans

County	Sustainability Plan Draft Year	Sustainability Assessment	Plan Updates	Climate Change Reference	Length
East Coast					
Volusia	2012	2014	No	Yes	84 pgs.
Palm Beach	2009	Not Available	2010	Yes	64 pgs.
Broward	2011	Not Available	No	Yes	21 pgs.
Miami-Dade	2012	2014, 2015	No	Yes	200 pgs.
Monroe	2015	Not Available	No	Yes	147 pgs.
West Coast					
Hillsborough	2011	Not Available	No	Yes	206 pgs.
Sarasota	2006	Not Available	No	Yes	43 pgs.
Lee	2013	2012 (pg. no longer available)	No	Yes	73 pgs.
Central					
Orange	2011	2013	2015	No	172 pgs.

Appendix 3. Framework of measurement features for sustainability assessment, Sept. 2016.

Categories	Sub-Categories	Indicators	Indicator Description and Metrics	Time Period	Import.	E C
Built Environment	Municipal Structures	Municipal buildings	Total Number of municipal buildings within the City of Satellite Beach and square footage of each; (can be represented per capita/per employee).	5 yr	Low	L
		Building code conformity	Number of buildings conforming to current building codes.	5 yr	Low	L
		Indoor air quality	Quality of air in indoor spaces; indoor air quality/municipal structure/yr. Dust, Particulates, Mold.	Baseline	Low	N
		Low impact development	Amount of certified furnishings: lights, furniture, flooring, etc.	Baseline	Low	L
		Energy accounting	See Energy and Transportation.			
		Water resource accounting	Total amount of municipal water use.	Annual	High	L
		Green building certification (e.g., LEED or STAR)	Number of certified buildings.	As needed	High	L
		Hazard vulnerability	Building elevation/SLR and Storm Surge.	Refer to docs	High	N
	Local Businesses	Local business density	Number of local businesses vs commercial chain businesses.	3-5 yr	Med	N
		Local business diversity	Number of service/good categories (health, food, etc.) that are accessed frequently by users.	5 yr	Low	L
		Low impact development	Amount of certified furnishings or buildings e.g. lights, furniture, flooring etc; certified furnishings/local business.	5 yr	Low	F
		Indoor air quality	Quality of air in indoor spaces; indoor air quality/local business/yr.	5 yr	Low	F
		Energy accounting	See Energy and Transportation.			
		Water resource accounting	Total amount of water use.	Annual	High	N
		Green advertising	Using sustainability as an Ad for business. Percentage of ads.	5 yr	Med	N
		Certified Green Businesses (some level of certification)	Percentage of businesses with some level of sustainability certification.	5 yr	Med	N
		Sea level vulnerability	Min. base floor elevation: ft above AHWL.	TBD	High	L

Built Environment (cont.)	Residential Housing	Dwelling density	Number of dwelling units within the city; DU/res residential acre	5 yr	High	L	
		Water resource accounting	Total amount of water use	Annual	High	L	
		Low impact development	"Lagoon friendly lawns" - Florida native lawns; xeriscaping. Percentage of yard space that requires minimal upkeep, e.g., little to no fertilizer, pesticide, herbicide, or water use.	Annual	High	M	
		Green building initiatives	Number of homes with solar panels, number of water conservation techniques, etc.	Annual	High	M	
		Sea level vulnerability	Minimum base floor elevation: ft above AHWL	TBD	High	L	
	Public Spaces	Outdoor air quality	Quality of air in outdoor spaces; outdoor air quality/recreational area/yr.	Baseline, 5 yr	Low	M	
		Noise pollution	Number of residents exposed to traffic related noise; Residents. Avg decibels, (meter reading).	5 yr	Low	L	
		Light pollution	Amount of light from built environment; Measured unnatural light.	Annual	High	M	
			Number of disturbed sea turtle nests/yr.	Annual	High	L	
		Recreational areas	Areas of recreational facilities, e.g. parks, beaches, etc., per 100 residents; m ² /s/100 residents.	5 yr	High	L	
		Amenity standards	Per capita: fields, picnic and play facilities, fountain signage for bottles	5 yr	High	L	
		Accessibility	Parking, bike racks, wheelchair ramps.	5 yr	High	L	
	Community Standards/ Policies	City Code Provisions	Low Impact Development, allowed density, required open space, required sidewalks Parks: water fountains, shade trees, lack of invasive species, habitat preservation.	5 yr	High	M	
	Land and Water Systems	Stormwater Runoff	Elevation	Slope. Average cross-island gradient: ft/mi, %.	Once	High	L
			Volumes	Annual discharge volume.	Model & monitor	High	L

Land and Water Systems (cont).		Nutrients	Annual TN and TP loads.	Model & monitor	High	L
	Low Impact Landscaping	Horticultural chemical reduction	Key chemical types concentration in discharge.	Baseline	High	M
		Nutrient reduction	Reduced use of fertilizer.	Survey	High	F
		Water conservation	Percentage of xeriscaped lawns, Number of FL Yards.	Survey	High	M
		Invasive removal	Percent of landscapes with FL-listed Cat-1 invasives.	Survey	High	L
	Coastal Margins	Beach and dune	Total area of dunes and beaches per mile designated as natural shoreline.	5 yr	High	L
		Nearshore reef	Max annual acres of exposed reef.	5 yr	High	L
		Mangrove fringe	Percent of the shoreline with mangroves.	5 yr	High	M
		Wetlands	Percentage of wetlands protected.	TBD	Low	L
		Muck quantity	Cubic yards of muck.	Survey	High	L
	Community Resource Consumption	Water consumption	Average daily water use: liters/day/capita.	Monthly	High	L
		Solid waste generation	Pounds/capita/day.	Monthly	High	L
		Recycling	Pounds/capita/day, Percent recycled/percent of solid waste.	Monthly	High	L
	Municipal Resource Consumption	Water consumption	Average daily water consumed; Liters/day.	Monthly	High	L
		Energy consumption, e.g. electricity, gas, etc.	Average electricity/gas consumed; MW/yr/capita and kg/yr.	Monthly	High	L
	Business Resource Consumption	Water consumption	Average daily water consumed; Liters/day.	Monthly	High	L
		Energy consumption, e.g. electricity, gas, etc.	Average electricity/gas consumed; MW/yr/capita and kg/yr.	Monthly	High	M
	Residential Resource Consumption	Water consumption	Average daily water consumed; Liters/day.	Monthly	High	L
		Energy consumption, e.g. electricity, gas, etc.	Average weekly electricity/gas consumed; MW/yr/capita and kg/yr.	Monthly	High	M
	Community Standards/ Policies	Comp Plan policies, LDRs	Stormwater requirements, irrigation requirements, fertilizer, businesses (LED outdoor requirements...)	Annual	High	F

Energy and Transportation	Community Energy Consumption	Electric consumption	Average daily electric use: mW/hr/day/capita.	Monthly	High	M
			Max & min daily electric use	Monthly	High	M
	Municipal Energy Use and Consumption	Natural gas consumption	Average therms/day/capita (metered).	Monthly	High	M
			Energy use	Annual energy use (nonrenewable); MW/yr.	Annual	High
	Municipal Energy Use and Consumption	Renewable energy use, e.g. photovoltaic roof tops	Annual renewable energy use; MW/yr.	Annual	High	L
		Greenhouse emissions generated	Average annual CO ₂ emissions generated from transport activities; kg/yr.	Annual	High	M
		Fleet energy use	Fleet annual mpg.	Annual	High	L
		Alternative vehicles owned	Number of fleet miles reduced by electric vehicles OR percentage of vehicles.	Annual	High	M
	Business Energy Use and Consumption	Electric vehicle charging stations	Number of charging stations within city limits; Charging stations per square mile and KW hrs.	Annual	High	L
		Energy use	Annual energy use (nonrenewable); MW/yr.	Annual	High	F
		Renewable energy use, e.g. photovoltaic roof tops	Annual renewable energy use; MW/yr.	Annual	High	L
		Greenhouse emissions generated	Average annual CO ₂ emissions generated from transport activities; kg/yr.	Annual	Low	M
	Residential Energy Use and Consumption	Alternative vehicles owned	Number of alternative vehicles owned and operated by businesses EVs/ business.	Annual	Low	F
		Energy use	Annual energy use (nonrenewable); MW/yr.	Annual	Med	F
		Renewable energy use, e.g. photovoltaic roof tops	Annual renewable energy use; MW/yr.	Annual	High	L
		Greenhouse emissions generated	Average annual CO ₂ emissions generated from transport activities; kg/yr.	Annual	Low	M
Residential Energy Use and Consumption	Alternative vehicles owned	Number of alternative vehicles owned and operated by residents; EV's/capita.	Annual	Med	M	

Energy and Transportation (cont.)	Roads	Condition	Linear miles needing repair, miles repaved/reconstructed every 5 yr.	5 yr	High	L
		Maintenance	Tons of asphalt; Cubic yards of concrete.	Annual	High	L
		Accidents	Total number of roadway accidents per year related to condition or design	Annual	High	L
		Sea level vulnerability	Minimum paved elevation: ft above AHWL.	5 yr	High	L
	Pedestrian and Bicycle Resources	Sidewalk connectivity	Percentage of total streets with available sidewalks on both sides; % of streets with sidewalks.	5 yr	High	N
		Bicycle network connectivity	Percentage of total street distance with bike routes; % of streets with bike routes.	5 yr	High	L
		Proximity to public spaces (parks, municipal buildings)	Maximum travel distance/time from residential areas to closest public spaces; Maximum walking distance and time to closest public space.	5 yr	High	L
		Crosswalk availability	% Protected crosswalks for SR A1A and South Patrick Drive.	5 yr	High	L
	Public Transportation	Bus transit	Total amount of ridership that used the Space Coast Area Transit system that ended or started in the City; Total amount of riders/mo.	Annual	High	L
		Bus stops	Percent of total households within ¼ mile of a bus stop.	5 yr	High	L
		Proximity to schools	Percent of household that meet the School District's guidelines for busing.	5 yr	Med	L
		Proximity to public spaces	Percent of bus stops within ¼ mile of a public space.	5 yr	High	L
		Connectivity to other public transit and regional destinations	Talk to SCAT Regional destination in another part of the County or to another transit.	5 yr	High	L
		Schedule convenience	Head time difference, number of bus routes talk to SCAT.	5 yr	High	L
		Bicycle and car sharing	Recommendation for future.			
	Community Standards/ Policies	Comp Plan, transit convenience and availability.	TPO Long Range Transportation, Brevard County spending on transit.	5 yr	High	N

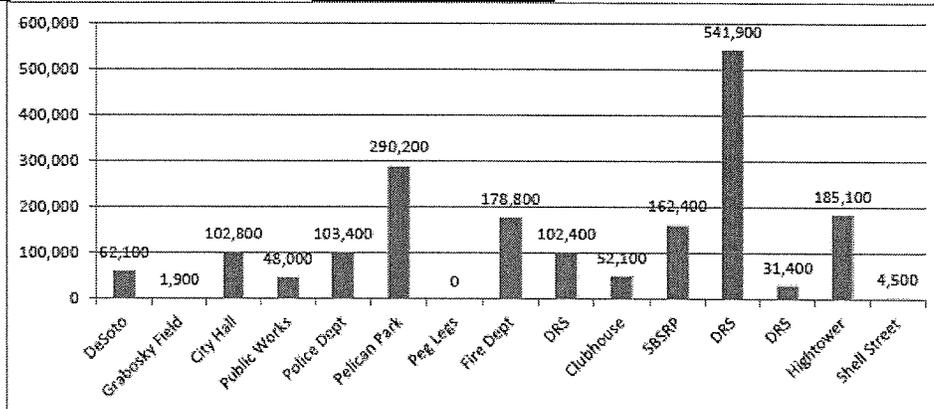
Community Outreach	Public Events	Recurring events	Number of recurring events (list); attendance/event.	Per event	Med	L
		One-shot events	Number of events; Resident attendance/event.	Per event	Med	L
		Recycling performance	Pounds recycled per event.	Per event	Med	M
	Sustainability Education	Within existing events	Number of "vendors".	Per event	High	L
		Annual education programs	Number of educational programs, concerning sustainable living, offered annually and number of residents that voluntarily attend; Resident attendance/educational program.	Annual	High	L
		Recreation programs for sustainability	Number of sustainability programs offered.	Annual	High	L
		Education programs with Satellite Beach library	Number of sustainability education programs offered through the SB public library.	Annual	Med	L
		City contracts for schools	Number of students reached.	Annual	High	L
		Amount of environmental education in local schools	Number of classes offered.	Annual	High	M
		Education for homeowners	Number of educational opportunities provided relating to sustainable living.	Annual	High	L
	Primary Education	Student/Teacher ratio	Average number of students per teacher in grades K-12.	Annual	High	L
		Percent of residents with higher education	Total percent of SB residents with education beyond high school diploma.	3 yr	Med	L
		High school graduation rate	High school graduation success rate. Total percent per school year.	Annual	High	L
		High school students attending college	Number of high school students currently enrolled in a college dual enrollment or head start program with local colleges or universities.	Annual	Med	L

Community Outreach (cont.)	Community Garden and Composting	School gardens	Number of school gardens.	Annual	Low	L
		School composting	Number of school compost stations.	Annual	Low	L
	Community Standards/ Policies	Comp Plan, stormwater plan, LDRs	BMAP requirement for education, recycling requirement for events.	Annual	High	M
Quality of Life	Senior Resident	Community paramedics program	Monitoring at risk senior residents within the City of Satellite Beach; Number of clients	Annual	High	L
		Medicine disposal	Percent of total medicine recycled at designated drop stations.	Annual	High	F
		Social integration	Number of participants in recreational senior programs, Number of clients in Stop by and Say Hi program.	Annual	High	L
		Transportation	Number of clients transported.	Annual	High	L
		Handyman support	Number of clients served, SBUMC (churches).	Annual	High	L
	Social Wellbeing	Access to health care	Number of uninsured.	Annual	High	F
			Number of facilities.	Annual	High	L
	Affordability/ Cost of Living	Housing cost	Median assessed value of homes.	Annual	High	L
	Employment Availability	Diversity of employment opportunities	WORKFORCE Brevard or Space Coast EDC, Cocoa Beach Regional Chamber.	5 yr	High	M
		Employment rate	Percent of residents with full-time employment.	Annual	High	L
		Average commute	Number of miles per day to and from work place.	3 yr	Low	M
	Public Safety	Open water access for boats and kayaks on the lagoon	Minimum distance to public launch site.	5 yr	Low	L
		Police officers	Number of police officers per 1000 residents.	Annual	High	L
		Unlawful incidents	Number of violent and property crimes per 1000 residents.	Annual	High	L

Quality of Life (cont.)		Juvenile crime	Percentage of crime committed by residents 18 yr and younger.	Annual	High	L
		Fire suppression	Fire losses as a percent of involved structural value.	Annual	High	L
	Government	Local government participation	Total percentage of the population participating in local elections.	Annual	High	L
		Voter participation	Voter turnout as percentage of local population.	Annual	High	L
		Formal community contacts with City staff	Number of contacts.	Annual	Med	M
		Opinion on access to government information	Survey to the public.	Annual? Survey	Med	M
	Community Standards/ Policies	Comp Plan, Regulations, public safety/council standards		Annual	Med	M
		Recreational opportunities	Number of participants.	Annual	High	L

Appendix 4. City water consumption by month and building: tabular and graphical representations, Apr. 2015 – Mar. 2016.

City Water Consumption (in gallons) 4/20/15-3/18/16													Annual by Location
Address	Read Dates												
	4/20/15	5/20/15	6/19/15	7/20/15	8/19/15	9/18/15	10/19/15	11/18/15	12/17/15	1/19/16	2/18/16	3/18/16	
DeSoto	6,800	7,900	3,700	2,800	2,600	3,700	13,200	4,900	2,300	3,300	5,300	6,000	62,100
Grabosky Field	200	300	0	100	0	100	200	300	200	0	100	400	1,900
City Hall	16,300	13,700	6,700	6,400	6,000	5,800	6,400	9,500	5,800	7,800	8,000	8,400	102,800
Public Works	4,100	3,600	4,100	3,100	7,500	4,300	3,500	3,400	3,900	3,100	3,500	3,900	48,000
Police Dept	8,800	9,400	9,000	7,200	8,200	8,600	8,500	9,100	7,100	7,600	9,800	10,100	103,400
Pelican Park	35,700	25,800	33,000	35,700	24,000	18,600	25,000	16,400	19,300	17,900	12,900	25,900	290,200
Peg Legs	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire Dept	15,000	14,200	16,500	14,600	14,300	15,700	13,900	15,000	14,400	14,600	15,800	14,800	178,800
DRS	1,900	2,100	3,800	9,000	4,400	16,300	7,000	2,400	11,600	20,700	20,400	3,000	102,400
Clubhouse	8,100	3,600	4,700	5,100	3,700	3,600	4,000	3,900	3,600	3,300	5,200	3,300	52,100
SBSRP	9,700	8,500	9,600	12,600	15,100	11,400	32,100	15,500	18,100	7,900	5,800	16,100	162,400
DRS	34,900	39,900	66,900	63,400	67,400	60,300	51,900	45,800	33,900	24,200	21,600	31,700	541,900
DRS	1,500	1,600	3,300	4,000	4,000	2,400	1,600	2,200	2,500	2,400	4,100	1,800	31,400
Hightower	20,100	17,400	20,300	17,900	19,200	13,900	15,300	11,400	10,500	11,500	11,300	16,300	185,100
Shell Street									200	200	1,400	2,700	4,500
Citywide Monthly Totals	164,900	148,000	181,400	181,700	176,400	164,700	182,600	139,800	133,400	124,500	125,200	144,400	
Grand Total	1,867,000												



Appendix 5. City electricity consumption among 37 municipal units, kWh, May 2015 through April 2016.

City Electric Consumption (kWh) from 5.26.15 - 4.25.16													Annual by Unit
Address	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
DeSoto L	0	0	0	0	0	0	47	82	67	6,253	57		368
DeSoto E	1,680	1,470	1,260	1,050	1,260	2,310	3,360	2,100	1,680	2,310	2,100	1,890	22,470
DeSoto R	0	0	0	0	0	0	0	0	0	0	0	0	0
Osbourne Ave Soccer								582	1,106	1,798	1,497	282	5,265
Olson	980	700	700	280	840	1,120	1,540	420	420	1,400	1,680	840	10,920
633 S Pa	37	37	34	40	40	39	40	51	53	51	43	41	506
565 Cass	700	0	350	0	0	1,050	1,750	700	700	1,400	1,050	700	8,400
565 Cass	0	2	0	0	0	4	0	0	0	2	0	0	8
565 Cass	0	0	0	0	0	0	127	152	123	83	50	0	535
565 Cass	165	335	198	143	162	200	78	96	17	26	136	106	1,662
Grabosky	100	67	97	106	86	85	81	89	24	7	111	62	915
Grabosky	1,400	700	700	0	700	1,400	2,100	1,050	0	2,100	1,750	700	12,600
Grabosky	481	377	404	420	407	426	433	401	356	323	383	402	4,813
City Hall	12,120	13,620	12,420	13,140	12,420	11,880	11,760	12,540	12,540	11,640	11,820	11,820	147,720
Coconut	74	71	75	51	3	19	43	40	49	39	43	43	550
520 Cinna	4,273	4,935	4,949	5,346	4,540	3,809	3,545	2,762	2,724	2,567	2,672	3,026	45,148
Police De	13,620	15,420	14,340	15,060	13,860	12,900	12,840	12,480	11,880	10,320	11,820	11,640	156,180
Ellwood	9	9	8	9	9	8	9	9	10	78	137	148	443
Pelican F	673	734	685	723	756	835	766	761	691	592	641	626	8,483
Grant Pu	28	28	29	28	27	28	21	24	13	21	25	29	301
Fire Dept	9,760	12,002	11,033	11,412	9,932	8,834	9,041	8,979	7,655	6,322	7,344	8,030	110,344
DRS	19,680	19,800	20,640	21,480	19,200	19,800	20,640	20,640	19,680	19,080	17,160	17,280	235,080
1612 A1A	52	43	44	49	49	37	43	65	65	52	55	54	608
Clubhous	3,258	2,952	3,278	3,266	2,836	2,762	2,885	2,084	2,174	1,570	2,255	2,986	32,306
Quonset	15	25	20	21	19	14	22	14	39	3	0	0	192
750 Jama	4	0	0	49	40	39	8	0	0	0	0	5	145
Dog Park	32	29	30	32	26	21	39	56	58	55	51	40	469
750 Jama	3,489	2,821	3,268	2,624	2,212	2,262	2,222	1,997	1,691	1,381	2,515	2,824	29,306
SBSRP Lght													137
Skate Pa	2,049	1,510	1,806	2,073	389	1,147	1,515	1,781	1,686	1,601	1,747	2,053	19,357
DRS Chil	30,248	33,064	36,114	38,942	35,762	32,769	29,909	23,862	17,744	12,995	19,278	19,278	329,965
DRS	130	113	118	125	118	116	131	140	146	124	128	131	1,520
974 Laughing Gull Dr							342	204	180	7	261	353	1,417
Hightowe	518	456	444	468	438	432	450	519	515	347	352	594	5,533
1495 Hwy	88	88	88	88	88	88	88	88	88	88	88	88	1,056
Traffic Lig	3,587	3,587	3,587	3,587	3,587	3,587	3,587	3,587	3,587	3,587	3,587	3,587	43,044
Street Lig	17,754	17,754	17,754	17,754	17,754	17,754	17,754	17,754	17,754	17,754	17,754	17,754	213,048
Monthly T	127,004	132,749	134,473	138,366	127,560	125,775	127,216	116,109	105,515	105,976	108,590	107,549	1,456,882

Appendix 6. City vehicle mileage, gas consumption, and average MPG among the Police Department, Building & Zoning, Public Works, and Fire Department; June 2015 to May 2016.

	Vehicle	Mileage		Miles	Gallons	AMPG	Average mpg by Dept.
		Max	Min				
Police	11	3,543	0	3,543	241.8	14.7	12.2
	12	1,652	860	792	82.4	9.6	
	13	204,773	203,275	1,498	136.4	11.0	
	14	1,683	945	738	53.0	13.9	
	17	42,055	33,007	9,048	427.3	21.2	
	18	146,133	135,441	10,692	944.8	11.3	
	19	85,854	81,602	4,252	370.8	11.5	
	20	52,906	43,519	9,387	937.9	10.0	
	21	18,050	12,184	5,866	641.6	9.1	
	22	15,933	12,290	3,643	584.2	6.2	
	23	136,638	134,718	1,920	226.4	8.5	
	24	51,090	40,302	10,788	803.7	13.4	
	25	128,698	127,868	830	71.2	11.7	
	26	145,102	142,426	2,676	276.5	9.7	
	27	77,008	69,584	7,424	529.6	14.0	
	28	79,440	74,883	4,557	306.8	14.9	
	30	124,750	115,865	8,885	781.5	11.4	
	31	160,366	148,332	12,034	881.6	13.7	
	32	80,569	69,443	11,126	800.4	13.9	
	33	85,566	76,707	8,859	717.3	12.4	
34	54,606	50,833	3,773	828.3	4.6		
35	28,657	19,855	8,802	741.5	11.9		
36	23,722	16,501	7,221	587.4	12.3		
37	14,378	7,134	7,244	618.7	11.7		
38	24,311	13,607	10,704	492.0	21.8		
B&Z	60	64,583	61,688	2,895	288.6	10.0	9.9
	63	36,079	35,056	1,023	105.0	9.7	
Public Works	39	143,574	143,428	146	32.0	4.6	8.0
	40	164,232	160,512	3,720	324.7	11.5	
	41	114,160	111,859	2,301	255.1	9.0	
	42	70,873	68,208	2,665	299.8	8.9	
	43	92,814	91,860	954	212.0	4.5	
	44	82,091	78,926	3,165	535.2	5.9	
	46	34,758	33,046	1,712	237.7	7.2	
	47	120,480	114,120	6,360	564.3	11.3	
	48	68,830	63,977	4,853	792.6	6.1	
	49	98,511	93,959	4,552	384.6	11.8	
	51	173,981	163,495	10,486	930.0	11.3	
	52	53,124	48,037	5,087	436.3	11.7	
	53	50,288	45,631	4,657	586.8	7.9	
54	3,520	3,205	315	304.6	1.0		
Fire	901	12,784	9,226	3,558	1294.6	2.7	7.7
	903	46,035	45,577	458	146.8	3.1	
	911	241,711	239,999	1,712	177.0	9.7	
	912	108,543	104,681	3,862	313.8	12.3	
	913	95,426	91,337	4,089	279.3	14.6	
	914	10,554	10,081	473	118.3	4.0	
Citywide Annual MPG						10.3	

Julie Finch

From: Alward, Elizabeth M <Liz.Alward@brevardfl.gov>
Sent: Tuesday, September 06, 2016 1:32 PM
To: ccpashos@aol.com
Cc: Courtney Barker; Knight, Michael A; Masson, Jack; Barfield, Jim
Subject: RE: Balloon Bans

Hi Chris,

I remember the meeting well! We've come a long way since and have a long way to go 😊

I'm thinking that you may want to contact beachside cities as a start. I'm thinking that maybe a good educational outreach program with signs warning of how balloons are harmful to marine life. I am also reaching out to our Environmentally Endangered Lands Program (EEL's) folks who manage the Barrier Island Eco Center for any thoughts they may have on outreach and education. I am copying Courtenay Barker on this email, she is the City Manager of Satellite Beach and perhaps she can also provide some insight.

Let's start with voluntary compliance, with good outreach and education. I'm not sure how the below cities regulate etc. But we most certainly have many park sights along our waterways that can be a good educational start!

Let me know if that helps?

Liz

Liz Alward, Senior Legislative Aide

District 2 Commission Office
2575 N. Courtenay Pkwy, Suite 200
Merritt Island, FL 32953
321-454-6601 work
321-213-4807 cell

From: ccpashos@aol.com [mailto:ccpashos@aol.com]
Sent: Monday, September 05, 2016 11:56 AM
To: Alward, Elizabeth M
Subject: Balloon Bans

Hello Liz,

I met you a few months ago in commissioner Barfield's office along with John Durkee and Mitch Roff. I'm sending this note to you to see what can be done here in Brevard county concerning balloons. Every time I head out on the ocean we keep finding balloons floating on the ocean. Yesterday I found 5 balloons which I generally stop and pick up. As you know balloon pose tremendous risk to the environment and marine life.

Is there anything pending here in Brevard County concerning this issue? If not what can we the public do to raise awareness to the public, businesses and the cruise lines?

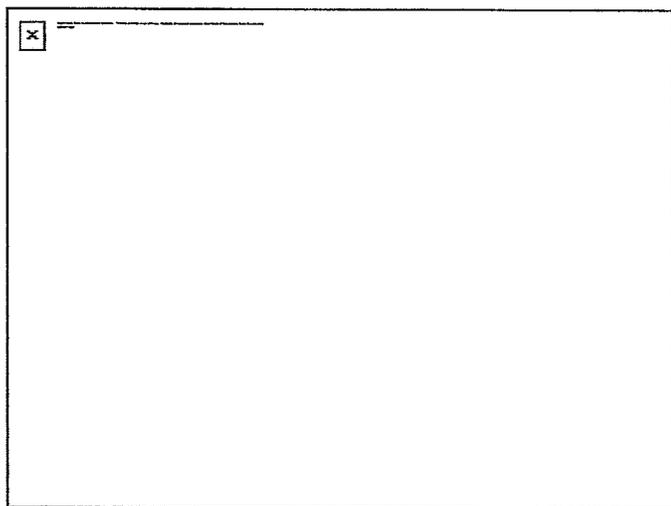
Thank you for your consideration

Chris

FOUR SOUTH FLORIDA COUNTIES NOW IMPLEMENTING BALLOON BAN

August 12, 2016
| By Hannah Deadman
Categories: News
| Tags: Conservation

Loggerhead Marineline Center's conservation initiative to save sea turtles, clean up beaches



Loggerhead Marineline Center's latest conservation project is reaching new lengths in southeastern Florida. Now, various cities and towns in Martin, Palm Beach, Broward and Miami-Dade counties are set to apply the non-profit's Balloon Ban to a variety of places, including town beaches, parks and other community locations in an effort to reduce marine debris.

After LMC staff documented hundreds of deflated balloons on local beaches and treated many turtles who had ingested marine debris, they developed the Balloon Ban project last April to raise awareness about balloons' impact on local wildlife. Balloons are often released purposefully or accidentally and often end up in the ocean, littering the place thousands of marine animals – like the sea turtle – call home. The deflated balloons resemble jellyfish, a common prey item for sea turtle species.

By partnering with municipalities across approximately 130 miles of South Florida coastline, the ban helps to proactively reduce marine debris in some of the most densely-nested sea turtle nesting habitat in the country. Sample ordinances, signage and educational materials are all provided free of cost to participating towns.

The first municipality to ban balloons was Palm Beach County, which used Juno Beach's Loggerhead Park as a one-year trial. After receiving positive feedback from community members, LMC staff decided to expand the project area.

"Our hope is that the Balloon Ban will help people realize just how much of an effect pollution has on the ocean," said Tommy Cutt, LMC's chief conservation officer. "The message really hits home when people see a sea turtle being treated for accidentally ingesting a balloon. Fortunately, we have a viable solution. People can make a difference by recognizing and implementing the ban to make an impact in the community."

Other participating municipalities include:

- Dania Beach
- Juno Beach
- Jupiter
- Lake Worth
- Hallandale Beach
- Hillsboro Beach
- Hollywood
- Miami Lakes
- South Palm Beach
- Surfside
- Martin County
- Miami-Dade County

Cities, towns or counties interested in partnering with LMC to prohibit balloons in designated locations may contact Tommy Cutt at (561) 627-8280 ext. 122 or tcutt@marinelife.org.

Agenda Item #8

Recommendations for the Satellite Beach Community Garden

1. Please see attached site layout. The raised beds constructed with 2"x8" treated southern pine lumber, available (off US1 just north of Rockledge Gardens). The treated lumber does not have arsenic and will last for year. Each bed is 4'x16' with 4x4s for inside corners and one midway on the length for added support. Fasteners to be stainless steel. Areas between and inside the beds should have a layer of cardboard or weed barrier cloth. Areas between beds should be mulched for ease of maintenance by the Public Works Department. (Edging around the outside area). Plots will be numbered according to the renter.
2. Beds to be filled with 50/50 mix of mushroom compost and simple organic soil. (off Sarno Road)
3. Watering to be done with a combination of the use of a rain barrel system with an extension of the gutters on the racquet ball building and city water. Watering station is a micro system that automatically waters. Rain barrels with be filled with city water when needed. Available well water has to high of a salt content to use.
4. The garden to also include a three bin composting system.
5. It is recommended that a Garden Committee Representative treat the garden for pests.
6. Recommend if possible a shed that serves as locked storage for tools and materials.
7. Area to be fenced if possible.
8. Linda Seals with the UF/IFAS will share the Community Garden posted rules and a community Garden Contract to "hold harmless"

Julie Finch

From: Jeff Chestine
Sent: Sunday, September 11, 2016 6:08 PM
To: Julie Finch; Courtney Barker
Subject: Too many butts on the beach

Courtney,

This may or may not work for us. Seems like availability of butt receptacles could keep many people from flicking dirty butts into the bushes and the monthly beach cleanup could dump said butts into something for shipping which is apparently free.

Here's a log in I created on Terracycle's web site. Terracycle apparently recycles almost anything including cigarette butts.

<https://www.google.com/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=satellite%20beach%20city%20hall>

login is jchestine@satellitebeach.org and password is GogreenSB

Here'a a link to U'Line's Outdoor and Industrial butt receptacles

http://www.uline.com/Grp_286/Smokers-Receptacles?pricode=WK718&AdKeyword=cigarette%20butt%20receptacles&AdMatchtype=e&gclid=CP_1x16kiM8CFVg2gQoddwQPpw&gclsrc=aw.ds

I've also had a few people ask me lately why we don't have recycling cans/dumpsters at the Pelican Seems like we would have enough of it to warrant the pick up with waste management.

These are a couple of things I'd like to bring up at our next meeting and hopefully propose to council.

Jeff Chestine
Satellite Beach Sustainability Board
321 821 8587

**SUSTAINABILITY BOARD
UNAPPROVED REGULAR MEETING MINUTES
JULY 27, 2016**

Pursuant to public notice, Chairman Jeff Chestine convened a regular meeting of the Sustainability Board on Wednesday July 27, 2016, at 7:00 p.m., in the Council Chamber. Board Members present were John Fergus, Eugene Mathews, David Vigliotti, Mindy Gibson, Josh Pause, David Floyd and Dylan Hansen. Staff Members present were Mayor Frank Catino, City Manager Courtney Barker, Public Works Director Allen Potter, and Recording Secretary Julie Finch. Interns present were Megan Comunale, Joanna LaTorre, and Jaylan Holmes.

Chairman Jeff Chestine led the Pledge of Allegiance.

(TIME: 7:00 P.M.) PUBLIC COMMENT

Nick Sanzone asked about the "Peg Leg" property and what the plans the City had with it.

(TIME: 7:10 P.M.) DISCUSS TAKE ACTION ON SMART YARD ADVISORY COMMITTEE

The interns gave a brief update on the progress of the program. Allison Arteaga gave a tour of the Keep Brevard Beautiful Lagoon Friendly Lawns webpage and spoke in more detail of what the program expects to achieve.

Public Comment: Jeanne Beatty asked if the program addresses decreasing water consumption. Ken Lindeman asked about partnership with native plant nurseries. Dave Shonts asked about getting local condominium associations to use better lawn care practices.

(TIME: 7:47 P.M.) DISCUSS/TAKE ACTION ON ROOFTOP PV SOLAR

John Fergus gave an update on the requirements to make PACE and Ygrene funding available to the community.

ACTION: Board Member Pause MOVED, SECOND by Board Member David Vigliotti to recommend to Council to approve participating energy financing programs. VOTE: ALL YES. MOTION CARRIED.

(TIME: 8:06 P.M.) PROJECT UPDATES FROM BOARD MEMBERS

Dylan Hansen shared a video called "Speak for Water" and a video regarding lagoon health.

Josh Pause recommended the Board become strategic partners with Brevard Indian River Lagoon Coalition.

Public Comment: Dave Shonts was very supportive of the motion.

ACTION: Board Member Fergus Moved, SECOND by Board Member Mindy Gibson to officially become strategic partners with Brevard Indian River Lagoon Coalition, pending that City Council formally agrees to become partners on behalf of the City of Satellite Beach. VOTE: ALL YES. MOTION CARRIED.

John Fergus gave an update on the testing of the stormwater ponds in the City and plans to denitrify the water.

**UNAPPROVED REGULAR MEETING MINUTES
July 27, 2016**

(TIME: 8:26 P.M.) AGENDA ITEMS FOR NEXT MEETING

None

(TIME: 8:26 P.M.) ADOPTION OF THE MINUTES: JUNE 17 WORKSHOP AND JUNE 22, 2016

ACTION: Board Member Fergus MOVED, SECOND by Board Member Josh Pause to adopt the minutes from June 17, 2016 Workshop. VOTE: ALL YES. MOTION CARRIED.

ACTION: Board Member Fergus MOVED, SECOND by Board Member Josh Pause to adopt the meeting minutes from June 22, 2016. VOTE: ALL YES. MOTION CARRIED.

Public Comment: Carol Robitchek asked for an update on the reusable bag program and the community garden project.

Allison Arteaga asked if the Board if they would like to be part of the KBB Litter Quitter Program.

Terrance Brookin asked questions about the community garden.

(TIME: 8: 36 P.M.) ADJOURNMENT

CONSENSUS by Board to adjourn.

Next meeting: September 28, 2016.

Members will be attending FL SUN MEETING on Wednesday, August 24, 6:30-8:00 p.m. at Florida Solar Energy Center, 1679 Clearlake Rd, Cocoa. Hosted by the Space Coast League of Women Voters.

Julie Finch

Recording Secretary