Winter Park

Sustainability Action Plan

Presented by:

City of Winter Park

Keep Winter Park Beautiful & Sustainable Advisory Board

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Table of Contents

Background **3**

Vision and Purpose 3

History 4

Accomplishments To Date 4

Green Resolutions 4

Process 7

Action Plan **9**

Indicators Dashboard 9

Categories, Objectives and Actions 10

Community Engagement & Green Economy 10

Waste Diversion & Recycling 13

Mobility & Urban Form 15

Buildings, Energy and Water 20

Natural Resources & Systems 25

Local Food & Agriculture 28

Local Government Operations 30

What You Can Do **33**

Glossary **34**

Appendices **37**

Background

Vision and Purpose

The purpose of the SAP is to create a roadmap depicting where the city is today and where it would like to be in the future, in regard to sustainability. It is divided into seven categories, long term objectives and short term actions for helping the city achieve these long term objectives. The objectives are intended to be quantifiable so that progress can be measured on an annual basis and reported to decision makers and stakeholders. A collaborative, integrated approach is necessary for working toward meeting the objectives outlined in the program. The plan is a living document intended to evolve over time as Winter Park experiences both progress and challenges.

By integrating elements of this plan, Winter Park will:

- **Increase the quality of life while improving individual and community health.**
- **Become more energy independent.**
- **Protect and enhance air quality, water quality, and natural systems.**
- **Save money.**
- **Increase economic value.**

It is the intention of this document to provide high level objectives that are conceptually approved by the City Commission and leadership. The actions listed under each category are put forth as possible avenues for achievement of the approved goals, and do not represent required or prescriptive measures.

AWinter Park Sustainability Development Plan will be presented to the Commission for formal approval on an annual basis. This annual plan will include:

- Summary of Previous year Project/ Action status
- Proposed Project/ Action List
- Projected project costs
- City Staff and budget allocations
- Outside Funding opportunities

History

On January 14, 2008, the Winter Park City Commission passed a resolution stating the City would pursue measures to become a certified Green Local Government through the Florida Green Building Coalition (FGBC). In 2009, Public Works Director Troy Attaway hired Tim Maslow to

coordinate the city's sustainability efforts and to develop a plan for achieving the certification. In 2011, after working with each department on a multitude of new projects, policies and programs, the City was officially certified as a Green Local Government at the Gold level also earning the highest score for a local government that year.

The Sustainability Action Plan was originally drafted based upon the structure provided by the Green Local Government certification. It should be noted that attaining a higher level certification is not a specific goal of the Sustainability Action Plan. However, by implementing this plan, the City of Winter Park may qualify to achieve a higher Green Local Government certification level . For more information on specific credits please refer to Appendix 1.

Highlights and Accomplishments to Date

- Green Building Resolution Adopting USGBC's LEED standards for all future city owned buildings (passed 2011)
- Building of the Winter Park Community Center, the first city owned building to meet LEED specifications (2011)
- Retrofit of City Hall and other city owned buildings to reduce energy usage, funded through the U.S. Department of Energy's Energy Efficiency & Conservation Block Grant (EECBG) and Florida Energy & Climate Grant (completed 2012)
- Single stream recycling provided to residents, businesses and in public spaces through WASTE PRO (2009)
- Complete Streets Resolution stating all future city road projects be designed to accommodate all modes of transportation equally (passed 2011)
- 100% of all residents within half mile of public green space
- Environmentally Preferable Purchasing Policy (2010)
- Neighborhood Green Space Grants for Community Gardening and Native Landscaping (Keep Winter Park Beautiful)
- Installation of public ChargePoint Electric Vehicle Charging Stations (2012)
- Electric Utility Commercial and Residential Energy Conservation Audit & Rebate Program (2012)
- Water & Wastewater Utility Audit & Rebate Program
- Volunteer Environmental Cleanups and Tree Plantings
- Tree City USA Designation
- Annual Earth Day & Arbor Day Tree Giveaway

Green Resolutions

Green Local Government Resolution (1984-08)
Green Building Resolution (2077-11)
Complete Streets Resolution (2083-11)

Sustainability Plan

Through partnerships and collaboration, the City of Winter Park's Sustainability Program provides management, development and monitoring of the city's Sustainability Action Plan

addressing waste diversion and recycling, green building, energy efficiency, renewable energy, mobility and urban form, community engagement and green economy, natural systems and resources, local food production and local government operations.

2012-2013 City of Winter Park Sustainability Coordinator , Tim Maslow
2013-Present City of Winter Park Assistant Director of Building, Permitting, and Sustainability, Kris Stenger
2014-Present City of Winter Park Sustainability and Permitting Coordinator, Abby Gulden

Sustainability staff also serve as liaison to the city's Keep Winter Park Beautiful & Sustainable Advisory Board.

Keep Winter Park Beautiful & Sustainable Advisory Board

The mission of Keep Winter Park Beautiful and Sustainable (KWPB&S) is to improve the quality, sustainability and aesthetics of our environment in order to create a healthier, more beautiful place to live, work, and play.

In 2012, the city's Environmental Review and Keep Winter Park Beautiful boards merged with a shared focus of improving community sustainability and achieving the Green Local Government Platinum certification. The new KWPB & S Advisory Board held monthly workshops in addition to their regularly scheduled monthly board meetings in an effort to develop and refine the Sustainability Action Plan with community involvement.

2012-2013 Board Members	**2014-2015 Board Members**
Mary Dipboye, Chair	Michael Poole, Chair
Stephen Pategas, Vice Chair	Stephen Pategas, Vice Chair
Michele Hipp	Michele Hipp
Michael Poole	Raymond Randall
Raymond Randall	Pat Schoknecht
John Rife	Julia Tensfeldt
Lucy Roberts	Laura Walda
Joseph Robillard	Carol Shenck (Kostick)
James (Bob) Robinson	Mark Roush
Pat Schoknecht	Bruce Thomas
Julia Tensfeldt	Steven DiClemente
Kent Tse	Mary Dipboye
Laura Walda	John Tapp
Carol Kostick	Fred Kosiewski
Mark Roush	Cathy Blanton

Sustainability Defined

The Basic Definition

Today the word "sustainability" is used more and more frequently, from a wide variety of perspectives and with a number of different purposes in mind. As a result the word is becoming harder to define. The basic definition of sustainability is "*meeting the needs of the present without compromising the ability of future generations to meet their needs*" (Brundtland Report, *Our Common Future,* 1987)

The Broader Application

Perhaps more important than the definition of sustainability is the understanding that the practice of sustainability reflects the intersection of three areas of concern for local governments: economy, environment, and equity – often referred to as the "triple bottom line" or "the three e's." Sustainability requires a fresh look at balancing all three areas that in the past may often have been viewed as competing against one another rather than being complementary.

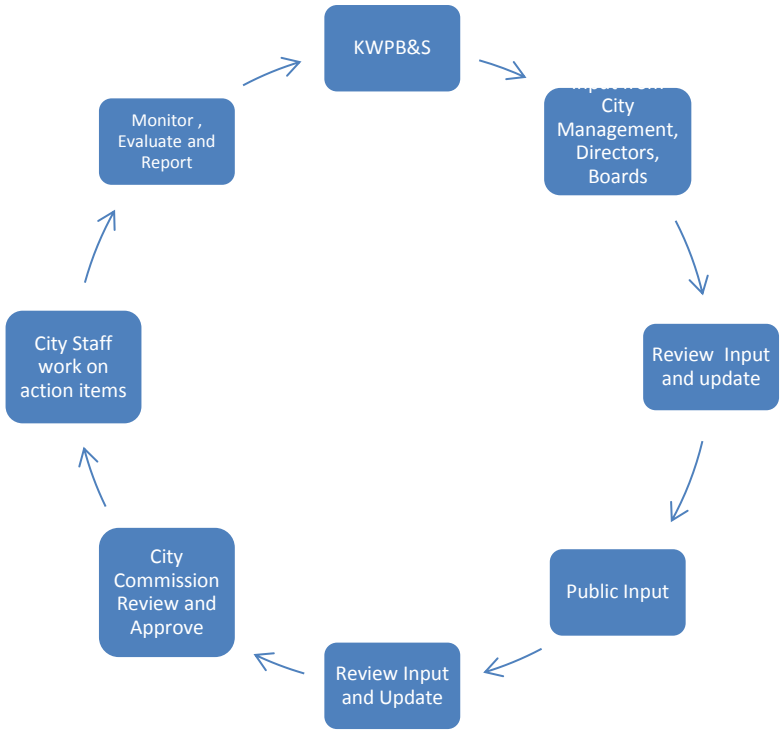
The Local Purpose

While acknowledging the basic definition as well as the triple bottom line of sustainability, local governments should also determine what sustainability means to their community. Before embarking on a sustainability plan or program, it is helpful to get the key players together to discuss their definitions of sustainability as well as the specific purposes they see for the proposed plan.

The City of Winter Park's defines sustainability as:

"…***responsible and proactive decision-making that minimizes negative impact and maintains balance between social, environmental, and economic growth to ensure a desirable planet for all species now and in the future."***

Sustainability Planning Process



Initial Plan Development

1. KWPB & S develop and approve plan
2. Seek input from Department Directors, Advisory Boards and City Management
3. Review input and update plan
4. Seek public input
5. Review input and update plan
6. Present to City Commission for input and conceptual approval

Approved Plan Monitoring and Implementation

City Staff:

a. Monitor Sustainability Action Plan

b. Pursue funding as needed to implement actions

c. Implement actions

d. Provide updates to City Management, Department Directors, KWPB & S Advisory Board and other applicable boards as requested.

e. Provide Annual Winter Park Sustainability Development Plan to City Commission

f. Revise plan as needed

Sustainability Action Plan

Indicators Dashboard

The Indicators Dashboard serves as a roadmap for Winter Park. Each priority indicator includes a 2012 baseline to measure against with target goals for 2020 and 2030.

Category	Indicator	2012 Baseline	2020 Target	2030 Target
Community Engagement & Green Economy	City wide Carbon Footprint in GHG Emissions (electric, transportation, solid waste)	397,075 metric tons	25% less	50% less
Waste Diversion & Recycling	Waste diverted from landfill	15%	75% (state goal)	90%
Mobility & Urban Form	Vehicle Miles Traveled	176,485,056	10% less	25% less
Buildings, Energy and Water	Energy Avoided Per Household (based on 10 year average)	17,029 Kwh	5% less	10% less
	Residential potable water average annual usage	128,000 Gallons	5% less	15% less
Natural Systems & Resources	Tree Canopy Greenspace Coverage	55% 57%	55% 57%	60% 60%
	Lakes Water Quality-Visibility Depth	2 meters	2.5 meters	3 meters
Local Food & Agriculture	% of Residents within 1/2 mile of local/healthy food assets	*Not available*	50%	100%
Local Government Operations	Local Government GHG Emissions (buildings, fleet)	11,473 metric tons	25% less	50% less

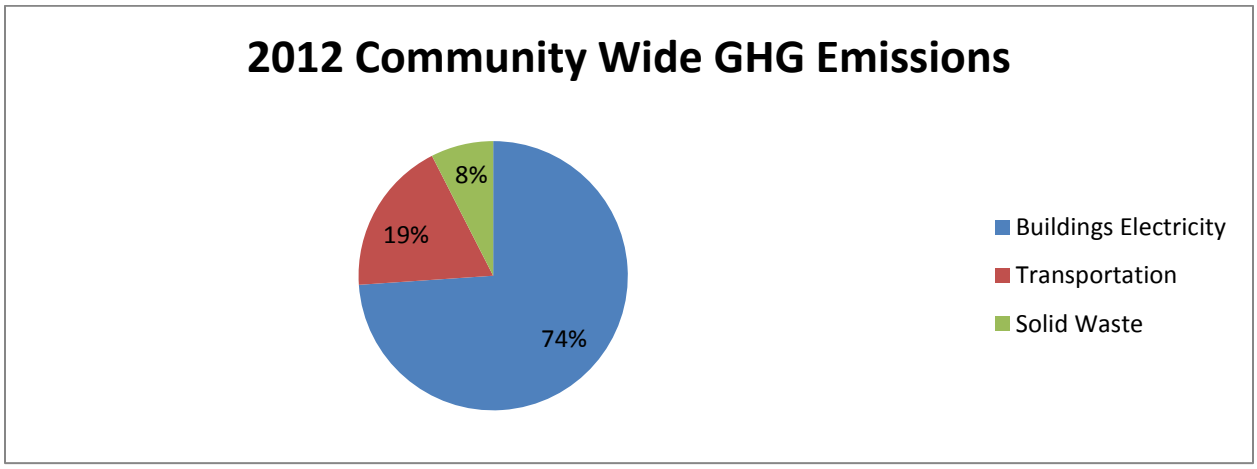
Categories, Objectives, Indicators and Actions

The Sustainability Action Plan contains seven categories. Each category has a brief overview, long term objectives, measurable indicators and actions. The actions include anticipated implementation years along with leading city departments and divisions.

Community Engagement & Green Economy

Overview

The Community Engagement and Green Economy category outlines long term objectives and actions focused on encouraging residents, business owners, schools and other organizations in Winter Park to begin incorporating more sustainable solutions in their daily activities. To foster and build upon a culture that values health, environmental stewardship and financial wellbeing, the City will support public engagement campaigns to educate, inspire and offer some of the most cost effective, healthy and easy solutions. The campaign will seek to engage diverse partners and sectors of the community; create a shared community vision, goals and progress indicators of a low-carbon future; connect individuals and organizations to education, tools and resources; and celebrate positive changes and successes. A fully engaged community is the key to successfully making Winter Park a more sustainable community.



Objectives

1. Communicate, educate and motivate the City, residents, students, businesses and organizations to change their behavior in ways that support the objectives of the Sustainability Action Plan.
2. Reduce city wide carbon footprint from electric, transportation and solid waste.

Indicators

Community Engagement & Green Economy		Indicator	2012 Baseline	2020 Target	2030 Target
	CEGE1	City wide Carbon Footprint in GHG Emissions (electric, transportation, solid waste)	397,075	25% less	50% less
	CEGE2	Recognized Green Businesses	0	25 % recognized businesses	50% recognized businesses
	CEGE3	Residents taking the Sustainability Pledge	0	50%	100%
	CEGE4	Green School Grant Participants	10	50%	100%
	CEGE5	KWPB Volunteer Events	12	12	12

Actions

Projected Implementation Year	Action	Lead Department
2015	1. **(Project)** Develop Marketing Plan for Sustainability.	Communications
2015	2. **(Program)** Continue Green School Grant program.	Sustainability
2015	3. **(Program)** Explore funding options for maintenance and upkeep of existing Pocket Parks and Community Gardens ,	Sustainability, Parks & Recreation
2015	4. **(Program)** Facilitate sustainability education workshops	Sustainability, Parks & Recreation
2015	5. **(Program)** Continue participation in America In Bloom/ Winter Park Blooms.	Sustainability
2015	6. **(Program)** Continue	Sustainability, Parks &

		volunteer opportunities including lake cleanups, gardening, and invasive species removal.	Recreation, Lakes
2016	7.	**(Project)** Develop interactive sustainability webpage that allows individuals to take Sustainability Pledge, calculate their carbon footprint, organizations to post environmental volunteer opportunities, and share success stories.	Communications
2018	8.	**(Project)** Create and install Environmental Education opportunities at parks and green buildings.	Sustainability, Parks & Recreation
2020	9.	**(Program)** Develop Green Neighborhood program focusing on existing, established residential neighborhoods to support eco-friendly behavior.	Sustainability
2020	10.	**(Program)** Partner with other local municipalities to develop Green Business Challenge.	Sustainability, Planning-Economic Development

Waste Diversion & Recycling

Overview

In 2012, Winter Park generated 30,337 tons of garbage with 29,832 tons of greenhouse gas emissions (calculations based on the EPA's Waste Reduction Model (WARM) tool. http://epa.gov/epawaste/conserve/tools/warm/Warm_Form.html). The average Winter Park household throws away over one ton of garbage per year while the average business throws away 5.4 tons per year.

Today, the Orange County Landfill charges $33.60 per ton for residential and commercial garbage while the Recycle America Materials Recovery Facility, also located at the Orange County Landfill, accepts recycling for free. This means the city can realize substantial monetary savings if more garbage is recycled. The city's current solid waste contract does not pass through savings from reduced disposal fees to the city. Only the hauler realizes the savings. It is important to structure the next contract so that the city can realize these financial savings.

This category outlines ways the city can begin diverting more waste from the landfill, save money and reduce carbon emissions from solid waste.

Objectives

1. Reduce total solid waste generated.
2. Divert solid waste generated away from landfill.
3. Reduce the greenhouse gas impacts of the solid waste collection.

Indicators

Category		Indicator	2012 Baseline	2020 Target	2030 Target
Waste Diversion & Recycling	WDR1	Waste diverted from landfill	15%	75% (state goal)	90%
	WDR2	Total tons of solid waste generated	30,337	10% less	25 % less
	WDR3	GHG emissions from solid waste (tons)	29,832	40% less	75% less

Actions

Projected Implementation Year	Action	Lead Department
2015	1. **(Program)** Evaluate City Waste Contract for provision of single stream recycling carts to all residential customers, frequency of waste collection service, and Pay As You Throw model.	Sustainability
2016	2. **(Program)** Evaluate residential and commercial recycling incentive rewards programs	Sustainability
2016	3. **(Project)** Evaluate requirement for commercial and multifamily recycling service	Sustainability
2016	4. **(Project)** Promote Commercial, Multi-Family and Construction & Debris recycling case studies.	Communications
2016	5. **(Project)** Promote composting case studies.	Communications
2017	6. **(Program)** Provide free special events recycling.	Parks & Recreation
2017	7. **(Program)** Provide quarterly Hazardous Waste and Electronic Waste events	Public Works, Sustainability
2018	8. **(Project)** Increase recycling to all city owned facilities and parks.	Parks & Recreation
2020	9. **(Project)** Evaluate Commercial Pay As You Throw Pilot program.	Sustainability
2020	10. **(Program)** Pilot test residential curbside composting by adding food waste to yard waste.	Sustainability

2020	11. **(Project)** Work with Orange County and other local governments to explore increasing capacity for waste to energy at landfills.	Electric Utility, Sustainability

Mobility & Urban Form

Overview

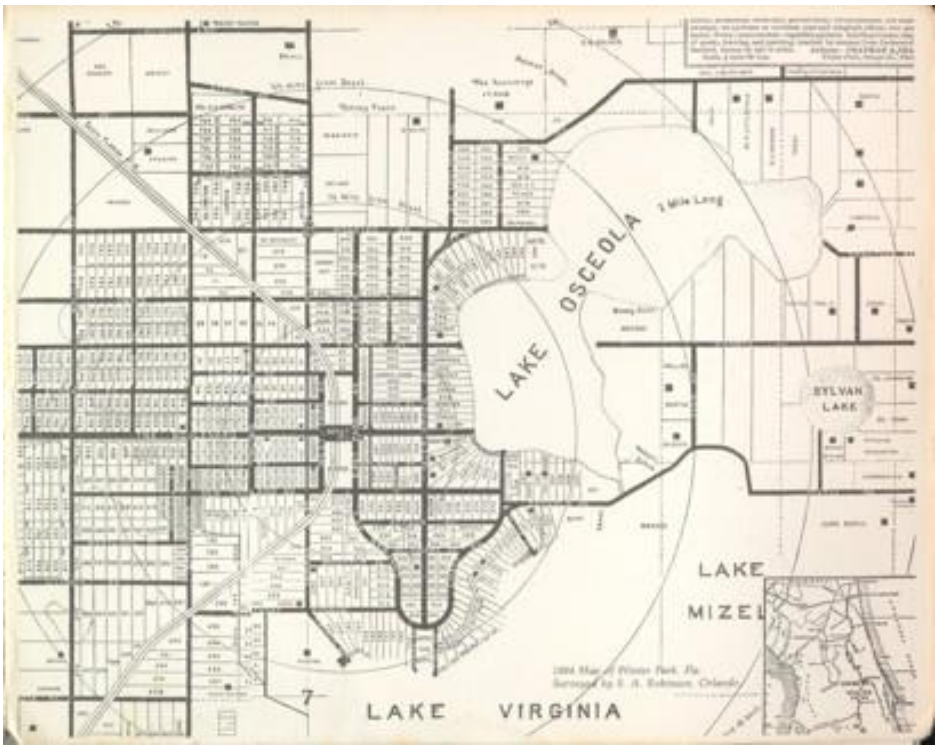
The Mobility & Urban Form category proposes increasing healthier, more active forms of transportation such as walking, bicycling and using mass transit such as LYNX bus and SunRail commuter rail. The category also emphasizes a more human scaled, compact, mixed use neighborhood pattern and design that makes it easier for people choosing these more sustainable transportation options.

Transportation is a significant contributor to the city's carbon emissions. Providing an interconnected network of complete streets that promote walking and cycling will result in a reduction of vehicle miles traveled (VMT) and fewer emissions. Common design elements of complete streets tend to be human scaled, narrow, with continuous sidewalks, bike lanes, landscaping and shade trees. These design characteristics combined with low impact development (LID) elements such as bio-swales and rain gardens also help reduce stormwater runoff, enhance lakes water quality and reduce the urban heat island effect. In other words, it cools the temperature.

Complete streets that are enjoyable to walk or bike on become public amenities that are capable of attracting new tenants and residents to the area. Complete streets joined with human scaled urban development create a more aesthetically pleasing atmosphere while creating a "sense of place." Examples in Winter Park include Park Avenue, Hannibal Square and the Winter Park Village. The site of the Train Station at 151 Morse Blvd near Park Ave has a Walkscore of 91, which is considered a "walker's paradise." The Community Center in Hannibal Square scores at 86 "very walkable" while Winter Park Village achieves an 80, also "very walkable." It is no coincidence that these walkable "places" also have the highest concentrated property values within the city.

Thanks to the local advocacy from organizations like the Winter Park Health Foundation, Winter Park is beginning to understand the direct correlation between active transportation and physical and mental health. Walking and cycling also encourage interaction between neighbors, expose people to the community and allow for enjoyment in ways unavailable to automobile passengers.

As the first planned community in Florida, Winter Park was founded around the concept of walkability and human scaled urbanism. Since owning a car was a rarity in the 1880s, Winter Park's founders designed the original plan around the Train Station which was the town's first constructed building. Future development was patterned off quarter mile walks around the station. With SunRail launching in May 2014, Winter Park serves as a regional model for Transit Oriented Development (TOD) and will provide residents and visitors the option to enjoy the city car-free.



The original Town Plan for Winter Park, FL placing the train station in the center with development planned around it. The circles represent quarter mile distances.

Objectives

1. Create walkable and bike-able neighborhoods where Winter Park residents can easily walk or bicycle to meet basic daily needs and have safe pedestrian and bicycle access to transit.
2. Reduce daily vehicle miles traveled at 20 predetermined intersections.
3. Increase certified Green Neighborhood Developments.
4. Reduce the carbon intensity of our transportation fuels.

Indicators

Category		Indicator	2012 Baseline	2020 Target	2030 Target
Mobility & Urban Form	MUF1	Vehicle Miles Traveled	In development	10% less	20% less
	MUF2	Certified Green Neighborhood Development	0 certified	2	All redevelopments achieve green

					certification
	MUF3	Electric Charging Stations	6	Increase	Increase
	MUF4	Walk Score	55	70	80
	MUF5	Transit Score	In Development		
	MUF6	Bike Score	In Development		

Actions

Implement By	Action		Lead Department
	1.	**(Project)** Increase bike storage downtown while reducing dependence on vehicle parking.	Public Works/ Parks
2016	2.	**(Project)** Evaluate Comprehensive Plan to identify for policies related to green building and green neighborhood development. Recommend revisions as deemed desirable.	Planning
2016	3.	**(Project)** Evaluate expanding bus service and consider Flex Bus for increasing service to Sunrail station.	Public Works, Planning
2016	4.	**(Project)** Calculate Vehicle Miles Traveled (VMT) and GHG emissions as a result of VMT at select intersections	Public Works
2017	5.	**(Project)** Evaluate Transportation Plan with regards to SunRail, safe routes to schools, Complete Streets and regional projects such as trails.	Public Works
2017	6.	**(Program)** Encourage private developments to increase safety and ease of walking and cycling through site plan review process with recommendations from project design checklist.	Public Works, Planning
2018	7.	**(Program)** Evaluate Bike Share through a third party vendor as part of a regional wide program in conjunction with SunRail.	Public Works
2018	8.	**(Program)** Evaluate Car Share through a third party vendor as part of a regional wide program in conjunction with SunRail.	Public Works
2020	9.	**(Program)** Encourage businesses to offer employee commuter incentive benefits.	Public Works, Planning
2020	10.	**(Policy)** Incentivize LEED for Neighborhood Development standards for areas with potential for neighborhood scale	Planning

	redevelopment that ensure human scale, mixed use development and complete neighborhoods.	
2020	11. **(Policy)** Survey and publicize workforce housing located within a quarter mile from major employers.	Planning
2020	12. **(Project)** Increase the number of electric vehicle charging stations.	Electric Utility
2020	13. **(Project)** Enhance Pedestrian & Bicycle Wayfinding.	Public Works

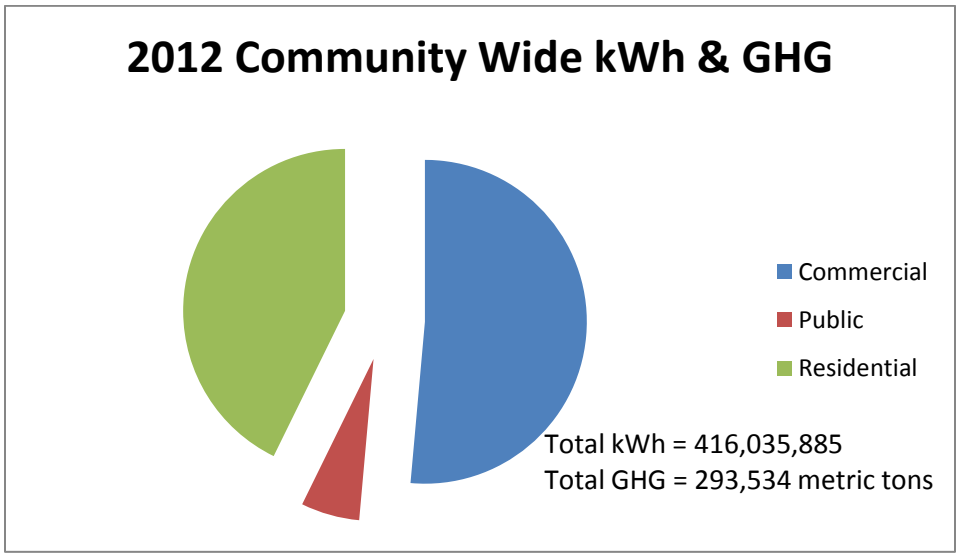
Buildings, Energy & Water

Overview

The Buildings, Energy and Water category focuses on measures that can reduce the environmental consequences of the construction, reconstruction and operation of buildings and infrastructure with a focus on energy and water conservation. Since buildings' energy usage is by far the largest contributor to the city's carbon footprint, implementing the prescribed actions is critical to achieving a more sustainable Winter Park.

In Winter Park, electricity usage in 2012 equated to 293,534 tons in greenhouse gas emissions. Most of the electricity is used to power buildings while some is used to power city scale infrastructure such as streetlights and transporting water. Electric usage has decreased about 5% between 2007 and 2012 with an increase in customers while water usage has decreased about 1.5% with a decrease in customers in the same five year time period. The average Winter Park home uses 15,262 kWh while consuming about 128,000 gallons of water per year compared to the average business that uses 91,849 kWh and 294,000 gallons of water per year.

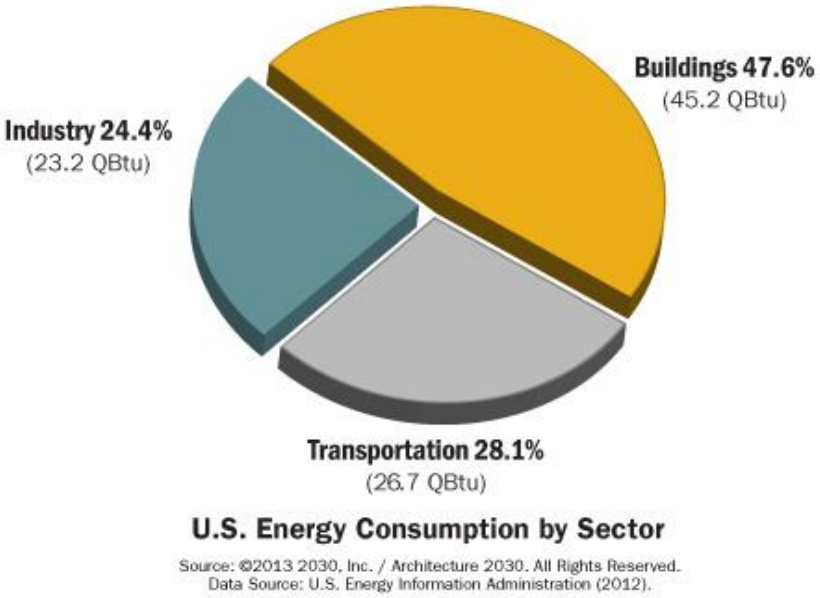
Please refer to Appendix: Winter Park Utility Trends. All utility data is sourced from the city's 2012 Comprehensive Annual Financial Report which can be reviewed at the following link: http://cityofwinterpark.org/Docs/Departments/Finance/CAFR12.pdf.



Source: 2012 City of Winter Park Comprehensive Annual Financial Report and the EPA Greenhouse Gas Equivalencies Calculator.

According to the U.S. Energy Information Administration, the Building Sector consumes nearly half (47.6%) of all energy produced in the United States and 14% of potable water use. Seventy-five percent (74.9%) of all the electricity produced in the U.S. is used just to operate buildings. The Building Sector

was responsible for nearly half (44.6%) of U.S. CO2 emissions in 2010. By comparison, transportation accounted for 34.3% of CO2 emissions and industry just 21.1%.



U.S. Energy Consumption by Sector

Data Source: U.S. Energy Information Administration (2012).

Objectives

1. Reduce community wide greenhouse gas emissions from building energy consumption.
2. Increase residential, commercial, and municipal building renewable energy
3. Increase number of residential energy audits and number of residential energy efficiency upgrade rebates.
4. Increase energy produced and sourced from renewables and clean alternative energy.
5. Increase number of municipal and commercial buildings benchmarked for electricity and water consumption.
6. Reduce per capita average annual potable water usage for the residential sector.

7. Incentivize and encourage new buildings and major renovations to meet green building standards.

Indicators

Category		Indicator	2012 Baseline	2020 Target	2030 Target
Buildings, Energy and Water	BEW1	Residential Energy Audits Performed Annually	152	150	150
	BEW2	Residential Rebates Administered Annually	95	100	100
	BEW3	Commercial Buildings Benchmarked	0	100	500
	BEW4	Percentage of WPEU energy portfolio from renewable and clean alternative sources	1.9%	40%	60%
	BEW5	Residential potable water average annual usage	128,000 Gallons	5% less	15% less
	BEW6	Community Wastewater (gallons)	968,638	5% less	15% less
	BEW7	Percentage of water from reclaimed sources	In Development	5% more	15% more
	BEW8	Percentage of buildings meeting City of Winter Park green building standards	1%	25% new construction	50% new construction and major renovations

Actions

Projected Implementation Year	Action	Lead Department
2015	1. **(Program)** Increase promotion of existing Energy & Water Conservation opportunities	Building, Communications

		such as audits and rebates.	
2015	2.	**(Program**) Publicize funding opportunities to help property owners finance green building projects, energy efficiency upgrades and renewable energy.	Building, Finance, Electric Utility
2016	3.	**(Policy)** Establish energy benchmarking and disclosure policy.	Building, Planning
2016	4.	**(Program**) Provide Green Building Education to appropriate city staff, realtors, and private builders.	Building
2016	5.	**(Project**) Create and maintain an electronic database of all building energy code compliance, green certifications and energy ratings within the City of Winter Park	Building
2017	6.	**(Policy)** Explore opportunities for new buildings and major remodels achieve green building standards through updated building codes with minimum HERS rating for residential and ENERGY STAR for non-residential.	Building
2017	7.	**(Policy)** Develop measures to discourage building destruction and encourage building design for long term use.	Building
2017	8.	**(Project**) Increase promotion of Green Building Case Studies to residents, potential residents, home builders, and contractors.	Building, Communications
2017	9.	**(Project**) Develop a plan for converting streetlights and public space lighting to LEDs.	Building, Electric Utility
2017	1.	**(Project)** Review water utility rates to ensure	Water & Wastewater

		inverted rate structure is adequately discouraging overuse of water.	Utility
2018	2.	**(Policy)** Recognize net zero energy/ carbon neutral new buildings and homes	Building
2018	3.	**(Program)** Create rebate and/or code for utilization of electric vehicle charging for renovated and new buildings.	Electric Utility, Building
2018	4.	**(Policy)** Develop policy and rebate addressing and incentivizing residential and commercial gray water & rain water reuse.	Building, Water & Wastewater Utility
2020	5.	**(Project)** Optimize use of existing Water Reuse Plant and identify additional opportunities for maximizing ipercentage of water from reclaimed sources.	Water & Wastewater Utility
2020-2030	6.	**(Project)** Increase the Electric Utility's percentage of energy derived from renewable and clean alternative sources.	Water & Wastewater Utility
2030	7.	**(Program)** Encourage private developers to use District Energy systems for large scale developments with at least two buildings.	Electric Utility, Water & Wastewater Utility, Planning

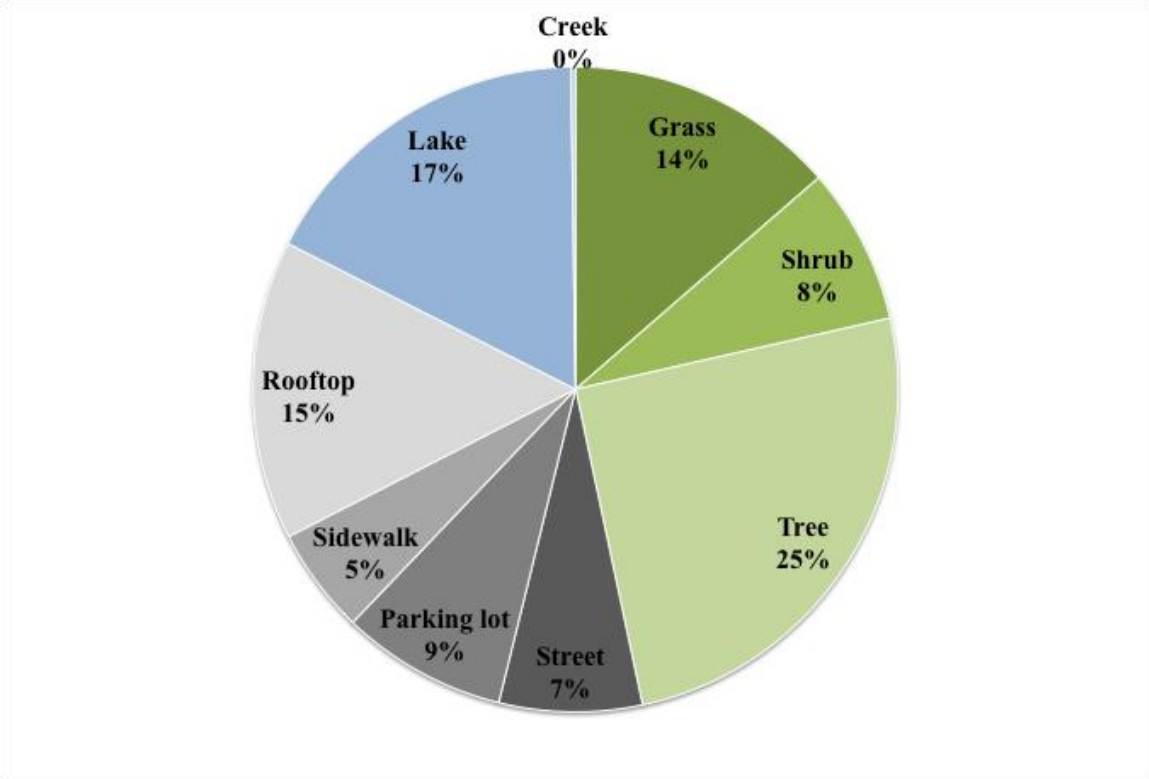
Natural Systems & Resources

Overview

Winter Park is known for its lush tree canopy and pristine lakes. Both of these features provide a multitude of benefits including improved air quality, wildlife habitat, cooler temperatures through reduced urban heat island effect, beautification and increased property values. The Natural Resources and Systems category is focused on preserving and enhancing these valuable natural features that help make Winter Park such a great place to live.

Winter Park Land Coverage Chart

*Percentages reported in tree canopy, greenspace and greyspace indicators only include land and not lakes.



Source: Appendix- Winter Park Tree Canopy Report

Objectives

1. Maintain and expand the urban tree canopy.
2. Increase overall green space.
3. Maintain percentage of residents living within a half mile from public green space.
4. Reduce grey space (including paved parking lot, street, sidewalk,rooftop, impermeable).
5. Increase lakes water quality. *(The water clarity goal is intended to be aspirational in nature and success will be evaluated through an annual assessment of each lake's condition and ongoing management efforts to determine if all practical means are being employed to effect improvements. The assessment will be submitted by the Lakes Division staff following review and approval by the Lakes and Waterways Advisory Board)*.

Indicators

Category		Indicator	2012 Baseline	2020 Target	2030 Target
Natural Systems & Resources	NSR1	Tree Canopy Coverage	55%	55%	60%
	NSR2	Greenspace Coverage	57%	57%	60%
	NSR3	Greyspace	43%	43%	40%
	NSR4	Lakes Water Quality-Visibility Depth	2 meters	2.5	3 meters
	NSR5	Residents living within a half mile of public greenspace	95%	95%	95%

Actions

Projected Implementation Year	Action	Lead Department
2015	1. Continue aquatic plant management.	Public Works Stormwater, Lakes
2018	2. **(Project)** Work towards establishing a Green Infrastructure Plan addressing stormwater with light impact development best management practices including Rain Gardens, Bio-Swales, Green Streets and Green Roofs that also serve as amenities.	Public Works Stormwater, Lakes, Parks & Recreation
2018	3. Increase frequency of existing stormwater infrastructure maintenance including street sweeping.	Public Works Stormwater, Lakes
2018	4. **(Project) Explore** installing a rain garden in a visible public space to serve as a demo for light impact development.	Public Works Stormwater, Lakes, Parks & Recreation
2018	5. **(Program) Explore** leveraging Electric Utility's Green Roof incentive with grant from Stormwater Fund	Public Works Stormwater, Lakes, Electric Utility
2020	1. **(Program) Continue to** develop long term reforestation plan to increase tree canopy coverage.	Forestry Division, Parks & Recreation

Local Food & Agriculture

Overview

Local Food & Agriculture seeks to reduce the distance products travel between producer and consumer and can range from the neighborhood-level to a regional scale. A local "foodshed" is the area that can support the food needs within a region. While it varies in size depending on geographic features and season, foodsheds tend to encompass a 100-250 mile radius.

A sustainable local food system is typically characterized by a comprehensive set of factors and activities that minimize environmental impact, support local economies, increase access, and promote public health and nutrition. This approach, sometimes described as "farm-to-table," tends to emphasize direct relationships between producers and consumers, and can often result in indirect benefits such as reduced crime rates and a greater sense of place and community.

The Following objectives and actions have been identified as context sensitive approaches the City of Winter Park and greater community can implement to help facilitate a healthy, local and sustainable food system in our city and Central Florida region.

While it is difficult to accurately quantify Winter Park's environmental impact from food it is important to recognize that the food we eat does in fact have an impact on the environment in many ways.

Objectives

1. Significantly increase the consumption of regionally grown, local food.
2. Reduce consumption of carbon intensive foods.

Indicators

Category		Indicator	2012 Baseline	2020 Target	2030 Target
Local Food & Agriculture	LFA1	% of Residents within 1/2 mile of local/healthful food	*In Development*	50	100%

		assets (community gardens, urban farms, CSAs, Farmer's Markets, Grocery Stores and restaurants offering locally grown food)			
	LFA2	Local Food Consumption Baseline (meals at home)	21.8% (*Current metric for statewide consumption, city baseline in development)*	40%	60%

Actions

Projected Implementation Year	Action	Lead Department
2015	1. **(Policy**) Participate in regional Food Policy Council.	Sustainability
2015	2. **(Project**) Create a map identifying additional city-owned locations for edible landscaping.	Planning, Parks & Recreation, Sustainability
2016	3. **(Program)** Continue Community Garden Projects via KWPB grant program.	Sustainability
2020	4. **(Policy**) Include Local Food Preference in city's Environmentally Preferable Purchasing policy.	City Administration-Purchasing
2020	5. **(Policy**) Explore Residential, Commercial and Public Space Urban Agricultural Design Guidelines	Planning
2020	6. **(Project)** Pilot an urban farm	Parks & Recreation

Local Government Operations

Overview

The City of Winter Park, as a local government, is the third largest consumer of electric in the city using 12,153,788 kWh annually. The city is the fifth largest consumer (within city limits) of water using 14,422,000 gallons of water per year. In 2011, city buildings were energy retrofitted through a performance contract and Energy Efficiency and Conservation Block Grant dollars. This has resulted in 10% energy reductions and over $113,000 in annual savings. In 2013, the city's Water and Wastewater Utility and Public Works Department has teamed up with the Parks and Recreation Department to begin conserving water in city parks resulting in additional tax dollars saved. The objectives and prescribed actions in the Local Government Operations category are intended to build on these efforts to conserve resources, reduce greenhouse gas emissions and save tax dollars. Creating healthier and more comfortable environments for employees and building occupants are also anticipated benefits from building and renovating city buildings to meet high performance, green standards.

Objectives

1. Reduce Local Government's Greenhouse Gas Emissions.
2. Reduce Local Government's energy usage in buildings and infrastructure.
3. Increase Local Government's renewable energy production.
4. Reduce Local Government's potable water usage.
5. Reduce Local Government's fleet fuel usage.
6. Increase Local Government employees taking transit, carpooling, cycling or walking to work.

Indicators

Category		Indicator	2012 Baseline	2020 Target	2030 Target
Local Government Operations	LGO1	Local Government GHG Emissions	11,473 metric tons	20% less	50% less
	LGO2	Energy usage	12,153,788 kWh	10% less	25% less
	LGO3	Renewable Energy Production	1.6%	6.6%	11.6%
	LGO4	City Fleet Fuel Usage	151,971 gallons of gasoline/ 82,196 gallons of diesel	25% less	50% less
	LGO5	Potable Water Usage	14,422,000 gallons	25% less	50% less
	LGO6	City Employees using transit, carpooling, cycling or walking to work	In Development	Increase	Increase

Actions

Projected Implementation Year	Action	Lead Department
2015	1. **(Program**) Continue monitoring city buildings' energy and water usage through ENERGY STAR Portfolio Manager.	Sustainability
2016	2. **(Program)** Explore stablishing a Revolving Energy Efficiency Loan Fund for city owned buildings and infrastructure.	Finance, Public Works
2016	3. **(Project**) Conduct energy audits for all city owned facilities.	Public Works- Facilities

2018	4.	**(Policy)** Shift from potable to non-potable water resources for parks irrigation while increasing efficiency.	Parks & Recreation, Water Utility
2018	5.	**(Program)** Implement ISO 14001 Environmental Management System	Sustainability
2018	6.	**(Program)** Develop Green City Fleet maintenance program by referring to FGBC itemized checklist and begin replacing older vehicles with more efficient vehicles potentially including hybrids, electric and natural gas.	Public Works-Fleet
2018	7.	**(Policy)** Update the city's idling policy to allow for a maximum of one minute (currently five) for city fleet.	Public Works-Fleet City Administration
2020	8.	**(Project/Program)** Begin monitoring occupied city buildings' energy and water usage in real time while engaging occupants with dashboards and competitions.	Public Works
2020	9.	**(Policy)** Update Green Building Resolution to reflect minimum energy efficiency standards and percentage of energy derived from on-site renewables for city owned buildings.	Public Works- Sustainability

Sustainable actions you can take at home!

Together we can make a difference!

	Take action today!	Next Steps…	Start Planning for Change
	Most of these actions can be done in less than 20 minutes, for less than $20. Why wait?	With just a little set up time, you can get your household on the right track.	Some changes take time and planning. Start thinking about these goals now.
A Sustainable and Healthy Home	Save energy and costs: replace incandescent light bulbs with efficient compact fluorescent light bulbs (CFLs) or LEDs. Plug your microwave, stereo, chargers, television, and computer equipment into power strips that can be shut off when not in use. Keep your thermostat at 78°Fwhile home, 82°F while away in the summer. Let the fresh air in during the winter. Do simple weatherization by sealing cracks and leaks around walls, trim, outlets, doors, and windows.	Set up a free home energy audit with Winter Park Electric Utility: www.cityofwinterpark.org/Pages/Departments/Electric_Utility.aspx Track and monitor your home's energy use (water, gas, oil, electricity) at www.myenergy.com and carbon footprint at www.epa.gov/climatechange/ghgemissions/ind-calculator.html	Fully insulate your home and seal ducts, and replace your furnace, water heater, and home appliances with ENERGY STAR models that qualify for rebates from Winter Park's Energy Conservation Rebates and Incentives Program. www.cityofwinterpark.org/Pages/Departments/Electric_Utility/Energy_Conservation_Rebates_and_Incentive_Program.aspx Plant native and drought-resistant vegetation: www.foridayards.org
Sustainable Transportation	Maintain your car: properly inflate tires and keep it tuned up for efficient driving. Combine several errands into one trip by planning ahead, making a list, using closer stores, grouping your appointments and doing one-stop shopping: www.drivelesssavemore.com	Many trips within Winter Park are under 1.5 miles. Switch at least one of your drive-alone trips to waling, transit, carpooling, or biking. Free resources such as carpool matching at www.reThinkYourCommute.com Try riding the SunRail: www.SunRail.com Track your monthly driving mileage. Make a goal to reduce your mileage by a specific percentage. Enjoy the beautiful outdoors of Central Florida. www.healthycentralflorida.org/	Buy the most fuel-efficient vehicle that meets your needs. If your household has more than one car, try to eliminate a car and borrow or share a second vehicle when you need one. Planning to move? Consider neighborhoods with daily services within walking distance: www.walkscore.com
Sustainability and Your $tuff	Recycle right: recycle all paper, metal, and glass, as well as yogurt tubs and other plastics accepted at curbside. www.wasteprousa.com Paper or plastic? No thanks! Take reusable bags with you every time you go shopping.	Compost food scraps in your backyard. www.epa.gov/waste/conserve/tools/greenscapes/pubs/compost-guide.pdf Shop local: visit neighborhood shops and keep your dollars in Winter Park. www.mygovhelp.info/WINTERPARK/_cs/supporthome.aspx Maintain and repair durable items.	Be a smart consumer: • Make a list. • Cross off any items that can be rented, borrowed, or purchased used instead. • Buy long-lasting, durable, and reusable goods.
Sustainable Food Choices	Make a shift to eating a diet rich in fruits, vegetables, and grains, and become less reliable on meat: www.meatlessmonday.com	Buy minimally processed and packaged food. Look for locally-produced and organic foods.	Plant a vegetable garden and fruit and nut bearing tree. www.simplelivinginstitute.org Apply for a Community Garden & Pocket Park Restoration Grant with Keep Winter Park Beautiful: www.cityofwinterpark.org/Docs/Government/SustainabilityProgram/KWPB/Guidelines.pdf Winter Park Community Gardens cityofwinterpark.org/Pages/Government/Sustainability_Program/Sustainable_Food.aspx

Glossary

Complete Streets- Streets designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.

http://www.smartgrowthamerica.org/complete-streets

Connectivity- The number of publicly accessible intersections of the circulation network per square mile. If one must both enter and exit an area through the same intersection, such an intersection and any intersections beyond that point are not counted; intersections leading only to culs-de-sac are also not counted. The calculation of square mileage excludes water bodies, parks larger than 1/2 acre (0.2 hectare), public facility campuses, airports, rail yards, slopes over 15%, and areas non-buildable land under codified law.

Energy efficiency- Providing the same level of service (e.g., lighting, indoor temperature) while using less energy.

Equity- Equity is when everyone has access to the opportunities necessary to satisfy their essential needs, advance their well-being and achieve their full potential. We have a shared fate as individuals within a community and communities within society. All communities need the ability to shape their own present and future. Equity is both the means to healthy communities and an end that benefits us all. Source: Portland Plan

Florida Green Building Coalition- A nonprofit Florida corporation dedicated to improving the built environment. Our mission is "to provide a statewide green building program that defines, promotes, and encourages sustainable efforts with environmental and economic benefits."http://www.floridagreenbuilding.org/about-us

Graywater- Untreated household waste water which has not come into contact with toilet waste. Graywater typically includes used water from bathtubs, showers, bathroom wash basins, and water from clothes-washer and laundry tubs, though definitions may vary. Some states and local authorities also allow kitchen sink wastewater to be included in graywater. Project teams should comply with the graywater definition established by the authority having jurisdiction in the project area.

Green Economy- A green economy is one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. Source: United Nation Environment Program

Green Infrastructure- An interconnected network of open spaces and natural areas, such as greenways, wetlands, parks, forest preserves and native plant vegetation, that naturally manages stormwater, reduces flooding risk and improves water quality.

Green Neighborhood-DEFINE

Greenhouse gases (GHGs)- Gases that trap heat in the atmosphere, including carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Each of these gases can remain in the atmosphere for different amounts of time, ranging from a few years to thousands of years. All of these gases remain in the atmosphere long enough to become well mixed, meaning that the amount that is measured in the atmosphere is roughly the same all over the world, regardless of the source of the emissions. Human activities are responsible for almost all of the increase in greenhouse gases in the atmosphere over the last 150 years. Source: United States Environmental Protection Agency

Incentives- Rewards or penalties applied through the regulatory processes, designed to induce specific outcomes seen as beneficial. Incentives are not requirements, but rather encourage specific choices and discourage others.

Integrated Design- An iterative, collaborative approach that involves a project's stakeholders in the design process from visioning through completion of construction, as opposed to a conventional linear design approach.

Leadership in Energy and Environmental Design (LEED)- An internationally recognized green building certification system that provides third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, stewardship of resources and sensitivity to their impacts. Developed by the U.S. Green Building Council, LEED provides a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

Renewable Energy- For the purposes of this plan, renewable energy is defined as electrical, mechanical, or thermal energy produced from a method that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power.

Ozone- A gas that occurs both in the Earth's upper atmosphere and at ground level. Ozone can be "good" or "bad" for people's health and for the environment, depending on its location in the atmosphere. In the troposphere, the air closest to the Earth's surface, ground-level or "bad" ozone is a pollutant that is a significant health risk, especially for children with asthma. It also damages crops, trees and other vegetation. It is a main ingredient of urban smog. Source: United States Environmental Protection Agency

Particulate matter- Very small pieces of solid or liquid matter such as particles of soot, dust, fumes, mists or aerosols. The size of particles is directly linked to their potential for causing health problems. Source: United States Environmental Protection Agency

Policies- The principles and directives guiding the City’s actions, both in day-to-day operations and long-term planning.

Resilience- A capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment. Source: United States Environmental Protection Agency

Sustainability- Meeting the needs of the present without compromising the ability of future generations to meet their needs. Source: Brundtland Report, Our Common Future, 1987.

Sequestration- Terrestrial, or biologic, carbon sequestration is the process by which trees and plants absorb carbon dioxide, release the oxygen, and store the carbon. Source: United States Environmental Protection Agency

Tipping Fees- Are charged by a landfill for disposal of waste, typically quoted per ton.

Triple Bottom Line- An approach to decision making that takes into account an activity's social, environmental, and economic effects (people, planet, profit).

Urban Heat Island Effect- The incidence of higher air and surface temperatures caused by the absorption of solar energy and its reemission from roads, buildings and other structures

Wastewater- Water that has been used and contains dissolved or suspended waste materials.

Waste Diversion- Is a management activity that disposes of waste other than through incineration or the use of landfills. Examples include reuse, composting and recycling.

Appendix-Comprehensive Plan Supporting Policies

Community Engagement and Green Economy

GOAL 5-1: NATURAL AND ENVIRONMENTAL RESOURCES. PROVIDE FOR THE PRESERVATION, CONSERVATION AND APPROPRIATE MANAGEMENT OF THE CITY'S NATURAL RESOURCES SO THAT THE ECONOMIC, EDUCATIONAL, ENVIRONMENTAL, SOCIAL AND AESTHETIC VALUES THAT THEY PROVIDE TO THE COMMUNITY ARE PRESERVED AND ENHANCED AND ARE AVAILABLE TO FUTURE GENERATIONS.

OBJECTIVE 5-1.1: AIR QUALITY AND CLIMATE CHANGE. Winter Park shall contribute to a regional and statewide effort to attain satisfactory air quality in central Florida at a condition at or better than state and federal air quality standards through the implementation of the following policies. Winter Park should also reduce air emissions (including carbon) that contribute to global climate change.

Waste Diversion and Recycling

OBJECTIVE 4-3.1: EFFICIENT SOLID WASTE COLLECTION AND DISPOSAL. Provide safe, sanitary and efficient solid waste collection and contract disposal for all properties within the City and encourage reduction of waste through recycling programs.

OBJECTIVE 5-1.11: MANAGING DISPOSAL OF WASTES. The City shall assure that generation, storage, transport, and disposal of wastes in Winter Park are managed with the best available technology to protect environmental quality.

Policy 4-3.1.7: Public Awareness Program. Continue a public awareness program jointly developed by the City and Waste Management to inform and educate residents on the environmental and cost benefits associated with recycling.

Policy 4-3.1.8: Implement Recycling Programs. Continue to provide the actions necessary for implementation of the inter-local agreement for county-wide recycling and disposal requirements.

Mobility and Urban Form

Transportation Element Mission: "Winter Park will continue to be a walkable, pedestrian and bicycle-friendly, sustainable, treed, relaxed, beautiful, safe, urban village that promotes neighborliness and courtesy among its citizens and visitors."

2-1: TRANSPORTATION GOALS, OBJECTIVES, AND IMPLEMENTING POLICIES. This section stipulates goals, objectives, and implementing policies for the Transportation Element pursuant to 9J-5, FAC. The purpose of this element is to provide guidance for appropriate plans and policies needed to insure a walkable, pedestrian and bicycle-friendly, treed, relaxed, beautiful, safe, urban village that promotes neighborliness and courtesy among citizens and visitors.

OBJECTIVE 2-1.1: SAFE AND BALANCED MULTIMODAL SYSTEM. The design and character of the streets within Winter Park shall create a safe, balanced

multimodal transportation system that promotes and supports the broad transportation needs of current and future Winter Park residents.

Policy 2-1.1: Transportation System Principles. The continuous improvement of the City's transportation system is dependent on coordinating all improvements to the transportation network and to develop improvements that support that network. The Transportation Element Goal recognizes transit, bicycle and pedestrian activities as alternative modes of transportation for each street in the community.

Policy 2-1.2: Final Design for Streets. The City shall seek citizen and business participation in those decision-making processes related to the transportation planning process, roadway modifications, transit service, the provision of bicycle and pedestrian amenities, and other design characteristics.

Policy 2-1.3: Traffic Calming Improvements to Local Streets. The City shall periodically monitor the traffic levels on Local streets. The City shall design and build appropriate traffic calming measures to encourage vehicular speed appropriate for the neighborhood where warranted.

Policy 2-1.4: Implementing Regulations. The City shall utilize land use, zoning, the Land Development Code, concurrency management, transportation impact analyses, proportionate fair share and other applicable regulations to coordinate the design of network facilities, transit corridors, bicycle and pedestrian facilities, appropriate setbacks, rights-of-way, and centerlines of the roadway network. At a minimum, the City will revise applicable regulations to incorporate the following policies for all roadways:

- The City shall promote the development of an interconnected street network.
- The City shall prohibit the construction of cul-de-sacs, unless required by terrain.
- The City will install stops signs and intersection signalization according to the warrants in the Manual on Uniform Traffic Control Devices (Millennium Edition).
- The City will evaluate the elimination of access to businesses through the installation of street medians on a case-by-case basis.
- The City does not support the conversion of two-way streets to one-way streets without full consultation of the impacted parties.
- The City shall prohibit the construction of gates for residential neighborhoods or subdivisions.

Policy 2-1.15: Street Tree Program. The City will continuously fund its Street Tree Program. The City shall revise current procedures in the Street Tree Program on Arterial, Collector and Local roadways to further the following principles:

- Trees shall be installed in areas equal to or larger than 25 square feet.
- The City shall fund the installation of street trees.
- The City shall initiate the installation of trees on all Arterial, Collector and Local Streets and shall maintain an ongoing tree maintenance program.

- The installation of the trees will be made in accordance with applicable State, County and local roadway design standards, including but not limited to recovery areas and line of sight standards.

Policy 2-5.1: Reducing Travel Demand through Land Use. When compatible with surrounding development, the City will require land use mix, density and site plan layout/phasing which supports reduced travel demand, shortened trip lengths, higher internal capture, and balanced trip demand.

Policy 2-5.5: Additional Demand Management Techniques for Developments Impacting Streets within the City. New or expanded Developments of Regional Impacts (DRI) and large scale Planned Developments whose traffic is projected to utilize the City's transportation network shall be subject to additional enhancement techniques and activities. To decrease the peak-hour demand on the City's transportation network, tenants shall participate in transportation demand management activities. These activities may include, but are not limited to:

- Ride-sharing,
- Transit and bicycle accessibility,
- Staggered work hours.

Policy 2-5.6: Facilitate Vehicular Miles Travel Reduction with Major Institutions The City will work with large institutions and employers, including but not limited to Rollins College and Winter Park Memorial Hospital, to develop Transportation Demand Management measures, which may include but are not limited to a carpool program, transit subsidies, and parking programs, to reduce the vehicle miles traveled associated with students, faculty, staff, and visitors of each institution or employer.

Policy 5-1.1.1: Transportation Alternatives. The City shall continue to plan for transportation alternatives to gasoline-powered automobiles by planning efficient pedestrian and bicycle systems and by evaluating future feasibility for multimodal systems, including bus and passenger rail transit, and by adapting streets, and parking structures to facilitate the use of alternatively powered vehicles such as electric and hybrid cars.

Policy 5-1.1.2: Support Transit Service. The City shall continue to support transit service within Winter Park, including annual allocation of city funds for such service when such services provide a direct benefit to Winter Park residents and businesses and meet City goals and objectives. Where possible such, service should include alternatively powered vehicles.

Policy 5-1.1.3: Urban Form and Pattern. The City shall integrate land use patterns and transportation systems by assuring that character, design, and intensity of development is compatible with adjacent transportation infrastructure and services. The City shall continue to facilitate an urban form following planning concepts inherent to neo-traditional neighborhood planning philosophies (i.e., grid system street pattern,

residential and non-residential uses within walking distance, public open spaces and plazas).

Buildings, Energy and Water

Policy 5-1.1.10: Energy Conservation and Alternative Energy Use. Because the City of Winter Park now owns the electric utility serving the city, it is able to pursue policies and programs designed to conserve energy and to make use of alternative energy sources. The City shall consider: 1) Incentives and provide technical assistance for commercial and residential energy conservation, 2) Incentives for the installation of solar power generation and solar hot water heating by its residential and commercial customers, 3) The purchase of "green power" for sale to its customers.

OBJECTIVE 5-1.3: PROTECTION OF POTABLE WATER RESOURCES. The City shall conserve, appropriately use and protect the water quality and quantity of current and projected water sources through the implementation of the following policies**.**

Policy 5-1.3.4: Utility Rate Structure. The City shall encourage and foster water conservation through its inverted water utility rates. The City shall periodically evaluate the utility service's water rate methods and service to determine if rate adjustments are necessary to discourage overuse.

Policy 5-1.3.5: Public Education. The City shall support public awareness of water conservation needs through informative and education material made available to residents and business through mediums such as notices included with water bills and postings on the City's web site. The City shall also cooperate with the SJRWMD regarding its public education programs that promote water conservation.

Policy 5-1.3.9: Drought-Tolerant Landscaping. Landscape standards shall continue to include requirements for the use of low-water tolerant plant species as well as the installation of rain or moisture monitor devices for irrigation systems.

Policy 5-1.3.10: Incentives for Use of Low-Water Tolerant Landscaping. The City shall allow the elimination of a required irrigation system when a landscape plan is approved by the Parks Department that includes the use of native plants and other vegetation which will survive without irrigation, while still achieving the landscape buffering.

Policy 5-1.3.11: Water-Saving Fixtures. By 2009, the City shall require the use of water saving plumbing fixtures for all new development. For building rehabilitation or remodeling projects, the City shall evaluate and consider adopting incentives to encourage plumbing fixture retrofits for water-saving fixtures. Public fountains installed at City parks and facilities after the effective date of the City of Winter Park Comprehensive Plan shall be designed to use recirculating water.

Policy 5-1.3.14: Extension of Gray Water/Re-Use Lines. The City shall encourage the extension of gray water systems and re-use lines to those developed areas of Winter Park currently not served by such systems. If such coordination efforts reveal that extension of re-use lines is not financially feasible, the City shall investigate potential grant funds administered by state or federal agencies that may be eligible to assist with the extension of such systems.

Policy 5-1.12.3: Protection of Designated Historic Sites. The City shall continue to preserve historic and archaeological resources and protect these resources from adverse impacts of development.

Policy 3-1.3.10: Implement of Green Building Practices and Programs. The City shall develop criteria that ensures that housing developed with public subsidies be cost effective to build, durable and practical to maintain. The green building practices criteria should ensure that housing developed with public subsidies results in high-quality, healthy living environments, lower utility costs, enhanced connections to nature, protection of the environment by the conservation of energy, water, materials and other resources, and the advancement of the health of local and regional ecosystems.

Natural Resources and Systems

Policy 2-1.11: Preserve and Enhance Existing Tree Canopy. Street trees should be an integral part of every street. The City will include landscaping in all transportation infrastructure enhancement projects, including pedestrian ways, bicycle trails, multiuse trails, traffic calming, parking facility and roadway infrastructure investments. To preserve existing canopy trees, the City shall evaluate the impacts of all infrastructure investments within the roadway and pedestrian-way right-of-way on the existing tree canopy. Wherever possible, impacts to the existing tree canopy shall be avoided. Where trees are impacted, the City shall ensure that there is mitigation for the impacts.

OBJECTIVE 5-1.5: PROTECT AND PRESERVE WETLANDS. Preserve, protect, restore and replace wetlands to achieve no net loss of functional wetlands after the adoption of this comprehensive plan. The City shall ensure the protection of wetlands and wetland functional values by prioritizing protective activities with avoidance of impacts as the first priority, minimization of impacts as the second priority, and mitigation for impacts as the third priority.

Policy 5-1.5.5: Protection of Environmentally Sensitive Lands. The City's protection of environmentally sensitive lands shall be to prohibit all development within fifty (50) feet of all designated wetlands, any stream, canal, or lake and within fifty (50) feet of any wildlife habitat containing endangered or threatened species as detailed on Map 5-5 in this element.

OBJECTIVE 5-1.6: PROTECTION OF NATURAL RESOURCES. The City shall conserve and protect the remaining natural systems through appropriate land use designations. All future development or redevelopment of land affecting natural resources shall be consistent with the City of Winter Park Comprehensive Plan.

OBJECTIVE 5-1.7: PROTECT NATIVE VEGETATION AND AQUATIC HABITATS. The City shall protect and retain major vegetative communities, aquatic habitats, and endangered and threatened plant species through implementation of the following policies.

Policy 5-1.7.2: Preservation of Native Plant Communities. Tree protection and land clearing standards within the Land Development Code shall continue to mandate that new development preserve shoreline vegetation, wetlands, and vegetative habits known to serve as nesting areas or habitat for endangered or threatened species, or that mitigate the impacts of runoff on lakes and wetlands.

Policy 5-1.7.3: Removal of Undesirable Exotic Vegetation. All nuisance and invasive exotic plant species shall be removed from development sites by a property owner/developer prior to issuance of a certificate of occupancy.

Policy 5-1.7.5: Use of Native Plants for Landscaping. Landscape plans and plant materials required of new development shall promote the use of native plant species and avoid the planting of exotic plants known to create nuisances.

OBJECTIVE 5-1.8: TREES AND TREESCAPE CONSERVATION AND PROTECTION. The City shall maintain, conserve, and foster the extensive tree inventory and tree canopy within the City.

Policy 5-1.8.1: Tree Planting Program. The City shall maintain, conserve and foster the extensive tree inventory and canopy within Winter Park by continuing an urban forestry program that includes tree planting, and tree maintenance along City right-of-ways and on City owned property, develop and implement educational programs to assist homeowners with the maintenance and care of trees, and the administration of a tree inventory, keeping record of the location and status of trees within public lands and along public right-of-ways. A comprehensive approach to the management of streetscape trees shall include the following:
1. Establish an accurate information database on the existing street tree inventory on a block-by-block basis;
2. Project the useful life expectancy of street trees in order to assess the replacement cost and other implementation requirements. The objective of the data is to assess the likely impact on individual streets when existing street trees die as well as to assess and quantify the requirements for replacement on a block-by-block basis for each fiscal year;
3. As a result of developing accurate forecasts and the costs of the replanting requirements, the City shall develop a funding plan to implement a streetscape tree protection and reforestation program.

Policy 5-1.8.2: Tree Protection from Development Activities. The City shall protect and conserve specimen and other significant trees from destruction by development activities.

OBJECTIVE 5-1.9: PROTECT FISHERIES, WILDLIFE, AND WILDLIFE HABITATS. The City shall conserve habitat for fish, wildlife, and aquatic species including species that are threatened and endangered.

Policy 5-1.9.1: Conduct an Inventory of Natural Habitats. The City shall work cooperatively with others environmental interest groups and agencies having jurisdiction to conduct an inventory of natural habitat remaining within its boundaries

Policy 5-1.9.2 Protect and Restore Areas of Existing Wildlife Habitat. The City shall protect areas of important wildlife habitat through appropriate restoration and management of City owned land, through acquisition of remaining open space, and through application of measures to prevent the filling and development of wetlands.

Local Food and Agriculture

None

Local Government Operations

Policy 5-1.1.11: Green Technology for Municipal Buildings. The City shall consider the feasibility of retrofit in existing municipal buildings and design new buildings to minimize the use of energy, water and other resources, to facilitate the generation of solar power, and to serve as examples for others of environmental sustainability.

Policy 5-1.1.9: Promote Alternative Transportation Fuels. As part of the capital purchasing process for new motor vehicles used to transport City staff serving functions other than life/safety or maintenance operations, the City shall consider the costs and benefits of vehicles powered by alternative fuels or engine design, such as hybrid or electric vehicles.

Policy 4-5.2.1: Water Reclamation. The City shall continue to apply treated effluent as reuse water for irrigation within parks, open space areas, golf courses, and cemeteries. Reuse lines shall be expanded as opportunities arise to provide additional areas of the City with reclaimed water for irrigation purposes. Expansion of the reuse lines and reclaimed water shall also occur consistently with requirements set forth by the St. Johns River Water Management District within the City's consumptive use permits.

Policy 4-5.2.3: Promote Low Water Use Landscaping and Plants. At least fifty (50%) percent of landscape plants used to meet City landscaping requirements for new development and redevelopment shall use native or drought resistant vegetation.

Policy 4-5.2.5: Water Conservation Fixtures. New construction shall be required to use water fixtures that efficiently distribute water in a manner that reduces overuse and promotes water conservation.

Appendix-FGBC Green Local Government Credits Needed to achieve Platinum Level

- **120 points needed**
  - Community Engagement & Green Economy = 6
  - Waste Diversion & Recycling = 21
  - Mobility & Urban Form = 13
  - Buildings, Energy & Water = 64
  - Natural Systems & Resources = 9
  - Local Food & Agriculture = 5
  - Local Government Operations = 87
  - **Total Points Identified = 194**

Community Engagement & Green Economy

- Green education to local lending / real estate industry (1 point).
- Incentives for location of green businesses within city/county. (1 point)
- Create or promote a green business certification program. (1 point)
- Budget for publicity / education related to the local government's commitment to the Florida Green Local Government Standard. (1 point)
- Conduct a green building awards program. (1 point)
- Place signs and/or brochures at green features of public amenities for their benefits. (1 point)

Waste Diversion & Recycling

- Offer recycling collection services and an education program for businesses. (1 pt)
- Provide recycling collection services and an education program to residents living in multifamily dwellings (apartments, condos, duplexes) (up to 5 pts)
- Incentives for local business who utilize EPP or other solid waste reduction strategy (1 pt)
- Mandatory recycling of typical recyclables for homes and businesses (1 pt)
- Mandatory recycling program for large volumes (wood, cardboard, metal, concrete, etc.) of construction and demolition (C&D) debris targeting building, contractors, and developers (2 pts)
- Offer waste assessments to businesses (1 pt)
- Volume based or special rates for solid waste collection (1 pt)
- Offer mulched yard waste to community (1 pt)
- Require recycling at all local government buildings (1 pt)
- Develop a program of composting food waste (1 pt)
- Develop a program of yellow and/or brown grease recycling (1 pt)
- Promote the EPA's Environmental Preferable Purchasing (EPP) program, recycling and other waste reduction strategies to local businesses (1 pt)
- Develop education program for solid waste management (1 pt)

- Offer educational materials and technical assistance on recycling to schools, businesses and special events (arenas, stadiums, convention centers) to increase recycling program participation (2 pts)
- Conduct a customer waste survey (1 pt)

Mobility & Urban Form

- Analyze public transportation route system to determine connectivity to bicycle and pedestrian network (1 point)
- and submit examples of project accomplishments implemented within 5 years of plan completion (1 point)
- Develop a system of sustainable community indicators related to local government planning. Link indicators to a GIS system (3 points).
- Maintain a bicycle / pedestrian coordinator on staff (1 point)
- Implement FDOT "12 Steps Towards Walkable Communities" into planning process. (2 points).
- Healthy street design is official local government policy (1 point)
- Encourage mixed-use zoning / development (1 point)
- Institute a bicycle sharing program (1 point)
- Make amends for vehicles to accommodate bicycles (1 point)
- Engage in carpool/vanpool assistance (1 point)

Buildings, Energy & Water

- Offer green building or green local government education to the community. (1 point)
- Create and maintain an electronic database of all building energy code compliance. (5 points)
- Create and maintain an electronic database of all green and energy ratings conducted on all buildings and land developments within the city/county. (5 points)
- Offer an incentive(s) for FGBC or LEED certified commercial and institutional buildings. (4 points)
- Offer an incentive(s) for FGBC or Energy Star certified green homes. (4 points)
- Offer an incentive(s) for FGBC certified green developments. (4 points)
- Department offers classes to industry professionals that detail any green incentives or regulations present. (1 point)
- Department advertises and offers incentives for local construction industry professionals to attend green building classes offered by others. (1 point)
- Conduct a green building awards program. (1 point)
- Publicity and case studies for green building. (1 point)
- Incentives for green redevelopment. (2 points)
- Offer green power. (1 point)
- Voluntary funding of green power through customer billing. (1 point)
- Rate structures based on consumption. (1 point)
- Initiate a community-wide energy efficiency challenge. (2 points)
- Construct/renovate green housing units. (1 point per living unit, maximum 20 points)

- Affordable housing constructed by city/county and other parties mandated green. (1 point)
- Offer incentives for construction of green affordable housing. (1 point)
- Offer incentives for location efficient affordable housing. (1 point)
- Remodeling of affordable housing mandated green. (1 point)
- Create a reclaimed water infrastructure. (2 points)
- Conduct energy audit of treatment facilities. (1 point)
- Use cogeneration. (1 point)
- Adopt policies to encourage alternative onsite wastewater and water reuse technologies and approaches. (1 point)
- Adopt Appendix C of the Florida Building Code related to gray water. (1 point)

Natural Systems & Resources

- Develop a system of sustainable community indicators and link to GIS. (2 points)
- Assist other departments with the tracking of indicators related to their function. (5 points)
- Maintain or reduce net impervious surface area through zoning decisions. (1 point)
- Minimize urban heat island effect and stormwater runoff. (1 point)

Local Food & Agriculture

- Offer incentives to maintain/create certified organic farms within the city/county or to incorporate sustainable and water efficient agriculture. (1 point per incentive–maximum 5 points)

Local Government Operations

- Offer incentives for construction of green affordable housing. (1 point)
- Offer incentives for location efficient affordable housing. (1 point)
- Remodeling of affordable housing mandated green. (1 point)
- Create a reclaimed water infrastructure. (2 points)
- Conduct energy audit of treatment facilities. (1 point)
- Use cogeneration. (1 point)
- Adopt policies to encourage alternative onsite wastewater and water reuse technologies and approaches. (1 point)
- Adopt Appendix C of the Florida Building Code related to gray water. (1 point)
- Green City Fleet Management and Vehicle Maintenance (63 points)
- Participate in Cities for Climate Protection Campaign (1 point)
- Develop a local government energy reduction plan. (1 point)
- Develop a local government solid/hazardous waste reduction plan. (1 point)
- Become a member of USGBC. (1 point)
- Construct LEED or FGBC certified buildings or renovate for LEED BD+C or ID+C. (1 point per 10% of owned or leased facilities)
- Employ green cleaning and maintenance procedures. (1 point per 20% of owned or leased

facilities)

- Implement an ISO 14001 Environmental Management System (1 point per department maximum 5 points)
- Adopt green cleaning/maintenance practices available from FL DEP (5 points)
- Utilize Renewable Energy on Energy Efficient Buildings (1 point per building, maximum 5 points)
- Organize green building education for local government staff. (1 point)

Appendix- LEED for Neighborhood Development rating system

Community Engagement & Green Economy

- Community Outreach and Involvement (up to 2 pts)
- Green training for contractors, trades, operators and service workers (1 pt)

Waste Diversion & Recycling

- Recycled content in infrastructure (1 pt)
- Solid waste management infrastructure (1 pt)

Mobility & Urban Form

- Preferred Locations (up to 10 pts)
- Locations With Reduced Automobile Dependence (up to 7 credits)
- Bicycle network and storage (1 pt)
- Housing and jobs proximity (up to 3 pts)
- Walkable streets (up to 12 pts)
- Compact development (up to 6 pts)
- Mixed-use neighborhood centers (up to 4 pts)
- Reduced parking footprint (1 pt)
- Street network (up to 2 pts)
- Transit facilities (1 pt)
- Transportation demand management (up to 2 pts)
- Brownfields redevelopment (up to 2 pts)

Buildings, Energy & Water

- Certified green building (required, up to 5 pts)
- Minimum building energy efficiency (required, up to 2 pts)
- Minimum building water efficiency (required, 1 pt)
- Water efficient landscaping (1 pt)
- Wastewater management (up to 3 pts)
- Existing building reuse (1 pt)
- Historic resource preservation and adaptive use (1 pt)
- Solar orientation (1 pt)
- On-site renewable energy sources (up to 3 pts)
- District heating and cooling (up to 2 pts)
- Infrastructure energy efficiency (1 pt)
- Light pollution reduction (1 pt)

Natural Systems & Resources

- Smart Location, Preferred locations (required, up to 10 pts)
- Imperiled species and ecological communities conservation (required)

- Wetland and water body conservation (required)
- Floodplain avoidance(required)
- Site design for habitat or wetland and water body conservation (1 pt)
- Restoration of habitat or wetlands and water bodies (1 pt)
- Long-term conservation management of habitat or wetlands and water bodies (1 pt)
- Tree-lined and shaded streets (up to 2 pts)
- Minimized site disturbance in design and construction (1 pt)
- Rainwater management (up to 4 pts)
- Heat island reduction (1 pt)

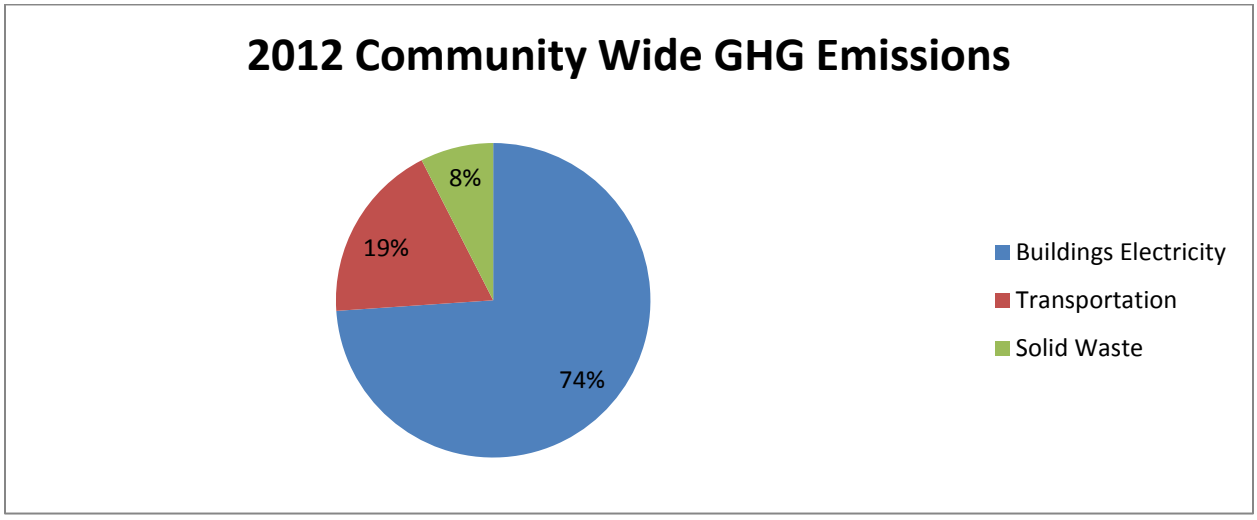
Local Food & Agriculture

- Agricultural land conservation (required)
- Local food production (1 pt)

Appendix- Winter Park Community Greenhouse Gas Emissions Inventory

Sector	GHG Emissions	%	Units Measured	
Buildings Electricity	293,534	74%	kWh	416,035,885
Transportation	73,709	19%	VMT	225,373,461
Solid Waste	29,832	8%	Ton	35,357
Total	**397,075**			

Source:
http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results
http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results
http://epa.gov/epawaste/conserve/tools/warm/Warm_Form.html



Appendix- What is Pay As You Throw?

In communities with pay-as-you-throw programs (also known as unit pricing or variable-rate pricing), residents are charged for the collection of municipal solid waste—ordinary household trash—based on the amount they throw away. ***This creates a direct economic incentive to recycle more and to generate less waste.***

In Winter Park, residents are currently charged a fixed fee through utility billing for waste collection, regardless of how much—or how little—trash they generate. Pay-As-You-throw (PAYT) breaks with this older approach by ***treating trash services just like electricity, water, and other utilities. Households pay a variable rate depending on the amount of service they use.***

Gainesville PAYT Case Study

Before variable-rate pricing, the cost to individuals for service was hidden. Residential users did not have an apparent reason to limit their disposal habits. ***Now, Gainesville's variable-rate pricing generates a visible monthly charge that has resulted in a substantial reduction in both solid waste and the costs associated with its disposal.***

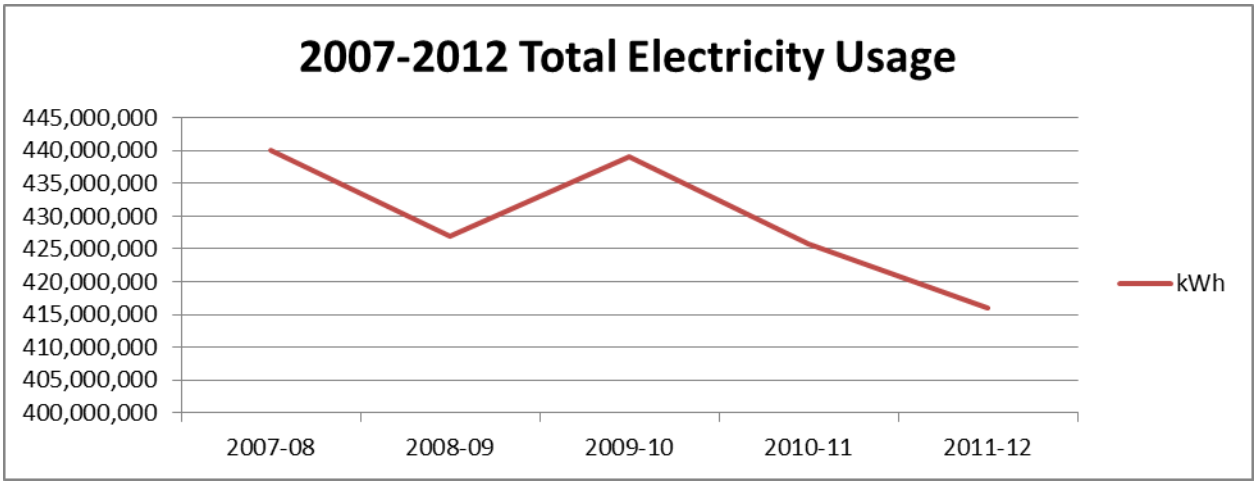
The new contract in 1994 for solid waste service included a variable rate for residential collections: ***residents pay $13.50, $15.96, or $19.75 per month according to whether they place 35, 64, or 96 gallons of solid waste at the curb for collection. Recycling service is unlimited.***

The results of the first year of our program were amazing. ***The amount of solid waste collected decreased 18 percent, and the recyclables recovered increased 25 percent! The total disposal tonnage decreased from 22,120 to 18,116. This resulted in a savings of $186,200 to the residential sector, or $7.95 per home.***

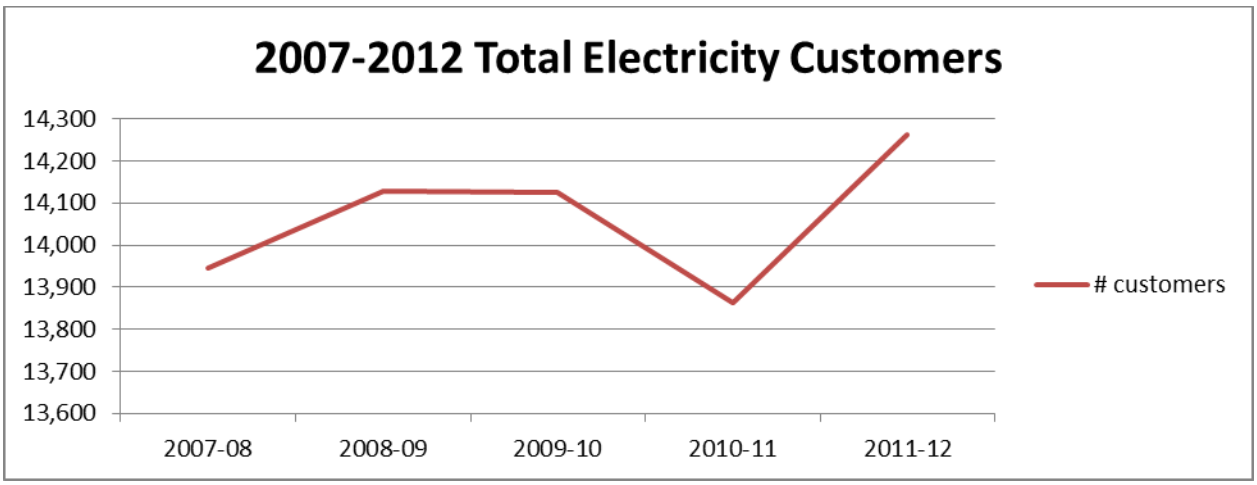
Gainesville's move to a cart-based, variable-rate residential collection system did more than just increase the rate of recovery and minimize disposal needs. The distribution of system costs is more equitable. Residents make the choice of service delivery based on individual waste-generation habits. This reduces the level of subsidy that unlimited, flat-rate collection systems encounter.

Source: http://www.epa.gov/osw/conserve/tools/payt/tools/ssgaines.htm

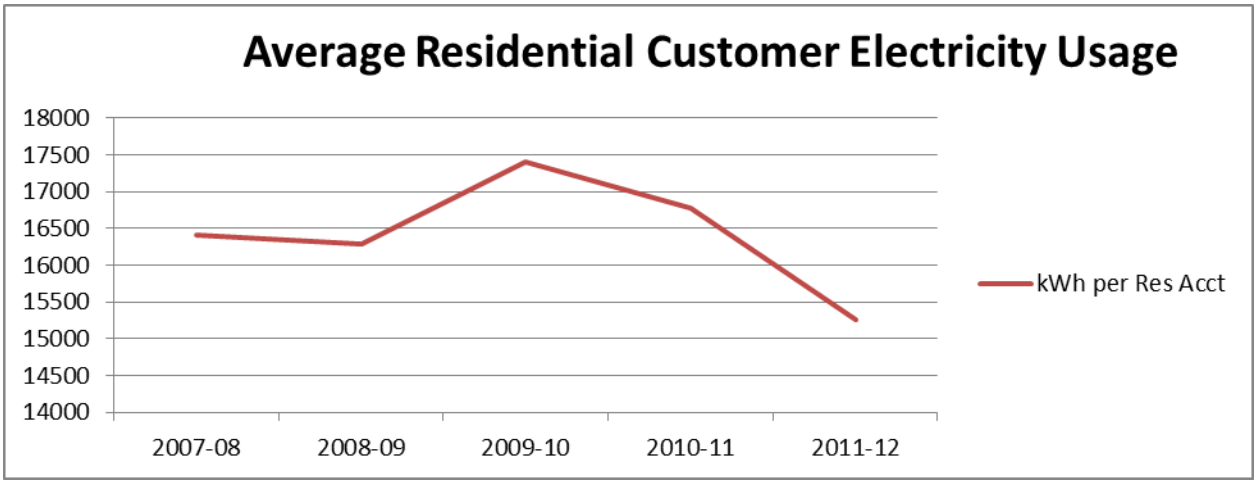
Appendix- Winter Park Energy and Water Usage Trends



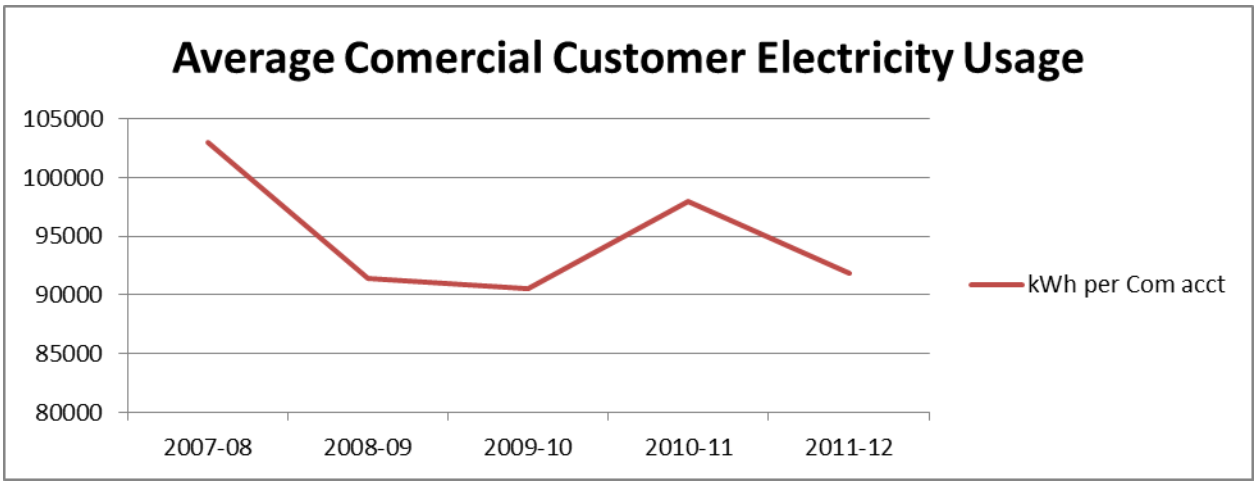
Source: 2012 City of Winter Park Comprehensive Annual Financial Report Table 22



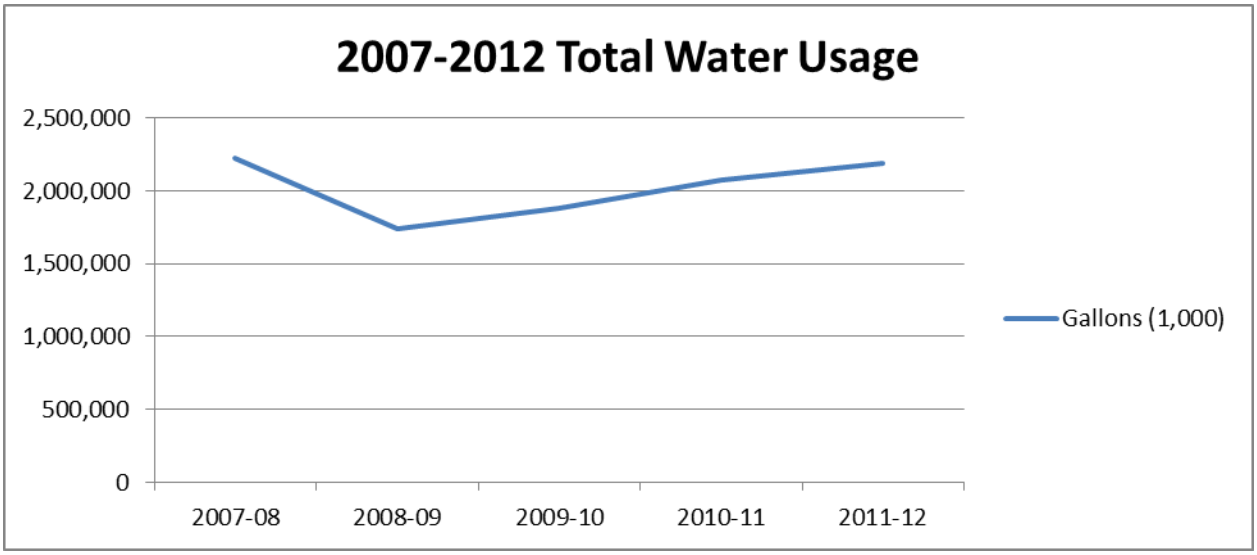
Source: 2012 City of Winter Park Comprehensive Annual Financial Report Table 22



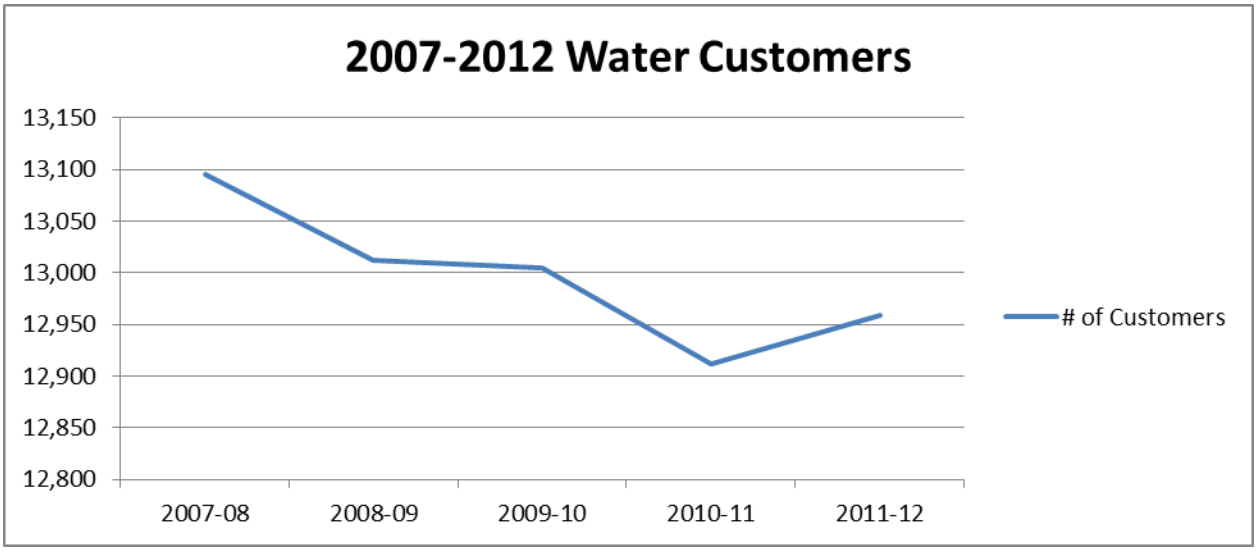
Source: 2012 City of Winter Park Comprehensive Annual Financial Report Table 22



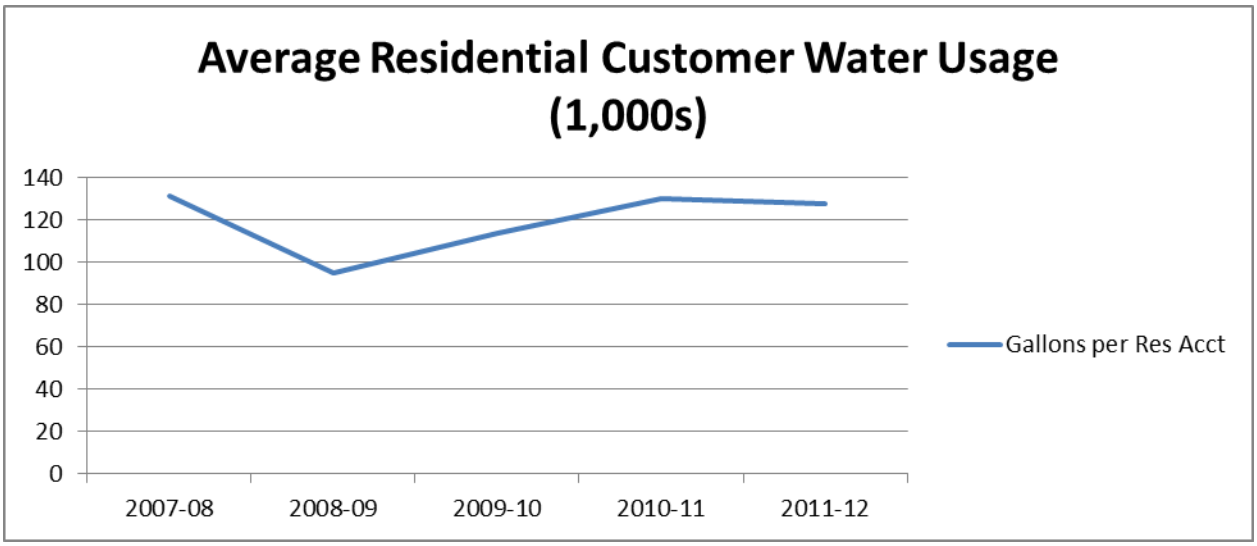
Source: 2012 City of Winter Park Comprehensive Annual Financial Report Table 22



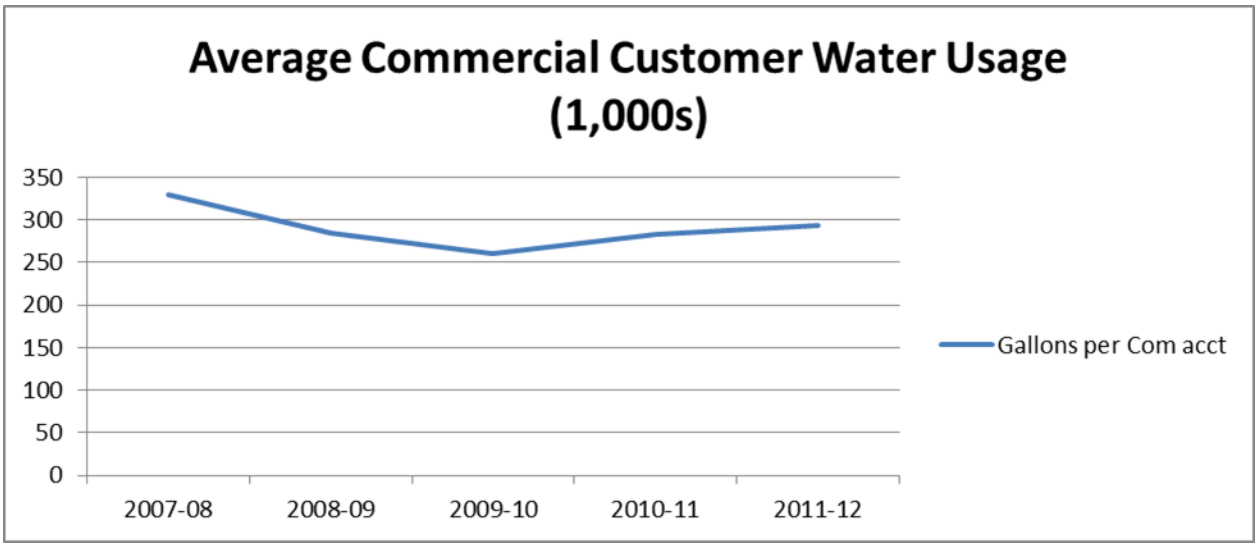
Source: 2012 City of Winter Park Comprehensive Annual Financial Report Table 20



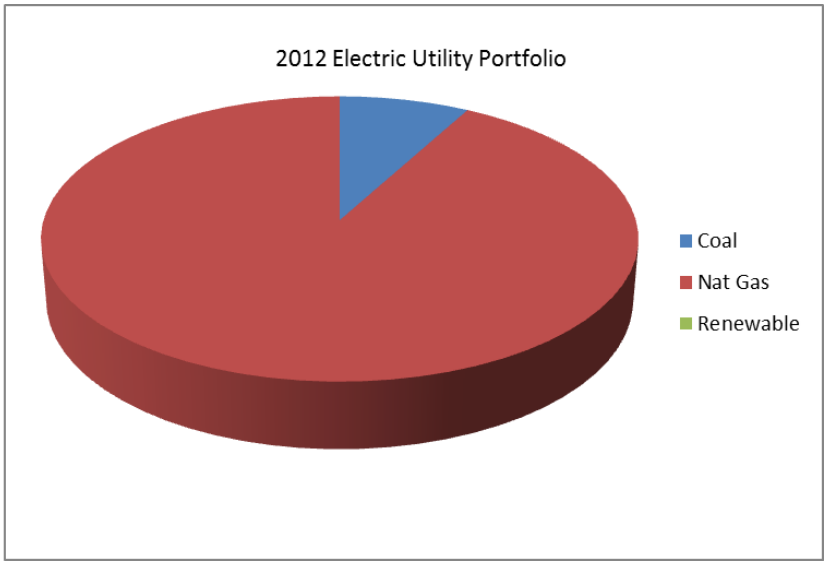
Source: 2012 City of Winter Park Comprehensive Annual Financial Report Table 19



Source: 2012 City of Winter Park Comprehensive Annual Financial Report Table 19 and Table 20

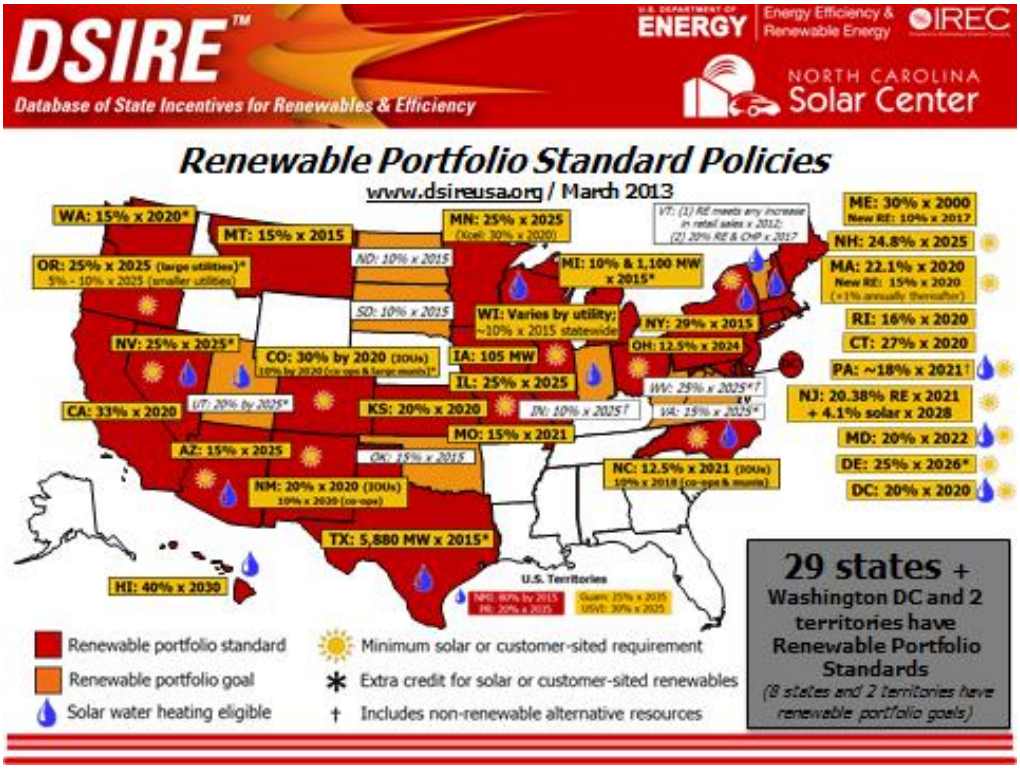


Source: 2012 City of Winter Park Comprehensive Annual Financial Report Table 19 and Table 20

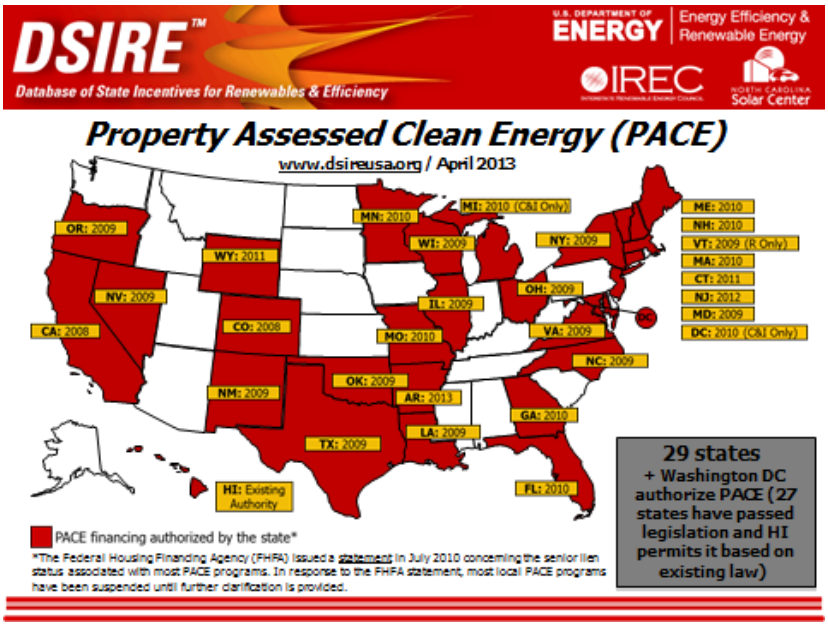

2012 Electric Utility Portfolio
Coal
Nat Gas
Renewable

Appendix- United States Department of Energy DSIRE Maps

Renewable Portfolio Standards



PACE Financing Policies



Appendix- Tree Canopy

Carbon sequestration in trees:

Plant composition is increasingly recognized as an important biotic factor influencing carbon assimilation and loss within ecosystems (Dorrepaal 2007). 49 percent of Florida's land area is covered with trees, which accounts for about 5.8 million tons of atmospheric carbon sequestration per year, or a positive environmental impact worth $29 million (Salisbury 2005). Since land-use change is the second leading source of CO_2 emissions after fossil fuel combustion (Watson 2000), it is important to restore the natural environment by planting trees to offset our carbon footprint. It is urgent to protect existing trees and start sooner rather than later to execute an action plan for planting even more trees, especially because carbon accumulation of a growing tree is slow in the early years and increases later during the strong growth period (Gorte 2009).

Proposal for rooftop gardens and tree planting zones:

With proper planning and citizen support, it is possible to reach the first canopy goal for Winter Park to increase tree cover from today's 25.2 percent to 40 percent by 2030. In order to realistically reach this goal, it is important to target which specific areas are in need of the most improvement. The results of this study demonstrate that rooftops and segregated areas in Winter Park have the highest urgency for increased tree cover.

To solve the drawback of Winter Park's total 15 percent of rooftop cover, it is recommended that rooftop gardens be implemented to not only increase canopy cover, but also to improve air quality, conserve energy, reduce storm water runoff, and lessen the urban heat island effect. If rooftops were utilized to promote green spaces, up to 684 metric tons of additional annual carbon could be sequestered in those areas alone in Winter Park.

When analyzing the city as a whole, the conspicuous area with the least canopy cover is located directly west of the train tracks. It is recommended that the commercial area on the west side of the train

tracks is the first target in establishing a zone to promote a higher density of trees. Not only would planting trees in this area improve the local environment, but it would also raise property values and in turn increase tax revenues for the local government. Once this area has a higher percentage of canopy cover, the entire city of Winter Park should be reassessed as to which locations require any subsequent tree plantings. It is worth noting another apparent area lacking tree cover is Glen Haven Memorial Park, but due to the nature of the park there will probably always be controversy if tree plantings are recommended upon that property.

Benefits and justification for increased canopy:

Planting trees provides numerous public benefits from promoting shadier, more welcoming civic spaces to breathing cleaner air by reducing our carbon footprint. Besides the social and environmental advantages of planting trees, there are economic incentives since every dollar spent on planting and caring for trees provides the communal benefits worth over two dollars (Brown 2008). Outdoor recreation in Florida is a $22.3 billion industry, of which $6 billion can be attributed to forests (Salisbury 2005). If the social and environmental incentives are not enough of a reason to plant more trees, then the economic benefits add yet another perk to this proposal.

In terms of what should be planted, it is suggested that fast-growing species are planted since they are known to sequester the most carbon (Cannell 1999). Perez-Cruzado et al. 2012 states that species selection is an important factor influencing a given area's carbon sink capacity. Hall et al. 2012 distinguishes between planting native versus exotic tree species and their relevance when restoring biodiversity in a landscape. Native trees, such as the sabal palm, should be planted for numerous ecological benefits including the control of invasive species, such as the Australian pine and Brazilian pepper, which already inhibit 15 perfect of Florida's public conservation lands and waterways thus affecting eco-tourism at over $7.8 billion annually (Plant Native Species on Florida Arbor Day 2006). By planting native trees in Winter Park, we can be a part of the restoration effort to protect Florida's natural landscape for future generations.

Comparing Winter Park to other cities:

On a national level, Winter Park's current tree cover results are average, but policies and goals should be put in place to increase the percentage of canopy. When compared to all other regions, the southeast portion of the United States represents the greatest average carbon storage per hectare capacity (Nowak & Crane 2002), and Winter Park should act soon to protect and promote the growth of the natural environment by planting native tree species. Prior canopy research on U.S. cities cites, "tree cover ranged from 53.9 percent in Atlanta to 9.6 percent in Denver; building impervious cover ranged from 27.1 percent in Chicago to 4.8 percent in Kansas City; road and other impervious cover varied from 61.1 percent in New York City to 17.7 percent in Nashville" (Nowak & Greenfield 2012).

Other cities have developed sustainable action agendas, such as the Chicago Trees Initiative, which aims to achieve 20 percent citywide average tree canopy cover by 2020. Currently, Chicago canopies cover 17.2 percent of the city, and nearly 51.9 percent of tree species are native to Illinois. The Chicago Trees Initiative plans to achieve their goal by planting more trees, improving tree maintenance/preservation, educating/empowering urban stewards, and advocating for tree funding/protection. If the results of this study are used to implement proper planning and practical goals, then Winter Park can adopt the Chicago motto, 'Urbs in Horto' (City in a Garden), and become a greener, more livable place to call home.

The results of this study should be used:

1. As baseline data for future research on canopy cover in Winter Park.
    i. 25.2 percent tree cover in October 2013
2. To set canopy goals and assess progress over time.
    i. Goal: 40 percent tree cover by 2020
3. To brief officials in order to promote well-informed decision-making and justify future funding for local tree programs.

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Appendix- City of Winter Park Energy Usage and Cost

Energy Usage and Cost
City of Winter Park 2011-2012

Year	Electricity Use (kWh)	Energy Cost ($)
2011	7557362.182	$ 765,835.74
2012	6869673.315	$ 652,570.25
Difference	**-687688.8671**	**$ (113,265.49)**
	9.10%	**14.79%**

There was a *reduction* in both Energy Use - Grid Purchase (kWh) and Energy Cost ($) between the years 2011 and 2012.

Energy Use Savings: 687,688 kWh

Energy Cost Savings: $113,265.49

ENERGY USAGE/COST CHANGES		2011		2012		Difference		*ENERGY STAR*
		Usage (kWh)	Cost ($)	Usage (kWh)	Cost ($)	Usage (kWh)	Cost ($)	*SCORE*
Azalea Park Rec Cen	1045 Azalea Ln	114179.9978	13752.05047	77099.9906	9513.57	-37080.007	-4238.4805	
Cady Way Bike Trail	2525 Cady Way	23044.98547	2624.82998	24811.9841	2534.329965	1766.99861	-90.500015	
Chamber of Commerc	151 W Lyman Ave	129160.0077	13944.23002	108960.01	10977.99991	-20199.998	-2966.2301	
City Hall	401 S Park Ave	849189.9026	83875.09217	562605.94	53518.89738	-286583.96	-30356.195	*36*
Civic Center	1050 W Morse Blvd	257839.9452	27870.18984	249359.993	24935.49984	-8479.9521	-2934.69	
Dinky Dock Park	410 Ollie Ave	674.003435	240.2299941	489.009319	215.800001	-184.99412	-24.429993	
Farmers Market and	200 W New England Ave	7883.996697	1100.139995	8010.98965	1061.870015	126.992951	-38.26998	*94*
Fire Rescue Station	1439 Howell Branch Rd	54585.98398	5787.28966	46551.9873	4732.41007	-8033.9967	-1054.8796	
Fire Station #62	300 S Lakemont Ave	130699.9841	13946.89979	114239.963	11446.07021	-16460.021	-2500.8296	
Fleet Peoples Park	2000 S Lakemont Ave	4991.998221	755.690052	3038.01253	502.459996	-1953.9857	-253.23006	
Hannibal Square Heri	642 W New England Ave	32944.98427	3976.119853	32552.9855	3820.960174	-391.99878	-155.15968	
Housing Resource De	700 N Denning Dr	505.0116619	222.3199983	408.997606	206.8600003	-96.014056	-15.459998	
Howell Branch Preser	1205 Howell Branch Rd	3205.011334	541.130023	3180.01134	518.319975	-24.999997	-22.810048	
Mead Gardens	1300 S Denning Dr	36748.00257	5919.679811	36697.0061	5741.579842	-50.996477	-178.09997	
Municipal Works	511 W Swoope Ave	2744899.696	278382.5106	2711799.73	254295.7952	-33099.967	-24086.715	
Palm Cemetery Office	1005 N New York Ave	19227.98711	2439.419967	16485.9886	2013.890003	-2741.9985	-425.52996	
Police Department/Ci	500 N Virginia Ave	2279899.781	221693.2703	2195699.82	200020.5059	-84199.96	-21672.764	
Public Works Admin/(	180 W Lyman Ave	119279.9972	12654.32055	112023.961	11096.38986	-7256.0366	-1557.9307	*32*
Public Works Compou	1409 Howell Branch Rd	728279.9232	73222.2077	510959.961	48785.46335	-217319.96	-24436.744	
Winter Park Golf Cou	761 Old England Ave	7402.988549	1046.949958	41353.9809	4810.020206	33950.9924	3763.07025	
Winter Park Library	460 E New England Ave	2144.988016	416.489998	2039.00913	390.300037	-105.97889	-26.189961	
WPPD Gun Range Bui	3100 Temple Trl	10573.00575	1424.680044	3038.01253	502.459996	-7534.9932	-922.22005	*100*

Appendix-Winter Park Local Food Locations

Local Food – Winter Park a

Grocery Stores/Markets

- With the list below it is difficult to gauge the amount of products which are locally sourced. With large grocery store chains some products may be produced by Florida companies (such as juices, nuts, etc.), however, the chain may use large distributors to get the product. This practice undermines the purpose of sourcing locally. This same reality is true with fruits and vegetables. The smaller, non-chain businesses such as The Meat House, Lombardi's Seafood, and Eat More Produce, do indeed carry a variety of locally sourced food products. Chamberlin's Market and Café, while larger than the aforementioned markets, also carries local varieties such as Winter Park Honey. The markets that are *ed source locally, the ones unmarked need more research.

Publix - 2295 Aloma Ave. Winter Park, FL 32792-3303. 407-671-3403

Publix - 440 N Orlando Ave. Winter Park, FL 32789-2914. 407-644-1204

Publix - 741 S Orlando Ave. Winter Park, FL 32789-4844. 407-647-3457

Publix - 4270 Aloma Ave Ste 164. Winter Park, FL 32792-9393. 407-657-4902

Winn-Dixie - 7580 University Blvd, Winter Park, FL 32792. 407-677-4500

ALDI - 6766 Aloma Ave, Winter Park, FL 32792. 407-677-0644

Whole Foods Market – 1989 Aloma Ave, Winter Park, FL 32792. 407-673-8788

* The Meat House - 669 North Orange Avenue, Winter Park, FL 32789. 407-629-6328

* Lombardi's Seafood – 1152 Harmon Ave. Winter Park, FL 32789 407-628-3474

* Eat More Produce – 1111 S Orlando Ave. Winter Park, FL 32792 407-647-5292

* Chamberlin's Market and Café - 430 N Orlando Ave. Winter Park, FL 32789 407-647-6661

Restaurants

- The list below details restaurants that offer at least a portion of their menu items from local sources. I called most of the restaurants to confirm local food use. The restaurants in red I thought may have local food options, however, they were not contacted to confirm. Some of the restaurants featured, outwardly market the 'local' component such as Fresh, Luma on Park, and B&B Junction. Others, such as Café 118, Ethos Vegan Kitchen, and BurgerFi, attempt to purchase locally, however, certain externalities influence decisions such as price. Furthermore, some restaurants are listed that only offer one or a few particular items that are sourced locally, such as Austin Coffee and Film offering Winter Park Honey, and Toasted using bread from a local bakery.

* Prato - 124 N. Park Ave. Winter Park, FL 32792 407-262-0050 - Bulk of menu local, website list farms

* Luma on Park - 290 South Park Avenue in Winter Park, FL 32792 407-599-4111- Bulk of menu local, website lists farms

* Café 118 – 153 E Morse Winter Park, FL 32789 407-389-2233- FL farms when the prices are right

* Ethos Vegan Kitchen 601-B New York Ave. Winter Park, FL 32789 407-228-3898- Farms within FL, mainly stick within Southeast US

Austin Coffee and Film 929 W Fairbanks Ave. Winter Park, FL 407-975-3364- Local honey

Black Bean Deli 325 S Orlando Ave. Winter Park, FL 32789 407-628-0294

Power House Café 111 E Lyman Ave. Winter Park, FL 32789 407-645-3616

Stardust Video and Coffee 1842 E Winter Park Rd. Winter Park, FL 32789 407-623-3393 - Mainly produce

Toasted 1945 Aloma Ave. Winter Park, FL 32792 407-960-3922 - Local bread

BurgerFi 538 S Park Ave. Winter Park, FL 32789 407-622-2010 - Local produce within Florida

Fresh 535 W New England Ave. Winter Park, FL 32789 321-295-7837 - All food locally sourced, local roots, Lake Meadow Naturals

Cask & Larder 565 W Fairbanks Winter Park, FL 32789 321-280-4200 – Website claims food sourced locally, did not confirm over phone

Ravenous Pig 1234 N Orange Ave. Winter Park, FL 32789 407-628-2333 – Bulk of food from local sources

B&B Junction 2103 W Fairbanks Ave Winter Park, FL 32789 407-513-4134 – Beef and majority of produce from FL farms

Barnies Coffee Kitchen 118 S Park Ave, Winter Park, FL 32789 407-629-0042

Bosphorous 108 South Park Ave. Winter Park, FL 32789 407-644-8609 -

Winter Park Fish Co. 761 Orange Ave, Winter Park, FL 32789 407-622-6112 – source locally mainly My Yard Farm

Hillstone 215 S Orlando Ave, Winter Park, FL 32789 407-740-4005 – Partial menu food/produce within Florida

Rocco Italian Grill and Bar 400 S Orlando Ave, Winter Park, FL 32789 407-644-7770

CSA

Homegrown Local Food Cooperative - 2310 N Orange Ave, Orlando, FL 32804 407-895-5559 - Not within the boundaries of Winter Park but undoubtedly service some residents and there are no other CSAs in the area.

Community Garden

Our Whole Community Garden - 465 W. Welbourne Ave. Winter Park, FL 32792.

Theodore L Mead Community Garden - 1310 S. Denning Dr, Winter Park, FL 32789.

Calvary Towers Retirement Community – 1099 Clay Street Winter Park, FL 32789 407-645-1099

Depugh Community Garden – 550 West Morse Blvd. Winter Park, FL 32789

Winter Park Towers Garden – 111 South Lakemont Ave. Winter Park, FL 32792