

Trees, People and Community

Urban Forestry in Manatee County

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Making Visible Environmental
Enhancements Since 1991

Mission Statement

A public/private partnership dedicated to litter prevention, beautification and environmental improvement through leadership in community awareness, education and involvement.



What is Urban Forestry?

- The planning, establishment, protection, and management of trees, in small groups, or under forest conditions within cities, their suburbs and towns.
- The size of the community does not matter.

Benefits of the Urban Forest

- Reduced Stormwater Runoff
- Improved Water Quality
- Improved Air Quality
- Carbon Sequestration
- Increased Property Values
- Increased Shade
- Wildlife Habitat
- Reduced Crime, Vandalism

Our Goal

- Every government in Manatee County has an active urban forestry program and is a Tree City USA
 - Tree Protection Ordinance
 - Inventory and/or Master Plan
 - Staffing
 - Tree Board/Advocacy Group

All 4 = Sustained >1=Developing

Background

- ❖ 1996 - Manatee County Urban Forestry Master Plan was unanimously adopted by the Board of County Commissioners.

1996 - Manatee Chamber of Commerce also adopted Livable Roadways, unlike 34th St. W., but rather using 75th St. W. as a model.

Background

- ❖ 1998 - Keep Manatee Beautiful proposed the Beautification of Undeveloped or Deteriorated Spaces Program. County Commissioners approved this concept, then created the urban forester position in the now Building & Development Services Dept. and filled the horticulturist position.
- Numerous support letters from businesses, organizations and citizens have been submitted.

Background

❖ 2005 - Urban Forestry Master Plan Update was unanimously adopted with incorporated steps for implementation to become a Tree County, USA:

- Establish a Tree Advisory Board by Ordinance
- Designate a Lead County Department
- Retain an Urban Forester
- Provide Ongoing Maintenance

MANATEE COUNTY



Urban Forestry *Master Plan*

2005

URBAN FORESTRY MASTER PLAN

City of Bradenton, FL

UPDATE

SEPTEMBER 2011



Applauds to Tree City/County USAs in Manatee County City of Anna Maria

Since 2009



City of Bradenton
Since 1993 & 8 Growth Awards



City of Holmes Beach

Since 2010



City of Palmetto

Since 2010



Manatee County Government

Since 2009 & 1 Growth Award



City of Bradenton Beach

Since 2011



Municipality Pending

Town of Longboat Key with 2014 goal

Keep Manatee Beautiful Assistance to Governments & Groups

■ Technical Assistance

- KMB board members and technical advisors represent a range of professionals such as arborists, biologists, foresters, registered landscape architects, landscapers and more, plus we are able to provide multi-government networking
- Referrals to Private Contractors: trees, native landscaping

■ Financial Assistance

- Writes for beautification grants on behalf of governments
- Obtains own beautification grants to landscape highway medians, vacant government lots & shorelines
- Provides grant match: cash & donated landscape design, invasive plant removal, Mycor Tree Savor, plant material, staff time, volunteer hours
- Obtains Trees for Plantings: Arbor Days, Adopt-A-Spot

National Standard

- Increase and maintain a tree canopy coverage averaging 40% as has been recommended for U.S. urban environments and cities by the American Forests and National Arbor Day Foundation.

Can \$ Grow on Trees?



Manatee County Urban Forest Canopy Analysis 2004 and 2009



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This analysis was made possible in September 2010 by Keep Manatee Beautiful and an Urban and Community Forestry grant from the US Forest Service through the Florida Department of Agriculture and Consumer Services, Division of Forestry.

Methodology of Analysis

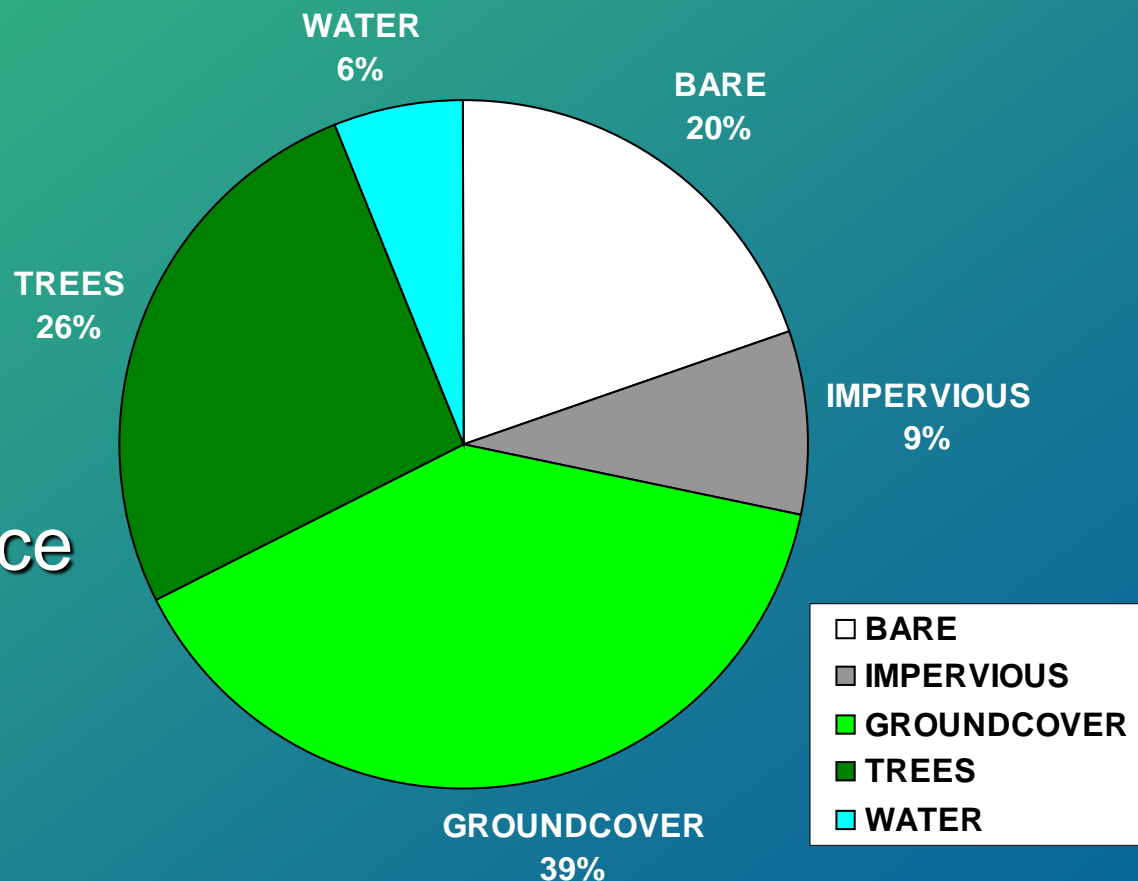
- 2004 aerials were the oldest aerial photographs of Manatee County to include an infrared layer, they provided the best opportunity to accurately represent Manatee County's forest canopy for a reasonable comparison to the 2009 aerials



Methodology of Analysis

Land cover classes
used were:

- tree canopy
- other vegetative cover
- bare ground
- impervious surface
- water



Measured Benefits

Software developed by American Forests to assign ecological and economic values to the tree canopy within three benefit areas:

- Carbon Storage and Sequestration
- Air Quality (air pollutant removal)
- Stormwater Runoff Reduction

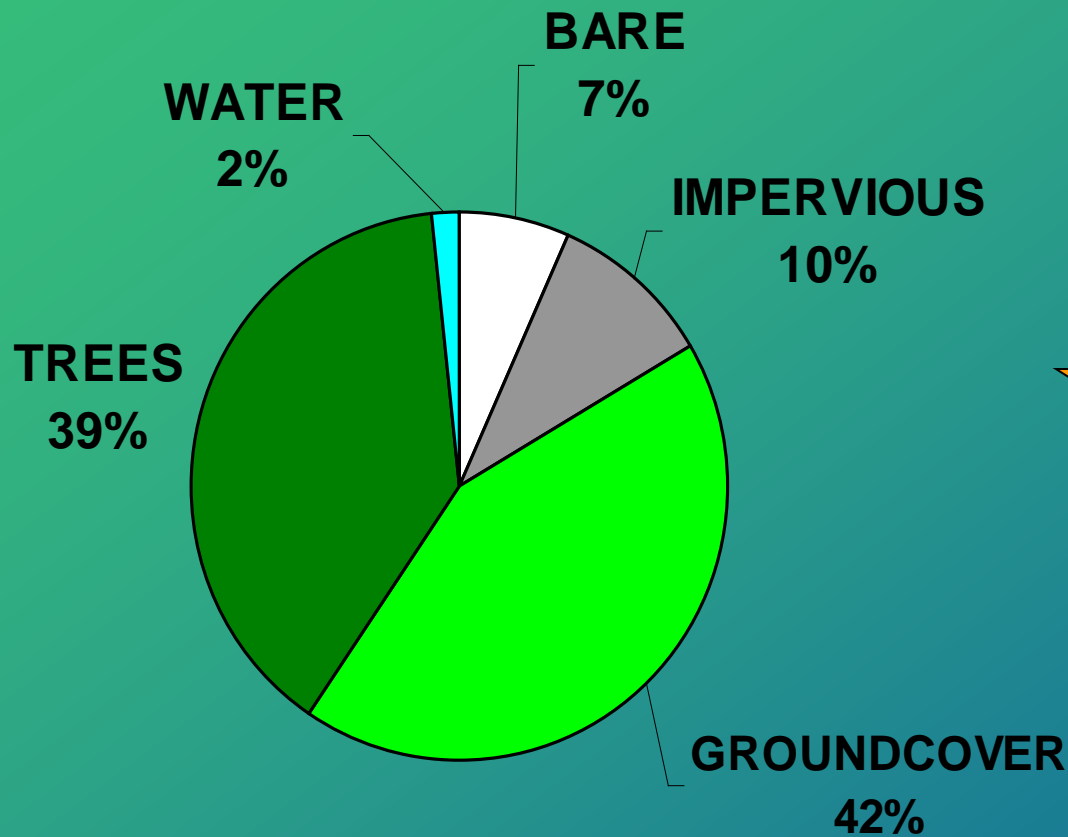
*Not all cost savings are incorporated into this study, i.e. energy costs

Urban Canopy Findings



- Based on this analysis, the urban forest canopy of Manatee County in 2009 is 176,223 acres, or 37% of the total land area of the county.

Land Cover for Unincorporated Manatee County 2009



LAND USE DECLINES

- 13% decline in bare or fallow ground
- 4% decline in water area (likely wetlands)

LAND USE INCREASES

- 13% Increase in tree canopy cover
- 3% increase in non-woody vegetated ground cover

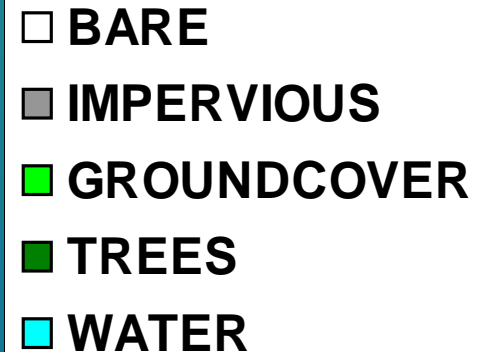


Table 1 below summarizes changes to Manatee County's urban forest canopy and populations between the study years for the County's incorporated and unincorporated areas.

The incorporated areas include the six municipalities within Manatee County. The unincorporated areas are the areas that do not fall within a municipal boundary.

Table 1: 2009 Urban Forest Canopy Analysis of Manatee County

Municipality	Percent Coverage	2009 Population*	Percent Canopy Change Since 2004	Percent Population Change Since 2004*
Manatee County	37%	318,361	11%	7%
Unincorporated	39%	234,191	13%	9%
Incorporated	32%	84,170	8%	2%

***from US Census Bureau data**

Six municipalities within Manatee County were analyzed for urban forest canopy area changes over the study period (2004 to 2009). Four of the six exhibited increased in urban forest canopy.

Table 2: 2009 Urban Forest Canopy Analysis of Manatee County Municipalities

Municipality	Percent Coverage	2009 Population*	Percent Canopy Change Since 2004	Percent Population Change Since 2004*
Anna Maria	30%	1,831	-2%	-1%
Bradenton	33%	53,973	9%	1%
Bradenton Beach	27%	1,577	-4%	3%
Holmes Beach	35%	7,263	5%	-4%
Longboat Key	46%	5,119	9%	1%
Palmetto	25%	14,407	8%	7%

***from US Census Bureau data**

Manatee County municipalities rate well overall when compared to other Florida cities in terms of urban forest canopy cover.

Table 3: Urban Forest Canopy Analyses of Other Florida Municipalities

Municipality	Percent Coverage	2009 Population*	Study Year
Miami	21%	433,136	2006
Tampa Bay	28%	343,890	2006
Pensacola	13%	53,752	2006 - 2008
Gainesville	51%	116,616	2006

***from US Census Bureau**

\$ Grows on Trees

To demonstrate the market value of the functional benefits that trees provide when analyzed for carbon sequestration and storage, air pollutant removal and stormwater management, Manatee County's urban forest canopy provides the equivalent \$230,662,176 in environmental benefits to its residents.

Table 7: Annual Value of Urban Forest Benefits Based on 2009 Canopy

Municipality	Percent Coverage	Carbon Sequestration	Air Pollutant Removal	Stormwater Management	Total Benefits
Manatee County Total	37%	\$2,915,400	\$57,791,817	\$169,954,959	\$230,662,176

Analysis Conclusions

- These results would suggest that new development can actually produce positive environmental benefits when existing trees are preserved and landscape trees along with other plant material are included in the development.
- More leaves and more woody mass, mature trees sequester and store more carbon, filter more air pollutants and reduce more peak stormwater flow than new, smaller trees. Additionally, larger, mature trees provide shade for pedestrian walkways, parks, and for buildings, encouraging less usage of cars and reducing building energy costs.

Next Steps

- Do a canopy analysis in another 5 years – 2014 – that includes the measurement of invasives (Australian pine and Brazilian pepper) in analysis.
- Plan for the preservation of large trees and installation of trees to ensure the diversity of canopy that support the economic and ecological benefits that the urban forest provides.
- Hire a certified arborist to work with governments in 2014.

Gateway Beautification

Before



Before



After



After



S.R. 64 Braden
River Gateway

Dr. Martin Luther
King Jr. Park

Gateway Beautification



An enhanced first impression into Manatee County done by Keep Manatee Beautiful, FDOT, the City of Bradenton and Manatee County Government.

KMB received three FDOT Highway Beautification grants for two gateways into Manatee County, valuing a total of \$369,588.

Florida Scenic Highways

Palma Sola



Tamiami Trail



Bradenton Beach

Adopt-A-Spot



To Beautify with Native Plants

Celebrating Trees



Memorial Trees



Arbor Days

Arbor Day at Glazier Gates Park



Where You Can Help

- Keep planting trees
- Provide public education – literature/public service announcements/PowerPoints, Arbor Day, Tree City USA
 - www.arborday.org
- Encourage local government to develop or support an active urban forestry program
- Be willing to have a tree board or partner with advocacy groups like your local Keep America Beautiful Affiliate of Florida!