



STAFF REPORT – OCTOBER 2024 CLIMATE ACTION UPDATE TO COUNCIL

The actions are implemented across several Town departments. This report was produced by the Town’s Office of Sustainability and Resilience, with department support.

October 23, 2024

Buildings & Energy Actions		
Action	Benefits / Results	Status / Target Date
1. Scope Orange County Solar Farm Partnership 	Our research shows that a countywide partnership to build a utility-scale solar farm currently has significant barriers and uncertainties, and that municipal rooftop solar is a proven option with more direct benefits (a full study will be part of action 3) 	 July 1, 2024 (Sustainability)
2. Apply for Orange County Climate Action Grant to Upgrade Hargraves Outdoor Basketball Court to LED Lighting	If awarded, grant would improve outdoor lighting quality and provide the following lifetime benefits: <ul style="list-style-type: none"> • 140k kWh saved • 99.3 metric tons saved 	 August 16, 2024 (Sustainability)
3. Conduct Assessment of Sustainable Technologies at Town Facilities	Identifies investment opportunities in solar, battery storage, EV charging, and rainwater capture to make Town facilities more sustainable and resilient; positions the Town to take advantage of federal grants and IRA direct pay benefits through 2033 	Sustainability and Public Works staff finalizing vendor selection FY25, Q3 (orig. FY24, Q2)

Action	Benefits / Results	Status / Target Date
4. Install Rooftop Solar on 5 Affordable Housing Partner Homes (part of Solarize the Triangle)	Installs approximately 4 kW of solar on up to 5 income-eligible properties identified through our affordable housing partners	Sustainability staff finalizing list of actionable projects with Central Pines and housing partners FY25, Q4 (orig. FY24, Q4)
5. Scope a Regional Electrify Program with Central Pines	A regional Electrify program, similar to Solarize the Triangle, could support electrification and energy efficiency upgrades to homes and businesses using IRA and group purchasing incentives 	Sustainability staff coordinating with Central Pines and Sustainable Triangle Partnership about potential program FY25, Q4
6. Begin Piloting Weatherization Gap Program	Enhances weatherization work within Community Development Block Grant housing rehabilitation program and provides key operational insights for possible program expansion 	Project put on hold to align with Central Pines' building efficiency program through EPA Climate Pollution Reduction Grant (see item 5 above) Target date: TBD
7. Upgrade Cedar Falls Tennis Courts with LED Lights	Improves outdoor lighting quality and reduces emissions	Parks & Rec finalizing project scope with vendor FY25, Q4

Transportation + Land Use Actions		
Action	Benefits / Results	Status / Target Date
1. Begin Charging a Fee at all Public EV Charging Stations	Recovers costs of operation and maintenance for 40 public EV charging plugs and prioritizes essential charging over convenience charging	✓ August 12, 2024 (Parking Services and Sustainability)
2. Apply for Orange County Climate Action Grant to Support E-Bikeshare Pilot Program	<p>If awarded, grant would support the e-bike pilot program, which is projected to provide the following lifetime emissions benefits:</p> <ul style="list-style-type: none"> • 251 metric tons saved • 31 metric tons saved from this grant 	<p>✓ August 16, 2024 (Sustainability)</p> <p>Award announcement expected by December 2024</p>
3. Install 20 EV Charging Stations at New Rosemary Parking Deck 	<p>Doubles Town's number of public EV charging stations and reduces vehicle emissions by displacing gasoline; metrics now being tracked</p> 	✓ August 26, 2024 (Sustainability)
4. Begin Piloting Landscaping Crew with All-Electric Equipment	Reduces emissions from landscaping activities and provides operational insights into landscape equipment electrification	<p>Parks & Rec coordinating purchases (<i>vendor delays</i>)</p> <p>FY25, Q3 (orig. FY24, Q3)</p>
5. Begin Piloting EV Refuse Vehicle	Reduces emissions from vehicle and provides operational insights into heavy duty vehicle electrification and fast charging infrastructure	<p>Public Works taking delivery of vehicle by December (<i>vendor delays</i>)</p> <p>FY25, Q2 (orig. FY24, Q4)</p>

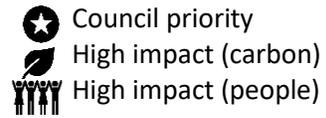
Action	Benefits / Results	Status / Target Date
6. Install a DC Fast Charger at Public Works	Supports daily charging of incoming EV garbage truck and increases charging capacity of all fleet EVs	Sustainability staff coordinating final commissioning (Oct.) FY25, Q2
7. Streamline EV Charging Station Permitting Process in Collaboration with Planning and Inspections	Reduces permitting soft costs and enables faster deployment of public and private EV charging stations to support community-wide transition to electric vehicles 	Sustainability staff coordinating internal reviews FY25, Q2 (orig. FY24, Q3)
8. Launch Chapel Hill E-Bikeshare Pilot Program	Projected lifetime emissions benefits of the pilot program: <ul style="list-style-type: none"> • 251 metric tons saved 	Sustainability and Office of Mobility and Greenways staff finalizing vendor contracts and program design FY25, Q3
9. Take Delivery of 7 Additional Electric Transit Buses	Each electric bus reduces fleet emissions by 40%, for a total emissions reduction of 360 metric tons per year; the fleet now has 11 total EV buses and this order will increase the total to 18 	FY25, Q4
10. Purchase 4 More Electric Fleet Vehicles in FY25	These four EVs will generate 53% or lower carbon emissions and save a projected 9.9 metric tons per year	FY25, Q4

Action	Benefits / Results	Status / Target Date
11. Complete Feasibility Study of the Everywhere-to-Everywhere Greenway Network	Enables future projects that reduce emissions by providing transportation options that don't require a car  	Office of Mobility and Greenways reviewing proposals and anticipates awarding contract by November FY25-27
12. Begin Piloting New Wayfinding Strategy	Supports build-out of Town-wide Mobility Plan and reduces emissions by increasing use of existing trails, paths, bike lanes	Office of Mobility and Greenways and Sustainability finalizing options for pilot; project timing now in sync with Downtown wayfinding study FY25, Q4 (orig. FY24, Q4)
13. Design Bolin Creek Greenway Extension (Umstead to Estes Ext.)	Reduces emissions by providing more transportation options that don't require a car 	Office of Mobility and Greenways - design and engineering underway FY25-27
14. Design Estes Drive Extension (MLK to Carrboro)	Reduces emissions by providing more transportation options that don't require a car 	Office of Mobility and Greenways - design and engineering underway FY25-27
15. Design and Construction of Cameron Ave Protected Bike Lanes	Reduces emissions by providing more transportation options that don't require a car 	Office of Mobility and Greenways signing contract, kicking off project fall 2024 FY25-26

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16. Design of Tanyard Branch Trace Neighborhood Connector (formerly Campus-to-Campus)	Reduces emissions by providing more transportation options that don't require a car 	Office of Mobility and Greenways signing contract; design will start in October 2024 FY26, Q2
17. Develop Safe Routes to School Action Plan	Reduces emissions by providing strategies and recommendations for travel to school without a car 	Office of Mobility and Greenways – plan development underway in collaboration with CHCCS FY25, Q4
18. Implement Safe Streets for All Grants	Two federal planning and demonstration grants that reduce emissions by providing plans and demonstration projects to improve safety for bicyclists and pedestrians and access to transit	Office of Mobility and Greenways staff working through contract development with Federal Highway Administration FY25-26
19. Work with NCDOT to Secure Funding for North-South BRT Project	Enables bus rapid transit project to move forward  	Transit waiting to hear from NCDOT about SPOT funding request
20. Participate in TOD and LUMO Rewrite Visioning	Provides Town with updated sustainable development and redevelopment practices (projected benefits TBD) 	Sustainability and Planning staff coordinating with consultants on sustainable development practices that support Town's Climate Action Plan Ongoing

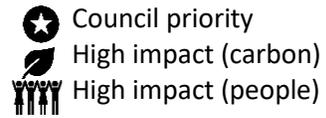
Water, Waste & Natural Resources Actions		
Action	Benefits / Results	Status / Target Date
1. Pilot Enhanced Composting and Recycling at Town Hall and Fire Station #1 (phase 2 of 2)	Reduces waste and provides operational insights into waste reduction programming	✓ August 19, 2024 (Sustainability and Public Works) Note: infrastructure is in place and pilot is ongoing
2. Scope Expansion of Town Facilities Composting Pilot	Will evaluate the potential to expand the Town Hall and Fire Station #1 waste reduction pilot to other Town facilities	FY25, Q4
3. Participate in Countywide Solid Waste Master Planning 	Prepares Orange County to meet zero waste operations goal by 2045	Plan is being revised based on Orange Co. BOCC feedback; draft to be shared at Nov. 14 SWAG meeting FY25, Q2 (orig. FY23, Q4)
4. Implement Approved Recommendations for Lower Creek Working Group	Mitigates stormwater flooding through targeted infrastructure investments	Town staff are planning to bring this to Council in the winter FY25, Q3 (Orig. FY24, Q4)

Resiliency Actions		
Action	Benefits / Results	Status / Target Date
1. Promote "Lights Out for Birds" Outreach (2 nd year)	Supports biodiversity by helping community members ensure safe passage for birds during the fall migration	FY25, Q2
2. Launch Year 4 of Leave Your Leaves Campaign 	Creates fertile soil and healthy trees, supports local wildlife, reduces flooding and improves water quality, and reduces emissions	Sustainability staff coordinating with Orange Co., Carrboro, and Hillsborough for early October launch FY25, Q3
3. Resilience Hubs Assessment	As part of a US Department of Energy Planning Grant with Central Pines, we will explore ways of enhancing three community resilience hubs (Library, Hargraves, Community Center) through community engagement and a technical assessment of the facilities 	Sustainability staff coordinating with Central Pines to finalize the federal grant and prepare for 12-month planning project FY26, Q2
4. Expand Flood Alert System Sensor Technology 	Enhances early warning flood alert system for low-lying areas of Town 	Sustainability, Public Works, Emergency Management, Technology Solutions staff finalizing vendor contracts and planning installations FY24, Q3 (orig. FY24, Q4)



Action	Benefits / Results	Status / Target Date
5. Evaluate Performance of Booker Creek Basin Park ★	Provides operational insights about the effectiveness of this stormwater infrastructure project	Public Works has selected a vendor to provide performance data; study will take 12 months FY25, Q4 (orig. FY24, Q4)

Outside Funding Summary				
Project	Source	Amount	Match	Status
1. Install 10 EV Charging Stations at the Rosemary Parking Deck	NCDEQ, VW Settlement Grant Program	\$25,000	\$18,336	✓ Completed: October 7, 2024 (Sustainability)
2. Install 20 EV Charging Stations at the Rosemary Parking Deck	Duke Energy Charger Prep Credit (utility incentive)	TBD	N/A	Applying Oct. 2024 Anticipating a credit value of \$15k or more
3. EV Refuse Truck and Fast Charger	NCDEQ, Diesel Emissions Reduction Act Grant Program (DERA)	\$297,400	\$313,498	Awarded and active (vendor delay) Estimated Completion: FY25, Q2 (Orig. Q1) Reporting: Quarterly



Project	Source	Amount	Match	Status
4. EV Refuse Truck and Fast Charger	Orange County Community Climate Action Grant Program	\$50,000	N/A	Awarded and active (vendor delay) Estimated Completion: FY25, Q2 (Orig. Q1) Reporting: Quarterly
5. Energy Efficiency and Conservation Block Grant Formula Allocation	US Department of Energy, EECBG Grant Program	\$129,010	N/A	Awarded Estimated Completion: FY26 Reporting: TBD
6. Regional Resilience Hub Planning (Central Pines)	US Department of Energy, Energy Future Grants Program	\$88,235 (\$500k across 3 counties)	N/A	Awarded Estimated Completion: TBD Reporting: TBD
7. IRA Direct Pay Benefit for 2023 Vehicle Purchases (non-Transit)	Internal Revenue Service, Inflation Reduction Act Benefits	\$45,000*	N/A	Applying Nov. 2024
8. IRA Direct Pay Benefit for 2023 Transit Vehicle Purchases	Internal Revenue Service, Inflation Reduction Act Benefits	\$40,000*	N/A	Applying Nov. 2024
		\$674,645	\$331,834	

* amount is an estimated benefit total subject to IRS review