



# Sustainability Indicators

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# Overview

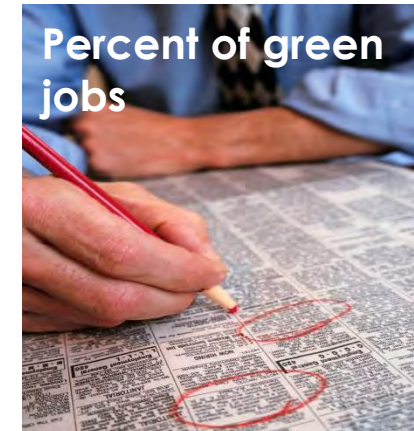
- Definitions – what is a sustainability indicator?
- Importance of sustainability indicators
- Example Indicators
- Sustainability Indicators and the Florida Municipal Energy Conservation Coalition
- Summary

# Definitions

What is a Sustainability Indicator?

## Indicator (*noun*)

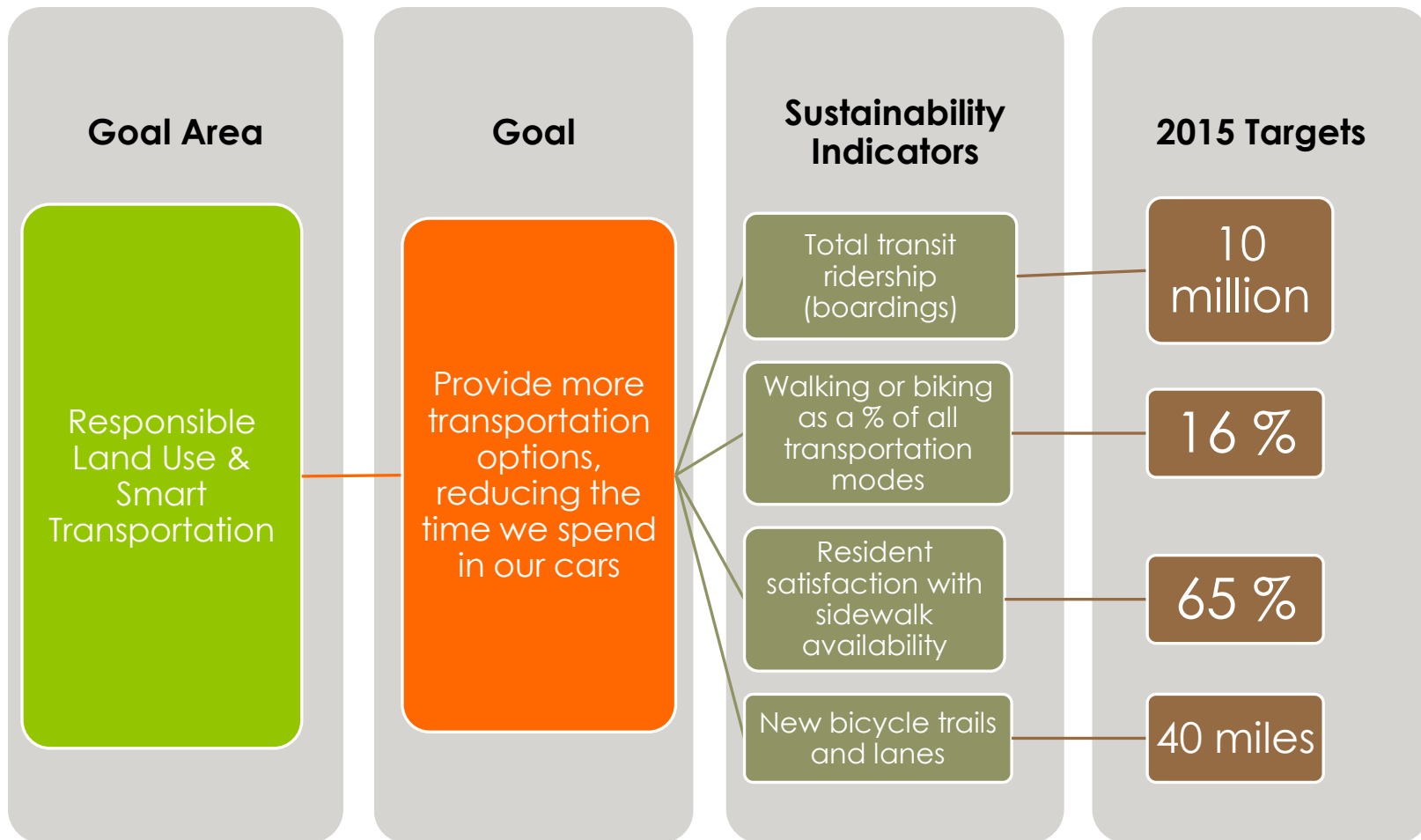
- A thing that indicates the state or level of something (Oxford Dictionary)
- A **sustainability indicator** indicates the state of a metric that tracks progress towards sustainability- ultimately these are holistic in scope



# Related Terms

- **Sustainability Goal**– an aim or desired result
- **Sustainability Target** –a target aims to achieve a measurable change in a baseline sustainability indicator by a pre-determined target year
- **Sustainability Initiative** – A specific strategy or action a community can take to help achieve a goal or target.
- **Sustainability indicators help show progress towards meeting a goal**

# Example: Miami-Dade County GreenPrint



# Why Sustainability Indicators are Important

# Importance of Sustainability Indicators


- Allows you to track progress towards goal
- Provides supporting data to prove an initiative is working
- Helps create a definition of sustainability



# Example Sustainability Indicators

Examples from communities at the forefront of sustainability planning and reporting

# Miami-Dade County, FL Sustainability Scorecard

 Responsible Land Use and Smart Transportation	
• Use our land wisely, creating and connecting strong sustainable neighborhoods	
Performance Measures	2015 Target
Urban center area plans	15
Multi-corridor master plans	6
Transit-oriented developments	4
Enhanced bus corridors	4
Park and ride lots	6
Park and open spaces accessibility metrics	Develop
• Provide more transportation options, reducing the time we spend in our cars	
Performance Measures	2015 Target
Total transit ridership (boardings)	10 million
Walking or bicycling trips as a percent of all transportation modes	16 percent
Resident satisfaction with sidewalk availability	65 percent
New bicycle trails and lanes	40 miles

- Image Source: GreenPrint Sustainability Scorecard, <http://www.miamidade.gov/greenprint/pdf/scorecard.pdf>

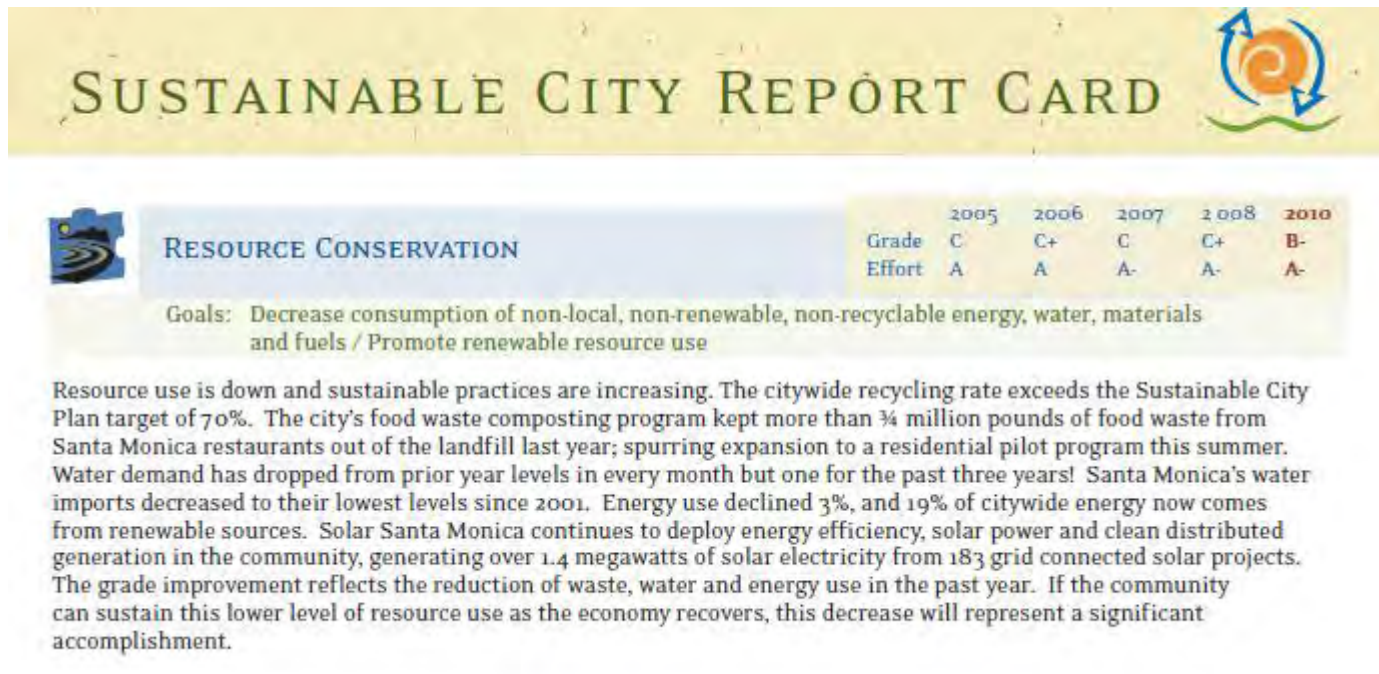
# New York City, NY PlaNYC Progress Report 2012

CATEGORY	METRIC	2030 TARGET	FIGURE FOR MOST RECENT YEAR	TREND SINCE BASE YEAR
HOUSING AND NEIGHBORHOODS	Create homes for almost a million more New Yorkers while making housing and neighborhoods more affordable and sustainable			
	Increase in new housing units since January, 2007	314,000	122,969 <sub>1</sub>	↗
	Total units of housing in NYC	INCREASE	3,352,041 <sub>1</sub>	↗
	% of housing affordable to median-income NYC household	INCREASE	60.0% <sub>1</sub>	↘
	Vacancy rate of least expensive rental apartments	INCREASE	1.0% <sub>1</sub>	↗
	% of new units within a 1/2 mile of transit	>70%	85.5% <sub>1</sub>	NEUTRAL
	Residential building energy use per capita (source MMBTU) (3 yr rolling avg)	DECREASE	49.3 <sub>2</sub>	NEUTRAL
PARKS AND PUBLIC SPACE	Ensure all New Yorkers live within a 10-minute walk of a park			
	% of New Yorkers that live within a 1/4 mile of a park	85%	75.6% <sub>1</sub>	↗
BROWNFIELDS	Clean up all contaminated land in New York City			
	Number of vacant tax lots presumed to be contaminated	DECREASE	1,500 – 2,000 <sub>1</sub>	NEUTRAL
	Number of tax lots remediated in NYC annually through the Brownfield Cleanup Program	INCREASE	0 <sub>1</sub>	NEUTRAL

Table Source: PlaNYC Progress Report 2012, [http://nytelecom.vo.llnwd.net/o15/agencies/planyc2030/pdf/PlaNYC\\_Progress\\_Report\\_2012\\_Web.pdf](http://nytelecom.vo.llnwd.net/o15/agencies/planyc2030/pdf/PlaNYC_Progress_Report_2012_Web.pdf)

# Santa Monica, CA

## 2010 Sustainable City Report Card



- Image Source: Sustainable City Report Card, 2010, [http://www.smgov.net/uploadedFiles/Departments/OSE/Categories/Sustainability/Sustainable\\_City\\_Report\\_Card\\_2010.pdf](http://www.smgov.net/uploadedFiles/Departments/OSE/Categories/Sustainability/Sustainable_City_Report_Card_2010.pdf)

# Philadelphia, PA Greenworks 2012 Progress Report

**TARGET 4:** Purchase and Generate 20 Percent of Electricity Used in Philadelphia from Alternative Energy Sources

## METRICS

- **Greenworks Baseline (2008)**

2.3% Alternative Energy

- **Current (2011)**

12.2% Alternative Energy

- **2015 Target**

20% Alternative Energy

- The percentage of electricity generated using alternative energy is one sustainability indicator tracked by the City on an annual basis



# Florida Municipal Energy Conservation Consortium Sustainability Project

# Florida MECC Project

- Atlantis, Ocean Ridge, Haverhill, Lantana, and Palm Beach Shores
  - Regional sustainability plan
  - Sustainability baseline indicators
  - GHG inventories, energy audits, and implementation of Audit recommendations
- Energy Efficiency Conservation Block Grant Funded

# MECC Sustainability Indicators

- Baseline year 2010
- Sustainability plan was framework for Indicators
- Separate indicators for municipal operations and the community



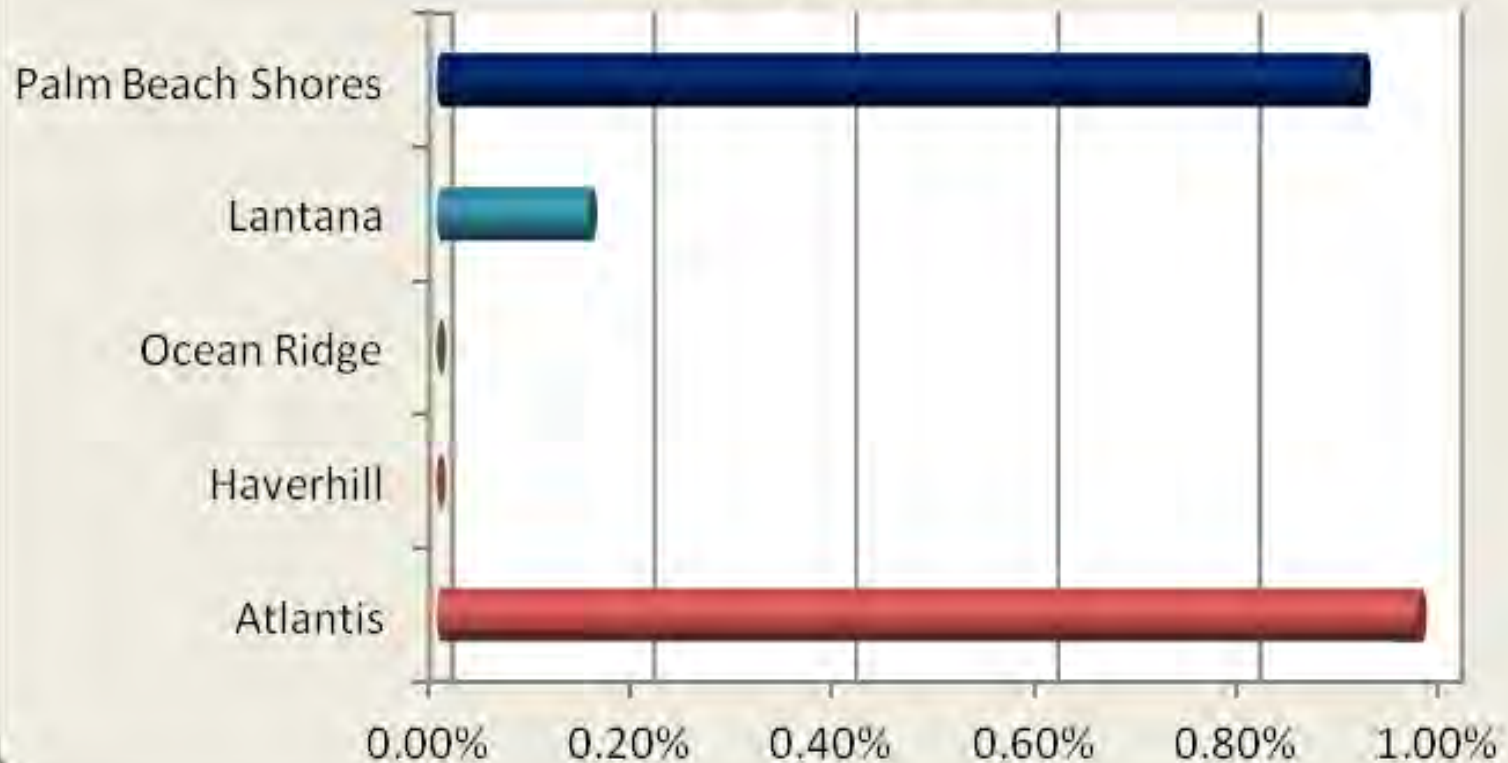
# Community Sustainability Indicators

Community Sustainability Metrics		Unit
<b>GHG Emissions and Energy</b>		
GHG Emissions per Capita		Metric Tons CO <sub>2</sub> e/ population
Community electricity use (commercial, residential, industrial)		MWh
Community GHG Emissions		Metric Tons CO <sub>2</sub> e
<b>Solid Waste</b>		
Recycling rate		Percent
Tons of waste recycled		Tonnage
Tons of waste composted		Tonnage
Community waste tonnage - disposed of in a landfill or waste-to-energy facility		Tonnage
<b>Transportation</b>		
Annual Vehicle Miles Traveled		Miles
% of population carpooling to work		Percent
% of population biking to work		Percent
Transit ridership		Annual Weekday Ridership
Transit ridership		Average Weekday Ridership
Transit ridership		Number of Bus Routes
<b>Water</b>		
Community water use		Gallons
<b>Public Engagement</b>		
Number of website visitors		Number

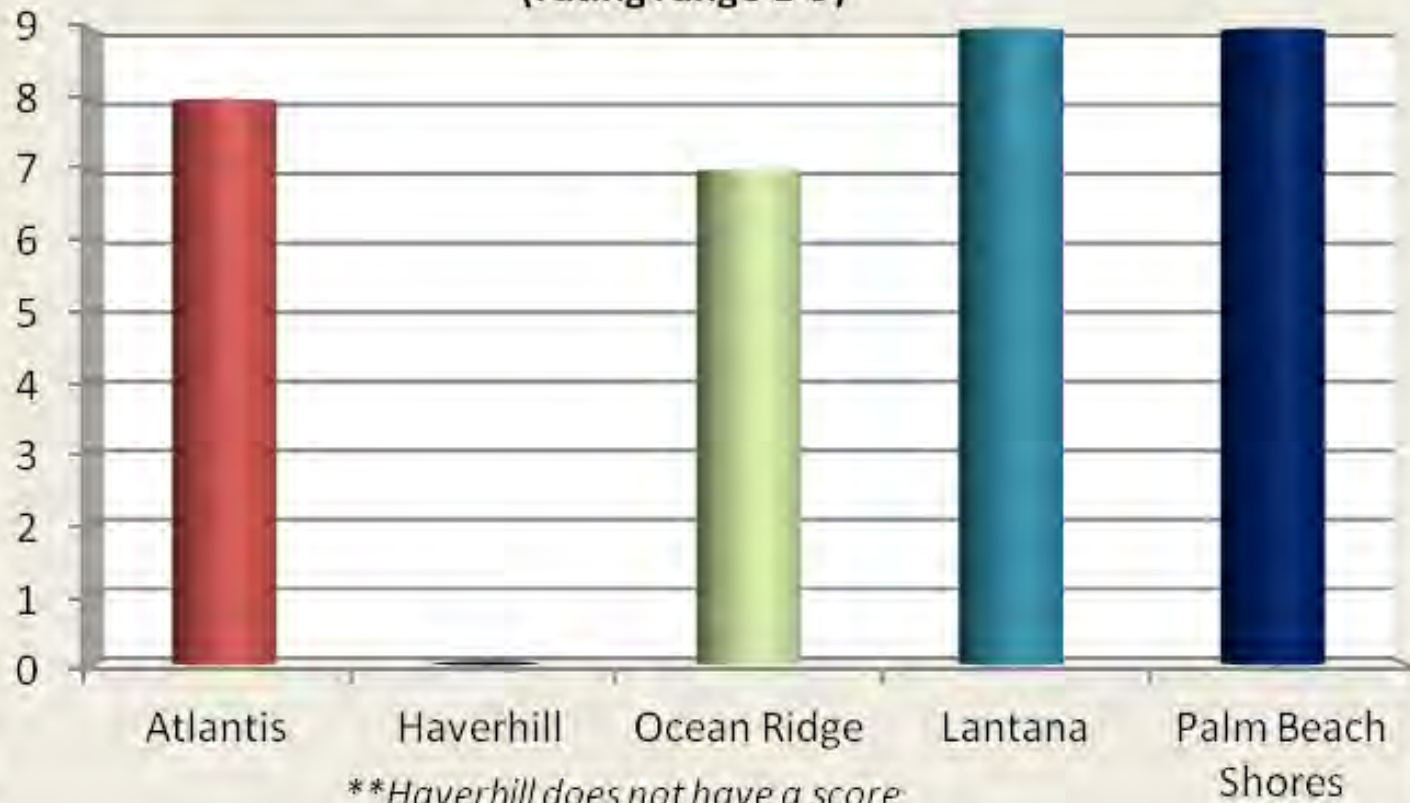
# Municipal Sustainability Indicators

Municipal Sustainability Metrics		Unit
<b>Building GHG Emissions and Energy Use</b>		
Municipal building GHG emissions		Metric Tons CO <sub>2</sub> e
Municipal energy use		MWh
Number of cool roofs in the municipal government		Number
PV installed capacity		kW
% of energy audit recommendations implemented		Percent
Adopted an environmentally preferable purchasing policy		yes/no
<b>Fleet Vehicles</b>		
Municipal fleet GHG emissions		Metric Tons CO <sub>2</sub> e
Number of hybrid or alternative fuel fleet vehicles		%
Fuel use - gasoline		Gallons
Fuel use - diesel		Gallons
<b>Bicycle and Pedestrian Infrastructure</b>		
Has a bike / ped plan or committee		Yes/No
Miles of bike lanes		Miles
Miles of bike paths		Miles
Miles of bike routes		Miles
Miles of sidewalks		Miles
<b>Land Use, Planning, and Policy</b>		
Land area under of mixed used zoning in city/town		Percent
Number of trees planted		Number
% area in open space or conservation land		Percent
Establishment of a Green Enterprise zone or energy economic zone		Yes/No
FEMA Community Rating Systems Score		# 1-9
Established an internal green team		Yes/No
FL Green Local Government		Yes/No
<b>Water</b>		
Municipal water use		Gallons

### Percent of Population Biking to Work (each municipality is less than 1%)



## FEMA Community Rating Score (rating range 1-9)



# Keys to Success

# Keys to Success

- ◉ Just get started
- ◉ Define sustainability
- ◉ Set a target or find a basis of comparison
- ◉ Select indicators where data is available, but don't be afraid to create new sources of data
- ◉ Report your progress annually

# Questions?

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