2020 **ANNUAL REPORT**
SUSTAINABILITY ACTION PLAN

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Keep Winter Park Beautiful &
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FOREWORD

The City of Winter Park Sustainability Program Office was originally created in 2009 to research and recommend improvements concerning Green Local Government Certification, which the City earned at the Gold level in 2011. The Sustainability Office was then appointed to reflect the City's leadership in energy and environmental awareness.

Led by the Keep Winter Park Beautiful & Sustainable Advisory Board, the City's first Sustainability Action Plan (SAP) was a collaborative effort involving the entire community. The plan was accepted by unanimous vote of the City Commission on February 9, 2015.

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, each with their own 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.

This report is the sixth annual report of the Sustainability Action Plan. It provides a review of City activities and programs that are taking place now, and provides an outline for approaching sustainability-related considerations as the City moves forward.

SPECIAL THANKS

Special thanks to our City staff and community partners who helped make this report possible:

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EXECUTIVE SUMMARY

The year 2020 will be notable as it is the first goal target date for many of the metrics within the SAP. However 2020 will be more notable for the Covid-19 pandemic and the effects it has had on Winter Park and worldwide. In reviewing of the metrics it will be clear the impacts that the pandemic has had on the day to day life in the City of Winter Park. Therefore some of these metrics will be skewed from the trajectory of previous years. Yet there were some that were driven by policy decisions and those affects are just starting to be seen.

The pandemic had most Americans quarantining in their homes for several months and even still as the pandemic continues many are still working or schooling at home. Clearly this increase in the time spent in the home has modified the distribution of energy, water, and waste between our residential and commercial sectors. Improved efficiency in home appliances and plumbing fixtures helped to keep energy and water use trending towards the goals of the SAP. While the pandemic played a role in the distribution of energy the decision of the Electric Utility to switch from Florida Power and Light to the Florida Municipal Power Association as the City's main energy provider had an impact on the City's Green House Gas Emissions as in the short term the energy mix for FMPA is not as renewable as FPL. However we do know that through FMPA two large solar projects will be brought into the City's portfolio in the coming years.

Reductions in vehicle miles traveled by the City's fleet and the number clean up events were clearly also heavily affected as part of the quarantine and inability for groups to gather. Both of these factors had a tremendous affect on our business community. Therefore our staff dedicated more time to reaching out and working with business owners through of Green Business Recognition Program. Through this program we could identify how sustainability efforts could help them improve their work environment while also reducing their bottom line.

In the end 2020 is the year we saw how resilient this City can be as we work together as a community towards common goals

CITY OF WINTER PARK GUIDING COMMITMENTS

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.

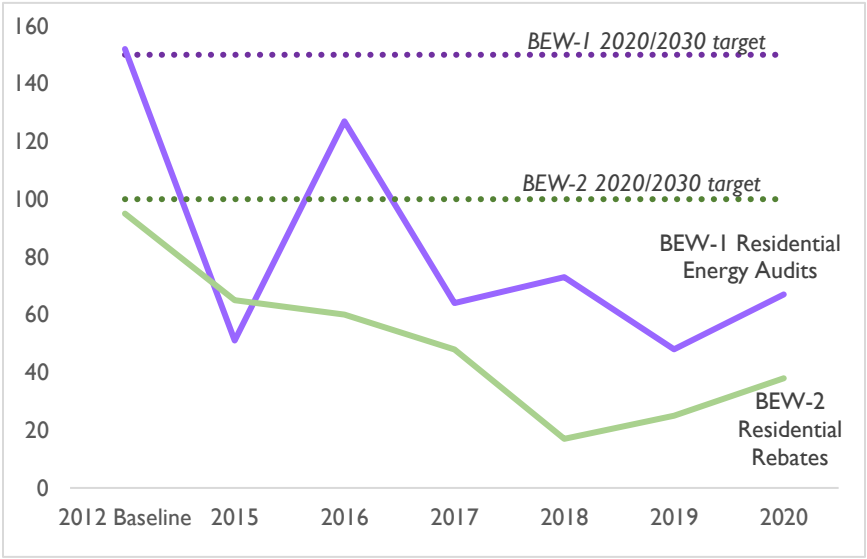
It is the intention of this document to provide high level objectives that are conceptually approved by the City Commission and leadership. The actions listed under each category are put forth as possible avenues for achievement of the approved goals, and do not represent required or prescriptive measures.

BUILDINGS, ENERGY AND WATER (BEW)

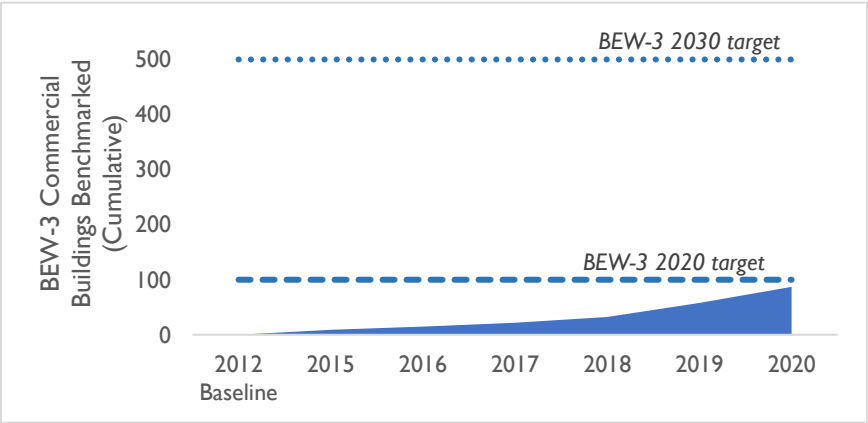
The City is committed to reducing the environmental consequences of the construction, reconstruction and operation of buildings and infrastructure, with a focus on energy and water conservation.

PROGRESS SUMMARY

Today's funding for the Electric Utility's Energy Conservation Program is less than 15% of what it was in the 2015 Sustainability Action Plan's baseline year of 2012. As funding for the program decreased, the variety of rebates available to residential and commercial customers also decreased, eliminating popular HVAC replacement rebates in late 2016, as well as rebates and audits for commercial customers. Since 2017, the program has only provided rebates for insulation upgrades and duct repairs for residential customers. Variability between the baseline year and today may be explained by changes over time in funding, rebate choice, eligible groups and program promotion. While the overall trend between 2012 and 2020 is decline, between 2017 and 2020, when funding and rebate options remained unchanged, the numbers for both indicators remained generally stable. However, the average number of residential audits (BEW-1) and residential rebates (BEW-2) over the last few years are still well below their respective 2020/2030 targets.



Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
BEW-1 Residential Energy Audits	152	51	127	64	73	48	67	150	150
BEW-2 Residential Rebates	95	65	60	48	17	25	38	100	100

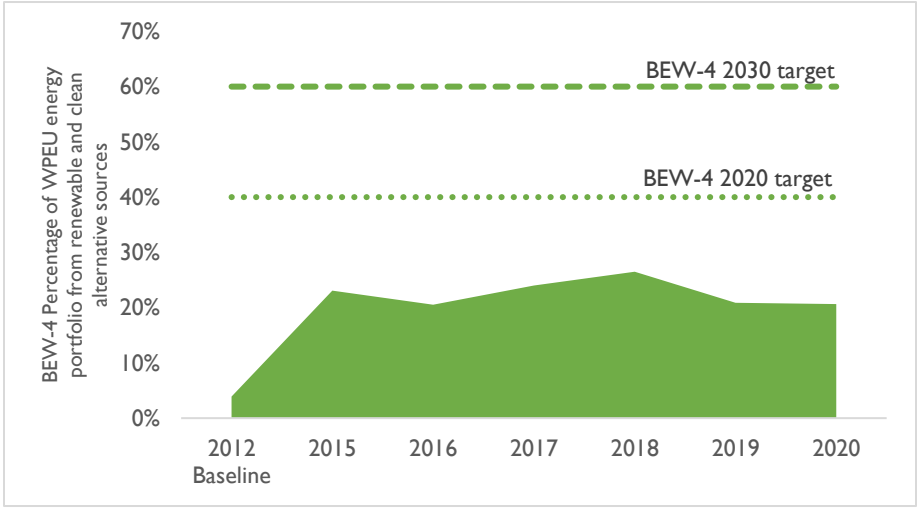


Benchmarking commercial buildings (BEW-3) help building owners, managers and tenants assess their building's performance over time and compare their energy usage intensity to other buildings of a similar type and usage. Since 2015, the Sustainability Program has used ENERGY STAR Portfolio Manager, a free, online, interactive energy management tool, to benchmark city-owned buildings and has added private/commercial buildings through various green business engagement programs annually (see *CEGE-2*). As of 2020, nearly 90 commercial buildings have been benchmarked, just short of the 2020 target of 100 commercial buildings benchmarked, though well below the 2030 target.

With the percentage of buildings meeting green building standards (BEW-8) remaining stagnant at 1% between 2012 and 2020, the 2020 goal of 25% of new construction and the 2030 goal of 50% of new construction and major renovations meeting greeting building standards will not be met.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
BEW-3 Commercial Buildings Benchmarked	0	9	15	22	32	58	87	100	500
BEW-8 Percentage of buildings meeting City of Winter Park green building standards	1%	1%	1%	1%	1%	1%	1%	25% of new construction	50% of new construction and major renovations

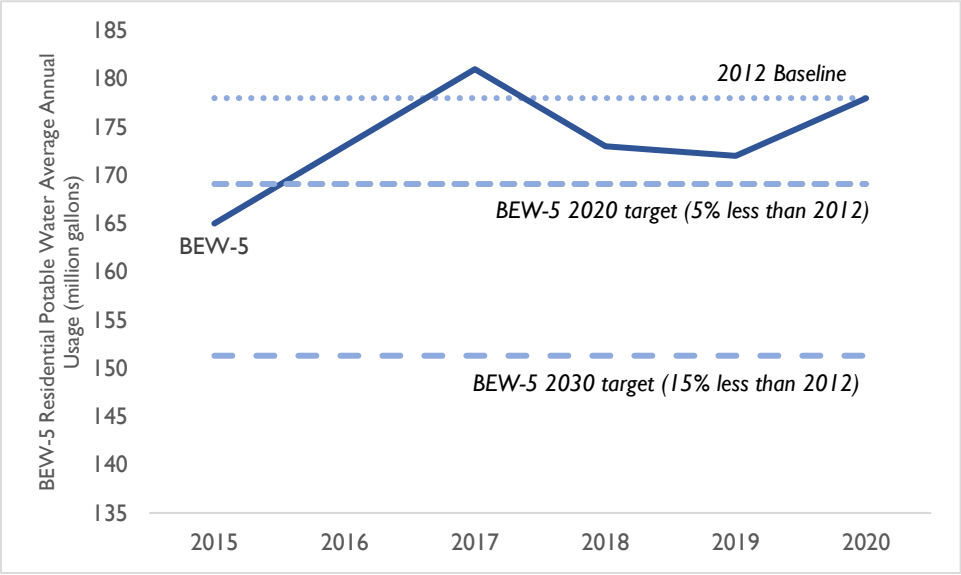
On September 9, 2003, Winter Park residents voted in favor of purchasing the electric utility system from then, Progress Energy® Florida. On June 1, 2005, the city "flipped the switch" from an investor-owned utility (IOU) to a municipally-owned utility (MOU). The city does noes not generate power, so it purchases about 50 Megawatts (MW) of power on the open market. As an MOU, the Electric Utility is uniquely situated to increase the percentage of its energy portfolio coming from renewable and clean alternative sources (BEW-4). In 2018, the percentage grew to nearly 27%. In 2019 and 2020, purchasing of bulk power from FMPA, which has a less clean energy mix than the previous provider, reduced the percentage to 20%. While there is an expectation of the two solar bulk purchases made by the city coming online in 2024 will raise this percentage to 43%, in 2020, this indicator falls short of the 2020 and 2030 targets.

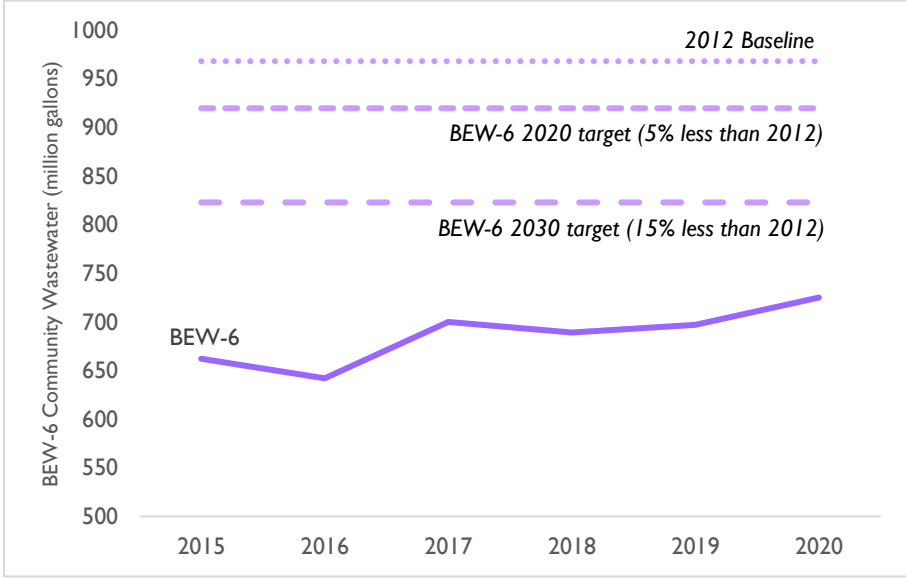


Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
BEW-4 Percentage of WPEU energy portfolio from renewable and clean alternative sources	3.9%	23.1%	20.5%	24.0%	26.5%	20.9%	20.6%	40%	60%

The Water & Wastewater Utilities are responsible for the treatment and distribution of potable water, as well as the collection and treatment of wastewater & distribution of reclaimed water. Since 2016, residential potable water usage (BEW-5) has remained relatively stable, fluctuating within +/- 5% of the 2012 baseline year. The indicator tracking reclaimed water (BEW-7) has remained "In development" for the last 5 years, failing to meet the goal of expanding the system by 5% in 2020 and 15% in 2030. Between 2015 and 2020, the volume of community wastewater (BEW-6) has met and exceeded both 2020 and 2030 goals while generally increasing since 2015.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
BEW-5 Residential Potable Water Average Annual Usage (million gallons)	178	165	173	181	173	172	178	169	151
BEW-6 Community Wastewater (million gallons)	968	662	642	700	689	697	725	920	823
BEW-7 % of water from Reclaimed Sources	In Development	In Development						5% more	15% more





BUILDINGS, ENERGY, & WATER SAP ACTIONS STATUS REPORT

Action	Status
Increase promotion of existing Energy & Water Conservation opportunities such as audits and rebates. Lead Department: Building, Communications	Implemented/ Ongoing
Publicize funding opportunities to help property owners finance green building projects, energy efficiency upgrades and renewable energy. *Lead Department: Building, Finance, Electric Utility*	Implemented/ Ongoing
Establish energy benchmarking and disclosure policy. *Lead Department: Building, Planning*	In Development
Provide Green Building education to appropriate city staff, realtors, and private builders. *Lead Department: Building*	Implemented/ Ongoing
Create and maintain an electronic database of all building energy code compliance, green certifications and energy ratings within the City of Winter Park *Lead Department: Building*	Not started
Explore opportunities for new buildings and major remodels to achieve green building standards through updated building codes with minimum HERS rating for residential and ENERGY STAR for non-residential. *Lead Department: Building*	In Development
Develop measures to discourage building destruction and encourage building design for long-term use.	Not started

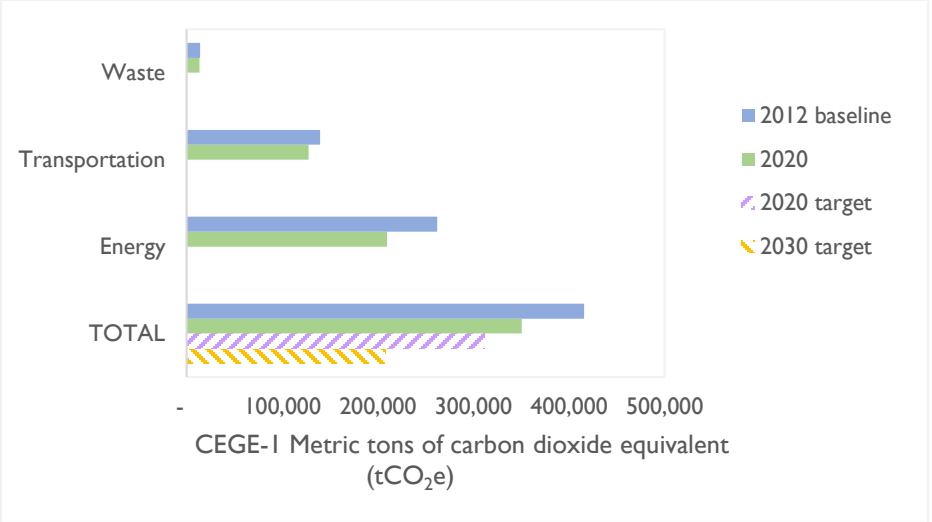
Lead Department: Building	
Increase promotion of Green Building Case Studies to residents, potential residents, home builders, and contractors. *Lead Department: Building, Communications*	Not started
Develop a plan for converting streetlights and public space lighting to LEDs. *Lead Department: Building, Electric Utility*	Implemented/ Ongoing
Review water utility rates to ensure inverted rate structure is adequately discouraging overuse of water. *Lead Department: Water & Wastewater Utility*	Not started
Recognize net zero energy/carbon neutral new buildings and homes *Lead Department: Building*	Not started
Create rebate and/or code for utilization of electric vehicle charging for renovated and new buildings. *Lead Department: Electric Utility, Building*	In Development
Develop policy and rebate addressing and incentivizing residential and commercial gray water & rain water reuse *Lead Department: Building, Water & Wastewater Utility*	Not started
Optimize use of existing Water Reuse Plant and identify additional opportunities for maximizing percentage of water from reclaimed sources. *Lead Department: Water & Wastewater Utility*	In Development
Increase the Electric Utility's percentage of energy derived from renewable and clean alternative sources. *Lead Department: Water & Wastewater Utility*	Implemented/ Ongoing
Encourage private developers to use District Energy systems for large scale developments with at least two buildings. *Lead Department: Electric Utility, Water & Wastewater Utility, Planning*	Not started

COMMUNITY ENGAGEMENT & GREEN ECONOMY (CEGE)

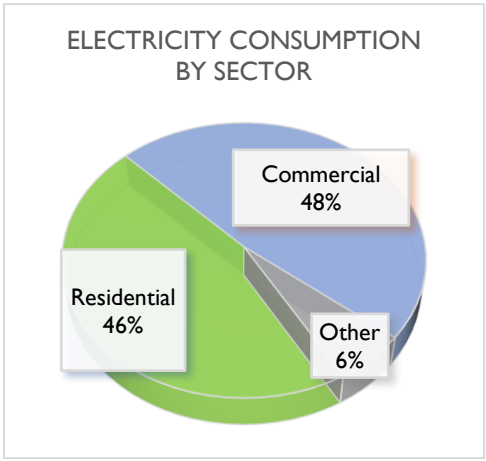
The City is committed to encouraging residents, business owners, schools and local organizations to incorporate more sustainable solutions in their daily activities.

PROGRESS SUMMARY

The Citywide Greenhouse Gas (GHG) Emissions Inventory (CEGE-1) consists of all major direct and indirect GHG emissions from energy, transportation, and waste generated and/or occurring within the City of Winter Park's administrative boundary. Energy sector includes emissions from the use of grid and stationary energy for residential, commercial and public authority buildings and street lighting. Transportation sector includes emissions from on-road transportation and railways within city limits. Waste sector includes emissions from treatment of solid waste and wastewater generated within the city limits. GHG emissions in the Citywide Inventory are calculated and reported in accordance with the *Global Protocol for Community-scale Greenhouse Gas Emission Inventory – An Accounting and Reporting Standard for Cities* at the *BASIC* level of reporting.

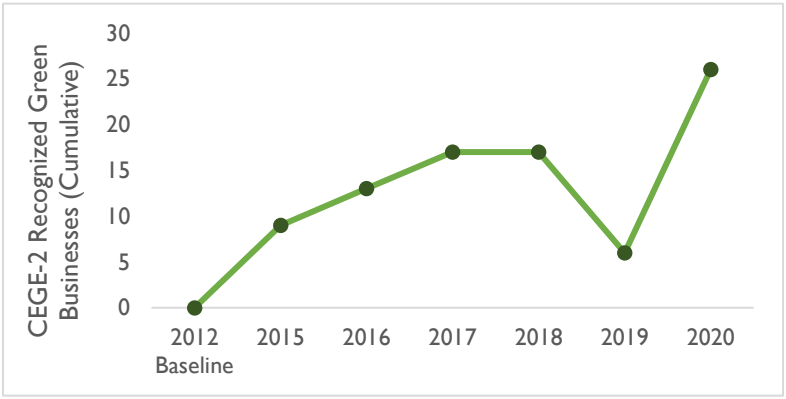


Compared to the baseline year of 2012, 2020 GHG emissions from the transportation sector are slightly higher (9%), from the energy sector are substantially lower (-21%) and from the waste sector remained more or less the same. In the transportation sector, the increase in GHG emissions can be attributed to increased fuel consumption for on-road and railway transportation (-4%). In the energy sector, the decrease in GHG emissions cannot be attributed to a reduction in consumption (i.e. energy consumption in 2012 and 2020 are roughly the same) but instead is attributable to the cleaner energy mix (*see BEW-4*) of today's power purchases compared to the baseline year. In the waste sector, the slight decrease in GHG emissions can be attributed to slight decrease in solid waste tonnage in 2020. While 2020 emissions were 16% less than the baseline year, it will miss the 2020 target of 25% reduction and the 2030 target of 50% reduction will require substantial reductions in consumption and/or advances in cleaner tech in energy and transportation sectors.



Citywide GHG emissions from the energy sector include electricity consumption by residential, commercial and public authority customers located within the City of Winter Park municipal boundary being served by Winter Park Electric Utility (92% for this sector), Duke Energy (5%), and Orlando Utilities Commission (3%). Of Winter Park Electric Utility GHG emissions, 46% are attributable to residential electricity usage, 48% to commercial usage and 6% to public authority usage (e.g., street lighting, local government/schools lighting).

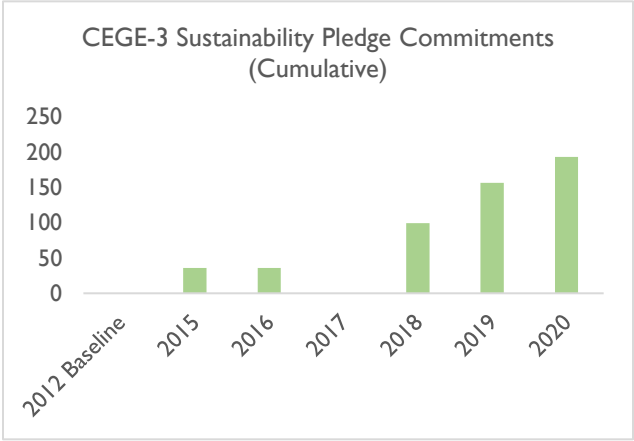
Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
CEGE-1 Metric tons of carbon dioxide equivalent	415,699	Not estimated at this interval		355,033	340,612	346,493	350,524	25% less (311,774)	50% less (207,850)



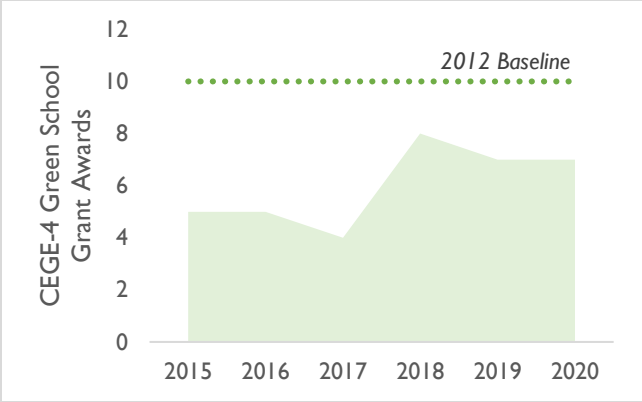
The 2015 SAP recognized the importance of encouraging businesses to implement sustainability initiatives to help advance citywide SAP goals. In 2015 and 2016, the Sustainability Program partnered with Green Destination Orlando, City of Orlando and Orange County, to create the Central Florida Workplace Challenge, creating friendly competition amongst the region's green businesses (CEGE-2). Unfortunately, by 2017, the program no longer had the funding and support staff to continue. In 2017 and 2018, CEGE-2 reflected the number of businesses participating in a local Fair Trade campaign. On April 12, 2019, the Sustainability Program launched its Green Business Recognition Program, recognizing 6 businesses in its inaugural year. Thanks in large part to the support of students from Rollins College and University of Central Florida, 20 additional green businesses were recruited and recognized in 2020. The 2020 target of 25% of businesses and 2030 targets of 50% of Winter Park businesses being recognized, however, will not be met.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
CEGE-2 Recognized Green Businesses	0	9	13	17	17	6	26	25 % recognized businesses	50% recognized businesses

In 2015 and 2016, the Orange Audubon Society, supported by a Toyota TogetherGreen Innovation Grant, partnered with the Sustainability Program to create the Winter Park Homeowners Energy Efficiency Program, providing low-income Winter Park energy customers with energy efficiency improvements with no upfront costs. Participants in the program signed an energy efficiency pledge and were counted towards CEGE-3 the two years the program ran. In early 2018, a new online sustainability pledge was launched that encouraged, not only residents, but also businesses and visitors to make a commitment to sustainable living by incorporating 9 simple practices into their everyday routine. The pledge is regularly displayed on the e-kiosks along Park Avenue and SunRail station and promoted on the City's print and online media outlets. However, the 2020 target of 50% of residents and 2030 target of 100% of residents making pledge is not being approached. Sign the pledge at cityofwinterpark.org/sustain-pledge



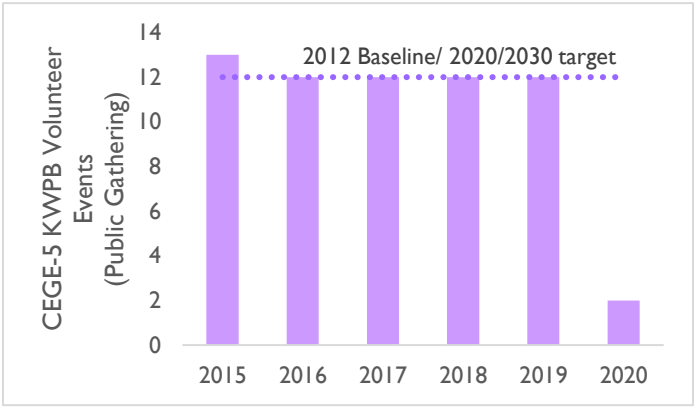
Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
Residents taking the Sustainability Pledge	0	36	36	In Development	99	156	193	50%	100%



The Green School Grant (CEGE-4) Program has provided awards to help schools implement sustainability initiatives for many years, even prior to the creation of the 2015 Sustainability Action Plan. The 2020 grant program provided funding to All Saints School for a water bottle filling station for its outdoor classroom, Holly's Petite Maison for a vegetable and fruit garden planting, Monarch Learning Academy for a butterfly and edible garden expansion, Parke House Academy for a rainwater collection system, Park Maitland School, Rollins College for an expansion to its bikeshare program and Winter Park Presbyterian Preschool for an expansion of its nature center. Since 2015, the program has had applicants from nearly all public K-12 schools serving Winter Park students, surpassing the 2020 target of 50% and approaching the 2030 target of 100% of schools participating in the program.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
CEGE-4 Green School Grant Participants	10	5	5	4	8	7	7	50%	100%

In early 2020, due to the COVID-19 Pandemic, many Keep America Beautiful affiliates across the country stopped holding large gathering volunteer events to maintain the health and safety of volunteers and to this day many continue to hold off on holding public gatherings. Keep Winter Park Beautiful cancelled several large gathering events that were planned for the year, including 3 watershed cleanups, 3 community park workdays, Earth Day in the Park and events with Rollins College, Lake Highland Preparatory School and Dayo Scuba. Even with the pandemic, in 2020, nearly 2,800 pounds of litter were collected by volunteers at the February Lakes Maitland, Knowles & Wilbar public cleanup and by self-directed cleanups led by volunteers from Westminster Winter Park, Winter Park High School, Rollins College, University of Central Florida, Boy Scout Troops 184 and 4181, Rollins College Center for Leadership & Community Engagement, and many families and friends of Keep Winter Park Beautiful!



Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
CEGE-5 KWPB Volunteer Events	12	13	12	12	12	12	2	12	12

COMMUNITY ENGAGEMENT & GREEN ECONOMY SAP ACTIONS STATUS REPORT

Action	Status
Develop Marketing Plan for Sustainability *Lead Department: Communications*	Implemented/ Ongoing

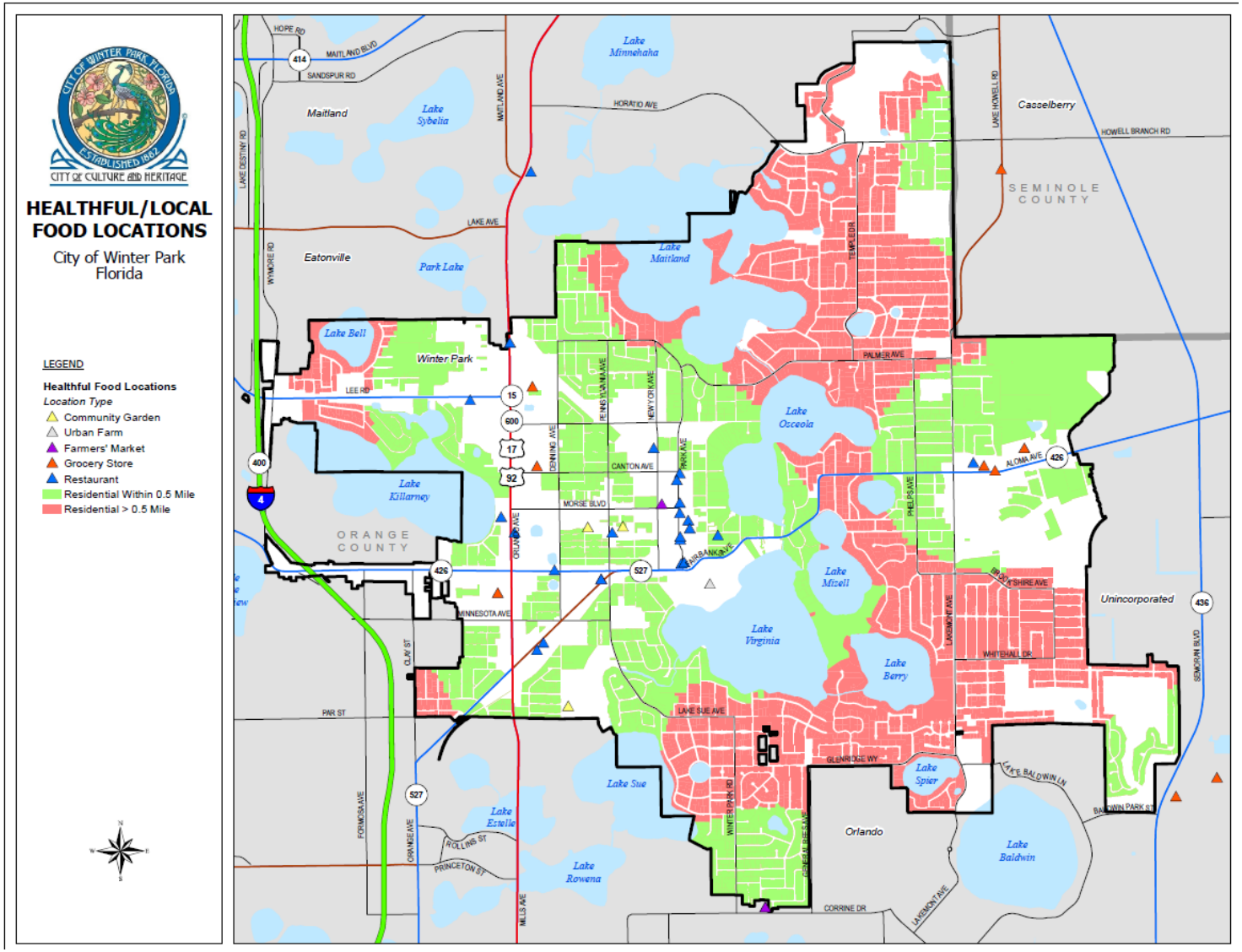
Continue Green School Grant program. *Lead Department: Sustainability*	Implemented/ Ongoing
Explore funding options for maintenance and upkeep of existing Pocket Parks and Community Gardens *Lead Department: Sustainability, Parks & Recreation*	Implemented/ Ongoing
Facilitate sustainability education workshops *Lead Department: Sustainability, Parks & Recreation*	Implemented/ Ongoing
Continue participation in America In Bloom/Winter Park Blooms. *Lead Department: Sustainability*	Implemented/ Ongoing
Continue volunteer opportunities including lake cleanups, gardening, and invasive species removal *Lead Department: Sustainability, Parks & Recreation, Lakes*	Implemented/ Ongoing
Develop interactive sustainability webpage that links individuals to Sustainability Pledge & carbon footprint calculator and allows organizations to post environmental volunteer opportunities & share success stories *Lead Department: Communications*	Implemented/ Ongoing
Create and install Environmental Education opportunities at parks and green buildings *Lead Department: Sustainability, Parks & Recreation*	Not started
Develop Green Neighborhood program focusing on supporting eco-friendly behavior in existing, established residential neighborhoods. *Lead Department: Sustainability*	Not started
Partner with other local municipalities to develop Green Business Challenge. *Lead Department: Sustainability, Planning, Economic Development*	Implemented/Ongoing

LOCAL FOOD & AGRICULTURE (LFA)

The City is committed to promoting a healthy, local and sustainable food system.

PROGRESS SUMMARY

Since 2018, the Sustainability Program and Planning & Transportation Department has inventoried and mapped community gardens, urban farms, CSAs, farmers' markets, and grocery stores and restaurants offering locally grown ingredients to determine the percentage of residents within a half mile of these local, healthful food assets (LFA-1). In 2018, 43% of Winter Park households met these criteria, in 2019 this number rose to 46% of residents living about a 10-minute walk from these options. In 2020, it increased to 48%, just missing the 2020 target of 50% of Winter Park households living within ½ mile of these assets. Meeting the 2030 target of 100% will be challenging without increasing community gardens, urban farms or farmers markets in largely low-density residential areas. List of locations can be found in Appendix A.



Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
% of Residents within 1/2 mile of local/healthful food assets	In Development				43	46	48	50%	100%

The methodology for determining the percentage of local food consumed in Winter Park household households (LFA-2) has yet to be established, therefore 2020 target of 40% and 2030 target of 60% will not be attained. The COVID-19 Pandemic highlighted the importance of sustainable, resilient food systems able to handle disruptions in food access and security. In August 2020, the City Commission passed a backyard chicken pilot program, providing permitted single-family residential properties to house up to 4 hens to produce a steady supply of local fresh eggs.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
LFA-2 Local Food Consumption	21.8% (Orlando Urban Area limited study)	In Development						40%	60%

LOCAL FOOD & AGRICULTURE SAP ACTIONS STATUS REPORT

Action	Status
Participate in regional Food Policy Council. *Lead Department: Sustainability*	Implemented/ Ongoing
Create a map identifying additional city-owned locations for edible landscaping. *Lead Department: Planning, Parks & Recreation, Sustainability*	Not started
Continue community garden projects via KWPB grant program. *Lead Department: Sustainability*	Implemented/ Ongoing
Include Local Food Preference in city's Environmentally Preferable Purchasing policy. *Lead Department: City Administration-Procurement*	Not started
Explore Residential, Commercial and Public Space Urban Agricultural Design. *Lead Department: Planning, Parks & Recreation, Sustainability*	Not started
Pilot an urban farm. *Lead Department: Parks & Recreation*	Not started

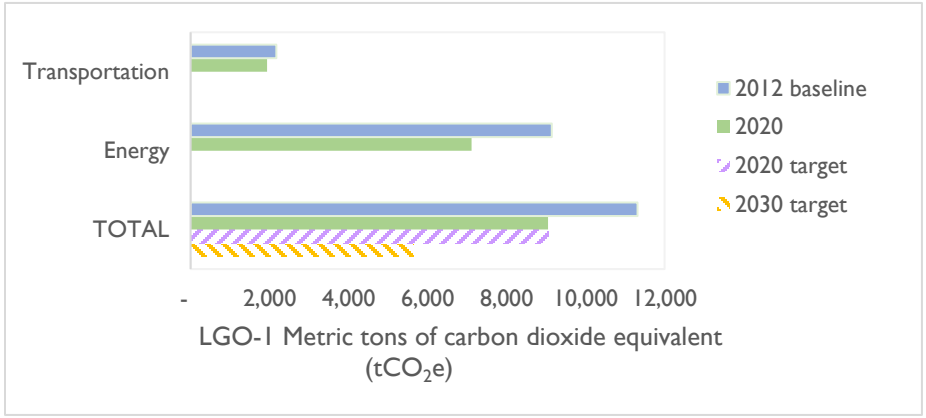
LOCAL GOVERNMENT OPERATIONS (LGO)

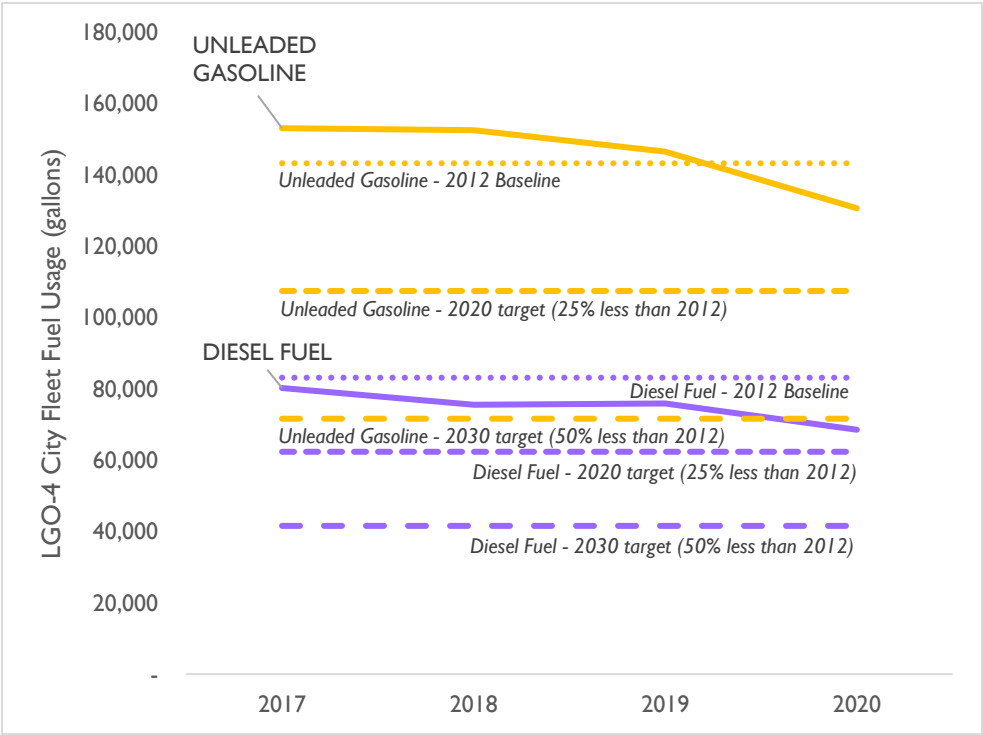
The city is committed to creating sustainable, healthier and more comfortable environments for employees.

PROGRESS SUMMARY

The Local Government Operations Greenhouse Gas (GHG) Emissions Inventory (LGO-1) consists of all major direct emissions from the city fleet and indirect GHG emissions associated with electricity consumption for local government operations. The Local Government Operations (LGO) GHG Emissions Inventory are calculated and reported in accordance with the *Local Government Operations Protocol* and *Global Protocol for Community-Scale GHG emissions*, for Scopes 1 and 2.

Compared to the baseline year of 2012, 2020 GHG emissions from the transportation sector are 22% less and from the energy sector are 11% less. Total 2020 GHG emissions were 20% less than the baseline year, meeting the 2020 target of a 20% reduction. Meeting the 2030 target of 50% reduction will require substantial reductions in consumption and/or cleaner tech in energy and transportation sectors (e.g. fleet electrification).





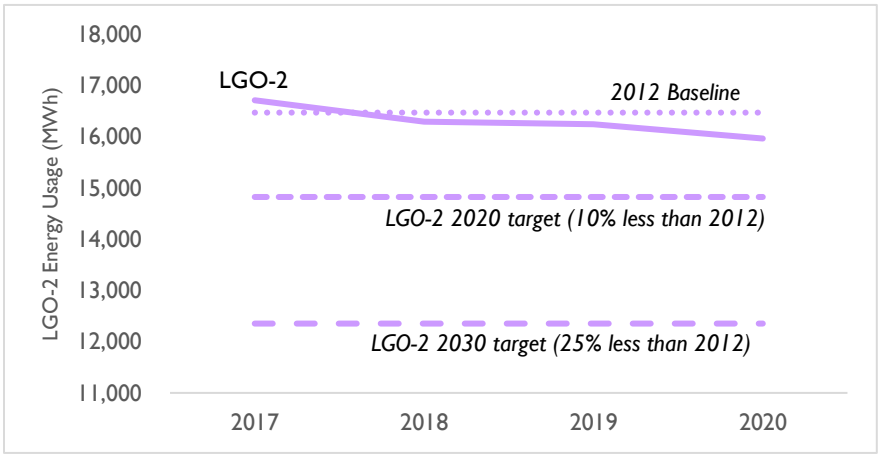
Prior to the COVID-19 Pandemic, city fleet gasoline consumption (LGO-4) from 2017-2019 was generally stable from year to year (at most 4% less in 2019 than in 2018), yet in 2020 gasoline consumption was 11% lower than the previous year. Similarly, diesel consumption from 2017-2019 was generally stable from year to year (at most 6% less in 2018 than 2017), however in 2020 diesel consumption was nearly 10% lower than it was the previous year. While the City remained open for business throughout the pandemic, widespread reductions in economic activity may help explain a near doubling in reductions between 2019 and 2020 in fleet fuel usage. In fall 2020, the Building & Permitting Services Department (B&P) replaced 5 crossover hybrid SUVs driven by the City's building inspectors with new Nissan Leaf electric vehicles. A fleet-wide assessment may help recognize opportunities for further fleet electrification and fuel usage reduction.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
LGO-1 Local Government GHG Emissions	11,315	Not estimated at this interval		8,714	8,491	8,688	9,051	20% less (9,052.25)	50% less (5,623.88)
LGO-4 City Fleet Fuel Usage (gallons of unleaded gasoline)	143,268	Not reported at this interval		153,093	152,502	146,501	130,649	25% less (107,451)	50% less (71,634)
LGO-4 City Fleet Fuel Usage (gallons of diesel fuel)	83,142	Not reported at this interval		80,235	75,579	75,865	68,532	25% less (62,357)	50% less (41,571)

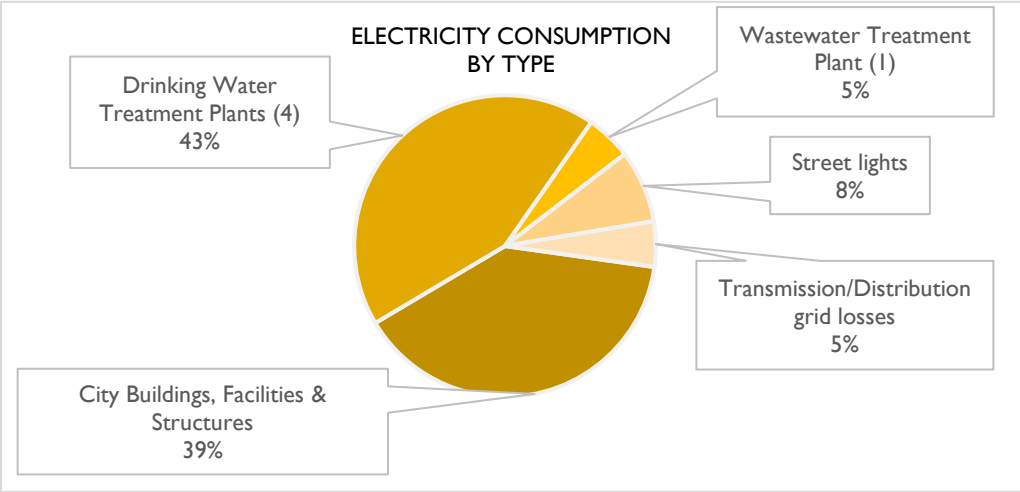
Tracking the number of city of employees using transit, carpooling, cycling or walking to work (LGO-6) has proved difficult. Between 2018-2020, the number of employees contributing to a Transportation Spending Account, which allows employees to put money on a pre-tax basis to cover transit fees, was reported although this number never exceeded 3 participants. This number would not account for anyone who chose an active travel option or carpooled. In 2018 and 2020, working with FDOT's rethink Your Commute, the Sustainability Program and Human Resources Department launched an employee- wide commuter survey that hoped to answer some of these questions. However, less than a quarter of employees responded making it unreliable to draw conclusions from. Without a reliable methodology for this metric, it is difficult to say that the 2020 and 2030 targets of "increasing" participation was truly met.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
LGO-6 City Employees using transit, carpooling, cycling or walking to work	In Development	23	In Development		3+	3+	2	Increase	Increase

Overall energy usage (LGO-2) for local government operations remained generally stable between 2017 and 2020 and did not approach the 2020 target of 10% reduction or 2030 target of 25% reduction. Between 2017 and 2020 electricity consumption was generally stable from year to year for buildings, facilities & structures (at most 5% less in 2020 and 2019) and for drinking water treatment plants (at most 2% less in 2020 than in 2019). Prior to the pandemic, electricity consumption for wastewater treatment plants was generally stable between 2017-2019 from year to year (at most 4% less in 2019 than in 2018), yet in 2020 consumption was 10% higher than the prior year. Electricity consumption for streetlights between 2017 and 2019 was also generally stable from year to year (at most 1% higher in 2019 than 2018), however in 2020 consumption was 6% lower than the previous year.



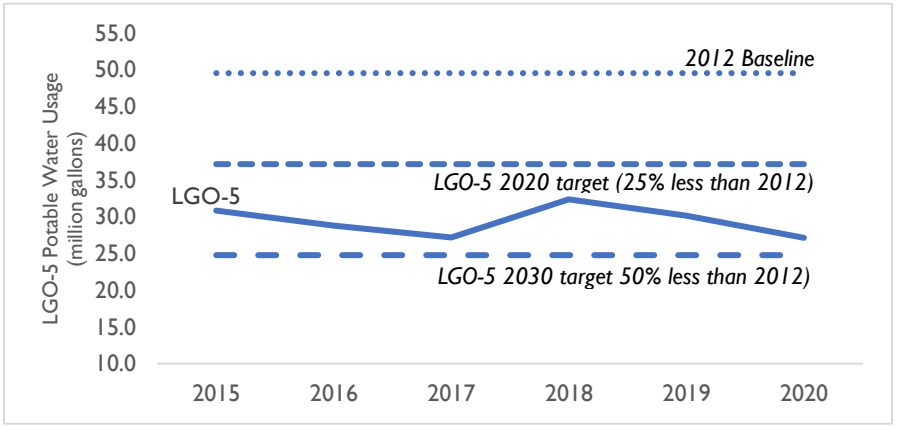
Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target
LGO-2 Energy usage (MWh)	16,471	Not reported at this interval		16,712	16,295	16,245	15,965	10% less (14,824)



The percentage of total energy use coming from on-site solar on city facilities (LGO-3) remained around 1% prior throughout the reporting period, missing the 2020 target of 6.6% and 2030 target of 11.6%. In 2014, partnering with Clean Footprint, the City installed its first solar photovoltaic system on the City's Fleet Maintenance building. The 100kW system provides a low, fixed rate price within its 25-year agreement with Clean Footprint. In August 2020, the City installed its second solar photovoltaic system on City's Aloma Water Treatment plant with 15 light years. The 166kW system is located in Duke Energy territory, helping the save over $320,000 throughout its 25- year lifetime and increase on-site renewables in the city's energy portfolio.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
LGO-3 Renewable Energy Production	0	Not reported at this interval		0.70%	0.65%	0.61%	1.19%	6.60%	11.60%

Since 2015, potable water usage for local government operations (LGO-5) has remained generally stable, well below the 2012 baseline and surpassing the 2020 target of a 25% reduction. In 2020, 27 million gallons of potable water were used, approaching the 2030 target of a 50% reduction (25 million gallons). The city-owned Winter Park Estates wastewater treatment facility treats approximately 10% of the city's sewer capacity needs and all treated water generated at this facility is used as irrigation water at four spray sites (Interlachen and Winter Park Pines golf courses, Cady Way/Showalter Field and the Glen Haven Memorial Park cemetery) allowing the city to reduce the amount of potable water that would otherwise be used for irrigation at these locations.



Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
LGO-5 Potable Water Usage	49.5	30.9	28.8	27.2	32.4	30.1	27.1	25% less (37.2)	50% less (24.8)

LOCAL GOVERNMENT OPERATIONS SAP ACTIONS STATUS REPORT

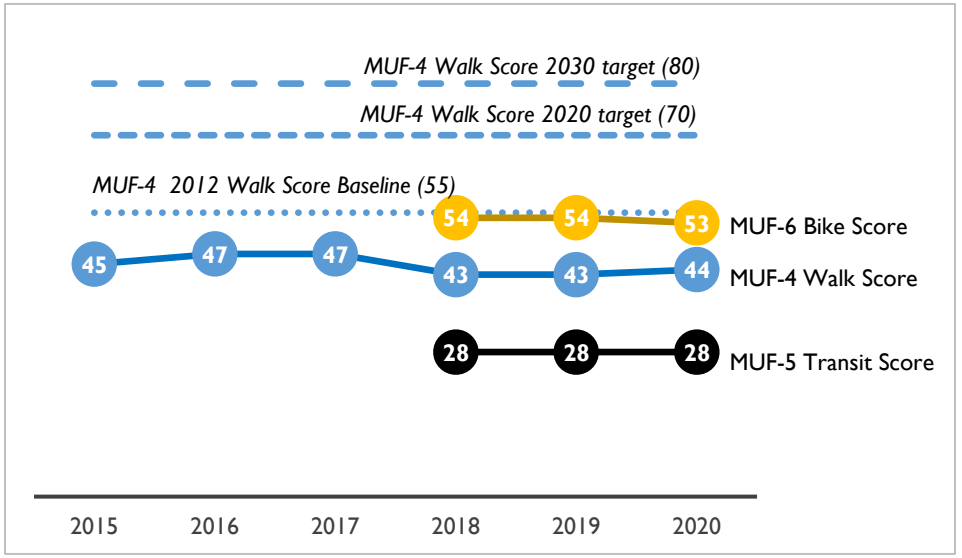
Action	Status
Continue monitoring city buildings' energy and water usage through ENERGY STAR Portfolio Manager *Lead Department: Sustainability*	Implemented/ Ongoing
Explore establishing a Revolving Energy Efficiency Loan Fund for city owned buildings and infrastructure *Lead Department: Finance, Public Works*	Not started
Conduct energy audits for all city-owned facilities *Lead Department: Public Works-Facilities*	Not started
Shift from potable to non-potable water resources for parks irrigation while increasing efficiency *Lead Department: Parks & Recreation, Water Utility*	Ongoing
Implement ISO 14001 Environmental Management System *Lead Department: Sustainability*	Not started
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 *Lead Department: Public Works-Fleet*	In development
Update the city's idling policy to allow for a maximum of one minute (currently five) for city fleet *Lead Department: Public Works-Fleet; City Administration*	In development
Begin monitoring occupied city buildings' energy and water usage in real time while engaging occupants with dashboards and competitions *Lead Department: Public Works*	Not started
Update Green Building Resolution to reflect minimum energy efficiency standards and percentage of energy derived from on-site renewables for city-owned buildings *Lead Department: Sustainability*	Not started

MOBILITY & URBAN FORM (MUF)

The city is committed to promoting healthier, more active forms of transportation such as walking, bicycling and using mass transit.

PROGRESS SUMMARY

Identifying a methodology for estimating vehicles miles traveled (VMT) (MUF-1) for the City has been a challenge. Since 2015 this indicator has been "In Development," without a baseline and without a suitable methodology for estimation, and therefore will not achieve the 2020 target of a 10% reduction or 2030 target of 20% reduction in VMT. While some studies suggest VMT is a better measure for transportation than Level of Service and reducing VMT can improve air quality and the overall health of a population, there are limited options for estimating VMT in non-urban communities. In 2020, the Planning & Community Development Department became the Planning & Transportation Department. The Sustainability Program is working with the new Transportation Management team to identify indicators that can help decisions makers track progress in multi-modal transportation planning for the 2021 Sustainability Action Plan (SAP) Update.



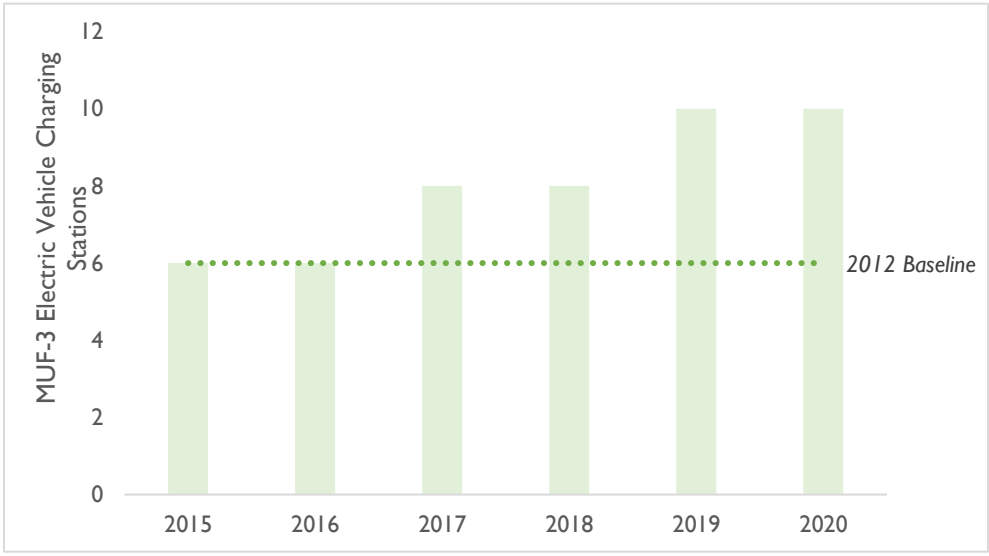
Walk Score® (MUF-4), Transit Score® (MUF-5) and Bike Score® (MUF-6) are measures of a community's walkability, transit accessibility and bikeability, respectively. Purchased in 2014 by residential real estate brokerage Redfin, the Walk Score® suite of scores are determined by a propriety algorithm. Some studies have suggested that the scores may over- or under-estimate the walkability, bikeability, or transit accessibility of a community and without the ability to review the exact methodology for the scores, it is difficult to recognize why a score may have changed, for better or worse. The 2015 SAP included a Walk Score® baseline of 55-"Somewhat Walkable", 2020 target of 70-"Very Walkable" and 2030 target of 80-"Very Walkable". Between 2015-2017, the Walk Score® ranged from 45-47 "Car-Dependent and between 2018-2020 ranged from 43-44 "Card-Dependent", failing to approach the 2020 and 2030 targets.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
MUF-1 Vehicle Miles Traveled	In development							10% less	20% less
MUF-4 Walk Score	55	45	47	47	43	43	44	70	80
MUF-5 Transit Score	In Development				28	28	28	-	-
MUF-6 Bike Score	In Development				54	54	53	-	-

Certified Green Neighborhood Development (MUF-2) like LEED's Neighborhood Development (ND) certification encourages walkable streets, compact development and high connectivity, among many other criteria that are critical to sustainable development. To date, there are no LEED ND projects in Central Florida. The 2020 target of two (2) LEED N-D builds will not be achieved and the 2030 target of all redevelopment projects being certified green neighborhood redevelopment is unlikely.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
MUF-2 Certified Green Neighborhood Development	0 certified							2 certified	All redevelopments achieve green certification

In 2020, over one-third of Citywide GHG emissions came from the burning of unleaded gasoline and diesel for on-road transportation. Since 2011, the City has provided electric vehicle charging stations (MUF-3), free of charge, at various city-owned facilities such as the SunRail/Amtrak station, City Hall, Public Safety, Central Park, Shady Park and the Winter Park Tennis Center. In 2019, the City added stations at Ward Park, Cady Way Park, Lake Baldwin Park and the Howell Branch Preserve, meeting the 2020 and 2030 targets of increasing the number of stations from the baseline year (6). Increasing the number of electric vehicles (EVs) in Winter Park, powered by an increasingly greener grid, can help reduce street-level pollutants harmful to human health normally emitted by conventional internal combustion vehicles and reduce GHG emissions coming from transportation.



Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
MUF-3 Electric Vehicle Charging Stations	6	6	6	8	8	10	10	Increase	Increase

MOBILITY & URBAN FORM SAP ACTIONS STATUS REPORT

Action	Status
Increase bike storage downtown while reducing dependence on vehicle parking *Lead Department: Public Works/Parks*	Implemented/ Ongoing
Evaluate Comprehensive Plan to identify policies related to green building and green neighborhood development. Recommend revisions as deemed desirable	Completed

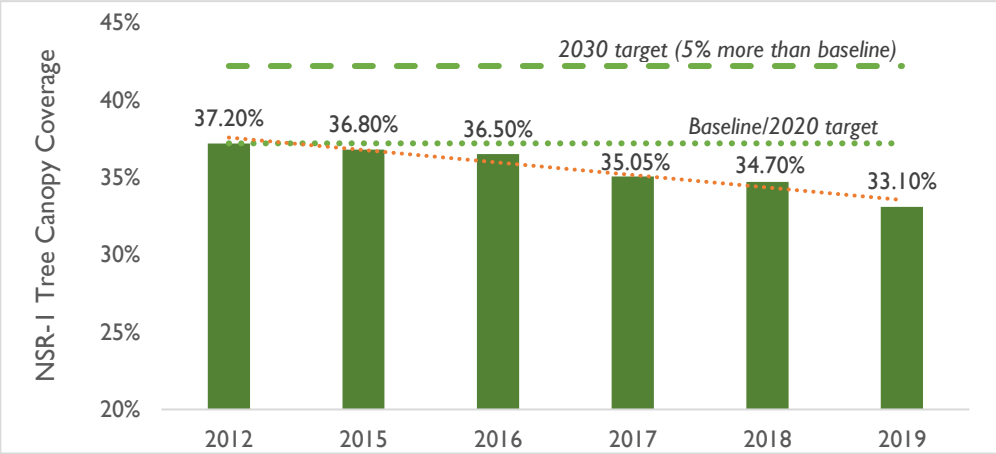
Lead Department: Planning	
Evaluate expanding bus service and consider Flex Bus for increasing service to Sunrail station *Lead Department: Public Works, Planning*	Ongoing
Calculate Vehicle Miles Traveled and GHG emissions as a result of VMT at select intersections *Lead Department: Public Works*	Not started
Evaluate Transportation Plan with regards to SunRail, safe routes to schools, Complete Streets and regional projects such as trails *Lead Department: Public Works*	Ongoing
Encourage private developments to increase safety and ease of walking and cycling through site plan review process with recommendation from project design checklist *Lead Department: Public Works, Planning*	Ongoing
Evaluate Bike Share through a third-party vendor as part of a regional wide program in conjunction with SunRail *Lead Department: Public Works*	In Development
Evaluate Car Share through a third-party vendor as part of a regional wide program in conjunction with SunRail *Lead Department: Public Works*	Not started
Encourage businesses to offer employee commuter incentive benefits. *Lead Department: Public Works, Planning*	In Development
Incentivize LEED for Neighborhood Development standards for areas with potential for neighborhood scale redevelopment that ensure human scale, mixed use development and complete neighborhoods. *Lead Department: Planning*	Not started
Survey and publicize workforce housing located within a quarter mile from major employers. *Lead Department: Planning*	Not started
Increase the number of electric vehicle charging stations. *Lead Department: Electric Utility*	Completed
Enhance Pedestrian & Bicycle Wayfinding. *Lead Department: Public Works*	In Development

NATURAL SYSTEMS & RESOURCES (NSR)

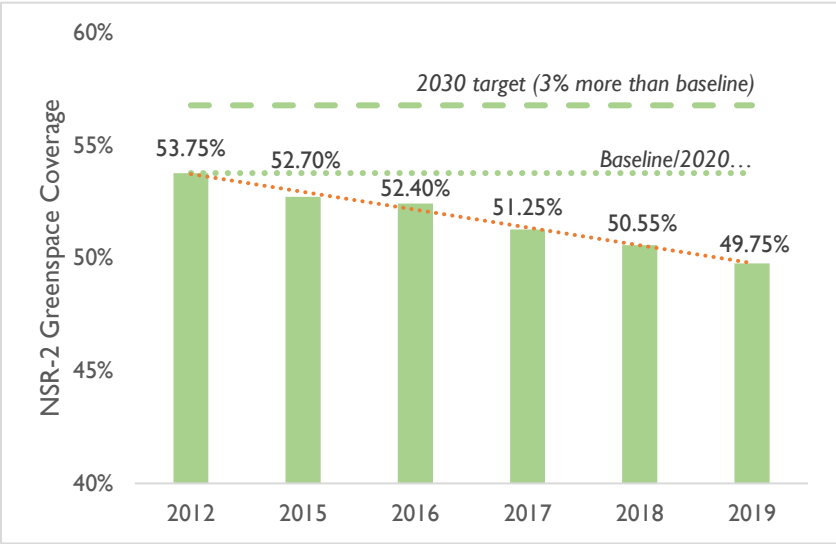
The city is committed to preserving and enhancing the natural systems that help make Winter Park such a great place to live.

PROGRESS SUMMARY

In 2020, the Urban Forestry Division began using i-Tree Canopy, a free software tool developed by the USDA Forest Service, to conduct a cover assessment (e.g., trees/shrubs, impervious buildings/buildings, grass/herbaceous and water) of the City for all reporting years. This tool randomly lays points onto Google Earth imagery and then the user manually classifies what cover class each point falls upon. While 500-1,000 points are suggested, 2,000 points were classified as the more points completed the better the estimate for the study area. Since the aerial imagery from Google Earth is normally about 2 years old, the assessment presented goes through 2019.



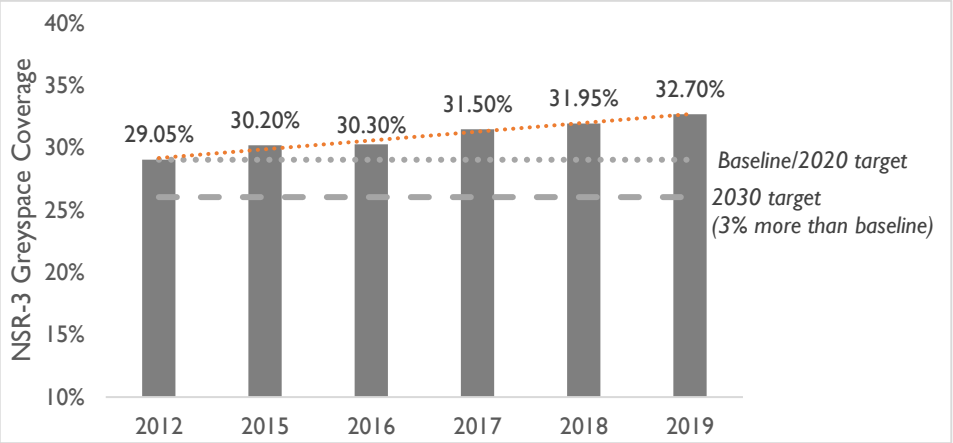
Tree Canopy Coverage (NSR-1) estimates trees and shrub cover for the City using the i-Tree Canopy tool. The 2015 SAP baseline number for this indicator was 55%, nearly 20% higher than the baseline estimate produced by the i-Tree Canopy tool. The 2015 SAP's 2020 target of maintaining the baseline year coverage and 2030 target of increasing the canopy by 5% have been adapted to the baseline estimate from i-Tree.

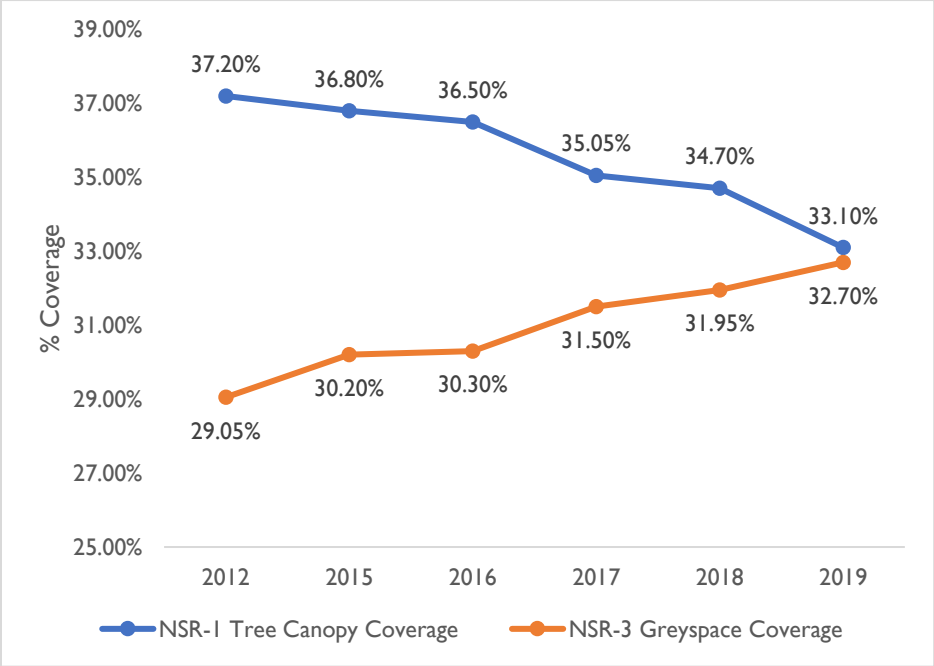


Adding a linear trendline, a trend of gradual decline in the tree canopy coverage is evident during the reporting years, the 2020 target of maintaining and 2030 target of increasing tree canopy coverage above the baseline year estimate are unlikely to be met.

Greenspace Coverage (NSR-2) estimates trees & shrub and grass/herbaceous cover for the City using the iTree Canopy tool. The 2015 SAP baseline number for this indicator was 57%, about 3% higher than the baseline estimate produced by the i-Tree Canopy tool. The 2020 target of maintaining the baseline year coverage and 2030 target of increasing the coverage by 3% have been adapted to the baseline estimate from the i-Tree Canopy tool. Adding a linear trendline, a trend of gradual decline in greenspace coverage is evident during the reporting years, the 2020 target of maintaining and 2030 target of increasing greenspace coverage above the baseline year estimate are unlikely to be met.

Greyspace Coverage (NSR-3) estimates impervious surfaces and buildings cover for the City using the i-Tree Canopy Tool. The 2015 SAP baseline number for this indicator was 43%, about 14% higher than the baseline estimate produced by the i-Tree Canopy tool. The 2015 SAP's 2020 target of maintaining the baseline year coverage and 2030 target of decreasing the coverage by 3% have been adapted to the baseline estimate from the i-Tree Canopy tool. Adding a linear trendline, a trend of gradual increase in greyspace coverage is evident during the reporting years, the 2020 target of maintaining and 2030 target of increasing greenspace coverage above the baseline year estimate are unlikely to be met.



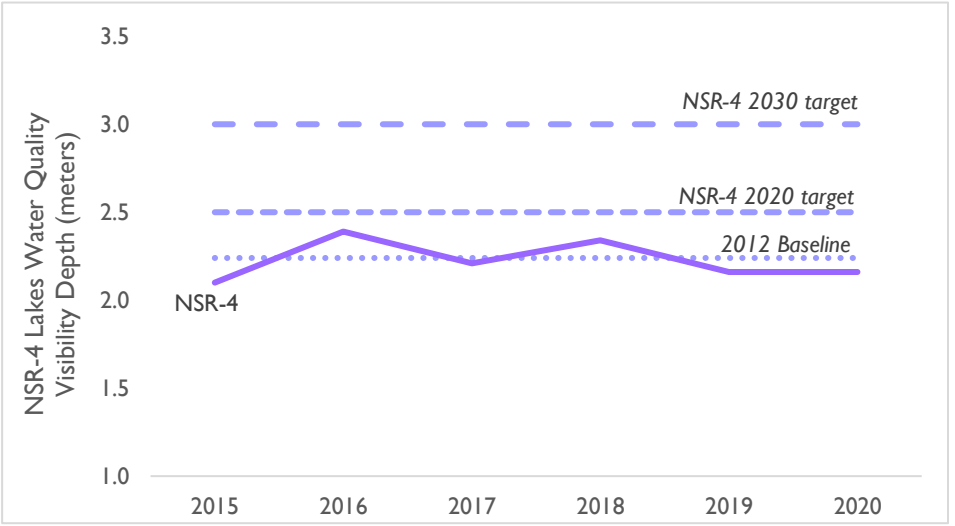


Comparing Tree Canopy Coverage (NSR-1) to Greyspace Coverage (NSR-3) estimates, a strong correlation is recognizable. A closer look at the changes in greyspace coverage over the years suggests tree canopy loss is most likely attributable to changes in land development use, rather than from extreme weather events. Land development regulations that protect and expand the existing canopy are critical to ensure tree canopy coverage does not continue to decline and greyspace coverage exceeds tree canopy coverage. In 2020, Urban Forestry removed 355 trees, planted 561 trees and gave away 1,500 trees.

The tree canopy estimates in 2019, compared to 2012, reduced the amount of carbon sequestered annually in trees by 370 tons (12%), an estimated annual loss of value of $63,407. Across tree benefit estimates for air pollution, the reduction in canopy equated to a nearly 25% reduction of tons of air pollutants removed annually. The full i-Tree Canopy Cover Assessment and Tree Benefits Reports for 2012 and 2019 can be found in Appendices B and C.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020 target	2030 target
NSR-1 Tree Canopy Coverage	37.20%	36.80%	36.50%	35.05%	34.70%	33.10%	37.20%	42.20%
NSR-2 Greenspace Coverage	53.75%	52.70%	52.40%	51.25%	50.55%	49.75%	53.75%	56.75%
NSR-3 Greyspace Coverage	29.05%	30.20%	30.30%	31.50%	31.95%	32.70%	29.05%	26.05%

The Lakes Water Quality (NSR-4) indicator reflects the average Secchi depth for the City's Chain of Lakes (not including Lake Baldwin Park). The 2015 SAP set a goal of visibility depth of 2.5 meters for 2020 and 3 meters for 2030. However, recent conversations with the Winter Park Lakes Division and Natural Resources Manager indicate that this is more of an aspiration goal since there are a number of the city's urban lakes that will never be able to reach 3.0, let alone all of the lakes. As a point of reference, the working goal of the Lakes Division for annual average clarity is 2.0 meters of visibility depth.



The WPLD continues to monitor water quality of the surface waters within the city and utilize aluminum sulfate (alum) injections on Lakes Mizell, Virginia, and Osceola. Alum is used to bind with the phosphorus contained in the lake's sediments and prevent it from recycling into the water column where it can fuel algae blooms. In 2020, multiple lakes were stocked with sterile grass carp for the biological control of the invasive non-native aquatic plant, *Hydrilla verticillata*. Routine inspections and cleanings of stormwater conveyance systems took place in order to maintain proper function and debris collection. In 2020, 4,376 inspections were performed with 2,314 maintenance events that removed a total of 1,623 cubic yards of sediment, litter, grass clippings, sticks/branches, etc. from the stormwater systems and prevented their dispersal into the lakes. The small fences enclosing the outfall pipes (referred to as "traps") in the lakes are designed to catch litter and debris that wash in from the surrounding neighborhood streets via these underground storm pipes. A total of 255 inspections were performed on these outfall traps with 255 cleanings resulting in the removal of 106.45 cubic yards of debris.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
NSR-4 Lakes Water Quality-Visibility Depth (meters)	2.2	2.1	2.4	2.2	2.3	2.2	2.2	2.5	3.0

Residents living within a half mile of public greenspace (NSR-5) is mapped to include mini parks, community parks, neighborhood parks, open space/conservation areas and special purpose parks. Discussions on this metric during the 2021 Sustainability Action Plan Work Sessions suggest specifying public greenspaces that would allow active vs. passive enjoyment and the potential for activating existing public greenspaces to increase their utilization. List of sites included can be found in Appendix D.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
NSR-5 Residents living within a half mile of public greenspace	95%	95%	95%	97%	98%	98%	98%	95%	95%

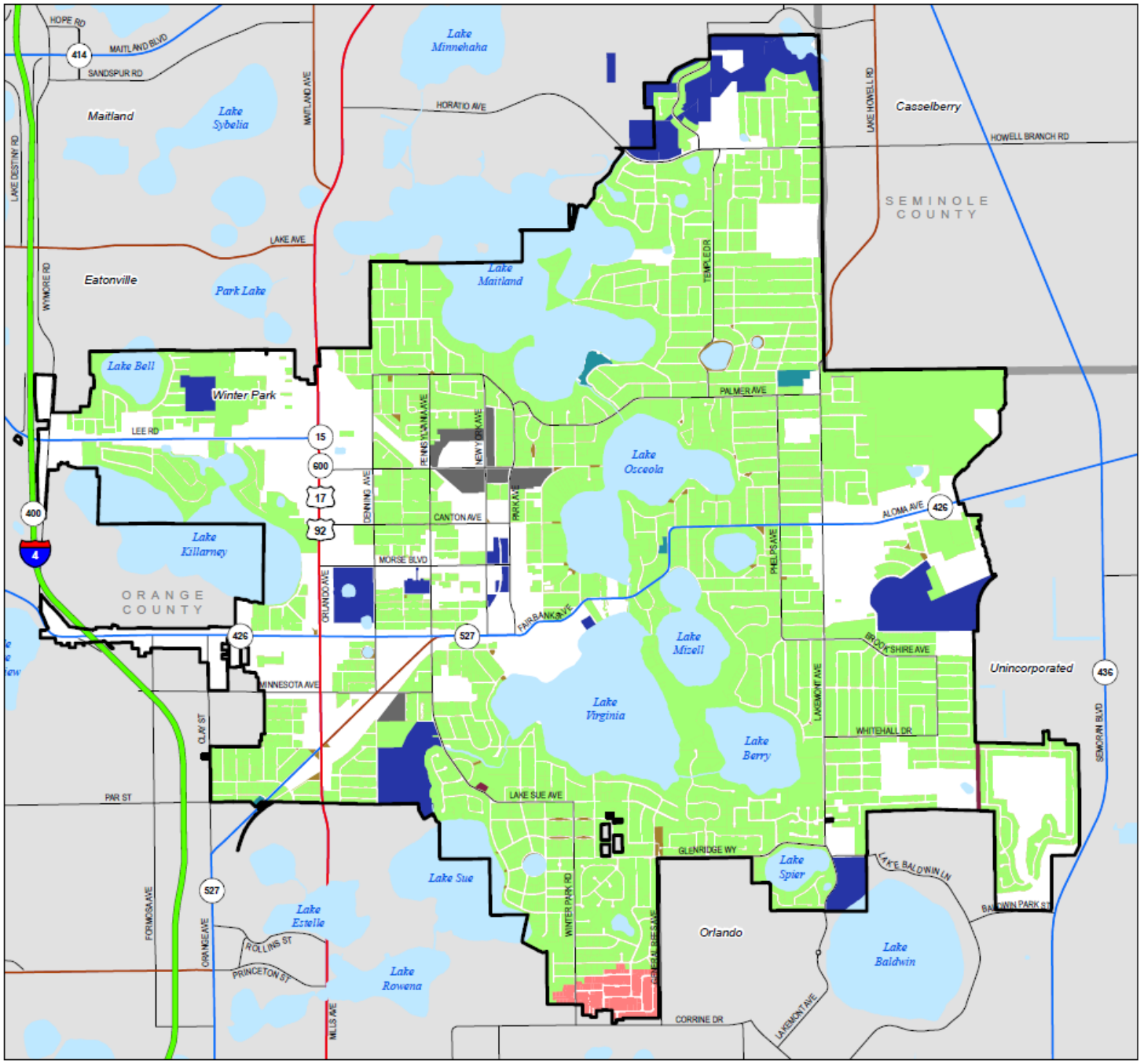
PUBLIC GREEN SPACE LOCATIONS

City of Winter Park
Florida

LEGEND

Park Type

- Mini Park
- Community Park
- Neighborhood Park
- Open Space/Conservation Area
- Special Purpose Park
- Residential Within 0.5 Mile
- Residential > 0.5 Mile



NATURAL SYSTEMS & RESOURCES SAP ACTIONS REPORT

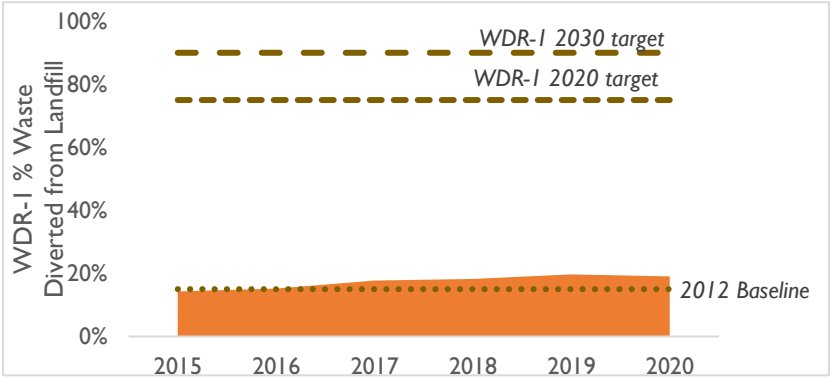
Action	Status
Continue aquatic plant management. *Lead Department: Public Works, Stormwater, Lakes*	Implemented/ Ongoing
Work towards establishing a Green Infrastructure Plan addressing stormwater with light impact development best management practices including Rain Gardens, Bio-Swales, Green Streets and Green Roofs that also serve as amenities. *Lead Departments: Public Works, Stormwater, Lakes, Parks & Recreation*	Not started
Increase frequency of existing stormwater infrastructure maintenance including street sweeping *Lead Department: Public Works, Stormwater, Lakes*	Ongoing
Explore installing a rain garden in a visible public space to serve as a demo for light impact development *Lead Department: Public Works, Stormwater, Lakes, Parks & Recreation*	In development
Explore leveraging Electric Utility's Green Roof incentive with grant from Stormwater Fund *Lead Department: Public Works, Stormwater, Lakes, Electric Utility*	Not started
Continue to develop long term reforestation plan to increase tree canopy coverage. *Lead Departments: Forestry Division, Parks & Recreation*	In development

WASTE DIVERSION & RECYCLING (WDR)

The city is committed to diverting waste from landfills, recycling, and reducing carbon emissions from waste.

PROGRESS SUMMARY

Waste diverted from landfill (WDR-1) tracks the portion of recyclables collected through the City's Residential Curbside Recycling and Municipal Solid Waste Program (excludes yard waste). In 2020, nineteen (19) percent, by weight, of residential waste was collected through City's Residential Curbside Recycling Program. These items are hauled by WastePro, the city's contracted hauler, to the Orange County Transfer Station where it is graded by Waste Management as being "acceptable" or "rejectable" based on the level of contamination. Acceptable loads are then transported to Waste Management's sorting facility in Cocoa for sorting, baling and compaction and then prepared for market.



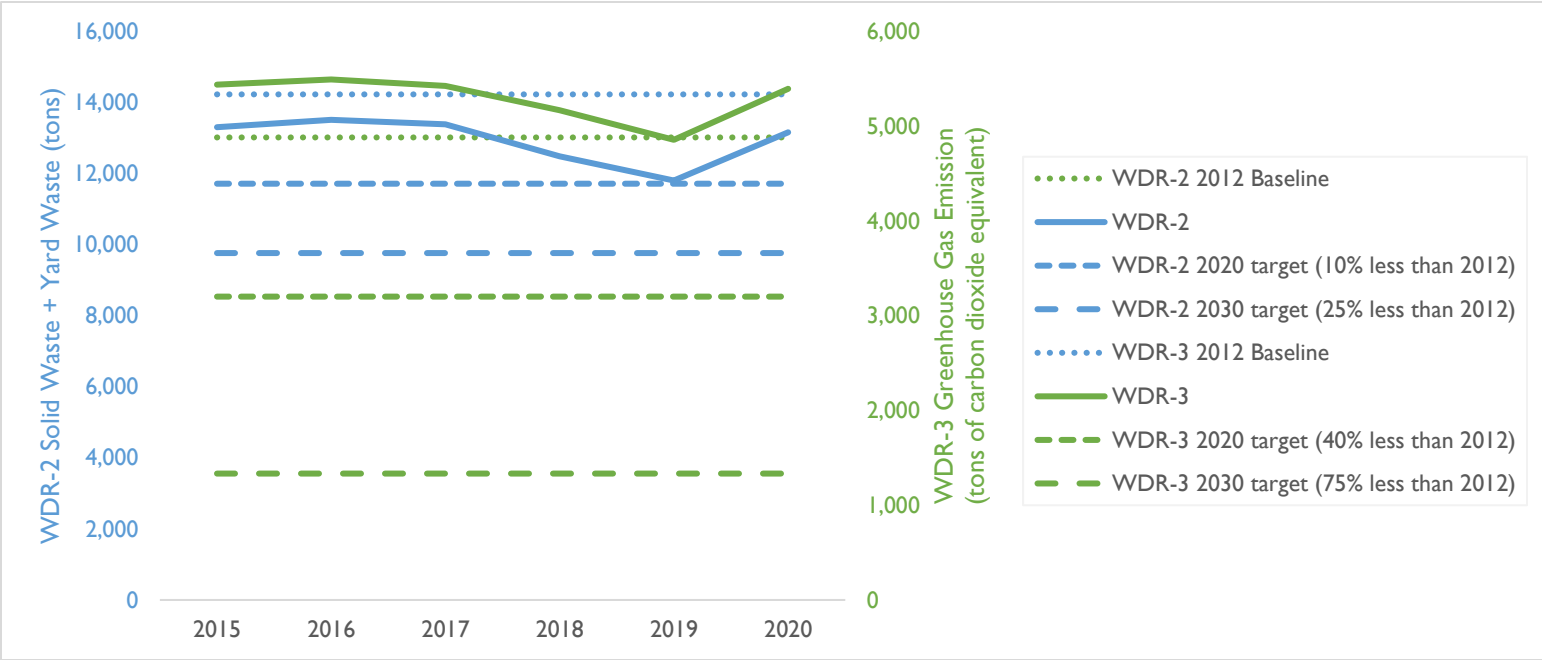
The 2015 SAP set a 2020 target of 75% for this indicator, mirroring the aggressive target goal set by the State of Florida in 2008. Florida's recycle rate in 2019 was 49% and was not expected to increase in the short-term. To move the recycling rate significantly the Florida Department of Environmental Protection (FDEP) recommended three strategies be placed by FDEP and the Florida Legislature in their *2019 Status Report on Florida and the 2020 75% Recycling Goal, Volume 1*: 1) development of a Recycled Materials Market Development Program to stimulate markets that are produced using materials recovered from the waste stream as recycled materials, 2) Recycling Education and Outreach to encourage participation in local recycling program and increase awareness in the correct materials that residents should be recycling in their curbside carts, and 3) develop a local government grant program that allows government to received funds for recycling (e.g., updating equipment in Material Recovery Facilities, equipment for organics processing) and education (e.g., food waste, recycling education campaigns).

From 2016 through 2020, this indicator was above the 2012 baseline, however by the end of 2020 it was nowhere near the 2020 target of 75% diversion or 2030 target of 90% diversion. Following FDEP's recommendations, the City is part of regional collaborations that encourage the expansion of recycling and food waste diversion markets and infrastructure (e.g., Beyond34), as well as educational campaigns that increase awareness of the most common contaminants (e.g., ReCollect and coming soon-centralfloridarecycles.org.). Since the end of 2018, the City has had a customized version of ReCollect Systems, Inc.'s waste collection management platform branded as "Think Twice, Don't Waste It WP" (cityofwinterpark.org/thinktwice). In 2020, the web tool allowed nearly 2,200 unique searches on the Waste Wizard helping residents identify what goes where and nearly half of all Winter Park addresses had been searched.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
WDR-1 Waste diverted from landfill	15%	14%	15%	18%	18%	20%	19%	75% (state goal)	90%

Total tons of solid waste generated (WDR-2) tracks the weight of waste landfilled from residential curbside includes municipal solid waste and yard waste collection. Between 2018 and 2019, the tonnage dropped below the 2012 Baseline, however in 2020 this number increased nearly 20% from the previous year. During the early months of the COVID-19 pandemic, the Seminole County Solid Waste Division held nearly weekly check-in calls with municipal representatives. An overall trend of increased residential solid waste was noticed as many families were taking the stay-at-home order time to clean out their homes. Looking at the monthly totals for waste landfilled in 2020, tonnage from April through September was at least 10% more than the annual average for 2019. The City's annual Household Hazardous Waste Event held in September also had record participation from previous years.

Greenhouse Gas (GHG) Emissions from solid waste generated (WDR-3) include methane generated from the decomposition of municipal solid waste and yard under landfill conditions, as well as GHGs associated with the collection, transport and processing of this waste.While both WDR-2 and WDR-3 seemed to trend downward between 2016 to 2019 they will both fail to approach the 2020 and 2030 targets.



Thanks to a grant provided from the Florida Department of Transportation, Keep Winter Park Beautiful has provided backyard composters to nearly 300 residents in the last 3 years. Residents participate in a UF-IFAS Extension Orange County Introduction to Composting Class prior to receiving their composters and learn how they can help the city divert tons of food waste from the landfill.

Indicator Description	2012 Baseline	2015	2016	2017	2018	2019	2020	2020 target	2030 target
WDR-2 Total tons of solid waste generated	13,014	13,305	13,510	13,382	12,479	11,802	13,159	10% less (11,713)	25% less (9,761)
WDR- 3 GHG emissions from solid waste	5,335	5,436	5,492	5,423	5,167	4,855	5,395	40% less (3,201)	75% less (1,334)

WASTE DIVERSION & RECYCLING SAP ACTIONS STATUS

Action	Status
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. *Lead Department: Sustainability*	Implemented/ Ongoing
Evaluate residential and commercial recycling incentive rewards programs. *Lead Department: Sustainability*	Not started
Evaluate requirement for commercial and multifamily recycling service. *Lead Department: Sustainability*	Ongoing
Promote Commercial, Multi-Family and Construction & Debris recycling case studies. *Lead Department: Communications*	Not started
Promote composting case studies. *Lead Department: Communications*	Not started
Provide free special events recycling. *Lead Department: Parks & Recreation*	Implemented/Ongoing
Provide quarterly Hazardous Waste and Electronic Waste events (2018-Annual HHW, Semi-Annual E-Waste) *Lead Department: Public Works, Sustainability*	Implemented/ Ongoing
Increase recycling to all city owned facilities and parks *Lead Department: Parks & Recreation*	Ongoing
Evaluate Commercial Pay As You Throw Pilot program *Lead Department: Sustainability*	Not started
Pilot test residential curbside composting by adding food waste to yard waste. *Lead Department: Sustainability*	Not started
Work with Orange County and other local governments to explore increasing capacity for waste to energy at landfills. *Lead Department: Electric Utility, Sustainability*	Not started

RECOMMENDATIONS AND CONCLUSIONS

Having reached the first set of goals in 2020 it is important for us to reassess the metrics and methodology of the Sustainability Action plan as we move towards our new set of goals. With the support of the City Commission the next year the Sustainability Action Plan will undergo a refresh with the input from our City Boards, organizations and the community at large.

Through the first five years it is clear that some metrics or goals are either immeasurable or need a shift in focus as our world has seen rapid change in areas of health, technology, and culture. Yet there are those goals that remain that show areas in need of improvement that will require a greater effort from staff, leadership, and the community to achieve. Some of these goals include improving recycling rates, increasing tree canopy coverage, increasing renewable energy use, and greenhouse gas reductions.

The City can also draw on existing and newly formed regional partners such as our neighboring cities, Orange County, and the recently formed East Central Florida Regional Resilience Collaborative. We saw the benefits of this over the past year in the development and adoption of our electric vehicle readiness ordinance. Working towards and aligning our goals regionally will assist us all in achieving these goals.

With these partnerships and a refreshed plan in place the Sustainability Program can look ahead with a greater focus to the challenges that lie ahead.

APPENDIX A. LFA-1 SITES LIST

Business Name	Business Address	Type
Theodore L. Mead Community Garden	1300 S Denning Dr, Winter Park, FL 32789	Community Garden
Our Whole Community Garden	450 W Welbourne Ave, Winter Park, FL 32789	Community Garden
Winter Park Community Center Community Garden	721 W New England Ave, Winter Park, FL 32789	Community Garden
East End Market	3201 Corrine Dr, Orlando, FL 32803	Farmers' Market
Wp Farmers Market	150 N New York Ave, Winter Park, FL 32789	Farmers' Market
East End Market	3201 Corrine Drive, Orlando, FL 32803	Farmers' Market
Sprouts	1989 Aloma Ave, Winter Park, FL 32792	Grocery Store
Whole Foods Market	1030 N Orlando Ave, Winter Park, FL 32789	Grocery Store
Alexandria Market	6148 Hanging Moss Rd, Orlando, FL 32807	Grocery Store
Publix Super Market #1488	440 N Orlando Ave, Winter Park, FL, 32789	Grocery Store
Meat House The	669 Orange Ave, Winter Park, FL, 32789	Grocery Store
Walmart Market #5988	2271 N Semoran Blvd, Orlando, FL, 32807	Grocery Store
Walmart 4197	902 Lee Rd, Orlando, FL, 32810	Grocery Store
Sprouts Farmers Market	1999 Aloma Ave, Winter Park, FL, 32792	Grocery Store
Publix Super Market #1381	2295 Aloma Ave, Winter Park, FL, 32792	Grocery Store
Publix Super Market #1388	741 S Orlando Ave, Winter Park, FL, 32789	Grocery Store
Dollar General	5465 Lake Howell Rd, Winter Park, FL 32792	Grocery Store
Sushi Pop	115 E Lyman Ave, Winter Park, FL 32789	Restaurant
Ethos Vegan Kitchen	601 N New York Ave, Winter Park, FL, 32789	Restaurant
Hamiltons Kitchen	300 E New England Ave, Winter Park, FL, 32789	Restaurant
Cocina 214	151 E Welbourne Ave, Winter Park, FL, 32789	Restaurant
Thai Place	501 N Orlando Ave, Winter Park, FL, 32789	Restaurant
Prato	124 N Park Ave, Winter Park, FL, 32789	Restaurant
Ravenous Pig	1234 N Orange Ave, Winter Park, FL, 32789	Restaurant
Blue On The Avenue	326 S Park Ave, Winter Park, FL, 32789	Restaurant
Toasted	1945 Aloma Ave, Winter Park, FL, 32792	Restaurant
Soho Wp	358 N Park Ave, Winter Park, FL, 32789	Restaurant
Mynt Indian Cuisine	535 W New England Ave, Winter Park, FL, 32789	Restaurant
Umi	525 S Park Ave, Winter Park, FL, 32789	Restaurant

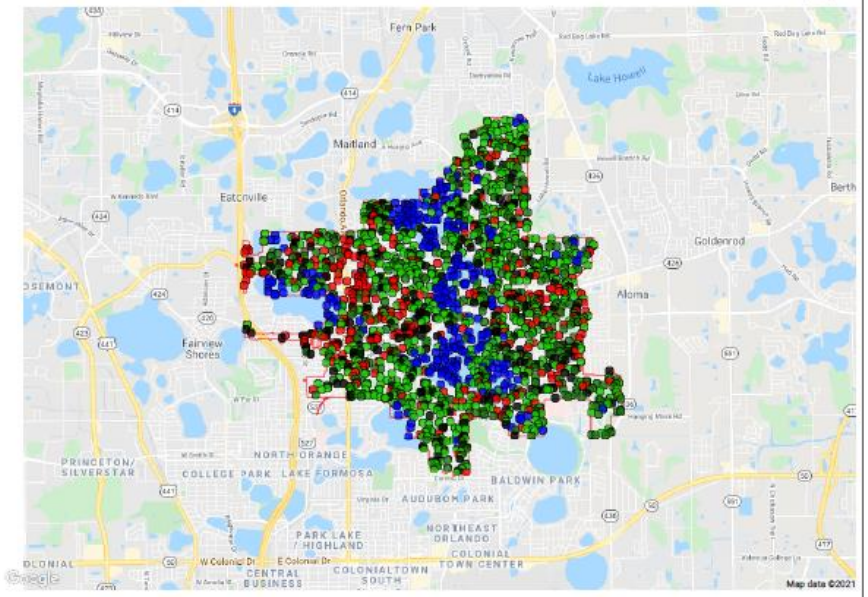
New General	155 E New England Ave, Winter Park, FL, 32789	Restaurant
Reel Fish Coastal Kitchen & Bar	1234 N Orlando Avenue, Winter Park, 32789	Restaurant
Lukes Kitchen & Bar	640 S Orlando Ave, Maitland, 32751	Restaurant
Swine & Sons Eatery Catering	669 Orange Ave, Winter Park, FL, 32789	Restaurant
Orchid Thai Cuisine Llc	305 N Park Ave, Winter Park, FL, 32789	Restaurant
Austin Coffee & Film Co	929 W Fairbanks Ave, Winter Park, FL, 32789	Restaurant
Hillstone Restaurant	215 S Orlando Ave, Winter Park, FL, 32789	Restaurant
Barnies Cafe Llc	118 S Park Ave, Winter Park, FL, 32789	Restaurant
310 Park South	310 S Park Ave, Winter Park, FL, 32789	Restaurant
Cafe De France	526 S Park Ave, Winter Park, FL, 32789	Restaurant
Create Your Nature	1284 N Orange Ave, Winter Park, FL 32789	Restaurant
Glass Knife	276 S Orlando Ave, Winter Park, FL 32789	Restaurant
Rollins College Urban Farm	1000 Holt Ave, Winter Park, FL 32789	Urban Farm

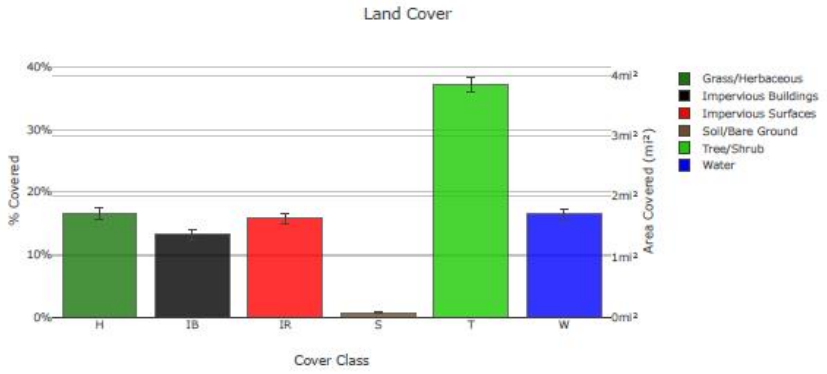
APPENDIX B. iTreeCanopy Cover Assessment and Tree Benefits Report for Baseline Year of 2012

i-Tree Canopy v7.1

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 3/12/2021





Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (mi²) ± SE
H	Grass/Herbaceous		331	16.55 ± 0.83	1.72 ± 0.09
IB	Impervious Buildings		264	13.20 ± 0.76	1.37 ± 0.08
IR	Impervious Surfaces	Roads, sidewalks, parking lots, driveways, etc.	317	15.85 ± 0.82	1.65 ± 0.08
S	Soil/Bare Ground		14	0.70 ± 0.19	0.07 ± 0.02
T	Tree/Shrub		744	37.20 ± 1.08	3.86 ± 0.11
W	Water		330	16.50 ± 0.83	1.71 ± 0.09
Total			**2000**	**100.00**	**10.38**

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (kT)	±SE	CO_2 Equiv. (kT)	±SE	Value (USD)	±SE
Sequestered annually in trees	3.37	±0.10	12.37	±0.36	$575,305	±16,714
Stored in trees (Note: this benefit is not an annual rate)	84.71	±2.46	310.62	±9.02	$14,448,067	±419,762

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Amount sequestered is based on 0.874 kT of Carbon, or 3.203 kT of CO_2, per mi²/yr and rounded. Amount stored is based on 21.940 kT of Carbon, or 80.446 kT of CO_2, per mi² and rounded. Value (USD) is based on $170,550.73/kT of Carbon, or $46,513.84/kT of CO_2 and rounded. (English units: kT = kilotons (1,000 tons), mi² = square miles)

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (T)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	1.11	±0.03	$95	±3
NO2	Nitrogen Dioxide removed annually	6.07	±0.18	$163	±5
O3	Ozone removed annually	60.50	±1.76	$8,499	±247
SO2	Sulfur Dioxide removed annually	3.83	±0.11	$29	±1
PM2.5	Particulate Matter less than 2.5 microns removed annually	2.94	±0.09	$17,569	±510
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	20.27	±0.59	$6,170	±179
Total		**94.73**	**±2.75**	**$32,524**	**±945**

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Air Pollution Estimates are based on these values in T/mi²/yr @ $/T/yr and rounded:
CO 0.289 @ $85.08 | NO2 1.573 @ $26.86 | O3 15.670 @ $140.47 | SO2 0.991 @ $7.45 | PM2.5 0.761 @ $5,975.67 | PM10* 5.249 @ $304.43 (English units: T = tons (2,000 pounds), mi² = square miles)

Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	1.28	±0.04	$11	±0
E	Evaporation	105.50	±3.07	N/A	N/A
I	Interception	106.09	±3.08	N/A	N/A
T	Transpiration	142.76	±4.15	N/A	N/A
PE	Potential Evaporation	799.44	±23.23	N/A	N/A
PET	Potential Evapotranspiration	652.28	±18.95	N/A	N/A

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Hydrological Estimates are based on these values in Kgal/mi²/yr @ $/Kgal/yr and rounded:
AVRO 0.331 @ $8.94 | E 27.324 @ N/A | I 27.477 @ N/A | T 36.974 @ N/A | PE 207.046 @ N/A | PET 168.932 @ N/A (English units: Kgal = thousands of gallons, mi² = square miles)

About i-Tree Canopy

The concept and prototype of this program were developed by David J. Nowak, Jeffery T. Walton, and Eric J. Greenfield (USDA Forest Service). The current version of this program was developed and adapted to i-Tree by David Ellingsworth, Mike Binkley, and Scott Maco (The Davey Tree Expert Company)

Limitations of i-Tree Canopy

The accuracy of the analysis depends upon the ability of the user to correctly classify each point into its correct class. As the number of points increase, the precision of the estimate will increase as the standard error of the estimate will decrease. If too few points are classified, the standard error will be too high to have any real certainty of the estimate.

Additional support provided by:

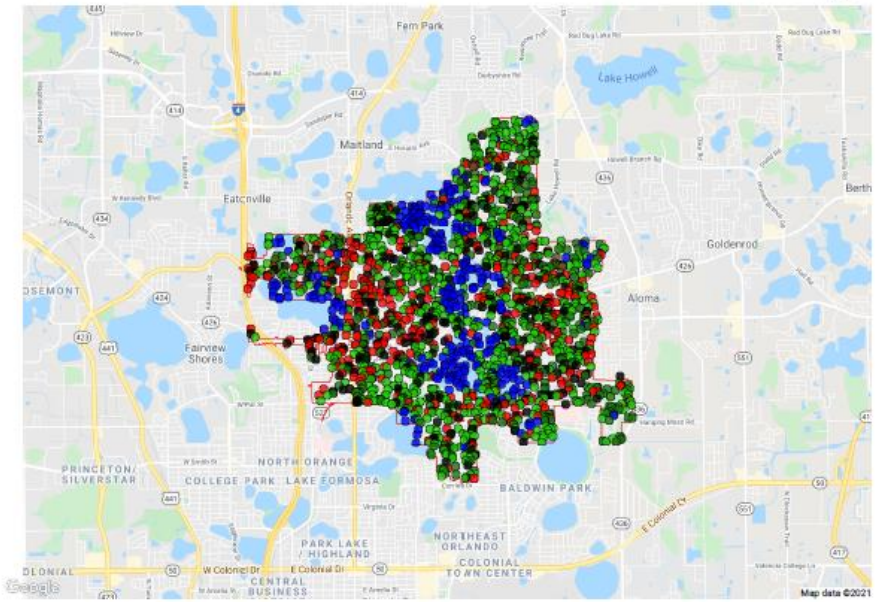
Use of this tool indicates acceptance of the EULA

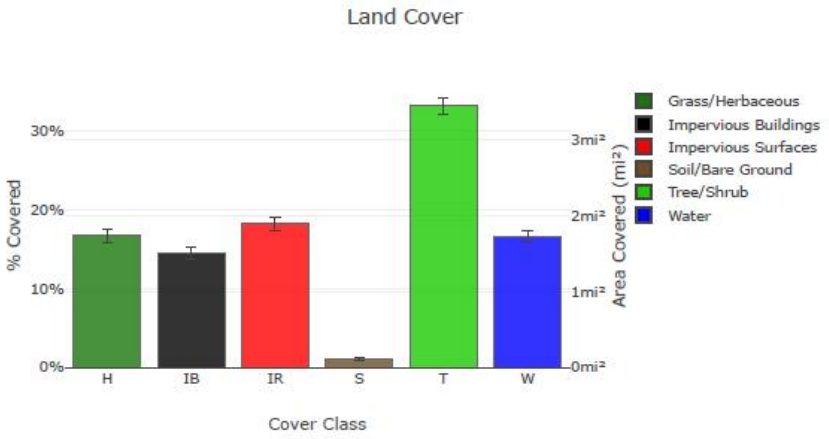
APPENDIX C. iTreeCanopy Cover Assessment and Tree Benefits Report for 2019

i-Tree Canopy v7.1

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 2/28/2021





Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (mi²) ± SE
H	Grass/Herbaceous		333	16.65 ± 0.83	1.73 ± 0.09
IB	Impervious Buildings		290	14.50 ± 0.79	1.51 ± 0.08
IR	Impervious Surfaces	Roads, sidewalks, parking lots, driveways, etc.	364	18.20 ± 0.86	1.89 ± 0.09
S	Soil/Bare Ground		20	1.00 ± 0.22	0.10 ± 0.02
T	Tree/Shrub		662	33.10 ± 1.05	3.44 ± 0.11
W	Water		331	16.55 ± 0.83	1.72 ± 0.09
Total			**2000**	**100.00**	**10.38**

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (kT)	±SE	CO_2 Equiv. (kT)	±SE	Value (USD)	±SE
Sequestered annually in trees	3.00	±0.10	11.01	±0.35	$511,898	±16,273
Stored in trees (Note: this benefit is not an annual rate)	75.38	±2.40	276.38	±8.79	$12,855,673	±408,676

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Amount sequestered is based on 0.874 kT of Carbon, or 3.203 kT of CO_2, per mi²/yr and rounded. Amount stored is based on 21.940 kT of Carbon, or 80.446 kT of CO_2, per mi² and rounded. Value (USD) is based on $170,550.73/kT of Carbon, or $46,513.84/kT of CO_2 and rounded. (English units: kT = kilotons (1,000 tons), mi² = square miles)

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (lb)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	1,982.65	±63.03	$84	±3
NO2	Nitrogen Dioxide removed annually	10,810.89	±343.67	$145	±5
O3	Ozone removed annually	107,671.65	±3,422.83	$7,562	±240
SO2	Sulfur Dioxide removed annually	6,812.75	±216.57	$25	±1
PM2.5	Particulate Matter less than 2.5 microns removed annually	5,231.95	±166.32	$15,632	±497
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	36,066.00	±1,146.52	$5,490	±175
Total		**168,575.88**	**±5,358.95**	**$28,939**	**±920**

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Air Pollution Estimates are based on these values in lb/mi²/yr @ $/lb/yr and rounded:
CO 577.084 @ $0.04 | NO2 3,146.698 @ $0.01 | O3 31,339.728 @ $0.07 | SO2 1,982.970 @ $0.00 | PM2.5 1,522.851 @ $2.99 | PM10* 10,497.643 @ $0.15 (English units: lb = pounds, mi² = square miles)

Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	1.14	±0.04	$10	±0
E	Evaporation	93.88	±2.98	N/A	N/A
I	Interception	94.40	±3.00	N/A	N/A
T	Transpiration	127.03	±4.04	N/A	N/A
PE	Potential Evaporation	711.33	±22.61	N/A	N/A
PET	Potential Evapotranspiration	580.39	±18.45	N/A	N/A

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Hydrological Estimates are based on these values in Kgal/mi²/yr @ $/Kgal/yr and rounded:
AVRO 0.331 @ $8.94 | E 27.324 @ N/A | I 27.477 @ N/A | T 36.974 @ N/A | PE 207.046 @ N/A | PET 168.932 @ N/A (English units: Kgal = thousands of gallons, mi² = square miles)

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Additional support provided by:

Use of this tool indicates acceptance of the EULA

APPENDIX D. NSR-5 SITES LIST

Site Name	Site Address	Site Type
Howell Branch Preserve	2908 Temple Trl	Community Park
Farmers' Market Grounds	200 W New England Ave	Community Park
Dinky Dock Park	410 Ollie Ave	Community Park
Community Center/Shady Park Complex	721 W New England Ave	Community Park
Central Park/West Meadow	101 N Park Ave	Community Park
Lake Baldwin Park	2000 S Lakemont Ave	Community Park
Martin Luther King, Jr Park	1050 W Morse Blvd	Community Park
Mead Botanical Garden	1300 S Denning Dr	Community Park
Ward Park/Cady Way Park	2525 Cady Way	Community Park
Cavendish / Harmon Mini Park	1421 Cavendish Rd	Mini Park
Worthington Court Mini Park	Worthington Ct	Mini Park
Alberta/Joalca Mini Park	1351 Alberta Dr	Mini Park
Bonita Drive Mini Park	Bonita Dr At Elizabeth Dr	Mini Park
Canton / New York Mini Park	Canton Ave At New York Ave	Mini Park
Via Bella Mini Park	Via Bella, End Of	Mini Park
Laughlin Mini Park	750 W New England Ave	Mini Park
Sunset / Chestnut Mini Park	Sunset Dr At Chestnut Ave	Mini Park
Park Grove Mini Park	N Pennsylvania Ave At N Park Ave	Mini Park
Morse Bv Mini Park	Morse Dead End At Lake	Mini Park
Canton / Interlachen Mini Park	E Canton Ave At Lakefront	Mini Park
Orange / Harmon Mini Park	1390 N Orange Ave	Mini Park
Lakeview Mini Park	Lakeview Dr At French Ave	Mini Park
Marvin Smiley Mini Park	N Phelps Ave At Hollywood Ave	Mini Park
Bonnie Burn Mini Park	Bonnie Burn Cir	Mini Park
Tyree Lane Mini Park	2278 Hawick Ln	Mini Park
Fairbanks Ave / Orlando Ave Mini Park	W Fairbanks Ave At S Orlando Ave	Mini Park
Lasbury / Maiden Mini Park	Lasbury Ave At Maiden Ln	Mini Park
Alberta/Cortland Mini Park	480 Alberta Dr	Mini Park
Kiwi / Webster Mini Park	Webster Ave East End By Lake	Mini Park

Alfred J Hannah Mini Park	220 Holt Ave	Mini Park
Pucifer/Interlachen Mini Park	701 N Interlachen Ave	Mini Park
Harris Circle Mini Park	1575 Harris Cir	Mini Park
Fawcett Road Mini Park	W Fawsett Rd At W Dana Way	Mini Park
Villa View Mini Park	North Park Ave & Oaks Blvd	Mini Park
Alberta Drive Mini Park	413 Alberta Dr	Mini Park
Alexander Place Mini Park	150 Alexander Pl	Mini Park
Loch Lomond / St Andrews Mini Park	2294 Hawick Ln	Mini Park
Hamilton Place Mini Park	Beloit Ave At N Capen Ave	Mini Park
Jay Blanchard Mini Park	Aloma Ave @ Sylvan Dr	Mini Park
Hooper Mini Park	1411 N Orange Ave	Mini Park
Golfview Mini Park	Golfview Ter Between E Webster Ave And Lincoln Cir	Mini Park
Leith Mini Park	1501 S Orlando Ave	Mini Park
Kings Way Mini Park	Kings Way Between Forrest Rd And Laurel Rd	Mini Park
Reading Way Mini Park	Reading Way Between Forrest Rd And Laurel Rd	Mini Park
Lake Midget Mini Park	Midget Dr	Mini Park
Lake Wilbar Mini Park	Wilbar Cir	Mini Park
Harland Mini Park	Timberlane Dr At Blue Ridge Rd	Mini Park
Chelton Cir Mini Park	Chelton Cir	Mini Park
Lake Knowles Mini Park	Lake Knowles Cir	Mini Park
The Park At Orwin Manor	1701 N Orange Ave	Neighborhood Park
Trismen Park	231 Brewer Ave	Neighborhood Park
Kraft Azalea Garden	1429 Alabama Dr	Neighborhood Park
Phelps Park	1206 N Phelps Ave	Neighborhood Park
1620 S Pennsylvania Ave	1620 S Pennsylvania Ave	Open Space/Conservation
Cady Way Bike Trail	Cady Way Bike Trail From Summerfield Rd To Golfside Dr	Open Space/Conservation
Azalea Lane Park	1045 Azalea Ln	Special Purpose Park
Golf Course	645 N New York Ave	Special Purpose Park

APPENDIX E. FY2021 SUSTAINABILITY PROGRAM BUDGET

Revenue

Category	Title	Details	Funding Source	Funding Amount
BEW	Energy Conservation Program	Energy Audits, Rebates, Education & Outreach	Electric Utility	$50,000.00
CEGE	City General Fund	Earth Day Event and Community Outreach-Due to COVID Pandemic, Earth Day 2020 event canceled, funding provided in FY20 to be rolled over to FY21, no funding provided for FY21	City General Fund	$0.00
CEGE	KWPB Sponsorships	Due to COVID Pandemic, Earth Day 2021 event unlikely therefore KWPB sponsorships unlikely; Ballroom Dance Lessons unlikely; Potential for some revenue from KWPB Memorial Brick Program, KWPB Bus Ad Prog	Sponsors	$2,500.00
NRS	FDOT/KABA Litter Prevention Grant	Due to COVID Pandemic, FDOT/KABA Grant Amount Reduced by State of Florida to $15K for all affiliates; GAC/DIH-KOPLF promotion and advertisings, Backyard Composters, Reusable Cooler Totes and Straws for Community Farmers Market in support of SUPP	FDOT	$15,000.00
NRS	KWPB/Lakes Volunteer Events	Due to COVID Pandemic, transitioned to primarily self-directed Watershed Cleanups	Public Works	$10,000.00
WDR	Recycling	Provide recycling education-research residential and com recycling incentives,commerical recycling - promote and assist, com., multi fam, C&D recycling case studies, composting pilot and case studies	WastePro	$25,000.00
				$102,500.00

Expenses

Category	Title	Details	Column1	Budget
BEW	Energy Conservation Program	Energy Audits, Rebates, Education & Outreach		$50,000.00
CEGE	Memberships	ICLEI, Keep America Beautiful Affiliate Fee, SSDN Annual Membership, USDN Annual Membership, USGBC Annual Membership, Volunteer Match Annual Subscription; Due to COVID Pandemic will not be participating in America in Bloom		$2,809.00
CEGE	Travel	Keep Florida Beautiful Annual Meeting, USDN Annual Meeting, SSDN Annual Meeting (Registration, Hotel, Airfare, Per Diem), FSDN Annual Meeting (Registration, Hotel, Mileage, Per Diem); Due to COVID Pandemic most of these meetings will likely be held virtually and not require total budgeted amount		$2,750.00
CEGE	America in Bloom	America in Bloom Judge Hosting (Hotel, Meals for 2 judges)-Due to COVID Pandemic, will not be participating		$0.00
CEGE	Earth Day	Community Event-Due to COVID Pandemic, event will likely be scaled back and not require total budgeted amount		$18,000.00
CEGE	Green Business Recognition Program	Green Business Recognition Program- Marketing and Events		$2,500.00
CEGE	Green School Grants	Green School Grants and USGBC Green Classroom Professional Certification		$3,175.00
CEGE	Keep Winter Park Beautiful & Sustainable Advisory Board Meetings & Sponsor Engagement	Keep Winter Park Beautiful & Sustainable Advisory Board Monthly Meetings-Lunch; KWPB Sponsor Plaques & Mailing-Due to COVID Pandemic, meals may not be needed and not require total budgeted amount		$1,400.00
CEGE	KWPB&S Advertising	KWPB&S Initiatives Monthly Advertising in Park Press, Quarterly in Winter Park Magazine		$4,900.00
NRS	KWPB/Lakes Volunteer Events	Watershed Cleanups Supplies, Due to COVID Pandemic, primarily self-directed supplies kits		$10,000.00
NRS	FDOT/KABA Litter Prevention Programs	GAC/DIH-KOPLF promotion and advertisings, Backyard Composters, Reusable Cooler Totes and Straws for Community Farmers Market in support of SUPP		$16,000.00
WDR	Recycling Education and Outreach	At home mailer, untility bill insert and other promotional materials and projects related to waste diversion and recycling, multi fam, C&D recycling case studies, composting pilot and case studies, recycling bins for public areas (parks, etc), ReCollect waste management platform, e-waste recycling events		$25,000.00
				$136,534.00