City Commission Work Session

Agenda

October 28, 2021 @ 1:00 pm

Virtual

welcome

Agendas and all backup material supporting each agenda item are accessible via the city's website at cityofwinterpark.org/bpm and include virtual meeting instructions.

assistance & appeals

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office (407-599-3277) at least 48 hours in advance of the meeting.

"If a person decides to appeal any decision made by the Board with respect to any matter considered at this hearing, a record of the proceedings is needed to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." (F.S. 286.0105).

please note

Times are projected and subject to change.

agenda	time

1. **Call to Order**
2. **Discussion Item(s)**
   a. Gas Powered Leaf Blower Policy Recommendations — 45 minutes
   b. Sustainability Action Plan 2021 Update — 75 minutes
3. **Adjournment**

City Commission agenda item

item type Discussion Item(s)	meeting date October 28, 2021
prepared by Vanessa Balta	approved by Michelle del Valle, Randy Knight
board approval Completed	
strategic objective	

subject
Gas Powered Leaf Blower Policy Recommendations

motion / recommendation

background
In May 2021 the City Commission requested that the Keep Winter Park Beautiful & Sustainable (KWPB&S) Advisory board consider the creation of a policy that would phase out gas-powered leaf blowers and would include input from residents and landscape service professionals. The KWPB&S board formed a committee in July 2021, staff provided information on the City's current policy, environmental and health impacts of gas-powered leaf blowers and examples of national and local policies on this issue. The Committee requested staff prepare surveys for residents and landscape professionals to help gauge the community's desire for a policy. In addition, staff prepared price comparisons of gas vs. electric-powered leaf blowers, rebate programs available to make the switch, and gathered contact information for landscaping companies working in the City. Supporting documentation provides an overview of the committee's process, results from resident and landscape service professional surveys and recommendations from the KWPB&S Advisory Board.

alternatives / other considerations

fiscal impact

ATTACHMENTS:
20211028 CC Leaf Blower Policy Presentation with Rec.pdf

ATTACHMENTS:
Winter Park Resident Survey-Results.pdf

ATTACHMENTS:

Winter Park Landscape Service Professionals Survey-Results - Copy.pdf

ATTACHMENTS:
Links to Raw Data from Surveys for Agenda.pdf

Gas-Powered Leaf Blowers Policy

Sustainability Program Staff

Vanessa Balta
Sustainability Manager
M.S. Urban and Regional Planning
B.A. Environmental Studies

Agnieszka Tarnawska
Sustainability Specialist
M.E. Environmental Protection
M.S. Environmental Policy & Management

Keep Winter Park Beautiful & Sustainable Advisory Board

Appointee	Commission Member
Carey Bond	Commissioner DeCiccio
Ben Ellis	Mayor Anderson
Danielle Flipse	Commissioner Sullivan
Stephen Pategas	Commissioner Weaver
Rosemary Salow	Commissioner Cooper
Lynne Bachrach	Mayor Anderson
Catherine (Kay) Hudson	Mayor Anderson

Summary of Committee Formation/ Research

May 12, 2021
Commission requested KWPB&S Advisory Board consider gas-powered leaf blower phase out policy. Requested input from users on the impact of such a ban.

July 9, 2021
Work Session/Committee convened on City Commission Request; Committee members (Rosemary S., Carey B., & Stephen P.) provided:

- **Staff presentation** on Current Policy, Environmental & Health Impacts and examples of national and local policies/bans
- Copies of **ordinances** from Key Biscayne, Key West and Naples
- Committee requested from staff:
  - Obtain **Ft. Lauderdale's** Landscape Services Professional and Resident **surveys** to help build WP surveys
  - **Price comparison** of gas vs electric blowers
  - **Comparison of existing incentive programs** for incentivizing the switch
  - Create **list of landscaping companies** to receive survey (GIS Business Analyst, Building and Google search)

September 10, 2021
Work Session/Committee convened (Rosemary S., Carey B., Kay H. & Stephen P.)

- Finalized surveys for Landscape Services Professionals and Resident Surveys
- Board emailed price comparison and incentive program summaries
- Reviewed landscaping company contact list
- Survey set to launch 9/20/2021, close 10/6/2021

Gas-Powered Leaf Blowers
Current City Policy

Current Policy (Chapter 62 Offenses and Miscellaneous Provisions, Article IV-Offenses Involving Public Peace and Order, Division 2 – Noise & Disturbance Control, Specific prohibitions)

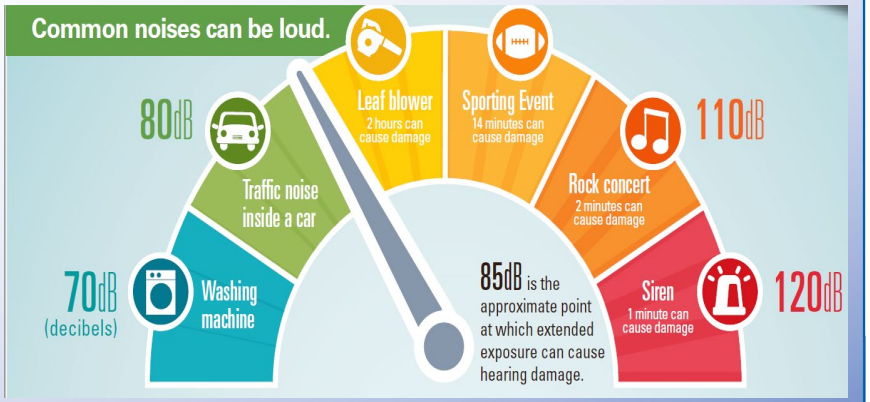
- *Domestic power tools*…mechanically powered lawn or garden tool between 9pm and 7am the following day so as to create a noise disturbance across a residential or commercial property line {allowed: Mon-Saturday 7am-9pm)

- *Domestic power tools on Sunday*…mechanically powered lawn or garden tool between 9pm on Saturday and 9am on Sunday so as to create a noise disturbance across a residential or commercial property line {allowed: Sundays 9am-9pm}

Gas-Powered Leaf Blowers
Environmental & Human Health Impacts
And Types of Bans passed

Gasoline-powered leaf blowers

- Produce high levels of localized emissions that include hazardous air pollutants, criteria pollutants, (ozone, particulate matter, carbon monoxide) and carbon dioxide.
- Continual exposure to noise can cause stress, anxiety, depression and heart disease
- Health impacts to workers and members of the public will depend on their level exposure
- Series of EPA regulations gas-powered leaf-blowers are required to produce 80% less pollution than they were prior to 1995.
- Potential for fuel spillage/water quality impacts



Generally cities bans based on noise (and sometimes air pollution), may ban:

- All leaf blowers (Del Mar, Santa Monica, CA)
- Gasoline-powered leaf blowers (Beverly Hills, CA; Aspen, CO)
- All leaf blowers during certain seasons (Yonkers, NY)
- All leaf blowers during certain times of day (Greenwich, CT; Cambridge, MA; Coral Gables, FL; Winter Park, FL)
- All leaf blowers above a certain decibel level (Flower Hill, NY, Montgomery County, MD, Tampa, FL)

Gas-Powered Leaf Blowers Policy Examples from Florida

Florida Examples

- Coral Gables (2016), Pop. 50K
  - Considered revisions, may revisit, for now have established a landscaper registration program
    - $5 annual registration fee per vehicle decal, exceptions for <22 years old students performing work part-time, non-commercial and other exceptions
- Key Biscayne (2018), Pop. 13K
  - Amended Code to prohibit fuel-powered leaf blowers
    - 180-day grace period, corded-electric or battery powered, or raking/sweeping, kept existing regs of 65-decibel limit and working permitted hours of M-F 8am-6:30pm and Sat-Sun 10am-6:30pm
- Largo, FL (2020), Pop 84K, created an Alternative Fuel Vehicle Purchasing Policy that included replacement policy that prioritized electric-powered equipment over fossil fuel burning equipment
- Miami Beach, FL (Pop. 90K) and Orlando, FL (Pop. 280K) transitioning parks gas powered leaf blowers to electric (informal policy)
- Naples, FL (2020), Pop. 21K, prohibits gas powered blowers and any blower that exceeds 65 decibels, effective Oct. 21, 2021
- Palm Beach, FL (2017), Pop. 9K, prohibits gas powered leaf blowers on any property that is less than one acre in size

Leaf Blower Costs & Incentive Comparison

RESIDENTIAL – homedepot.com	CFM	MPH	Min	Max	Avg. Cost
Gas-Powered	400-706	150-206	$70	$600	$100-200
Electric-Corded	200-620	155-250	$20	$230	$50-100
Electric-Cordless w/battery and charger	200-625	90-145	$80	$400	$50-150

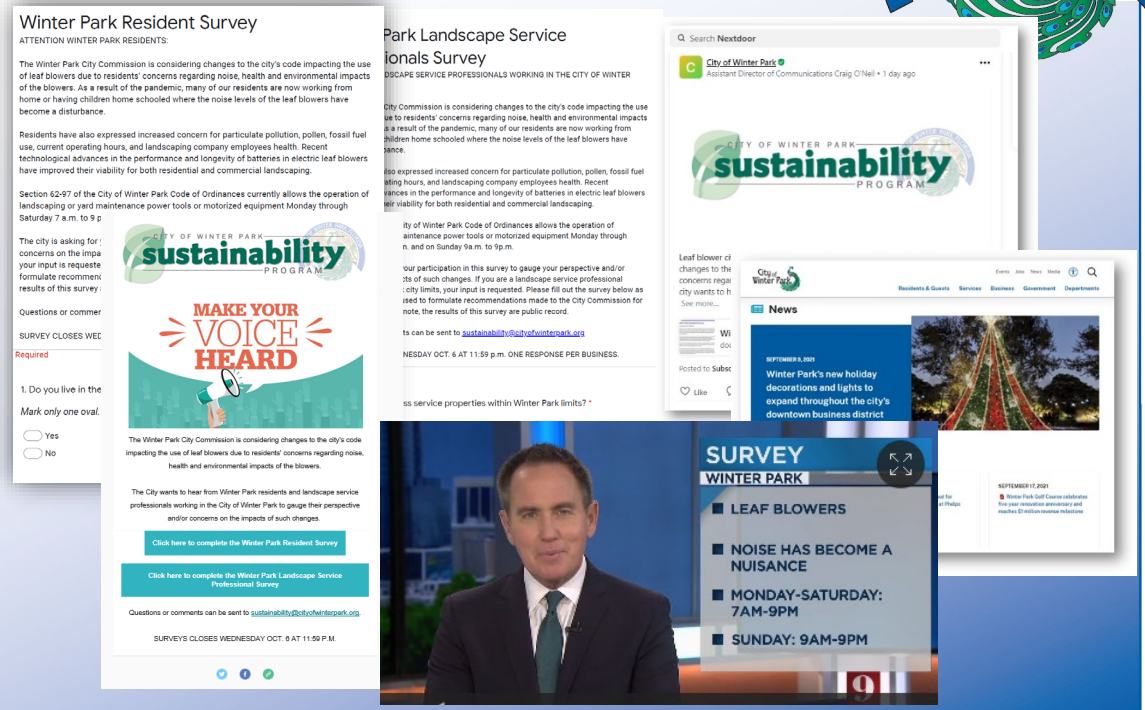
COMMERCIAL	CFM	MPH	Min	Max	Avg. Cost
Gas-Powered Husqvarna.com	459-941	157-206	$290	$580	$460
Electric-Cordless –w/battery & charger Greenworkscommercial.com	315-690	85-160	$100	$930	$365

REBATES- Utilities in CO, FL, IN, KY, MA, NY, VT	
Residential	**Commercial**
$20-50	$20-200

CFM: Cubic Feet Per Minute; How much air flows through
MPH: Miles Per Hour; How fast the air exits
A higher CFM will help you clear a larger area and push leaves further. A higher MPH will help you better lift wet leaves and debris.

Leaf Blower Surveys
Launch and Media Coverage

- Google Forms
- Launched: Monday September 20
  Closed: Wednesday October 6
- Posted to
  - Main City Homepage
  - citEnews
  - Nextdoor
  - Sustainability E-list
- Media Coverage
  - The32789.com
  - WFTV-ORD (ABC)
  - WESH-2 (NBC)
- Landscapers contacted by phone, e-mail and/or text



Leaf Blower Survey
Resident Survey Results Summary

- 1,278 Responses from Residents (84 non-resident responses excluded)

- Of those who completed the survey:
  - A little over half (55%) said they have been disturbed by leaf blowers in the past 18 months
  - Residents level of concern with blowers, ranked from highest to lowest: Noise, Operating Hours, Blowing Debris into streets/storm drains, exhaust pollution, air quality, fossil fuel usage, user's health
  - Almost half (49%) said they would support a policy that would ban gas-powered leaf blowers in favor of electric/battery-powered
  - 66% said they owned a leaf blower, of those 65% use electric-powered leaf blowers
  - 63% said there is a landscaping service where they live
  - Residents level of concern, ranked from highest to lowest with a policy change: Potential Cost Increase, Cost of purchasing new blower, Limited Hours, Effectiveness of Alternatives
  - A majority (76%) said they would support some kind of restriction to the use of gas-powered leaf blowers (e.g., limitation on hours, quieter gas models, electric models, total ban)
  - **A majority (78%) said they would support some kind of limitation on operating days/hours**
  - A little over half (53%) said they would support an ordinance that would go into effect within a year

Leaf Blower Survey
Landscaper Survey Results Summary

- 20 Responses from Landscape Services Professionals (Owners, Employees)

- Of those who completed the survey:
  - Nearly half (48%) have 5 or less gas-powered leaf blowers, 33% have more than 10 but less than 19
  - Replacement time for blowers: Every Year-21%, Every 2 years-37%, Every 3 years-26%
  - The majority (50%) said they were most concerned with blowers blowing debris into the streets and stormdrains
  - **Majority (95%) said they would not be supportive of a policy that would ban gas-powered leaf blowers in favor of electric/battery-powered**
  - **Majority (85%) said they were most concerned with a policy creating a potential need to increase service charges to the customer, the costs of purchasing to comply and the effectiveness**

Gas Powered Leaf Blower Policy
Staff Observations

- The residents' survey suggests a majority (75%) of residents would support some kind of restriction to the use of gas-powered leaf blowers (limitation on hours, quieter models, electric, total ban); an ordinance that would limit hours seems to be the most palatable for those who took the survey
- The landscaper survey suggests that of those who took the survey the majority would not be supportive of any kind of change to the existing regulation
- An opportunity for the City to lead by example by passing a resolution committing to electrification
- An opportunity to engage and educate residents and landscapers on the pros and cons
- An opportunity to consider providing incentives to the community for making a switch, would need to consider budget

Gas Powered Leaf Blower Policy Board Recommendations

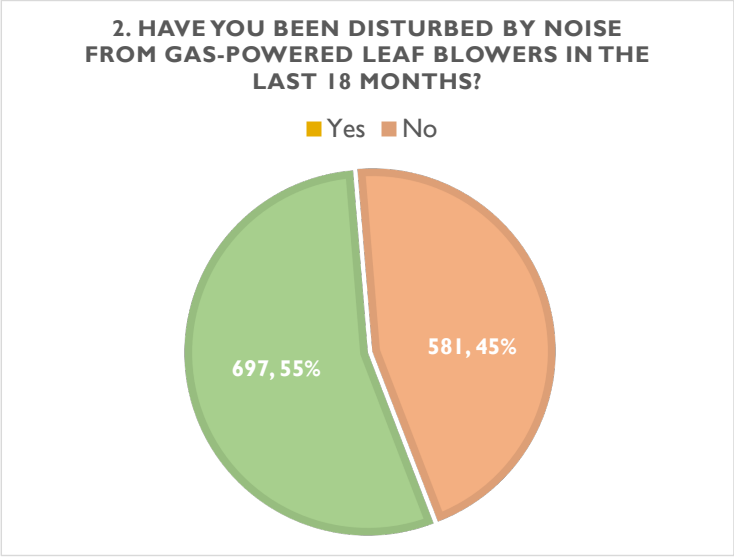
Consider…

- Limited time-frame rebate program for residents for purchase of electric-powered leaf blowers
- Limited time-frame rebate program for commercial for the purchase of batteries
- Formal policy to electrify Parks equipment (timeframe dependent on feasibility); promote ongoing status of transition in city updates
- Add to Green Business Recognition Program criteria, points for using electric-powered leaf blowers
- Add to Sustainability Pledge, pledge to switch to electric-powered leaf blowers
- Drafting an Ordinance that would:
  - Immediately: Reduce hours of use for gas-powered only (2 hours on both ends), incentivizing electric-powered leaf blower
  - 2 year phase out period, with potential for extension (e.g., supply issues):
    - Professional landscapers and residents required to have electric-powered operated leaf blowers
    - Notify/Cite owners, not landscaping companies
    - Definition of "domestic", would want to apply to both "residential" and "commercial" users

Survey Question

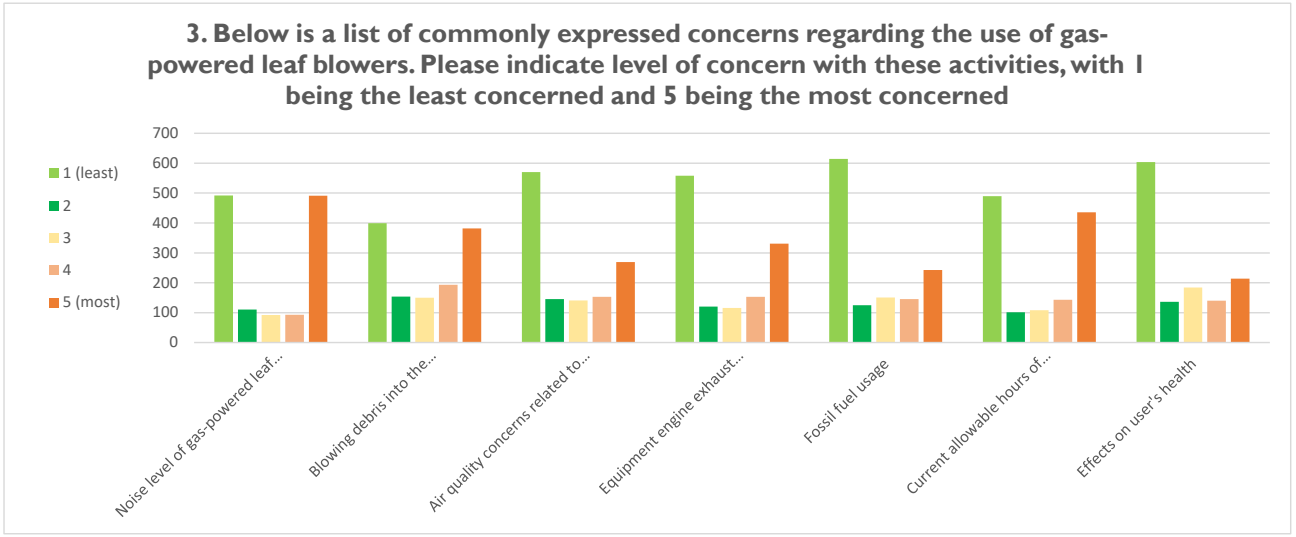
2 Have you been disturbed by noise from gas-powered leaf blowers in the last 18 months?

Yes	697
No	581



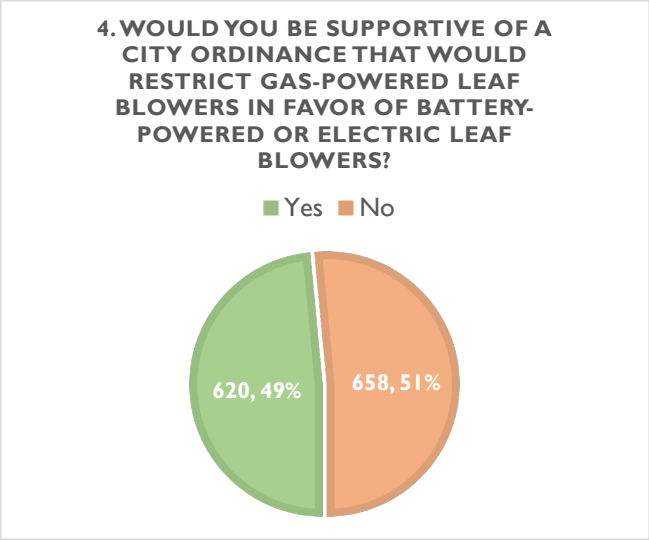
3 Below is a list of commonly expressed concerns regarding the use of gas-powered leaf blowers. Please indicate level of concern with these activities, with 1 being the least concerned and 5 being the most concerned. (mark only one selection per row)

	1 (least)	2	3	4	5 (most)
Noise level of gas-powered leaf blowers	492	110	92	93	491
Blowing debris into the street/storm drains.	399	154	150	193	382
Air quality concerns related to particulates/pollen/dirt/animal droppings	570	145	141	153	269
Equipment engine exhaust pollution from gas-powered leaf blowers	558	120	116	153	331
Fossil fuel usage	614	125	151	145	243
Current allowable hours of operation (Monday through Saturday 7 a.m. to 9 p.m. and on Sunday 9 a.m. to 9 p.m.)	490	101	108	143	436
Effects on user's health	604	136	184	140	214



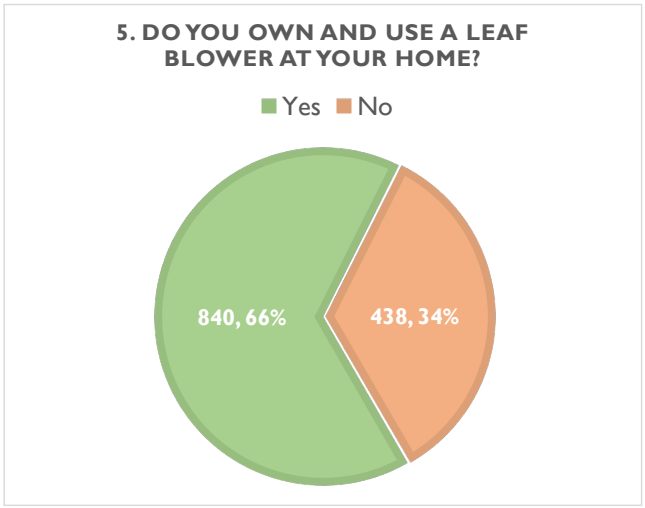
4 Would you be supportive of a city ordinance that would restrict gas-powered leaf blowers in favor of battery-powered or electric leaf blowers?

Yes	620
No	658



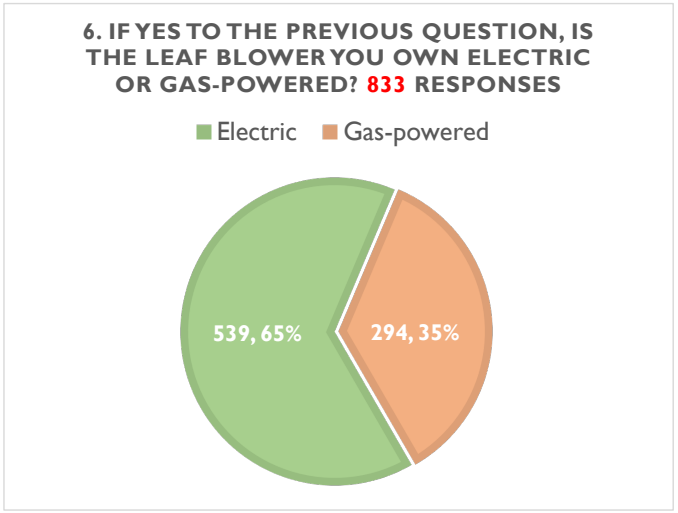
5 Do you own and use a leaf blower at your home?

Yes	840
No	438



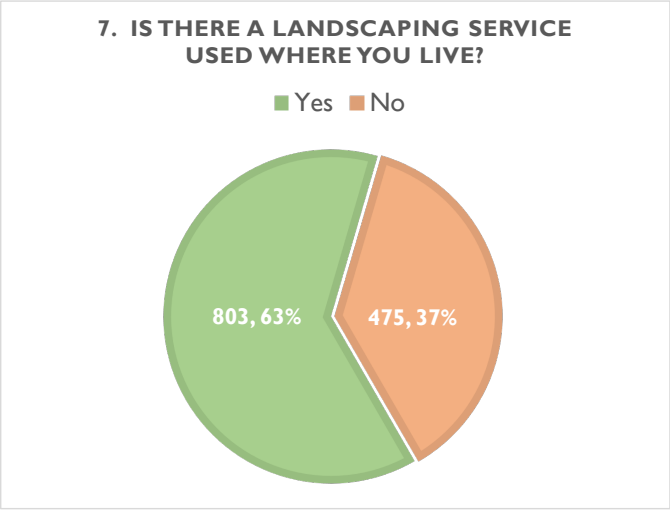
6 If yes to the previous question, is the leaf blower you own electric or gas-powered?

Electric	539
Gas-powered	294



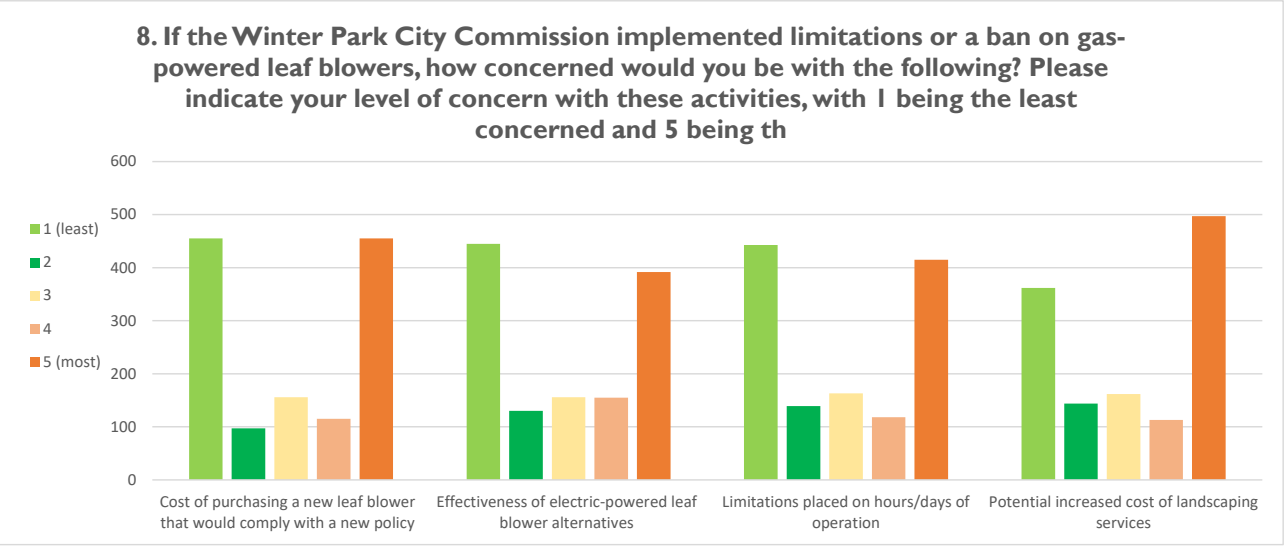
7 Is there a landscaping service used where you live?

Yes	803
No	475



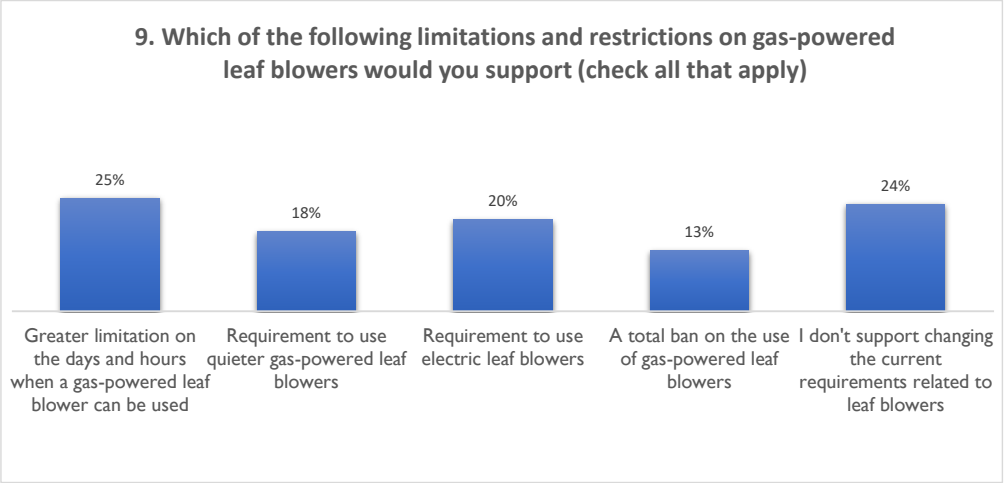
8 8. If the Winter Park City Commission implemented limitations or a ban on gas-powered leaf blowers, how concerned would you be with the following? Please indicate your level of concern with these activities, with 1 being the least concerned and 5 being the most concerned. (mark only one selection per row)

	1 (least)	2	3	4	5 (most)
Cost of purchasing a new leaf blower that would comply with a new policy	455	97	156	115	455
Effectiveness of electric-powered leaf blower alternatives	445	130	156	155	392
Limitations placed on hours/days of operation	443	139	163	118	415
Potential increased cost of landscaping services	362	144	162	113	497



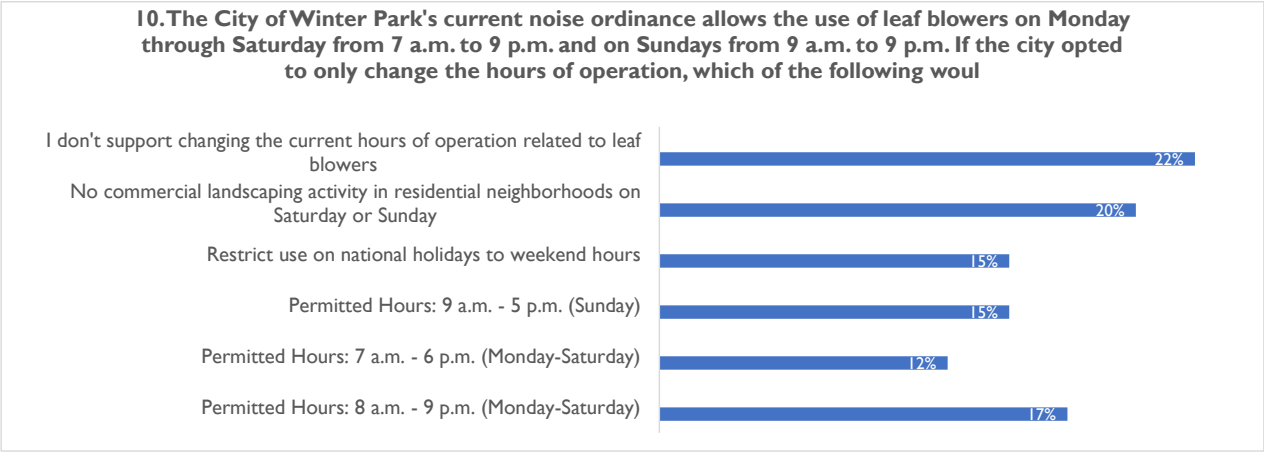
9 9. Which of the following limitations and restrictions on gas-powered leaf blowers would you support (check all that apply)

Greater limitation on the days and hours when a gas-powered leaf blower can be used	565	25%
Requirement to use quieter gas-powered leaf blowers	397	18%
Requirement to use electric leaf blowers	458	20%
A total ban on the use of gas-powered leaf blowers	303	13%
I don't support changing the current requirements related to leaf blowers	535	24%



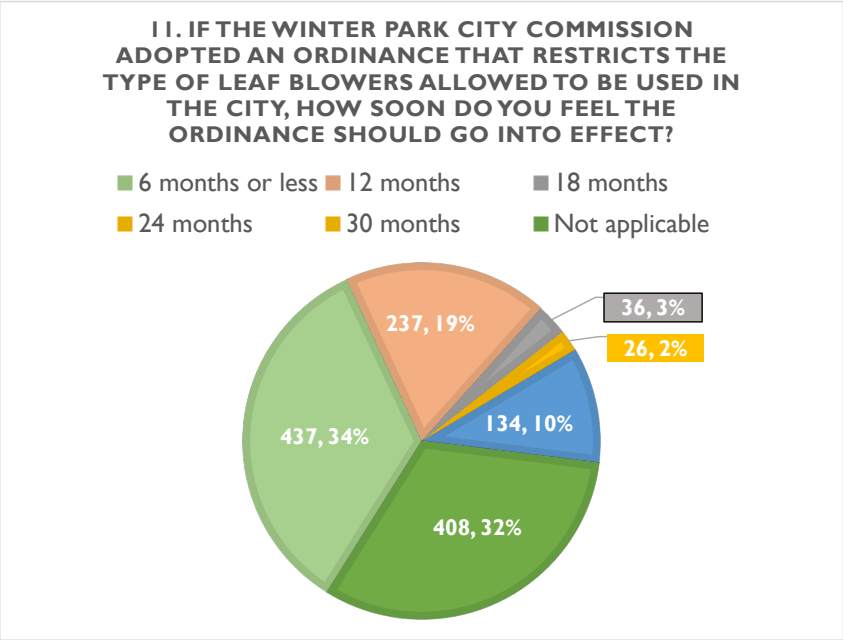
10 10. The City of Winter Park's current noise ordinance allows the use of leaf blowers on Monday through Saturday from 7 a.m. to 9 p.m. and on Sundays from 9 a.m. to 9 p.m. If the city opted to only change the hours of operation, which of the following would you support? (check all that apply)

Permitted Hours: 8 a.m. - 9 p.m. (Monday-Saturday)	358	17%
Permitted Hours: 7 a.m. - 6 p.m. (Monday-Saturday)	253	12%
Permitted Hours: 9 a.m. - 5 p.m. (Sunday)	307	15%
Restrict use on national holidays to weekend hours	307	15%
No commercial landscaping activity in residential neighborhoods on Saturday or Sunday	418	20%
I don't support changing the current hours of operation related to leaf blowers	470	22%



11 11. If the Winter Park City Commission adopted an ordinance that restricts the type of leaf blowers allowed to be used in the city, how soon do you feel the ordinance should go into effect?

6 months or less	437	34%
12 months	237	19%
18 months	36	3%
24 months	26	2%
30 months	134	10%
Not applicable	408	32%


11. IF THE WINTER PARK CITY COMMISSION ADOPTED AN ORDINANCE THAT RESTRICTS THE TYPE OF LEAF BLOWERS ALLOWED TO BE USED IN THE CITY, HOW SOON DO YOU FEEL THE ORDINANCE SHOULD GO INTO EFFECT?
6 months or less
12 months
18 months
24 months
30 months
Not applicable
237, 19%
36, 3%
26, 2%
134, 10%
437, 34%
408, 32%

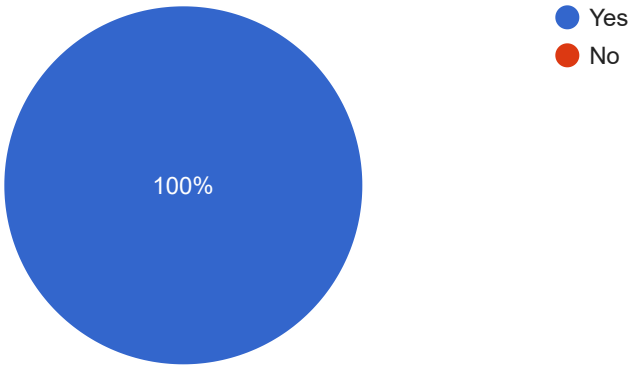
Winter Park Landscape Service Professionals Survey

20 responses

Publish analytics

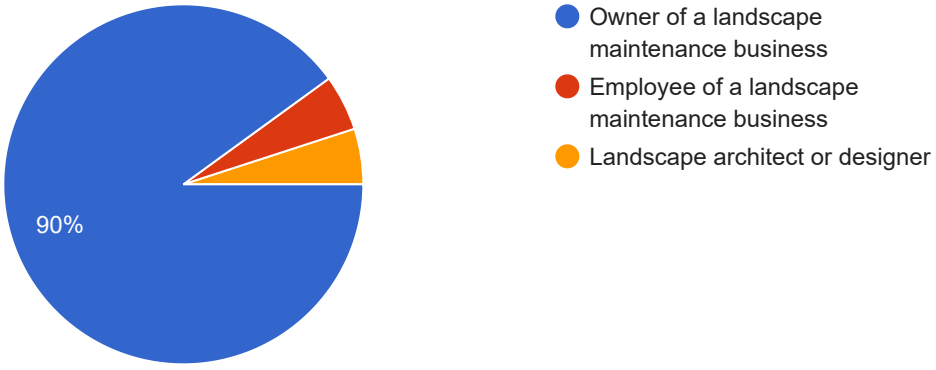
1. Does your business service properties within Winter Park limits?

20 responses



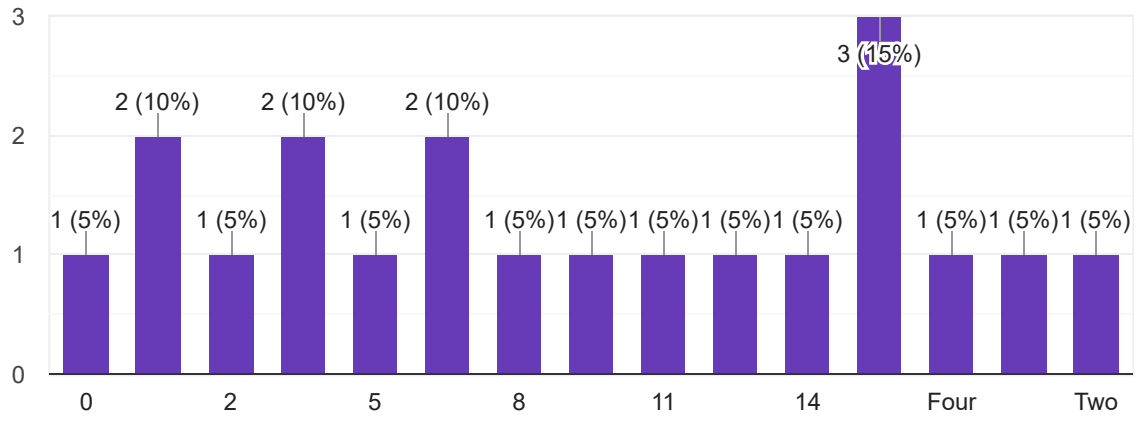
2. Which of the following best describes you?

20 responses



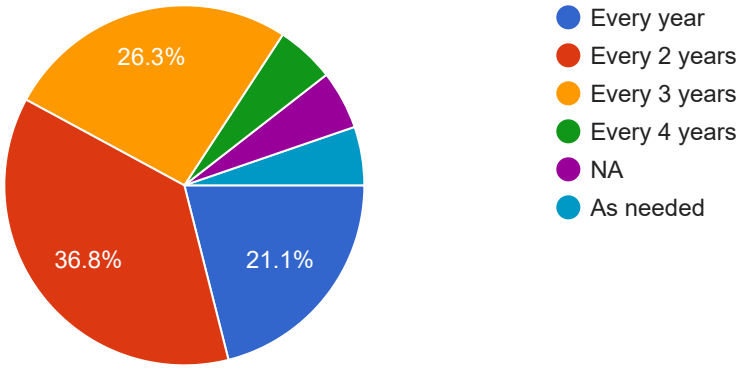
3. How many gas-powered leaf blowers are currently in active use by your business?

20 responses

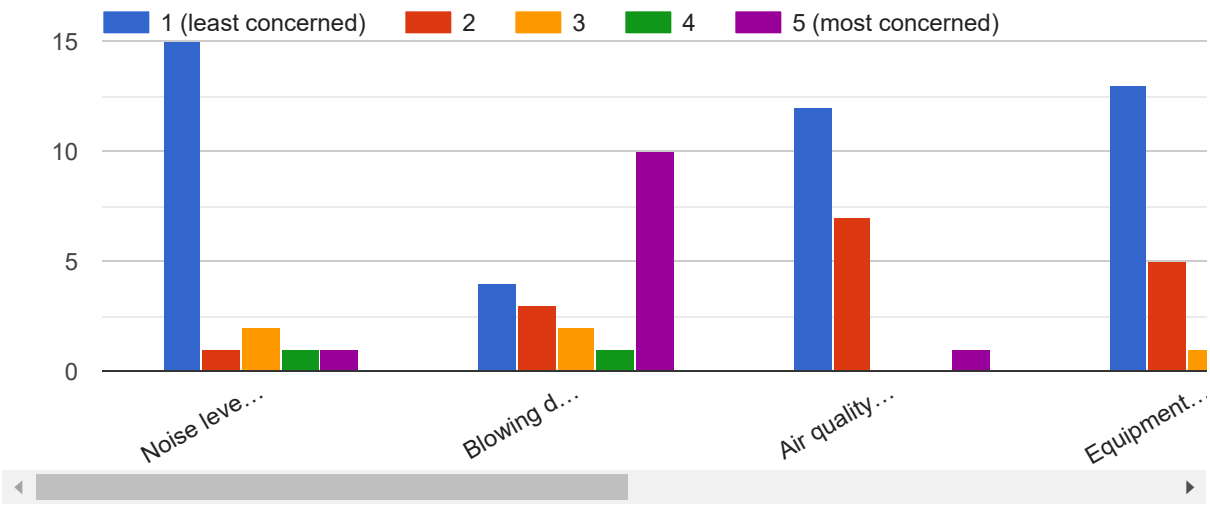


4. How often do you replace your leaf blower equipment?

19 responses

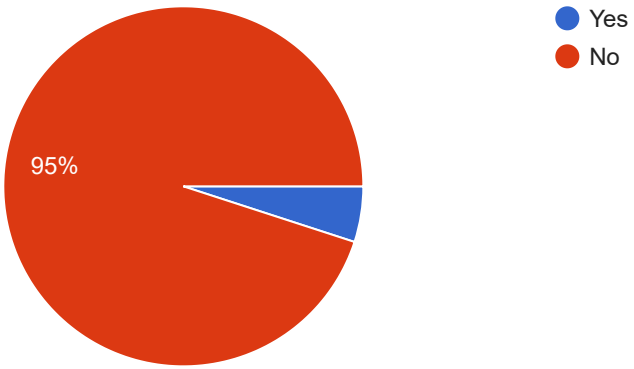


5. Below is a list of commonly expressed concerns regarding the use of gas-powered leaf blowers. Please indicate level of concern with these activities, with 1 being the least concerned and 5 being the most concerned. (1 answer per row)

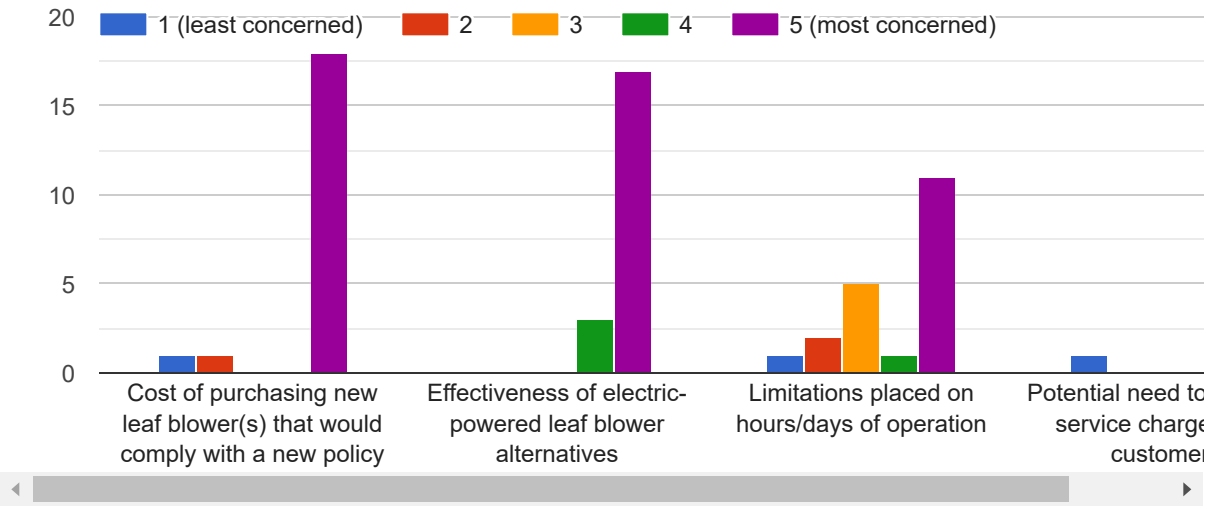


6. Would you be supportive of a city ordinance that would restrict gas-powered leaf blowers in favor of battery-powered or electric leaf blowers?

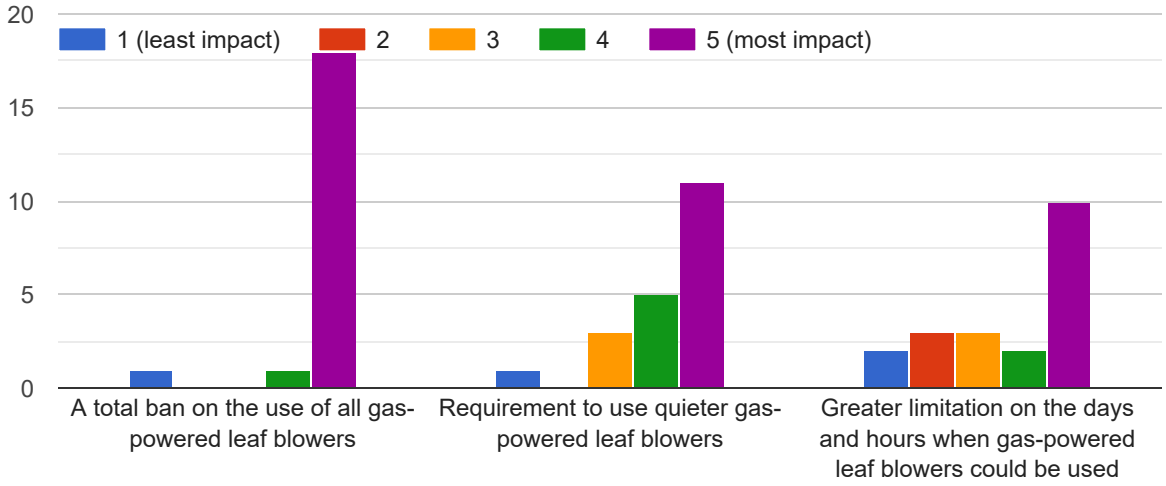
20 responses



7. If the Winter Park City Commission implemented limitations or a ban on gas-powered leaf blowers, how concerned would you be with the following? Please indicate level of concern with these activities, with 1 being the least concerned and 5 being the most concerned. (1 answer per row)

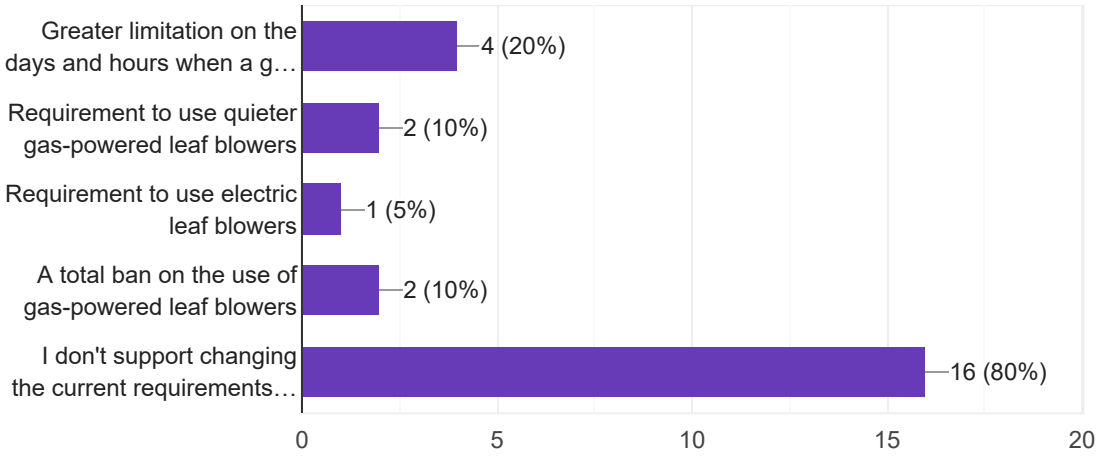


8. How significant would these changes impact your business operations? Please indicate the level of impact on your business with 1 having the least impact and 5 having the most impact. (1 answer per row)



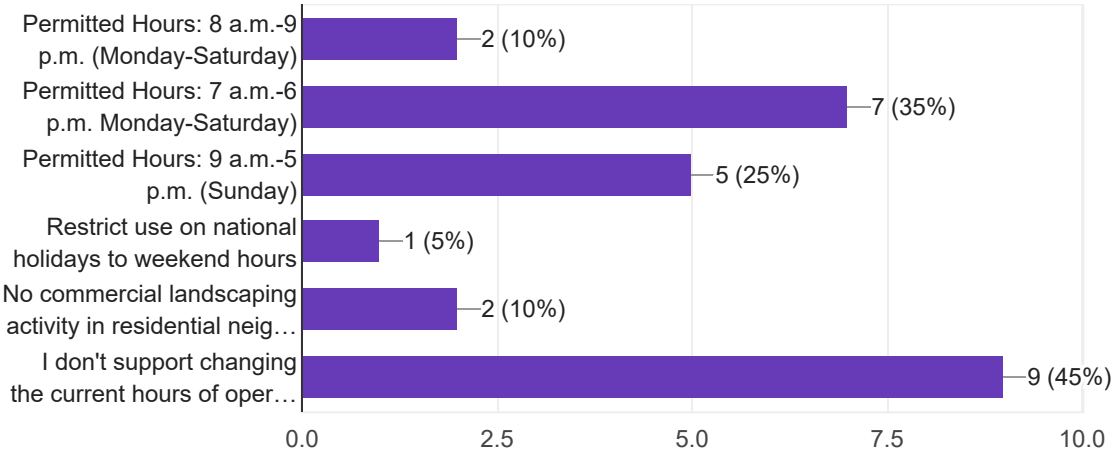
9. Which of the following limitations and restrictions on gas powered leaf blowers would you support (check all that apply)

20 responses



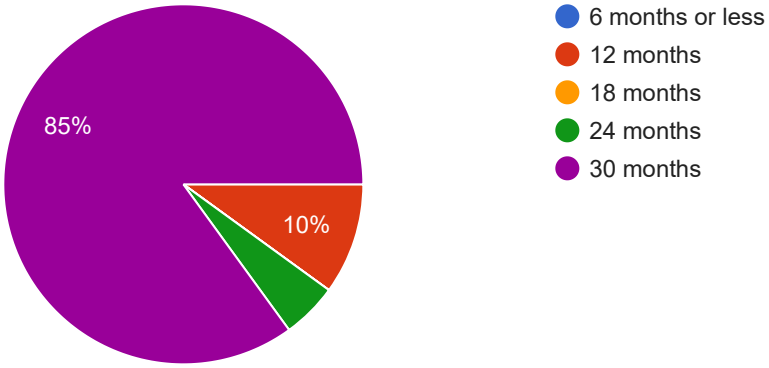
10. The City of Winter Park's current noise ordinance allows the use of gas powered leaf blowers on Monday through Saturday from 7 a.m. to 9 p.m. and on Sundays from 9 a.m.-9 p.m. If the city opted to only change the hours of operation, which of the following would you support? (check all that apply)

20 responses



11. If the City of Winter Park's City Commission adopted an ordinance that restricts the type of leaf blowers allowed to be used in the city, how soon do you feel the ordinance should go into effect?

20 responses



12. Do you have any additional comments on leaf blower use in Winter Park? You can also email your comments to sustainability@cityofwinterpark.org. The City Commission will be holding a virtual work session (without public comment) on this topic in the near future. For meeting details please visit the City of Winter Park's Board & Public Meeting page cityofwinterpark.org/bpm

8 responses

The cost to change of equipment and the recharging needs

Landscape crews can not keep the city beautiful without proper equipment. Battery powered equipment does not provide the same results. Rising costs for costumers with less quality. Battery powered blowers can not clean up the massive oak tree canopy we have in Winter Park. It is simply not possible nor effective.

Please call to discuss. Chad Carter 407-375-2423

Do you guys really don't have anything better to do then f[redacted]k with us?? Lawntastic landscaping will not be complying to this even if you pass it.

At this time the technology is not adequate for an eight hour day in a commercial setting. This will also cause hardship to many of Us who run a small business. We will have to purchase not only the blower but also extra batteries and a charging block at home due to the amount of power needed to charge several batteries nightly. Thank you for your consideration.

This is absurd.

If there is a change to restrict gas blower use or hours of use; it would have a significant impact on the operations of our business resulting in significant price increases and/or loss of a customer base(ie we would be forced to stop serving the Winter Park area).

cmaclandscaping@gmail.com

401 south park avenue ■ winter park, florida 32789
407.599.3364 ■ sustainability@cityofwinterpark.org
cityofwinterpark.org/sustainability

LINKS TO RAW DATA (EXCEL FORMAT) FOR SURVEYS

- RESIDENT SURVEY RAW DATA:
  https://wpclouds.cityofwinterpark.org/index.php/s/r6ikzJdg72LEFfq

- LANDSCAPE SERVICES PROFESSIONAL RAW DATA:
  https://wpclouds.cityofwinterpark.org/index.php/s/SYgsFT4z07EWyMk

City Commission agenda item

item type Discussion Item(s)	meeting date October 28, 2021
prepared by Vanessa Balta	approved by Michelle del Valle, Randy Knight
board approval Completed	
strategic objective	

subject
Sustainability Action Plan 2021 Update

motion / recommendation

background
In August 2020 the City Commission requested that the Keep Winter Park Beautiful & Sustainable (KWPB&S) Advisory board provide the Commission with recommendations for an update to the City's 2015 Sustainability Action Plan (2021). The KWPB&S Board began holding joint work sessions with several city advisory boards in October 2020, in addition staff developed surveys for residents and visitors, as well as sustainability-related non-profits to share their sustainability priorities for the update. Staff returned to city advisory boards in August/Sept/Oct 2021 with a draft update that incorporated stakeholder/board input. Boards provided further input and KWPBS approved the draft being provided in this packet. In addition, the KWPB&S Advisory Board approved the provided Renewables Commitment Resolution for the Commission's consideration which re-iterates goals found within the SAP's Climate Resiliency category.

alternatives / other considerations

fiscal impact

ATTACHMENTS:
20211028 CC Meeting SAP Update Agenda Item Presentation.pdf

ATTACHMENTS:
Sustainability Action Plan 2021 Update final draft.pdf

ATTACHMENTS:
Renewable Energy Resolution Draft - KWPBS Approved 20211015.pdf

Sustainability Action Plan
2021 Update

Sustainability Program Staff

Vanessa Balta
Sustainability Manager
M.S. Urban and Regional Planning
B.A. Environmental Studies

Agnieszka Tarnawska
Sustainability Specialist
M.E. Environmental Protection
M.S. Environmental Policy & Management

Keep Winter Park Beautiful & Sustainable Advisory Board

To improve the quality, sustainability and aesthetics of our environment in order to create a healthier, more beautiful place to live, work, and play for today's residents and future generations.

Appointee	Commission Member
Carey Bond	Commissioner DeCiccio
Ben Ellis	Mayor Anderson
Danielle Flipse	Commissioner Sullivan
Stephen Pategas	Commissioner Weaver
Rosemary Salow	Commissioner Cooper
Lynne Bachrach	Mayor Anderson
Catherine (Kay) Hudson	Mayor Anderson

CITY OF WINTER PARK sustainability PROGRAM

People. Planet. Prosperity.

In 2015, the City adopted a definition of sustainability that promotes...

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

Recent Accomplishments

- East Central Florida Regional Resilience Collaborative Partner
- America In Bloom's 2020 Outstanding Achievement Award for Environmental Efforts
- SolSmart Gold Designee
- EV Charging Infrastructure Readiness Ordinances (3203-21, 3204-21)
- Backyard Chicken Permit Pilot Program Ordinance (3182-20)
- Single-use Products Policy for City Facilities Pilot Program Resolution (2238-20)
- Electrified the Building & Permitting Department's entire fleet
- Purchased 20MWof utility-scale solar, expanding the city's renewable portfolio
- Launched Green Business Recognition Program
- Collaborations with UCF and Rollins College students on energy benchmarking and Green Business recruitment
- Rollins College Bonner Leaders Program Partner
- Awarded over $100,000 in Florida Department of Transportation Keep America Beautiful Florida Affiliates Grants
- Single-stream Residential Recycling Program including Schedule Reminding and Waste Lookup Tool Digital Service
- Electric Vehicle Charging Stations available to the public throughout the city at no cost
- Residential audit and rebate programs encouraging energy and water conservation

CITY OF WINTER PARK sustainability PROGRAM

2021 Sustainability Action Plan
Process/Timeline

KWPB&S Joint Work Sessions

- Lakes & Waterways
- Parks & Recreation
- Planning & Zoning
- Transportation Advisory Board
- Tree Preservation Board
- Utilities Advisory Board

October 2020

Community Input Surveys

- Nearly 200 responses from residents and 7 Community Organizations
- Promoted In Person
  - Backyard Biodiversity Day, Waste Collection Event, Farmers Market
- Posted Online
  - Sustainability Website, E-blasts (Online), Social Media, Winter Park Update/Utility Bill Insert
- E-Kiosks

June 2021

Staff Follow-Up Discussions

- Building& Permitting
- Electric Utility
- GIS
- IT Department
- Lakes/Stormwater Divisions
- Parks & Recreation
- Planning & Transportation
- Urban Forestry
- Water & Wastewater Utility

August 2021

Board Meeting Follow-up with Draft

- Board Adjustment
- Economic Development
- Lakes & Waterways
- Parks & Recreation
- Planning & Zoning
- Transportation Advisory Board
- Tree Preservation Board
- Utilities Advisory Board

September 2021

October 2021

Draft Ready

Draft Updated

2021 Sustainability Action Plan
Revisions from 2015 SAP

- Category Reorganization
- Added New Climate Resiliency Category
- Refreshed category goals and objectives
- Refined indicators and baselines as needed
- Revised methodologies as needed
- Updated actions and target goals

2015 SAP CATEGORIES

- Buildings, Energy & Water
- Community Engagement & Green Economy
- Local Food & Agriculture
- Local Government Operations
- Mobility & Urban Form
- Natural Resources & Systems
- Waste Diversion & Recycling

2021 SAP CATEGORIES			
Climate Resiliency	Water	Local Government Operations	Transportation & Urban Form
Energy	Community Engagement & Green Economy	Natural Resources	Waste Management

2021 Sustainability Action Plan
Climate Resiliency

Improving the city's capacity to cope with climate change impacts, respond or reorganize in ways that allow the city to maintain its essential functions while also maintaining the capacity for adaptation, learning and transformation

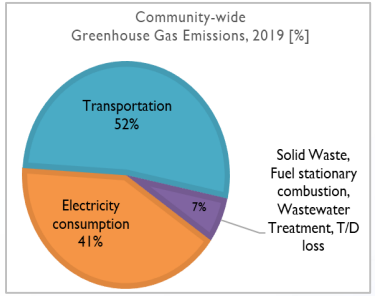
Long-term objectives

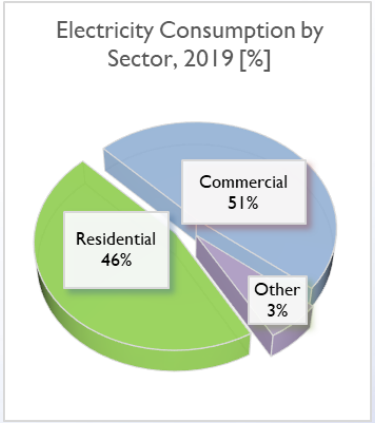
- Increase the city's resiliency
- Ensure a robust and resilient technology for all
- Increase proportion of renewable energy
- Reduce community wide GHG emissions
- Encourage on-site renewable energy generation
- Ensure access to affordable, healthy food options
- Increase residential and commercial customers knowledge of city's renewable energy portfolio and opportunities for reducing their carbon footprint

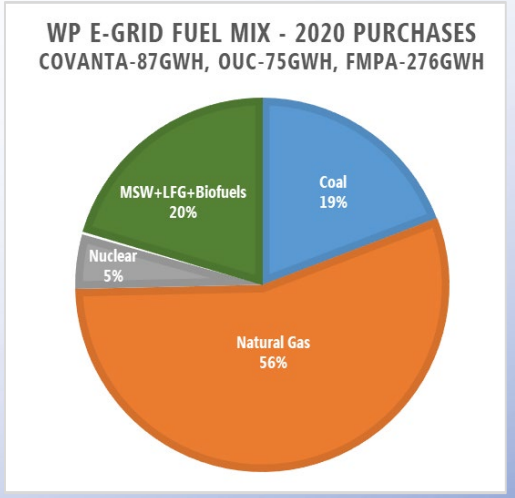
	Indicator Description	Baseline	2019	2025 Target	2035 Target
CR-1	Proportion of renewable energy in Winter Park Electric Utility's Energy portfolio* – Baseline Year: 2012	4%	21%	60%	100%
CR-2	Community wide greenhouse gas emissions [Tons of carbon dioxide equivalent] – Baseline Year: 2018	398,919	405,799	14% less than baseline year	41% less than baseline year
CR-3	WP Electric Utility Customers with Solar - – Baseline Year: 2012	7	75	Upward trend	Upward trend
CR-4	Proportion of Residents within 1/2 mile of affordable, healthy food options – Baseline Year: 2012	-	-	50%	maintain

**Assumes 100% Renewables Commitment*

Climate Resiliency
Renewables in Electric Utility's Portfolio







Bulk Power Contracts

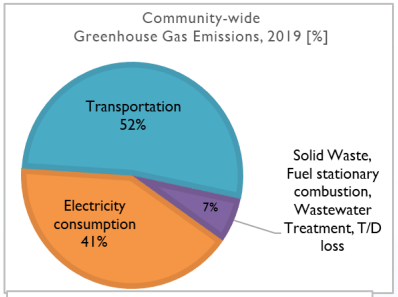
COVANTA - exp. 12/31/2024
$27/MW

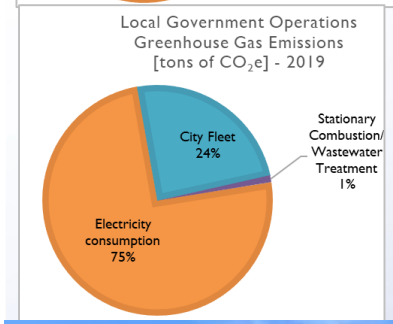
OUC- exp. 12/31/2026
$17/MW

FMPA - exp. 12/31/2027
$8/MW

Coming online in 2023
FMPA SOLAR – 20 MW
$3/MW

Climate Resiliency
Winter Park Greenhouse Gas Inventory





Community-wide Greenhouse Gas (2019)

- 405,799 tons CO_2e
- Includes emissions within the city limits
  - Electricity Consumption (Residential, Commercial, Public Authority-City Facilities within boundary, Schools, etc., Streetlights)
  - Transportation (all modes)
  - Solid Waste Landfilled (transportation & decomposition), Wastewater Treatment (process emissions)

Local Government Operations (2019)

- 8,688 tons CO_2e (equivalent to 2% of Community-Wide GHGs)
- Includes emissions resulting from local government operations
  - Electricity Consumption (All City Facilities Owned and Operated inside and outside of the city limits)
  - City Fleet (gasoline and diesel)
  - Stationary Fuel Combustion (natural gas/propane), Wastewater Treatment (process emissions)

CITY OF WINTER PARK sustainability PROGRAM

Climate Resilience
Areas of Influence and Impact

Sector	Scope	Power of Local Government influence	GHG Emissions High (>50% GHG redux)
Transportation (e.g., electrification /VMT reduction)	Community-wide	Low	High
	Local Government Operations	High	Very Low
Energy (e.g., transitioning to renewable energy)	Community-wide	High	Med-High
	Local Government Operations	High	Very Low
Waste (e.g., reducing tons landfilled)	Community-wide	Low-High	Very Low
	Local Government Operations	High	Very Low

Reducing greenhouse gas emissions can reduce risks related to human health, ecosystem health, livelihoods, food security, water supply, human security, and economic growth

2021 Sustainability Action Plan
Energy

Reducing the environmental consequences of the construction, reconstruction and operation of buildings and infrastructure with a focus on energy efficiency and energy conservation.

Long-term objectives

- Increase energy efficiency of residential and commercial buildings
- Increase energy conservation in residential and commercial sectors
- Increase residential and commercial customers knowledge of energy efficiency and conservation best practices and benchmarking tools

	Indicator Description	Baseline	2019	2025 Target	2035 Target
E-1	Energy usage intensity in residential buildings [kWh/customer/year][1] – Baseline Year: 2012	15,263	16,419	TBD	TBD
E-2	Energy usage intensity in commercial buildings [kWh/customer/year][1] – Baseline Year: 2012	91,850	87,730	TBD	TBD
E-3	Residential building audits performed annually – Baseline: Average # of audits/yr between 2017-2020	63	48	75	100
E-4	Commercial buildings added to benchmarking portfolio per year– Baseline Year: 2012	0	20	10	25

[1]Targets will be determined and baseline adjusted in 2022 to be in kWh/ square foot/year after GIS analysis project

2021 Sustainability Action Plan
Water

Increasing water efficiency and water conservation in residential and commercial sectors

Long-term objectives

- Increase water efficiency of residential and commercial buildings
- Increase water conservation in residential and commercial sectors
- Increase residential and commercial customers knowledge of water efficiency and conservation best practices and benchmarking tools

	Indicator Description	2012 Baseline	2019	2025 Target	2035 Target
W-1	Water usage intensity in residential buildings [gallons/customer/year][1]	127,777	127,147	TBD	TBD
W-2	Water usage intensity in commercial buildings [gallons/customer/year][1]	294,098	309,237	TBD	TBD
W-3	Reclaimed water usage [million gallons/year][2]	144.5	102.2	maintain	50% more

[1] *Targets will be determined (in per capita) upon the renewal of St. Johns River Water Management District Consumptive Use Permit in 2025*

2021 Sustainability Action Plan
Community Engagement & Green Economy

Encouraging residents, business owners, schools and other organizations in the city of Winter Park to begin incorporating more sustainable solutions in their daily activities

Long-term objectives

- Communicate, educate and motivate residents to begin incorporating more sustainable solutions in their daily actions to change their behaviors in ways that support the objectives of the SAP
- Engage businesses, offer sustainable solutions and recognition for greening their daily operations that support the objectives of the SAP
- Provide opportunities for schools to implement sustainable practices in their daily operations that support the objectives of the SAP
- Work collaboratively with community organizations to identify and implement sustainable solutions that support the objectives of the SAP

	Indicator Description	Baseline	2019	2025 Target	2035 Target
CEGE-1	Community engagement events – Baseline Year: 2012	12	12	No less than 12	No less than 12
CEGE-2	Green Businesses Recognized per year – Baseline Year: 2012	0	6	10	25
CEGE-3	Green School Grant Funding – Baseline: Average amount of funding between 2018-2020	$3,300	$3,175	Equal or more than $3,300/year	Equal or more than $3,300/year

2021 Sustainability Action Plan
Local Government Operations

Reducing GHG emissions of municipal operations, increasing municipal facilities' resiliency to the impacts of climate change, and encouraging resource protection and conservation.

Long-term objectives

- Increase the city's municipal facilities resiliency to the impacts of climate change
- Improve city services and broaden public access to information about city performance
- Reduce Local Government Operations (LGO) greenhouse gas emissions
- Increase energy and water efficiency of existing and new city-owned and city-operated facilities
- Encourage on-site renewable energy generation at city-owned and city-operated facilities
- Reduce fossil fuel consumption by city fleet vehicles
- Communicate, educate and motivate city employees to incorporate more sustainable solutions in their daily actions to change their behaviors in ways that support the objectives of the SAP
- Reduce the amount of waste generated from local government operations
- Encourage reuse and other means of disposal that divert generated waste away from the landfill

CITY OF WINTER PARK sustainability PROGRAM

2021 Sustainability Action Plan
Local Government Operations

	Indicator Description	2012 Baseline	2019	2025 Target	2035 Target
LGO-1	Local Government Operations greenhouse gas emissions [Tons of CO_2 equivalent]	11,315	8,688	40% less than baseline year	80% less than baseline year
LGO-2	Energy usage for Local Government Operations [MWh/yr]	16,471	16,060	5% less	15% less
LGO-3	Installed renewable energy capacity [kW][1]	0	100	TBD	TBD
LGO-4	City-owned and city-operated facilities audited	3	3	50%	100%
LGO-5	Potable water usage [million gallons][2]	49.5	30.1	50% less	TBD
LGO-6	City Fleet fuel usage [gallons of unleaded gasoline][3]	143,268	146,501	Downward trend	TBD
LGO-7	City Fleet fuel usage [gallons of diesel fuel][3]	80,235	75,865	Downward trend	TBD
LGO-8	Number of city-owned Electric Vehicles[4]	0	1	Increase	Increase
LGO-9	Number of Electric Vehicle charging Stations available for city business use [ports][4]	1	1	Increase	Increase

[1] *By the end of 2020, the city had 266kW of installed solar capacity (City Fleet Building, Aloma Water Treatment Plant)*
[2] *Target will be determined upon the renewal of St. Johns River Water Management District Consumptive Use Permit in 2025*
[3] *Target will be determined after pathway to reach 100% Renewable Goals proposal is received*
[4] *By the end of 2020, the city had 6 electric vehicles (2% of total fleet) and 7 EV Charging Ports for Fleet Use*

CITY OF WINTER PARK sustainability PROGRAM

2021 Sustainability Action Plan
Natural Resources

Preserving and enhancing the City of Winter Park's valuable natural features that help make the city such a great place to live

Long-term objectives

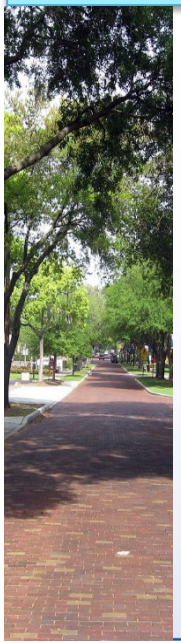
- Maintain and expand an equitable urban tree canopy
- Increase overall greenspace
- Reduce grey space (including paved parking lot, street, sidewalk, rooftop, impermeable)
- Maintain percentage of residents living within a half mile from park space
- Maintain percentage of lakes meeting good water quality standard
- Increase residents' and businesses' knowledge of best practices for urban tree canopy maintenance and expansion and pollution prevention of natural water resources, including impacts of stormwater runoff and over-fertilizing

	Indicator Description	Baseline	2019	2025 Target	2035 Target
NR-1	Tree Canopy Coverage - Baseline Year: 2019	33.10%	33.10%	Maintain	5% more
NR-2	Greenspace Coverage - Baseline Year: 2019	49.75%	49.75%	Maintain	5% more
NR-3	Greyspace Coverage - Baseline Year: 2019	32.70%	32.70%	Maintain	5% less
NR-4	Residents living within ½ mile from park space[1]- Baseline Year: 2012	95%	98%	TBD	TBD
NR-5	Percentage of City of Winter Park's Main Lakes[2] meeting Good Water Quality Standard– Baseline Year: 2012	100%	100%	Maintain	Maintain

[1]Includes Community Parks, Mini Parks, Neighborhood Parks, Open space/conservation, Special Purpose Parks which equaled 98% in 2020; Parks & Recreation Advisory Board will be reviewing criteria to define this metric in upcoming meetings
[2]Lakes Baldwin, Berry, Killarney, Maitland, Mizell, Osceola, Sue and Virginia

2021 Sustainability Action Plan
Transportation & Urban Form

Encouraging healthier, more active forms of transportation such as walking, bicycling and using mass transit such as LYNX bus and SunRail commuter rail and increased connectivity



Long-term objectives

- Improve pedestrian and bicyclist environments with sustainable and safe transportation infrastructure such as sidewalks, multimodal paths, and transit shelters
- Encourage more human scaled, compact, mixed use land use development and planning
- Create an environment that encourages residents, businesses and visitors to transition to electric and less carbon-intensive modes of transportation
- Achieve a level of air quality that is healthy for all residents and the natural environment (e.g., meeting and exceeding regional indoor and outdoor air quality standards)
- Increase residents' and businesses' knowledge of benefits and importance of sustainable transportation choices

	Indicator Description	2012 Baseline	2019	2025 Target	2035 Target
TUF-1	Sidewalk/Street improvements allowing for pedestrian and bicyclist use [Linear feet][1,2] - Starting year 2022	-	-	1 mile (cumulative)	3.5 miles (cumulative)
TUF-2	Pedestrian infrastructure improvements (enhanced crossings, benches, water bottle filling stations, sitting shelters) [improved site/year][2] - Starting year 2022	-	-	TBD	TBD
TUF-3	Bicyclist infrastructure improvements (enhanced crossings, bike racks, bike storage, bike repair stations) [improved site/year][2] - Starting year 2022	-	-	TBD	TBD
TUF-4	Improved transit stops (benches, transit shelters, waste receptacles, etc.) [improved transit stop/year][2] - Starting year 2022	-	-	TBD	TBD
TUF-5	Public EV Charging Stations [# of Ports][3]	7	13	Maintain	Maintain

[1] e.g., converting a sidewalk to a mixed use trail or adding a bike lane to an existing road
[2] Targets for TUF-1,TUF-2,TUF-3 and TUF-4 will be determined and baseline adjusted upon completion of Mobility Plan
[3] As of 2020, the city has 14 EV Charging Ports for Public Use

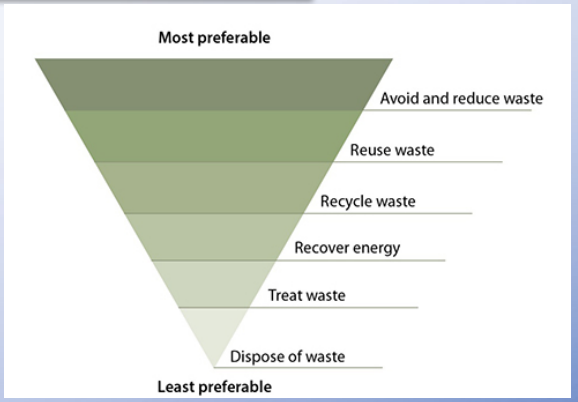
2021 Sustainability Action Plan
Waste Management

Reducing the amount of waste generated, encouraging the reuse and repair of products, and diverting waste from the landfill

Long-term objectives

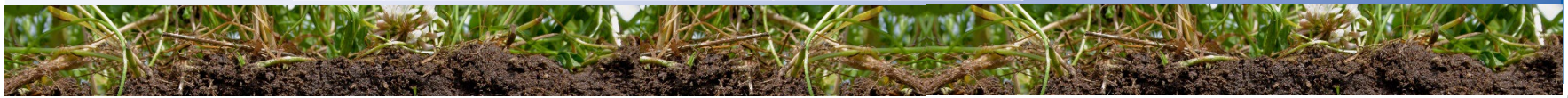
- Reduce the amount of waste generated
- Increase repair, reuse and donation of materials
- Divert waste generated away from the landfill
- Increase residents and businesses' knowledge of the benefits and importance of waste prevention and reduction.

	Indicator Description	2012 Baseline	2019	2025 Target	2035 Target
WM-1	Residential Waste Generated [tons][1]	14,714	14,010	5% less	10% less
WM-2	Residential Solid Waste Landfilled [tons]	9,890	8,985	10% less	20% less
WM-3	Residential Waste Diverted from Landfill [tons][2]	4,824	5,023	5% less	10% less



[1] *Includes tonnage collected from residential households (solid waste, yard waste and recycling)*

[2] *Includes tonnage of waste diverted for other purposes (i.e., recyclables recycled and yard waste used for landfill cover)*



Winter Park Sustainability Action Plan

2021 Update

Presented by:
Vanessa Balta, M.S., Urban and Regional Planning, Sustainability Program Manager
Agnieszka Tarnawska, M.E., Environmental Protection, Sustainability Program Specialist
Keep Winter Park Beautiful & Sustainable Advisory Board

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Background

Vision and Purpose

The 2021 Sustainability Action Plan (SAP) updates and expands upon the City of Winter Park's 2015 SAP. The purpose of the SAP remains the same, to create a roadmap depicting where the city is today and where it would like to be in the future, in regard to sustainability.

The city 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.

By integrating elements of this plan, Winter Park will:

- Increase quality of life while improving individual and community health
- Become more independent from energy derived from fossil fuels
- 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. The plan is a living document intended to evolve over time as the city experiences both progress and challenges.

A progress report will be presented to the City Commission on an annual basis. This annual report will include:

- Summary of progress made toward the previous year's indicators and actions
- Proposed project/action list
- Estimated 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.

In 2012 the city's Environmental Review and Keep Winter Park Beautiful (Keep America Beautiful affiliate since 1993) boards merged with a shared focus of improving community sustainability and achieving the Green Local Government Platinum certification. The new Keep Winter Park Beautiful and Sustainable (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. The 2015 SAP, presented by Kris Stenger, Assistant Director of Building, Permitting & Sustainability and Abby Gulden, Sustainability and Permitting Coordinator, was accepted by unanimous vote of the City Commission on February 9, 2015.

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

About the 2021 SAP Update

Overview

The year 2020 was the first target goal year for many of the 2015 SAP Metrics. Due to the COVID-19 Pandemic, data from 2020, in many cases, is not comparable to previous years. For this reason, many of the metrics' trend data in this document are expressed through the year 2019 (pre-COVID-19 pandemic). The City's progress toward 2015 SAP Objectives, Indicators and Actions through 2020 is provided in the 2020 Annual Report available at cityofwinterpark.org/sap.

The 2021 SAP revises baselines, where necessary, for more complete and accurate data collection and analysis. It also includes a new category, Climate Resiliency, to help the City better understand and withstand weather and climate-related risks and vulnerabilities. The update also includes actions to assist the City in learning how to apply a *racial equity lens* to ensure a future where race can no longer be used to predict life outcomes and outcomes for all groups are improved.

2021 SAP Update Community Engagement Process

The 2021 SAP integrates discussion and feedback from joint virtual KWPB&S Advisory Board work sessions, which allowed for public comments, with the following city advisory boards and respective staff liaisons: Economic Development, Lakes, Parks and Recreation, Tree

Preservation, Planning & Zoning, Transportation and Utilities. Additional community input on SAP priorities were gathered using an online survey that had over 200 respondents (over two-thirds of which identified as residents). Community input was also gathered from community organizations via an online survey from Hannibal Square Heritage Center, Ideas for Us Orlando, League of Women Voters Orange County, The Nature Conservancy, WP Garden Club, WP History Museum and WP Public Library.

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.

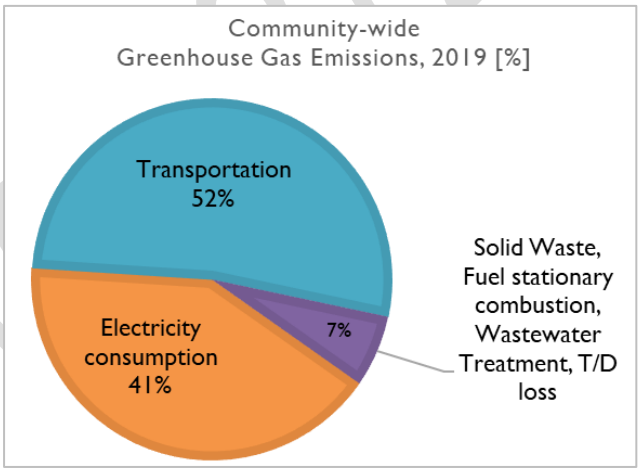
2021 Board Members	Appointed By	End of Term
Ben Ellis, Chair	Mayor Anderson	2024
Danielle Flipse, Vice Chair	Commissioner Sullivan	2023
Carey Bond	Commissioner DeCiccio	2023
Lynne Bachrach	Mayor Anderson	2024
Kay Hudson	Mayor Anderson	2024
Stephen Pategas	Commissioner Weaver	2022
Rosemary Salow	Commissioner Cooper	2022

Highlights and Accomplishments

- East Central Florida Regional Resilience Collaborative Partner
- America In Bloom's 2020 Outstanding Achievement Award for Environmental Efforts
- SolSmart Gold Designee
- EV Charging Infrastructure Readiness Ordinances (3203-21, 3204-21)
- Backyard Chicken Permit Pilot Program Ordinance (3182-20)
- Single-use Products Policy for City Facilities Pilot Program Resolution (2238-20)
- Electrified the Building & Permitting Department's entire fleet
- Purchased 20MWof utility-scale solar, expanding the city's renewable portfolio
- Launched Green Business Recognition Program
- Collaborations with UCF and Rollins College students on energy benchmarking and Green Business recruitment
- Rollins College Bonner Leaders Program Partner
- Awarded over $100,000 in Florida Department of Transportation Keep America Beautiful Florida Affiliates Grants
- Single-stream Residential Recycling Program including Schedule Reminding and Waste Lookup Tool Digital Service
- Electric Vehicle Charging Stations available to the public throughout the city at no cost
- Residential audit and rebate programs encouraging energy and water conservation

Climate Resiliency

The *Climate Resiliency* category outlines long-term objectives and short-term actions focused on improving the city's capacity to cope with *climate change* impacts, respond or reorganize in ways that allow the city to maintain its essential functions while also maintaining the capacity for adaptation, learning and transformation. The 2021 Intergovernmental Panel on Climate Change (IPCC) Sixth *Assessment Report* asserts that human activities are estimated to have caused approximately 1˚C of global warming to date and further warming of 1.5˚C and 2.0˚C will be exceeded during the 21st century unless deep reductions in CO_2 and other *greenhouse gas* emissions occur in the coming decades. Warming at this level is projected to increase the mean temperature of most land and ocean regions, increase hot extremes in most inhabited regions, and increase climate-related risks to health, livelihoods, food security, water supply, human security and economic growth.



The city's Community-wide Greenhouse Gas (GHG) Emissions Inventory consists of all major direct and indirect GHG emissions generated and occurring within the City of Winter Park's administrative boundary. Transportation-related (52%) and electricity consumption-related (41%) activities contribute the largest proportion of greenhouse gases emissions in the city. As a municipally owned-utility, the Electric Utility is uniquely situated to increase the percentage of its energy portfolio coming from renewable and clean alternative sources. Transitioning to 100% *renewable energy*, for electricity by 2035 and for transportation by 2050 may be more feasible and accessible for the city of Winter Park than many of its neighbors given that it has purchasing power over its electricity and is implementing policies that will *ready* future developments for a transition to electric vehicles.

OBJECTIVES

1. Increase the city's resiliency to the impacts of climate change, ensuring a healthy, livable and sustainable community for present and future generations
2. Ensure a robust and resilient technology infrastructure with high-speed communications available for all
3. Increase proportion of renewable energy in Winter Park Electric Utility's Energy portfolio
4. Reduce community wide greenhouse gas emissions
5. Encourage on-site renewable energy generation for residential and commercial buildings

6. Ensure access to affordable, healthy food options (community gardens, grocery stores or farmers markets)
7. Increase residential and commercial customers knowledge of city's renewable energy portfolio and opportunities for reducing their *carbon footprint*

	Indicator Description	Baseline	2025 Target	2035 Target
CR-1	Proportion of renewable energy in Winter Park Electric Utility's Energy portfolio[1] – Baseline Year: 2012	4%	60%	100%
CR-2	Community wide greenhouse gas emissions [Tons of carbon dioxide equivalent][2] – Baseline Year: 2018	398,919	14% less than baseline year	41% less than baseline year
CR-3	WP Electric Utility Customers with Solar[3] - – Baseline Year: 2012	7	Upward trend	Upward trend
CR-4	Proportion of Residents within 1/2 mile of affordable, healthy food options[4] – Baseline Year: 2012	-	50%	maintain

[1]In 2020, the proportion was 20%; in 2024, 20MW bulk solar purchase will come online, raising the proportion to 40%; the 2025 target assumes an additional 10MW of renewables being added to the portfolio.

[2]2018 is the earliest year of available transportation emissions data using Google EIE tool

[3]By the end of 2020, there were 79 WP Electric Utility Customers with Solar

[4]The baseline for this updated indicator will be calculated in 2022, previous indicator did not include "affordable" identifier

ACTIONS

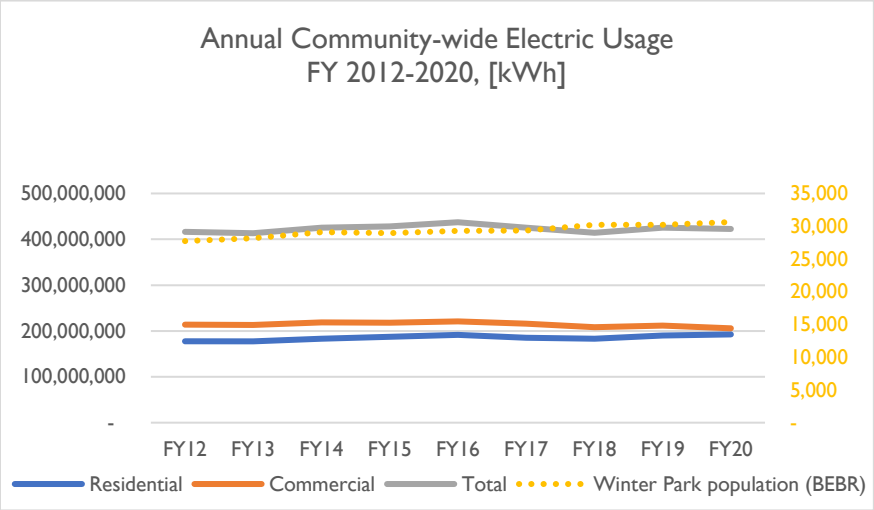
Projected Implementation Year	Action	Action Type	Responsible Department(s)
Continue Annually	Evaluate potential for increasing proportion of Winter Park Electric Utility's Energy Portfolio coming from renewable resources (e.g., solar, wind)	Policy	Sustainability Program, WP Electric Utility
Continue Annually	Conduct Community-wide Greenhouse Gas Emissions Inventory and track proportion of renewables in the WP Electric Utility's portfolio	Project	Sustainability Program
Continue Annually	Participate in Regional Sustainability and Resilience Professional Networks (Urban/Southeast/Florida Sustainability Directors Networks, East Central Florida Regional Resilience Collaborative, Good Food Central Florida Regional Policy Council, etc.)	Collaboration	Sustainability Program
Continue Annually	Provide community wide education and outreach on reducing consumption of carbon-intensive foods	Program	Sustainability Program
Continue Annually	Provide green building best practices (e.g., energy/water efficiency, tree conservation,	Program	Building & Permitting, Sustainability

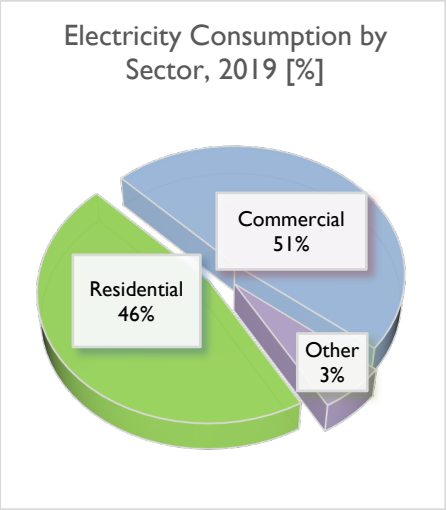
	waste management) education to building professionals and residents		Program, Urban Forestry
2022	Pass resolution committing the City to 100% of all electricity consumed in the City to come from renewable energy resources by 2035 and to 100% of all energy (electricity, transportation and stationary combustion) used in the City to come from renewable resources by 2050	Policy	Sustainability Program, WP Electric Utility
2022	Solicit proposals to meet 100% Renewable Goals	Project	Sustainability Program, Procurement
2022	Develop recommendations to the City Commission that would allow for broadband availability and choice, optimizing traffic flow, expanding public WiFi, environmentally friendly buildings, and enhanced public safety and security	Project	IT, Sustainability Program, Planning & Transportation, Police Dep., Public Works
2022	Develop a policy to replace gas-powered leaf blowers with alternatives that have fewer environmental and health impacts (e.g., air quality, noise pollution)	Policy	Sustainability Program, Economic Development
2022	Update Land Development Code, to allow food processing and handling in accordance with F.S. 500.80 (Cottage Food Operations) as a home occupation to encourage local food production	Policy	Planning & Transportation, Economic Development, Sustainability Program
2022	Revisit Backyard Chicken Pilot Program (exp. September 2022) to evaluate program outcomes and possibility of expanding and extending the program	Policy	Sustainability Program, Planning & Transportation
2022	Promote programs that expand access to seeds and increase the community's capacity to grow food locally	Program	Sustainability Program, Communications
2022	Provide community wide education and outreach that promotes growing edible gardens at home, community supported agriculture and local food consumption	Program	Sustainability Program
2023	Identify risks and vulnerabilities that climate change poses to the City of Winter Park by conducting a Climate Risk and Vulnerability Assessment	Project	Sustainability Program
2023	Explore opportunities for smart street lights able to gather local environmental data, optimize light energy consumption, and improve public safety	Project	IT, WP Electric Utility, Planning & Transportation, Police Dept., Sustainability Program

2023	Work with Planning & Transportation Department to ensure Comprehensive Plan Update incorporates sustainability and resilience related goals, objectives and policies	Project	Planning & Transportation, Sustainability Program
2023	Research and design policies to increase green building standard requirements in residential & commercial developments	Policy	Sustainability Program, Planning & Transportation, Building & Permitting, Economic Development
2024	Research and explore opportunities to create *resilience hubs* in the city	Project	Sustainability Program, Public Works, IT
2025	Upon completion of Climate Risk and Vulnerability Assessment, create Climate Mitigation and Adaptation Plan (CMAP)	Project	Sustainability Program
2025	Ensure CMAP includes actions that will reduce the impacts of climate change on human health, especially for the most vulnerable communities	Project	Sustainability Program

Energy

The Energy 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 efficiency and energy conservation. With buildings' energy usage contributing to nearly half of all of the community-wide greenhouse gas (GHG) emissions in 2019, implementing the prescribed actions is critical to achieving a more sustainable city. Electricity is primarily being used to power buildings for commercial (51%) and residential (46%) activities, while a smaller fraction (3%) is being used to power city scale infrastructure such as streetlights and transporting water and *wastewater*. Between 2012 and 2019, electric usage per capita remained generally stable.





All utility data is sourced from the city's Comprehensive Annual Financial Reports, which can be reviewed on the city's website.

OBJECTIVES

1. Increase energy efficiency of residential and commercial buildings
2. Increase energy conservation in residential and commercial sectors
3. Increase residential and commercial customers knowledge of energy efficiency and conservation best practices and benchmarking tools

INDICATORS

	Indicator Description	Baseline	2025 Target	2035 Target
E-1	Energy usage intensity in residential buildings [kWh/customer/year][1] – Baseline Year: 2012	15,263	TBD	TBD
E-2	Energy usage intensity in commercial buildings [kWh/customer/year][1] – Baseline Year: 2012	91,850	TBD	TBD
E-3	Residential building audits performed annually – Baseline: Average # of audits/yr between 2017-2020	63	75	100
E-4	Commercial buildings added to benchmarking portfolio per year– Baseline Year: 2012	0	10	25

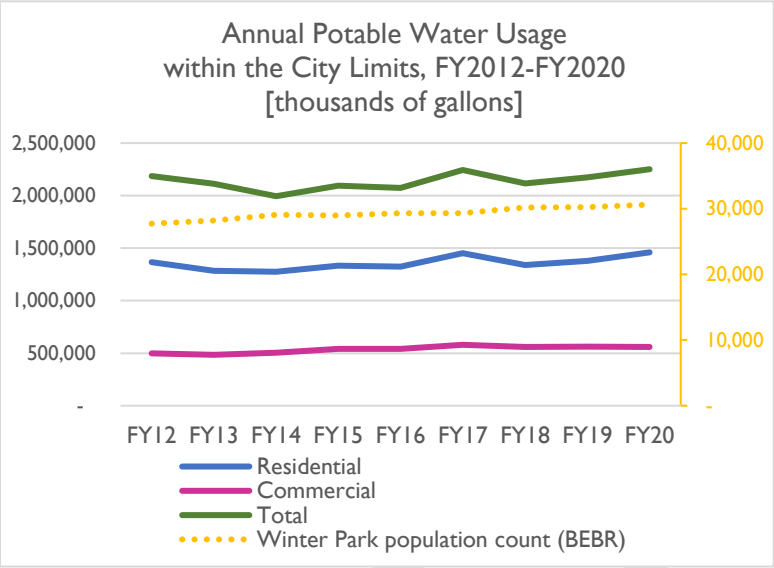
[1] *Targets will be determined and baseline adjusted in 2022 to be in kWh/ square foot/year after GIS analysis project*

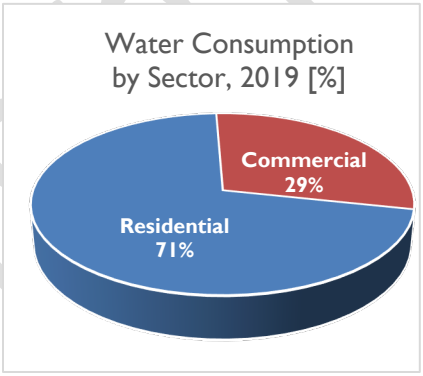
ACTIONS

Projected Implementation Year	Action	Action Type	Responsible Department(s)
Continue Annually	Promote existing Energy Conservation opportunities such as audits and rebates	Program	Sustainability Program, WP Electric Utility, Communications
Continue Annually	Provide energy conservation kits and solar feasibility reports for customers that undergo energy audits	Program	Sustainability Program, WP Electric Utility
Continue Annually	Continue Sustainability Education Program in Winter Park Schools that includes energy and water conservation education	Program	Sustainability Program, WP Electric Utility
Continue Annually	Provide technical assistance and education to commercial property owners and tenants on Energy Star Portfolio Manager	Program	Sustainability Program
2022	Identify methodology for expressing energy use intensity in kWh per square foot for residential and commercial customers	Project	GIS, Sustainability Program
2023	Explore incentive programs for commercial customers that encourage energy conservation	Program	Sustainability Program, WP Electric Utility, Economic Development
2025	Explore feasibility of residential energy and water benchmarking and disclosure	Project	Sustainability Program, WP Electric Utility, WP Water & Wastewater Utility, Economic Development
2025	Establish commercial building energy and water benchmarking and disclosure policy	Policy	Sustainability Program, WP Electric Utility, WP Water & Wastewater Utility, Economic Development

Water

The Water category focuses on measures that can increase water efficiency and water conservation in residential and commercial sectors. In the City of Winter Park, residential and commercial customers use potable water for indoor and outdoor (irrigation) purposes. Over the last decade, potable water has remained generally stable, reflecting the minimal change in population growth over that time. The majority of potable water consumed in the city is used by residential customers (71%), with nearly half of residential water usage being spent on irrigation.





All utility data is sourced from the city's Comprehensive Annual Financial Reports, which can be reviewed on the city's website.

OBJECTIVES

1. Increase water efficiency of residential and commercial buildings
2. Increase water conservation in residential and commercial sectors
3. Increase residential and commercial customers knowledge of water efficiency and conservation best practices and benchmarking tools

INDICATORS

	Indicator Description	2012 Baseline	2025 Target	2035 Target
W-1	Water usage intensity in residential buildings [gallons/customer/year][1]	127,777	TBD	TBD
W-2	Water usage intensity in commercial buildings [gallons/customer/year][1]	294,098	TBD	TBD
W-3	*Reclaimed water* usage [million gallons/year][2]	144.5	maintain	50% more

[1] *Targets will be determined (in per capita) upon the renewal of St. Johns River Water Management District Consumptive Use Permit in 2025*

[2] *For 2019: 102.2million gallons/year*

ACTIONS

Projected Implementation Year	Action	Action Type	Responsible Department(s)
Continue Annually	Promote existing water conservation opportunities such as audits and rebates	Program	WP Water & Wastewater Utility, Sustainability Program, Communications
Continue Annually	Promote water conservation education to residential and commercial customers through on-line and print campaigns	Program	WP Water & Wastewater Utility, Sustainability Program, Communications, Economic Development
2022	Implement Advanced Metering Infrastructure (AMI) to allow for more effective monitoring of water usage, system efficiency, detecting malfunctions and recognizing irregularities	Project	WP Water & Wastewater Utility
2022	Implement Water/Sewer Impact Fee Deferral Program throughout the city to reduce customer upfront costs for connecting to the sewer system	Policy	WP Water & Wastewater Utility
2022	Explore grant opportunities for septic to sewer conversion projects	Project	WP Water & Wastewater Utility
2022	Increase public awareness of Florida-friendly landscaping and landscape irrigation regulations to residential and commercial customers	Program	WP Water & Wastewater Utility, Sustainability Program, Building & Permitting, Communications, Economic Development
2023	Explore the creation of an incentives program for commercial customers that encourages water conservation	Program	Sustainability Program, WP Water & Wastewater Utility, Economic Development
2023	Using AMI system to identify customers in non-compliance with SJRWMD irrigation policies and provide non-compliant customers with water conservation best practices	Program	WP Water & Wastewater Utility, Sustainability Program
2024	Identify methodology for expressing water use intensity in gallons per capita	Project	WP Water & Wastewater Utility, Sustainability Program

	upon renewal of SJRWMD Consumptive Use Permit		
2025	Explore feasibility of residential energy and water benchmarking and disclosure	Project	Sustainability Program, WP Electric Utility, WP Water & Wastewater Utility, Economic Development
2025	Establish commercial building energy and water benchmarking and disclosure policy	Policy	Sustainability Program, WP Electric Utility, WP Water & Wastewater Utility, Economic Development
2025	Upon renewal of SJRWMD Consumptive Use Permit, review water utility rate structure to increase water conservation	Project/Policy	WP Water & Wastewater Utility
2025	Upon renewal of SJRWMD Consumptive Use Permit, expand reclaimed water system	Project	WP Water & Wastewater Utility

Community Engagement & Green Economy

The Community Engagement and *Green Economy* category outlines long term objectives and actions focused on encouraging residents, business owners, schools and other organizations in the city of 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 the city a more sustainable community.

OBJECTIVES

1. Communicate, educate and motivate residents to begin incorporating more sustainable solutions in their daily actions to change their behaviors in ways that support the objectives of the Sustainability Action Plan
2. Engage businesses, offer sustainable solutions and recognition for greening their daily operations that support the objectives of the Sustainability Action Plan
3. Provide opportunities for schools to implement sustainable practices in their daily operations that support the objectives of the Sustainability Action Plan
4. Work collaboratively with community organizations to identify and implement sustainable solutions that support the objectives of the Sustainability Action Plan

INDICATORS

	Indicator Description	Baseline	2025 Target	2035 Target
CEGE-1	Community engagement events – Baseline Year: 2012	12	No less than 12	No less than 12
CEGE-2	Green Businesses Recognized per year – Baseline Year: 2012	0	10	25
CEGE-3	Green School Grant Funding – Baseline: Average amount of funding between 2018-2020	$3,300	Equal or more than $3,300/year	Equal or more than $3,300/year

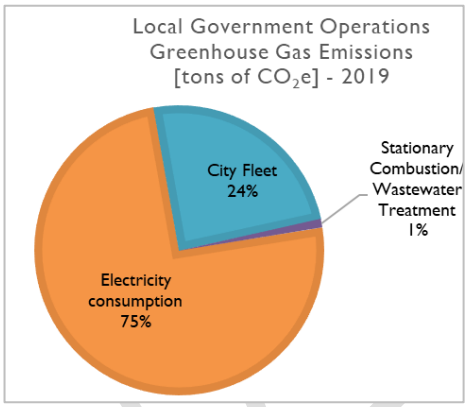
ACTIONS

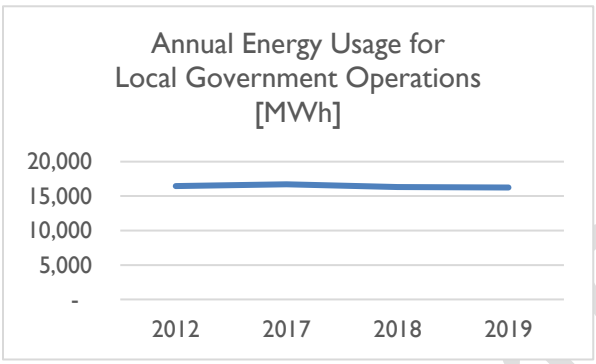
Projected Implementation Year	Action	Action Type	Responsible Department(s)
Continue Annually	Promote sustainability program initiatives through various social media platforms and traditional print media, at in-person events, and maintain and update	Project	Sustainability Program, Communications

	Sustainability Program's website		
Continue Annually	Administer Green Business Recognition Program and promote Green Business initiatives	Program	Sustainability Program, Communications, Economic Development
Continue Annually	Administer Green School Grant Program and Green Education opportunities for educators	Program	Sustainability Program
Continue Annually	Partner with local universities (e.g., University of Central Florida, Rollins College) to provide educational trainings on sustainability-related subjects	Project	Sustainability Program
Continue Annually	Ensure all requirements are met for remaining a Keep America Beautiful affiliate	Program	Sustainability Program
Continue Annually	Provide volunteer opportunities for litter cleanups of city's lakes and rights-of-way	Project	Sustainability Program, Lakes Division
Continue Annually	Provide volunteer opportunities for beautification of city parks and greenspaces	Project	Sustainability Program, Parks & Recreation
Continue Annually	Provide education on Sustainability Program at Neighboring Community Events	Project	Sustainability Program
2022	Determine the feasibility of participating in America In Bloom's annual nationwide competition	Project	Sustainability Program
2022	Create and install Environmental Education opportunities at parks and city buildings (e.g., Howell Branch Creek)	Project	Sustainability Program, Parks & Recreation, Communications
2022	Facilitate Green Business networking events	Project	Sustainability Program, Economic Development
2023	Create Green Event Guide and Volunteer Program for city events	Project	Sustainability Program, Parks & Recreation, Communications

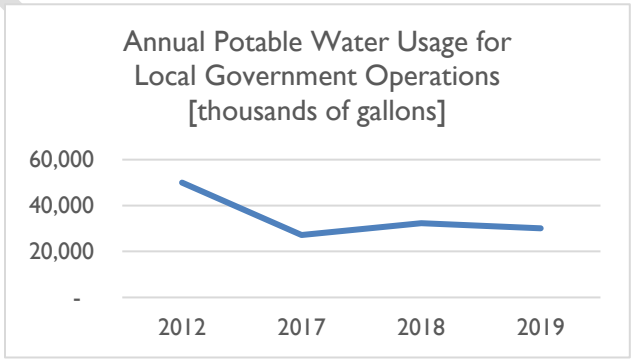
Local Government Operations

The Local Government Operations category outlines long term objectives and actions focused on reducing GHG emissions of municipal operations, increasing municipal facilities' resiliency to the impacts of climate change, and encouraging resource protection and conservation. Creating healthier and more comfortable environments for employees and building occupants are also anticipated benefits from the city renovating existing buildings and building new city facilities to meet high performance, green building standards.

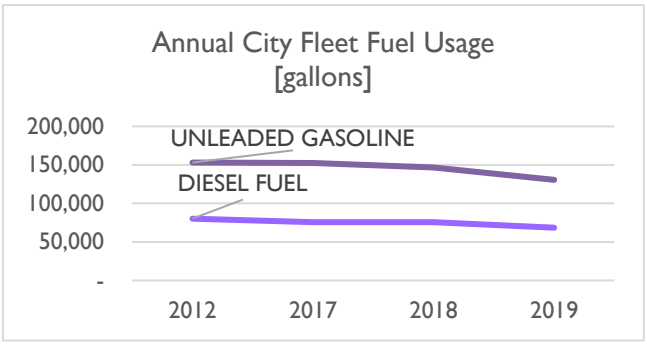




The city's Local Government Operations GHG Emissions Inventory consists of all major direct emissions from the burning of fossil fuels by the City's fleet and indirect GHG emissions associated with the electricity consumption for local government operations. City Fleet-related (24%) and electricity consumption-related (75%) activities contribute the largest proportion of greenhouse gases emissions in government operations. Energy usage has remained generally stable since the baseline year of 2012. Energy audits of city facilities would allow for the city to identify and select projects that will provide the greatest energy reduction at the best return on investment. Recent potable water usage has declined from the baseline. Several city parks use reclaimed water, lake or well water, reducing the amount of high-quality potable water being used by the city to irrigate. Efforts to expand the use of lower-quality water for park irrigation are planned.



City fleet gasoline and diesel consumption has remained generally stable since the baseline year. Establishing a policy that creates a vehicle replacement and purchase tiered structure that prioritizes zero tail pipe emissions and high fuel efficiency vehicles would help further fleet electrification and fuel usage reduction.



OBJECTIVES

1. Increase the city's municipal facilities resiliency to the impacts of climate change
2. Improve city services and broaden public access to information about city performance
3. Reduce Local Government Operations (LGO) greenhouse gas emissions
4. Increase energy and water efficiency of existing and new city-owned and city-operated facilities
5. Encourage on-site renewable energy generation at city-owned and city-operated facilities
6. Reduce fossil fuel consumption by city fleet vehicles
7. Communicate, educate and motivate city employees to incorporate more sustainable solutions in their daily actions to change their behaviors in ways that support the objectives of the Sustainability Action Plan
8. Reduce the amount of waste generated from local government operations
9. Encourage reuse and other means of disposal that divert generated waste away from the landfill

INDICATORS

	Indicator Description	2012 Baseline	2025 Target	2035 Target
LGO-1	Local Government Operations greenhouse gas emissions [Tons of carbon dioxide equivalent]	11,315	40% less than baseline year	80% less than baseline year
LGO-2	Energy usage for Local Government Operations [kWh/yr]	16,471	5% less	15% less
LGO-3	Installed renewable energy capacity [MW][1]	0	TBD	TBD
LGO-4	City-owned and city-operated facilities audited	3	50%	100%
LGO-5	Potable water usage [million gallons][2]	49.5	50% less	TBD
LGO-6	City Fleet fuel usage [gallons of unleaded gasoline][3]	143,268	Downward trend	TBD
LGO-7	City Fleet fuel usage [gallons of diesel fuel][3]	80,235	Downward trend	TBD
LGO-8	Number of city-owned Electric Vehicles[4]	0	Increase	Increase
LGO-9	Number of Electric Vehicle charging Stations available for city business use [ports][4]	1	Increase	Increase

[1] *By the end of 2020, the city had 266kW of installed solar capacity (City Fleet Building, Aloma Water Treatment Plant)*

[2] *Target will be determined upon the renewal of St. Johns River Water Management District Consumptive Use Permit in 2025*

[3] *Target will be determined after pathway to reach 100% Renewable Goals proposal is received*

[4] *By the end of 2020, the city had 6 electric vehicles (2% of total fleet) and 7 EV Charging Ports for Fleet Use*

ACTIONS

Projected Implementation Year	Action	Action Type	Responsible Department(s)
Continue Annually	Use data and analytics to improve city services and broaden public access to information about city performance	Program	IT, All City Departments
Continue Annually	Monitor city buildings' energy and water usage through ENERGY STAR Portfolio Manager	Program	Sustainability Program
Continue Annually	Conduct Local Government Operations Greenhouse Gas Emissions Inventory	Project	Sustainability Program
Continue Annually	Shift from potable water to lower-quality water resources (e.g., well or lake water) for parks irrigation while prioritizing water conservation and continuing use of reclaimed water at existing sites	Policy	Parks & Recreation, WP Water & Wastewater Utility Utilities
Continue Annually	Ensure that all new, significantly renovated, occupied, city-owned and city-operated buildings will be designed and built to incorporate measures that would allow them to be FGBC certified or certified at a minimum of *LEED* "Silver Certification" level or a comparable performance criterion	Policy	Public Works, Sustainability Program
Continue Annually	Shift from fossil-fuel powered landscaping equipment to electric powered equipment as equipment is being replaced	Policy	Parks & Recreation
Continue Annually	Continue to partner with FDOT's reThink Your Commute program to encourage employees' use of SunRail, Lynx, vanpools and bike and walking to work	Program	Human Resources, Sustainability Program
2022	Solicit proposals for energy conservation audits for all city facilities	Project	Public Works, Procurement, Sustainability Program, WP Electric Utility
2022	Work with OMB annually to identify sustainability-related	Project	Office of Management & Budget, Sustainability

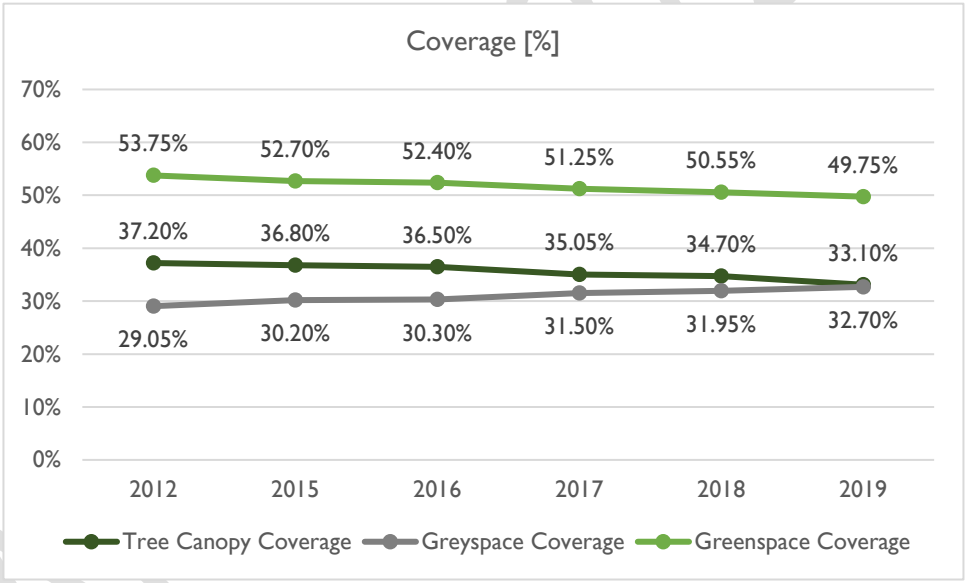
	project needs and budget for city departments for Capital Improve Plan		Program, All City Departments
2022	Establish sustainable & resilient fleet policy that creates a vehicle replacement and purchase tiered structure that prioritizes zero tail pipe emissions and high fuel efficiency vehicles	Policy	Fleet, Sustainability Program
2022	Develop educational workshop for city employees that cover best practices for workplace energy & water conservation, sustainable transportation modes and waste management	Program	Sustainability Program, Human Resources
2022	Revisit Single Use Product Policy Pilot Program (exp. May 11, 2022) to evaluate program outcomes and possibility of expanding and extending the program	Policy	Sustainability Program, City Administration, Parks & Recreation
2022	Review Best Workplaces for Commuters criteria and apply for designation	Project	City Administration, Human Resources, Sustainability Program
2023	Explore establishing a Revolving Energy Efficiency Loan Fund for city owned buildings and infrastructure.	Program	Finance, Public Works, Sustainability Program
2023	Solicit proposals for solar feasibility study for all city facilities	Project	Public Works, Sustainability Program, Procurement, WP Electric Utility
2023	Research energy and water management software capable of identifying low-efficiency city facilities and early detection of usage anomalies	Project	Sustainability Program, Public Works
2023	Update Personnel Policy Manual to reduce idling time by city fleet users and create educational campaign to inform city employees.	Policy/Program	Fleet, Sustainability Program
2023	Identify funding opportunities and training provider for racial equity training for all elected officials and department heads	Program	City Administration, Sustainability Program
2023	Pilot food scrap collection program at City Hall	Project	Sustainability Program

2024	Explore opportunities to install dishwashing machines and water bottle filling stations at city facilities to facilitate the reuse of dishware for city-business meetings and gatherings	Program	Public Works, Sustainability Program
2024	Utilize racial equity lens to assess city policies, initiatives, programs, and budget issues	Program	All City Departments
2024	Design and implement sustainable procurement policy that is fiscally responsible, promotes work health, conserves natural resources, prevents pollution, and aligns with the city's sustainability goals	Program	Procurement, Sustainability Program
2024	Explore ways to quantify waste generated from city offices	Project	Sustainability Program
2025	Upon renewal of SJRWMD Consumptive Use Permit, assess and identify opportunities for water conservation measures for all city facilities	Project/Policy	WP Water & Wastewater Utility

Natural Resources

The Natural Resources category is focused on preserving and enhancing the City of Winter Park's valuable natural features that help make the city such a great place to live. The city 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. In recognition of a downward trend from 2012 to 2019, the target goals for tree canopy coverage and greenspace coverage reflect a commitment to reversing the trend.

In 2020, the city's Urban Forestry Division began using i-Tree Canopy. The online tool randomly lays points onto Google Earth imagery and then the user manually classifies what cover class (e.g., tree) each point falls upon. While 500-1,000 points are suggested, the Urban Forestry Division classified 2,000 points, increasing the accuracy of the estimates. Since the aerial imagery from Google Earth is normally about 2 years old, the assessment presented goes only through 2019.



Using i-Tree Canopy, Urban Forestry was able to determine the city's tree canopy coverage (includes trees and shrubs), greenspace coverage (includes trees, shrubs, grass and herbaceous cover) and greyspace coverage (includes impervious surfaces and buildings). A trend of gradual decline in tree canopy and greenspace coverage and gradual incline of greyspace coverage is evident during the reporting years. Tree canopy loss is most likely attributable to changes in land development use, rather than from extreme weather events. Land development regulations and city programs that protect and expand the existing canopy are critical to ensure tree canopy coverage does not continue to decline.

City parks play a crucial role in residents and visitors mental and physical well-being and stimulate social cohesion. The city's Parks and Recreation Division has consistently exceeded its goal of more than 10 park acres per 1,000 people. Maintaining the percentage of residents living within a half mile from park space will not only ensure that residents are within walking distance of places that are good for their mind and body, but these green areas also help mitigate localized air pollution and provide habitat for numerous animal and plant species.

In 2021, the city's Lakes Division will begin tracking the percentage of the city's Main Lakes meeting the "Good" Water Quality Standard [average annual *trophic state index (TSI)* below 60]. The city's Main Lakes include Lakes Baldwin, Berry, Killarney, Maitland, Mizell, Osceola, Sue and Virginia. TSI is a classification system designed to "rate" individual lakes, ponds and reservoirs based on the amount of biological productivity occurring in the water. Using the index, one can gain a quick idea about how productive a lake is.

OBJECTIVES

1. Maintain and expand an equitable urban tree canopy
2. Increase overall greenspace
3. Reduce grey space (including paved parking lot, street, sidewalk, rooftop, impermeable)
4. Maintain percentage of residents living within a half mile from park space
5. Maintain percentage of lakes meeting good water quality standard
6. Increase residents' and businesses' knowledge of best practices for urban tree canopy maintenance and expansion and pollution prevention of natural water resources, including impacts of stormwater runoff and over-fertilizing

INDICATORS

	Indicator Description	Baseline	2025 Target	2035 Target
NR-1	Tree Canopy Coverage - Baseline Year: 2019	33.10%	Maintain	5% more
NR-2	Greenspace Coverage - Baseline Year: 2019	49.75%	Maintain	5% more
NR-3	Greyspace Coverage - Baseline Year: 2019	32.70%	Maintain	5% less
NR-4	Residents living within ½ mile from park space[1] - Baseline Year: 2012	95%	TBD	TBD
NR-5	Percentage of City of Winter Park's Main Lakes[2] meeting Good Water Quality Standard [Average Annual Trophic State Index (TSI) below 60] – Baseline Year: 2012	100%	Maintain	Maintain

[1] *Includes Community Parks, Mini Parks, Neighborhood Parks, Open space/conservation, Special Purpose Parks which equaled 98% in 2020; Parks & Recreation Advisory Board will be reviewing criteria to define this metric in upcoming meetings*

[2] *Lakes Baldwin, Berry, Killarney, Maitland, Mizell, Osceola, Sue and Virginia*

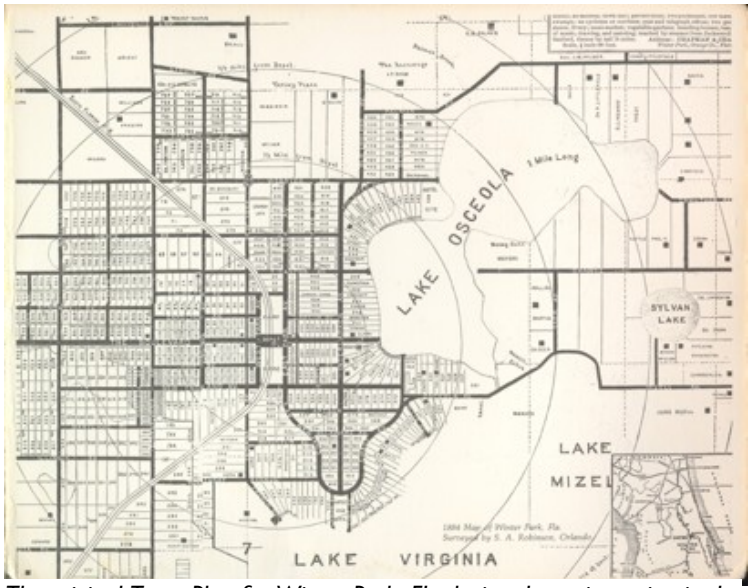
ACTIONS

Projected Implementation Year	Action	Action Type	Responsible Department(s)
Continue Annually	Administer city's *tree management program*	Program	Urban Forestry
Continue Annually	Consider the usefulness and availability of state and federal grant programs for the acquisition of lands for conservation areas or passive recreation	Policy	City Administration, Parks & Recreation, Planning & Transportation
Continue Annually	Administer *integrated aquatic plant management program*	Program	Lakes Division
2022	Provide Tree Canopy Conservation education (e.g., environmental/health benefits, cost savings, aesthetics) to residents, building professionals, realtors and businesses through on-line and print campaigns and in-person workshops	Program	Urban Forestry, Sustainability Program, Building & Permitting, Communications
2022	Provide education on pollution prevention of natural water resources (e.g., impacts of stormwater runoff and over-fertilizing) to residents and businesses through on-line and print campaigns	Program	Lakes Division, Sustainability Program, Communications
2023	Research establishing an Energy-Savings Tree Giveaway Program that delivers a diverse variety of canopy and understory trees to residents	Program	Urban Forestry, Sustainability Program
2023	Explore opportunities to incentive property owners and developers to preserve existing trees on private property	Project	Building & Permitting, Urban Forestry, Sustainability Program
2023	Conduct *tree equity score* study to determine if tree canopy cover is distributed in a way that all residents can experience the climate,	Project	Urban Forestry

	health and other benefits that trees provide		
2023	Develop long term reforestation plan to increase tree canopy coverage	Policy	Urban Forestry
2023	Explore funding opportunities to build a *green infrastructure* (bio-swales, rain gardens, green roofs, etc.) demonstration project within the city limits	Project	Sustainability Program, Stormwater Division

Transportation and Urban Form

The Transportation and Urban Form category is focused on encouraging healthier, more active forms of transportation such as walking, bicycling and using mass transit such as LYNX bus and SunRail commuter rail and increased *connectivity*. As the first planned community in Florida, the city was founded around the concept of walkability and human scaled urbanism. Since owning a car was a rarity in the 1880s, the city'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.



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.

As discussed in the Climate Resiliency category, transportation is a significant (52%) contributor to the city's community-wide GHG emissions. The category also emphasizes a more human scaled, compact, mixed use neighborhood pattern and design that makes it easier for people to choose these more sustainable transportation options.

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 green infrastructure such as bio-swales and rain gardens also help reduce stormwater runoff, enhance lakes water quality and reduce the urban heat island effect.

OBJECTIVES

1. Improve pedestrian and bicyclist environments with sustainable and safe transportation infrastructure such as sidewalks, multimodal paths, and transit shelters
2. Encourage more human scaled, compact, mixed use land use development and planning
3. Create an environment that encourages residents, businesses and visitors to transition to electric and less carbon-intensive modes of transportation
4. Achieve a level of air quality that is healthy for all residents and the natural environment (e.g., meeting and exceeding regional indoor and outdoor *air quality standards*)
5. Increase residents' and businesses' knowledge of benefits and importance of sustainable transportation choices

INDICATORS

	Indicator Description	2012 Baseline	2025 Target	2035 Target
TUF-1	Sidewalk/Street improvements allowing for pedestrian and bicyclist use [Linear feet][1,2] - *Starting year 2022*	-	1 mile (cumulative)	3.5 miles (cumulative)
TUF-2	Pedestrian infrastructure improvements (enhanced crossings, benches, water bottle filling stations, sitting shelters) [improved site/year][2] - *Starting year 2022*	-	TBD	TBD
TUF-3	Bicyclist infrastructure improvements (enhanced crossings, bike racks, bike storage, bike repair stations) [improved site/year][2] - *Starting year 2022*	-	TBD	TBD
TUF-4	Improved transit stops (benches, transit shelters, waste receptacles, etc.) [improved transit stop/year][2] - *Starting year 2022*	-	TBD	TBD
TUF-5	Public EV Charging Stations [# of Ports][3]	7	Maintain	Maintain

[1]e.g., converting a sidewalk to a mixed use trail or adding a bike lane to an existing road

[2]Targets for TUF-1,TUF-2,TUF-3 and TUF-4 will be determined and baseline adjusted upon completion of Mobility Plan

[3]As of 2020, the city has 14 EV Charging Ports for Public Use

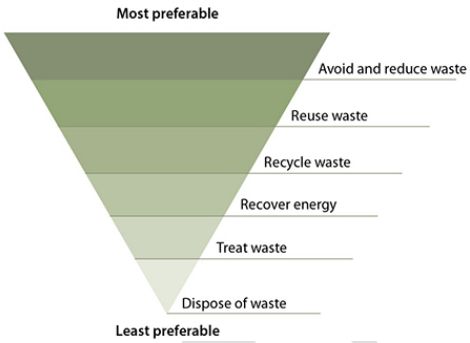
ACTIONS

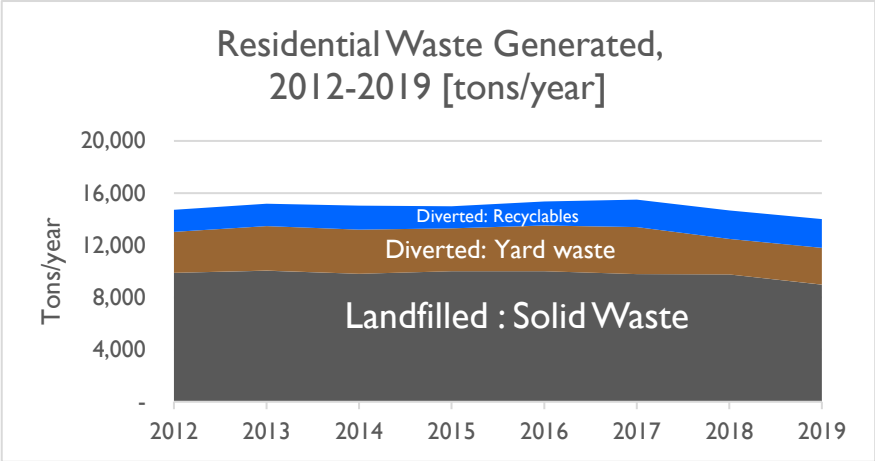
Projected Implementation Year	Action	Action Type	Responsible Department(s)
Continue Annually	Encourage private developments to increase safety and ease of walking and cycling through site plan review process	Policy	Planning & Transportation
Continue Annually	Publicize affordable & workforce housing located within a quarter mile from major employers	Program	Economic Development, Planning & Transportation
Continue Annually	Maintain Electric Vehicle Charging Stations available to the public	Program	Sustainability Program
Continue Annually	Provide education on pedestrian and bicyclist safety, routes, and proximity to amenities to residents and businesses through on-line and print campaigns	Program	Planning & Transportation, Police Department, Communications
Continue Annually	Provide education on benefits and importance of sustainable transportation choices to residents and businesses	Program	Planning & Transportation, Sustainability Department, Communications

	through on-line, print campaigns, and in-person events		
Continue Annually	Evaluate bus stop infrastructure for accessibility and amenities	Program	Planning & Transportation
2022	Develop Mobility Plan, considering SunRail, Lynx, safe routes to schools, Complete Streets, and linkages of the City's trails with adjacent counties and municipalities	Policy	Planning & Transportation, Sustainability Program
2022	Explore feasibility of incentive program for EV Charging Station installation in residential and commercial properties	Policy	Sustainability Program, Building & Permitting, WP Electric Utility, Economic Development
2023	Develop EV infrastructure needs assessment and master plan	Project	Sustainability Program, WP Electric Utility, Planning & Transportation
2023	Explore opportunities to pilot an autonomous electric shuttle	Project	City Administration, Economic Development, Planning & Transportation, Sustainability Program
2023	Improve bike storage at SunRail Station (e.g., bike shelter)	Project	Planning & Transportation
2023	Work with Sustainability Program to ensure Comprehensive Plan Update incorporates sustainability and resilience related goals, objectives and policies as it relates to transportation	Project	Planning & Transportation, Sustainability Program
2023	Work with regional transit agencies to expand Lynx and SunRail service in the city	Project	Economic Development, Planning & Transportation, Sustainability Program
2024	Research and implement a Complete Streets Project Design Checklist	Policy	Planning & Transportation

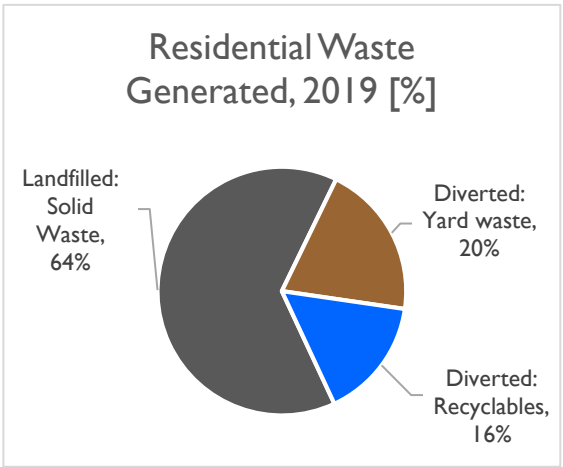
Waste Management

The Waste Management category is focused on reducing the amount of waste generated, encouraging the reuse and repair of products, and diverting waste from the landfill. The EPA developed the non-hazardous materials and *waste management hierarchy* in recognition that no single waste management approach is suitable for managing all materials and waste streams in all circumstances. The hierarchy ranks the various management strategies from most to least environmentally preferred.





The City of Winter Park has a franchise agreement with WastePro for hauling of solid waste, yard waste and recyclables from residential properties. Under this contract, WastePro hauls solid waste and yard waste to the Seminole County Transfer Station. Solid waste is landfilled and yard waste is used primarily as road cover at the landfill, allowing yard waste to be counted as diverted waste. WastePro hauls recyclables to the Orange County Transfer Station. There, recyclables are graded by Waste Management as being "acceptable" or "rejectable" based on the level of contamination. Acceptable loads are transported to Waste Management's sorting facility in Cocoa for sorting, baling and compaction and then prepared for market. Unacceptable loads are landfilled. In recent years, the city has had very few rejected loads. Consistency in updating residents to what is acceptable and not acceptable in the recycling bin is key to keeping rejections low.



It is important to recognize that at the top of the waste management hierarchy is avoidance and reduction of waste. The city is leading by example with its Single Use Product Policy Pilot program that prohibits plastic bags, plastic straws and Styrofoam products at city facilities. The Green Business Recognition Program provides a way

for businesses to receive recognition for switching from single-use to reusable and compostable alternatives. It is critical to reinforce the message that most environmentally preferable choice an individual can make in regards to waste is to not create it in the first place.

OBJECTIVES

1. Reduce the amount of waste generated
2. Increase repair, reuse and donation of materials
3. Divert waste generated away from the landfill
4. Increase residents and businesses' knowledge of the benefits and importance of waste prevention and reduction.

INDICATORS

	Indicator Description	2012 Baseline	2025 Target	2035 Target
WM-1	Residential Waste Generated [tons][1]	14,714	5% less	10% less
WM-2	Residential Solid Waste Landfilled [tons]	9,890	10% less	20% less
WM-3	Residential Waste Diverted from Landfill [tons][2]	4,824	5% less	10% less

[1] *Includes tonnage collected from residential households (solid waste, yard waste and recycling)*

[2] *Includes tonnage of waste diverted for other purposes (i.e., recyclables recycled and yard waste used for landfill cover)*

ACTIONS

Projected Implementation Year	Action	Action Type	Responsible Department(s)
Continue Annually	Provide in-person, online and print education on waste management hierarchy (reduce, reuse, recycle)	Program	Sustainability
Continue Annually	Hold Annual Household Hazardous Waste (HHW) and Electronics Waste Collection Event	Program	Sustainability Program
Continue Annually	Publicize Regional Partners' Waste Diversion Programs (HHW & E-Waste Collection Events, Food Scrap Collection, etc.) and Drop-Off Facilities	Project	Sustainability Program
Continue Annually	Provide composting education and backyard composters to residents	Program	Sustainability Program
Continue Annually	Provide residents with online waste	Program	Sustainability Program

	management tool that provides collection schedules, reminders and look-up tool to determine how items should be disposed of		
Continue Annually	Maintain the list of the city's Registered Haulers	Policy	Sustainability Program
Continue Annually	Assist multi-family and commercial buildings with creating recycling education and outreach plans	Program	Sustainability Program, Economic Development
Continue Annually	Participate in *Florida Food Waste Prevention Week*	Project	Sustainability Program
2022	Consider Waste Contractors' ability to provide single stream recycling for residential and multifamily households, food scrap collection, and *Pay As You Throw* options in Scope of Work description for Solid Waste Hauler Franchise Solicitation	Project	City Administration, Sustainability Program
2022	Explore feasibility of monthly residential food scraps collection at Farmers' Market	Project	Parks and Recreation, Sustainability Program
2022	Increase recycling opportunities at city-owned public facilities and parks	Program	Parks and Recreation, Sustainability Program
2022	Relaunch "Fix It, Don't Pitch It" regional community repair event	Project	Sustainability Program
2023	Increase availability of water bottle filling stations at city-owned public facilities and parks	Project	Parks and Recreation, Sustainability Program
2023	Develop and launch educational promotion campaign to encourage *food recovery*	Project	Sustainability Program, Communications

Glossary

Air quality standards. The Orange County Air Quality Management (AQM) section ensures that the air quality of Orange County meets standards set forth in the Federal Clean Air Act and in the Florida Statutes. The goal of the Florida Department of Health Indoor Air Program is to improve the health of Floridians by reducing exposure to indoor air contaminants.

Best Workplaces for Commuters is an innovative membership program that provides qualified employers with national recognition and an elite designation for offering outstanding commuter benefits such as offering at least $30 per month towards a transit pass to employees, employee shuttle to transit stations, etc.

Carbon Footprint The total amount of greenhouse gases that are emitted into the atmosphere each year by a person, family, building, organization, or company. A person's carbon footprint includes greenhouse gas emissions from fuel that an individual burns directly, such as by heating a home or riding in a car. It also includes greenhouse gases that come from producing the goods or services that the individual uses, including emissions from power plants that make electricity, factories that make products, and landfills where trash gets sent.

Carbon-intensive foods include beef (6.61 lbs. of CO_2e per serving), cheese (2.45 lbs. of CO_2e per serving), and other animal-based products.

Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use.

Climate Resilience The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation.

Complete Streets are streets for everyone. They are designed and operated to prioritize safety, comfort, and access to destinations for all people who use the street, especially people who have experienced systemic underinvestment or whose needs have not been met through a traditional transportation approach, including older adults, people living with disabilities, people who cannot afford or do not have access to a car, and Black, Native, and Hispanic or Latino/a/x communities. Complete Streets make it easy to cross the street, walk to shops, jobs, and schools, bicycle to work, and move actively with assistive devices. They allow buses to run on time and make it safe for people to walk or move actively to and from train stations.

Connectivity reduces the distances traveled to reach destinations, increases the options for routes of travel, and can facilitate walking and bicycling. Well-connected, multimodal networks are characterized by seamless bicycle and pedestrian infrastructure, direct routing, accessibility, few dead-ends, and few physical barriers. Increased levels of connectivity are associated with higher levels of physical activity from transportation. Connectivity via transportation networks can also improve health by increasing access to health care, goods and services, etc.

Florida Food Waste Prevention Week raises awareness and inspires action to prevent food waste, save money, reduce hunger and protect the environment.

Florida Green Building Coalition has developed green certification programs that apply to construction projects and local government operations. Seeking FGBC certification demonstrates a commitment to providing your customers with products or services that are green and sustainable.

Food Recovery is the practice of collecting wholesome food that would otherwise go to waste and donating it to local food distribution agencies to help feed those in need.

Google EIE uses exclusive data sources and modeling capabilities in a freely available platform to help cities measure emission sources, run analyses, and identify strategies to reduce emissions — creating a foundation for effective action. Starting in 2021, the city's Greenhouse Gas emissions inventory uses Google EIE estimates for transportation emissions (baseline year 2018).

Green Economy is defined as an economy that is low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services.

Green Infrastructure includes a range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspirate stormwater and reduce flows to sewer systems or to surface waters.

Greenhouse gases are those gaseous constituents of the *atmosphere*, both natural and *anthropogenic*, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth's surface, the atmosphere itself and by clouds. This property causes the greenhouse effect. Water vapour (H_2O), *carbon dioxide* (CO_2), *nitrous oxide* (N_2O), *methane* (CH_4) and *ozone* (O_3) are the primary GHGs in the Earth's atmosphere.

Integrated Aquatic Plant Management Program, established by the City of Winter Park, attempts to meet the challenges of maintaining beneficial plants while minimizing undesirable ones. The program includes chemical, biological and mechanical control methods.

LEED (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world. Available for virtually all building types, LEED provides a framework

for healthy, highly efficient, and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement and leadership.

Pay As You Throw is a system in which residents pay for municipal solid waste (MSW) services per unit of waste discarded rather than solely through a fixed fee or property tax.

Racial Equity occurs when race can no longer be used to predict life outcomes and outcomes for all groups are improved. For more detailed information review the GARE *Advancing Racial Equity and Transforming Government* Resource Guide.

Racial Equity Lens is the set of questions we ask ourselves throughout the decision-making process. The lens interrupts the impact of unintended consequences by taking into consideration the lived experiences and perspectives of the racially diverse communities we intend to serve.

Reclaimed water is wastewater that has been thoroughly treated to remove harmful organisms and substances, such as bacteria, viruses and heavy metals, so it can be reused.

Renewable energy is energy from sources that are naturally replenishing but flow-limited; renewable resources are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. The major types of renewable energy sources are: Biomass, Hydropower, Geothermal, Wind and Solar.

Resilience Hubs are community-serving facilities augmented to support residents, coordinate communication, distribute resources, and reduce carbon pollution while enhancing quality of life. Hubs provide an opportunity to effectively work at the nexus of community resilience, emergency management, climate change mitigation, and social equity while providing opportunities for communities to become more self-determining, socially connected, and successful before, during, and after disruptions.

Urban Heat Islands occur when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. This effect increases energy costs (e.g., for air conditioning), air pollution levels, and heat-related illness and mortality.

Tree Equity Score is an indicator of whether an area has a sufficient amount of tree canopy cover distributed in a way that all residents can experience the climate, health and other benefits that trees provide.

Tree Management Program, established by the City of Winter Park, maintains existing vigorous trees, removes dead/diseased/dying trees, and replants with a diverse species. The Urban Forestry division is also responsible for maintaining trees in parks and around facilities, trees coexisting with electrical facilities, rights of way trees, and community outreach and education.

Trophic State Index (TSI) is a classification system designed to "rate" individual lakes, ponds and reservoirs based on the amount of biological productivity occurring in the water. Using the index, one can gain a quick idea about how productive a lake is.

Trophic State Index	Trophic State Classification	Water Quality
0-59	Oligotrophic through Mid-Eutrophic	Good
60-69	Mid-Eutrophic through Eutrophic	Fair
70-100	Hypereutrophic	Poor

Waste Management Hierarchy: EPA developed the non-hazardous materials and waste management hierarchy in recognition that no single waste management approach is suitable for managing all materials and waste streams in all circumstances. The hierarchy ranks the various management strategies from most to least environmentally preferred. The hierarchy places emphasis on reducing, reusing, and recycling as key to sustainable materials management.

Wastewater is used water. It includes substances such as human waste, food scraps, oils, soaps and chemicals. In homes, this includes water from sinks, showers, bathtubs, toilets, washing machines and dishwashers.

100% RENEWABLE ENERGY RESOLUTION

OF THE CITY COMMISSION OF THE CITY OF WINTER PARK, FLORIDA

WHEREAS, renewable energy represents an enormous economic opportunity for the City of Winter Park to increase economic security and expand prosperity for all , create jobs in an emerging industry, reduce air pollution and associated public health risks, reduce the strain on water resources, and save consumers money; and

WHEREAS, over 180 U.S. cities, 12 of them being in the state of FL including Orlando, Cocoa, Dunedin, Gainesville, Satellite Beach, Sarasota, South Miami, Tallahassee, and Tampa, have goals to power their communities with 100% renewable energy; and over 50 communities across the U.S., including Aspen, CO, Burlington, VT, Greensburg, KS, Kodiak Island, AK, and Rock Port, MO, have made the transition to clean electricity for all, each having achieved 100% renewable electricity community-wide; and

WHEREAS, the City Commission acknowledges that climate change is a common concern to human kind and as such, is determined to set goals for environmental sustainability and, to collaborate with surrounding communities to join forces to reduce greenhouse gas emissions; and

WHEREAS, the City of Winter Park, through the Sustainability Program and its cross-departmental collaboration, has been working to improve quality of life of its residents, and promote environmental stewardship; and

WHEREAS, the City of Winter Park, through the Sustainability Program, has been completing since 2017 the community-wide and governmental operations' greenhouse gas emissions inventory, identifying the sectors of the highest impact (energy and transportation); and

WHEREAS, in 2020 the City of Winter Park received SolSmart Gold designation in recognition of the City's efforts to make it faster, easier, and more affordable for its community to go solar; and

WHEREAS, in 2020 the City of Winter Park joined the East Central Florida Regional Resilience Collaborative, committing to regional cooperation and collective efforts to make the region and state more resilient in the decades to come for the benefit of our own and future generations; and

WHEREAS, in early 2021, the City of Winter Park adopted EV Charging Infrastructure Readiness Ordinances, with intention to facilitate and encourage the use of electric vehicles and to expedite the establishment of a convenient, cost-effective electric vehicle infrastructure in new commercial establishments that will also accommodate future technology advancements; and

WHEREAS, in 2024 the City of Winter Park Electric Utility will begin to utilize 20MW more of solar energy, increasing the proportion of renewables of the local electric grid; and

WHEREAS, Winter Park Utility staff is actively evaluating feasibility of further solar integration into our electric distribution system; and

WHEREAS, the U.S. Environmental Protection Agency defines renewable energy as resources that rely on fuel sources that restore themselves over short periods of time and do not diminish. Such fuel sources include the sun, wind, moving water, organic plant and waste material (eligible biomass), and the earth's heat (geothermal).

THEREFORE, THE CITY COMMISSION OF THE CITY OF WINTER PARK, HEREBY RESOLVE that one hundred percent (100%) of electricity consumed in the City of Winter Park shall be generated from renewable energy by 2035, including all public and private uses of energy; and all other energy needs including transportation, shall be generated from renewable energy by 2050. The goal may be advanced as technology advances, depending on numerous factors, including the rate at which the price of renewable energy production and storage decline.

BE IT FURTHER RESOLVED, that this goal is aspirational in nature and shall not be construed to either impose any mandate on the City or its residents or businesses.

BE IT FURTHER RESOLVED, that the City of Winter Park commits itself to develop a Plan to meet the renewable energy goals that will include a transparent process to seek community and stakeholder input and develop interim milestones, budget estimates, equity metrics, estimated financial impacts, financing mechanisms, and the percentage of renewable energy that shall be locally generated.

BE IT FURTHER RESOLVED, the City of Winter Park commits to re-evaluating these goals and associated planning efforts at least once every two years, as technologies, policies, and economic feasibility of these commitments change.

BE IT FURTHER RESOLVED, that while transitioning to renewable energy, the City will continue to recognize and address the need for reliable energy services and be technology driven.

BE IT FURTHER RESOLVED, that the City's Sustainability Program may request additional funds in subsequent fiscal year budgets for third-party expertise required to develop a plan for city to achieve goals of 100% renewable energy, and will actively pursue public/private partnerships and grant opportunities to be used solely for purposes of this legislation.

BE IT FURTHER RESOLVED, that the City of Winter Park will give priority to ensuring that all residents share in the benefits of the renewable energy transition. The city will create structured mechanisms to include all residents in the decision-making process. The City will seek to measure energy cost-burden and adopt policies that reduce the cost-burden for low-income customers, and

BE IT FINALLY RESOLVED, that this resolution is effective immediately upon approval.

PASSED AND ADOPTED by the City Commission of the City of Winter Park this ____ day of [Month] [Year].