09-22-2021 Town Council Meeting
Responses to Council Questions

ITEM #12: Receive Update and Provide Guidance on FY22 & FY23 Climate Action Implementation Plan

Council Question:
There are many, many items in the information presented. Can we prioritize them in some way. Which are the most critical to us and/or will yield the most impact?

***Staff Response**:*
Please see the "FY22&23 Climate Action Implementation Plan Details" report for priorities (section 1), impact categories and next steps (section 2).

Council Question:
Many of the activities shown were in progress well before we adopted the Plan. Can we identify those which are ongoing, and which are new due to the Plan?

***Staff Response**:*
*Please see the items labeled **N** in section 1 of the "FY22&23 Climate Action Implementation Plan Details."*

Council Question:
Can we have more specificity about how we will work with UNC? Are there any things the Town can do vis-à-vis the coal plant?

***Staff Response**:*
Sustainability staff from UNC and the Town meet monthly to share updates and discuss overlapping areas of interest. For example, Sustainable Carolina has offered to share information that can help the Town as we explore our utility-scale investment options. The purchase and/or development of renewable electricity is an area of common interest for both the Town and University. Sustainable Carolina is also part of the team working on the Orange County Solid Waste Master Plan, which has a goal of reaching zero waste by 2045. While the Cogen plant is regulated by a state permitting process, the Town can continue to ask the University for regular updates on its goal of reaching carbon neutrality by 2040. It's our understanding that Sustainable Carolina staff will soon be sharing such an update, possibly as early as Wednesday evening (as part of the Semi-Annual Campus Development Report already on the Council's meeting agenda).

09-22-2021 Town Council Meeting
Responses to Council Questions

Council Question:
What is wanted from Council?

***Staff Response**:*
This item is intended to be informational. Staff's main interest is to share how we are beginning to implement the Climate Action & Response Plan in FY22 and FY23. The last slide of the presentation asks if the Council has any questions about the plan, or if there's something more Council would like to hear about.

Council Question:
This seems more like a wish list than a workplan - can the document be more explicit about what we can likely do and what we can't?

***Staff Response**:*
Section 1 of the "FY22&23 Climate Action Implementation Plan Details" report provides a list of the priorities for FY22. This document also includes more information about each action listed within the summary tables, including the project leads and next steps. Unless otherwise noted, all project costs are already budgeted or awarded. While the initial two-year plan is ambitious, the work stretches across multiple departments, staff and partnerships to reinforce the organization-wide and systems-based approach we are trying to take with implementation.

Council Question:
Can staff provide prioritization by impact and feasibility?

***Staff Response**:*
Please see the "FY22&23 Climate Action Implementation Plan Details" report for priorities, impact categories and next steps. Scoping for new projects in FY22 will also include information about feasibility and impacts.

Council Question:
What about UNC's coal plant as one of the largest emitters of GHG in town?

***Staff Response**:*
While the Cogen plant is regulated by a state permitting process, the Town can continue to ask the University for regular updates on its goal of reaching carbon neutrality by 2040. It's our understanding that Sustainable Carolina staff will soon be sharing such an update, possibly as early as Wednesday evening (as part of the Semi-Annual Campus Development Report already on the Council's meeting agenda).

Staff Report
FY22&23 Climate Action Implementation Plan Details

This report was developed by staff from the Manager's Office on Sept. 21, 2021

The implementation plan is based on a combination of five main elements:

1. The goals, targets, and strategies of the Climate Action and Response Plan
2. A focus on our biggest carbon sectors: buildings and transportation
3. The adopted FY21-22 budget, which added $470k for climate action work
4. Supplemental Town, grant and other outside funding
5. Staff capacity to support this work

The information below is layered and broken out into the following sections:

- Section 1: A listing of the top priorities for FY22 based on a combination of modeled action category impacts, as well as Council and community input
- Section 2: A listing of the planned "actions" within each of the four action areas, including a quarterly timeline, outcome for FY21-22, budget estimate and reference to where the action supports part of the plan
- Section 3: A more detailed description of each planned action and how it supports the goals, targets and strategies of the Climate Action and Response Plan

Section 1: Top Priorities for FY22

Note: Actions from high-impact carbon reduction action categories are labeled using a star. New projects starting in FY22 are labeled using an ***N***.

Buildings & Energy

- To shape future investment and programming, determine who is experiencing energy burden in our community ***N***
- Work with affordable housing and utility partners to scope a building upgrade pilot to mitigate utility costs and lower carbon emissions for low-income and historically marginalized communities ***N***

- Scope an energy benchmarking program for "big buildings and parking lots" ***N***
- Scope an energy savings program for "green rentals" ***N***
- Assess and make energy and water upgrades to public housing units (as needed) ***N***
- Update the Council's Green Building policy to incentivize new development towards all-electric, net-zero construction by 2030
- Continue advocating for and supporting state and federal policy that supports our local climate action goals (e.g., Duke Energy IRP, C-PACE, RGGI)

Transportation & Land Use

- Develop EV priority station location mapping tool for public and private infrastructure, including criteria for equity and access ***N***
- Install and plan for at least 46 more charging station ports at public facilities ***N***
- Begin piloting 3 all-electric buses and place order for up to 7 more
- Advance Bus Rapid Transit planning and design, including station areas
- Complete solar and battery storage study for Transit facilities
- Begin visioning process for a LUMO rewrite that supports low-carbon buildings, development patterns and transportation systems ***N***
- Complete 5 Mobility Plan infrastructure projects, advance 7 and prioritize more for beyond FY23
- Develop Wayfinding Strategy for Mobility Plan and begin piloting signage
- Develop accelerated fleet electrification transition plan and purchase EVs ***N***

Waste, Water & Natural Resources

- Begin participating in the creation of a countywide Solid Waste Master Plan
- Respond to Council petitions regarding flood storage basins and a review of stormwater regulations ***N***
- Expand pilot rainwater sensor technology to enhance flood alert systems ***N***
- Launch compost pail program for Town employees ***N***

Resiliency

- Determine who is most affected by climate stressors in Chapel Hill
- Plant an average of 200 or more canopy species trees per year
- Work with consultant to develop a Green Infrastructure Ordinance ***N***
- Explore a "leave the leaves/healthy yards" campaign ***N***

Plan Coordination

- Transition the plan to an ESRI Hub website, which allows for enhanced reporting of CARP "dashboard" metrics and community project engagement ***N***
- Create a new Office of Sustainability structure and hire at least one of two planned positions in FY22 ***N***

Section 2: Implementation Plan Details

The information below provides a detailed description of each planned action and how it supports the goals, targets and strategies of the Climate Action and Response Plan

Note: High-impact carbon reduction action categories are labeled using a star and the Town's authority to act is labeled as or , where green indicates local authority to act and yellow and red have limitations based on authority granted by the state (see page 23 of CARP for more information).

The links directly below will take you to each of the four main action areas. Follow the "Back to Section 2" links at the bottom of each section are to return to this page.

Buildings & Energy

Action Categories:

Net-zero emissions for new construction

Net-zero emissions for new municipal buildings and upgrades for existing facilities

Energy upgrades for existing buildings and facilities

Convert community buildings to all-electric

Green the grid

2021-22 Strategies and Detailed Actions:

I. Net-zero Emissions for New Construction

Vision + Target: Achieve 100% zero net energy in new construction buildings by 2030.

Town's authority to act: ● *High-impact action:* ▼ 9%

1. Strategy: Update the Council's Green Building policy for new construction by 2023, with substantial improvements by 2022

    a. **Action: Work with a green building/sustainable development consultant to develop an updated energy policy that incentivizes and helps developers to design projects that achieve net-zero emissions by 2030.**

        - Timing: Q1-4, FY22
        - Lead: Sustainability
        - Cost Estimate: $50-75k
        - Desired Outcome: Council adopts new energy policy that helps drive net-zero construction by 2030
        - Next Steps: Staff scopes project and selects qualified consultant

2. Strategy: Create voluntary pathways and other incentives for net-zero construction as part of the LUMO rewrite

    a. **Action: See action 1.a. directly above.**

    b. **Action: In connection with item 1.a., work with a green building/sustainable development consultant to rewrite the Land Use Management Ordinance (LUMO) to include voluntary pathways and incentives that help to deliver net-zero emissions development projects by 2030.**

        - Timing: FY22-24
        - Leads: Sustainability + Planning
        - Cost Estimate: $15-30k (as part of LUMO Rewrite contract)
        - Desired Outcome: Council enacts LUMO Rewrite that includes effective voluntary pathways and incentives that generate net-zero emissions development projects by 2030
        - Next Steps: Staff scopes project and selects qualified consultant as part of LUMO Rewrite project (codewriting phase)

3. Strategy: Continue participating in and advocating for higher efficiency standards as part of the building code update cycle

    a. **Action: Similar to previous code development cycles, have staff actively participate in the 2021-22 International Code Council (ICC) building code development cycle and advocate for energy conservation measures**

        - Timing: FY22+23
        - Leads: Sustainability + Community Safety/Inspections
        - Cost: Staff time
        - Desired Outcome: The ICC adopts higher efficiency commercial and residential building code standards
        - Action Taken: Register Town staff to participate in the 2021-22 ICC Code Development process by September 2021
        - Next Steps: Prepare team for voting process

4. Strategy: Advocate for the creation of innovative financing tools that can support net-zero construction (e.g., property assessed clean energy, North Carolina Clean Energy Fund)

a. Action: Advocate for legislation and rulemaking that supports Commercial Property Assessed Clean Energy (C-PACE)

- Timing: Q1-4, FY22
- Lead: Sustainability
- Cost: Staff and Council time for evaluation and advocacy
- Desired Outcome: North Carolina General Assembly passes legislation that supports a state-wide C-PACE program
- Action Taken: At NC DEQ staff encouragement, sent letters of support for C-PACE legislation to the Metro Mayors and League of Municipalities
- Next Steps: Track and offer letters of support for SB 358

b. Action: Advocate for and support the North Carolina Clean Energy Fund (a.k.a "NC Green Bank") to provide financial tools and resources that can advance climate action programming in Chapel Hill and around the state (e.g., C-PACE, home energy upgrades)

- Timing: FY22+23
- Lead: Sustainability
- Cost: Staff and Council time for evaluation and advocacy
- Desired Outcome: The NCCEF Board raises sufficient capital and operating funds to begin accelerating investments in clean energy, energy efficiency and resilience projects in North Carolina, particularly to the benefit of low-income and historically marginalized communities
- Next steps: Ask NCCEF board if there is anything the Town can do to support their work in FY22

II. Net-zero Emissions for Municipal Buildings (including 50% net-zero for existing municipal buildings)

Vision + Targets: Achieve 100% net-zero emissions in new municipal buildings and 50% in existing buildings by 2030.

Town's authority to act: ● *GHG Reduction:* ▼ 804 MTCO2e

1. Strategy: Maintain commitments to green building standards (e.g., LEED and AIA 2030 Challenge) for all new Town buildings and major renovation projects

    a. **Action: Assess the Municipal Services Center (MSC) project to determine what green building and energy measures would be needed to reach LEED and 80% net-zero**

        - Timing: TBD>
        - Lead: Manager's Office
        - Cost: MSC project architecture firm's time (TBD)
        - Desired Outcome: MSC is built to achieve LEED and 80% net-zero and performs to the level expected based on pre-construction energy models
        - Action Taken: Secure the possibility of design assistance from the Willdan Group, through Duke Energy's free Design Assistance Program
        - Next steps: Following a Council decision regarding the location of a future MSC, work with the project team to achieve a design that supports LEED and 80% net-zero

2. Strategy: Continue assessing public housing buildings and prioritize investments in energy and water efficiency upgrades to lower utility bills

    a. **Action: Assess the Town's public housing buildings to determine whether additional energy and water-related efficiency upgrades are recommended and to perform all available services**

        - Timing: Q1-3, FY22
        - Leads: Public Housing + Sustainability
        - Cost Estimate: Free energy and water upgrades + option of estimated $40k for smart thermostats (cost shared with Duke Energy)
        - Partner: Duke Energy Multifamily Energy Efficiency Program
        - Desired Outcome: Work with Duke Energy to identify and upgrade public housing units and common areas with energy and water efficiency upgrades; work with public housing residents to increase knowledge of energy saving techniques

- Next steps: Complete non-binding agreement for free energy and water upgrade assessment

3. Strategy: Continue assessing Town buildings and facilities and invest in energy and water efficiency upgrades to lower utility bills

    a. Action: Assess the Town's five top energy consuming Town facilities to determine what energy measures would be needed to reach 50% net-zero

    - Timing: Q1-4, FY22>
    - Leads: Public Works/Facilities + Sustainability
    - Cost Estimate: $25-40k
    - Desired Outcome: Develop specific energy efficiency measures to help reach 50% net-zero emissions in each of the Town's top five energy consuming buildings
    - Action Taken: Complete lighting assessment for Town Hall.
    - Next steps: Through Duke Energy's free Virtual Energy Assessment (VEA) program, work with the Willdan Group to create a real-time energy model for the Town's eligible top five energy consuming buildings and identify the energy efficiency improvements needed to help reach 50% net-zero emissions. Should more technical assistance be needed, locate a qualified energy engineering firm to supplement the VEA program.

    b. Action: Replace lighting fixtures at Cedar Falls Park turf fields with LEDs

    - Timing: Q1-3, FY22
    - Leads: Parks & Rec + Sustainability
    - Cost Estimate: $70k (with $128k grant from Orange County Climate Action Grant Program)
    - Desired Outcome: Install LEDs and reduce energy consumption and GHG emissions by approximately 40%
    - Next steps: Select a vendor for the installation

c. Action: Complete LED retrofit assessment for all remaining Town-owned parking lot lighting

- Timing: Q1-4, FY22
- Leads: Public Works + Parks & Rec + Parking
- Cost Estimate: Staff time (reserved $10-15k if consulting services are needed)
- Desired Outcome: Develop a report that identifies all remaining LED retrofit opportunities for Town-owned parking lot lights, including benefits/costs and utility incentives
- Next steps: Coordinate with utility to scope the project for completing on-site assessments

4. Strategy: Explore options for enhanced refrigerant management in Town facilities and update standard operating procedures, as needed

a. Action: Continue implementing best practices in refrigerant management for Town buildings and vehicles

- Timing: Q1-4, FY22>
- Leads: Sustainability + Public Works/Facilities + Public Housing Public Works/Fleet + Transit
- Cost: Staff time
- Desired Outcome: Implement best practices for building refrigerant management in all Town facilities and vehicles
- Next steps: Sustainability staff coordinates with staff from facilities, public housing, fleet and transit to continue following best practices for refrigerant management

III. Energy Upgrades for Existing Buildings and Facilities

Vision + Target: Retrofit 15% of commercial and 30% of residential buildings to 50% net-zero by 2050.

Town's authority to act: ● *GHG Reduction:* ▼ 18,582 MTCO2e

COMBINED WITH

IV. Convert Community Buildings to All-Electric

Vision + Target: Achieve all-electric energy for new construction by 2030. Retrofit 7,500 buildings and homes to all-electric by 2030 and 15,000 residences by 2050.

Town's authority to act: 🟡 *GHG Reduction:* ▼ 5%

1. Strategy: Develop local certifications or recognition programs, including an evaluation of green rentals

    a. **Action: Begin scoping the potential benefits, costs, and other resources needed to establish a local green rentals program**

        - Timing: Q3-4, FY22
        - Leads: Sustainability + Housing & Community + Economic Development
        - Possible Partners: Chamber, commercial property owners, housing providers
        - Cost: Staff time
        - Desired Outcome: Develop a report outlining a possible green rentals program for Chapel Hill, including costs and other resource needs
        - Next steps: Staff research other green rental programs

2. Strategy: Create a "big buildings and parking lots" energy benchmarking and recognition program to track energy usage and create friendly competition among large property owners

    a. **Action: Scope out the potential benefits, costs, and other resources needed to establish an energy benchmarking and recognition program for properties with large buildings and/or parking lots**

        - Timing: Q3-4, FY22>
        - Leads: Sustainability + Economic Development
        - Possible Partners: Chamber, Sustainable Carolina
        - Cost: Staff time
        - Desired Outcome: Develop a report outlining a possible benchmarking program for big buildings and parking lots, including benefits, costs and other resource needs
        - Next steps: Staff research other benchmarking programs

3. Strategy: Determine who within Chapel Hill is experiencing energy burden in their homes or businesses

    a. **Action: Work with utility and clean energy partners to identify homeowners, business owners and renters who may be experiencing energy burden**

        - Timing: Q2-4, FY22
        - Lead: Sustainability
        - Possible Partners: Duke Energy, PEMC, NCSEA
        - Cost Estimate: Staff time + $5-15k for consulting services
        - Desired Outcome: Develop a report that identifies buildings and homes where owners may be experiencing energy burden and would benefit from weatherization and other improvements
        - Next steps: Staff reaches out to utility partners to try and acquire utility data to help inform a community assessment of energy intensity (kW/s.f.) and energy burden (cost/income greater than 6%)

4. Strategy: Create an energy efficiency, beneficial electrification, and renewables program that prioritizes low-income and historically marginalized communities, offers incentives, and links property owners to qualified local energy contractors

    a. **Action: Work with local affordable housing, home rehabilitation and weatherization partners to explore and scope a local grant program to support energy upgrades**

        - Timing: Q1-4, FY22
        - Leads: Sustainability + Housing & Community
        - Possible Partners: Orange County Home Preservation Coalition
        - Cost: Staff time
        - Desired Outcome: Develop a report outlining the benefits, costs and other resources needed to support an effective local energy upgrade program that prioritizes low-income and historically marginalized communities
        - Next Steps: Talk to Orange County Home Preservation Coalition about working to explore and possibly scope a program

b. Action: Work with utility providers to explore a "Pay As You Save" (PAYS) tariff on-bill energy upgrade program (or similar) for residential property owners and renters, particularly to the benefit of low-income and historically marginalized communities

- Timing: Q1-4, FY22
- Lead: Sustainability
- Cost: Staff time and possible future investment in rehabilitation to complement weatherization
- Desired Outcome: Duke Energy and/or Piedmont Electric Membership Corporation agree to pilot a PAYS program in Chapel Hill, particularly to the benefit of low-income and historically marginalized communities
- Next Steps: Talk to peer NC cities about their experiences and then reach out to utilities to request a PAYS program pilot in Chapel Hill

V. Green the Grid

Vision + Target: Advocate for and support a fast, affordable, and just transition to clean, renewable energy sources as Duke Energy and Dominion Energy pursue their commitments to achieving net-zero carbon emissions by 2050.

Town's authority to act: ● *GHG Reduction:* ▼ 30%

1. Strategies: Advocate on all levels for a fast, affordable and just transition to clean and renewable energy that supports the Town's goals. Support and advocate for the state and utilities to reach their goals for carbon neutrality by actively participating in public processes like Integrated Resource Plan (IRP) reviews and petitions like the one to have North Carolina join the Regional Greenhouse Gas Initiative (RGGI)

a. Action: Submit public comments and track the North Carolina Utilities Commission (NCUC) review of the 2020 Duke Energy Integrated Resource Plan (IRP)

- Timing: Q1-4, FY22
- Lead: Sustainability
- Cost: Staff and Council time for evaluation and advocacy

- Action Taken: Submit a joint letter to the NCUC
- Desired Outcome: NCUC directs Duke Energy to pursue lowest carbon resource plan
- Next Steps: Continue tracking the NCUC review

b. Action: Support the North Carolina Environmental Management Commission's (EMC) review of a petition for rulemaking to consider having the State join the Regional Greenhouse Gas Initiative (RGGI)

- Timing: Q1-4, FY22>
- Lead: Sustainability
- Cost: Staff and Council time for evaluation and advocacy
- Action Taken: Submit a letter to Governor Cooper's Office
- Desired Outcome: EMC votes to begin the rulemaking process for having North Carolina join RGGI (update: on July 13th, the EMC voted 9-3 to begin the process)
- Next Steps: Continue tracking the RGGI process

2. Strategy: Explore options like Green Source Advantage (GSA) and community solar, and work with utility companies to develop more utility-scale renewable projects in our area

a. Action: Evaluate utility-scale renewable energy investment options for Chapel Hill

- Timing: FY22+23
- Lead: Sustainability
- Partners: Sustainable Carolina + UNC Department of City and Regional Planning
- Cost: Staff + Graduate student time
- Desired Outcome: Develop a report outlining the utility-scale renewable energy options available to the Town, including the benefits and costs
- Next Steps: Coordinate with UNC DCRP to frame the internship project; learn from Sustainable Carolina about existing analyses and modeling of utility-scale programs

3. Strategy: Actively support UNC in their transition away from coal

    a. Action: Continue coordinating with Sustainable Carolina to partner on and support community climate action, including the decarbonization of the Cogeneration Plant

    - Timing: FY22+23
    - Lead: Sustainability
    - Partner: Sustainable Carolina
    - Cost: Staff time
    - Desired Outcome: Support continued campus and power plant decarbonization, partnering where appropriate
    - Next Steps: Maintain monthly coordination meetings, partner on community events (where possible), and share relevant updates with management and Council

BACK TO SECTION 2

Transportation & Land Use

Action Categories:

Create walkable, bikeable, transit-served neighborhoods

Increase walking, biking and transit use (mode shift)

Electrify the municipal fleet

Electrify the transit fleet

Increase transit ridership and implement Bus Rapid Transit (BRT)

Create a town-wide electric vehicle (EV) charging station network

Expand TDM and plan for mobility on-demand network

2021-22 Strategies and Detailed Actions:

I. Create Walkable, Bikeable, Transit-served Neighborhoods

Vision + Target: Create numerous walkable, mixed-use neighborhoods that are served by transit and/or connected by robust pedestrian and bicycle networks by 2050.

Town's authority to act: ● *GHG Reduction:* ▼ 19,905 MTCO2e

1. Strategy: Develop and implement supportive zoning and engineering standards through the rewrite of the Land Use Management Ordinance (LUMO) and related updates (e.g. reduced parking space, lot size, and building setback requirements)
2. Strategy: Integrate land use and transportation planning by following the vision of the recently adopted Charting Our Future land use initiative and continuing to invest in Bus Rapid Transit and the Mobility Plan
3. Strategy: Incentivize more compact, affordable, and mixed income housing, including "missing middle" and accessory dwelling units (ADUs)
4. Strategy: Create zoning and permitting incentives and proactively work with developers to achieve compact development and redevelopment that supports the vision of the Charting Our Future land use initiative

5. Strategy: Continue exploring options for establishing pedestrian only or car-free zones
6. Strategy: Develop zoning and permitting incentives to facilitate the construction of multi-modal facilities including trails, greenways, sidewalks, and bike lanes
7. Strategy: Continue planning for a robust, well-connected network of trails, greenways, sidewalks, and bike lanes

    a. **Action for strategies 1-7: Update the Town's Land Use Management Ordinance (LUMO) in a way that advances the strategies above**

        - Timing: FY22+23>
        - Lead: Planning
        - Cost: $750k + Staff time
        - Desired Outcome: Council adopts a new land development code that supports and incentivizes sustainable buildings and development patterns
        - Next Steps: Select a consultant for the project

    b. **Action: As part of the LUMO rewrite (item TLU I.1.a. directly above), create regulations and voluntary pathways that allow and incentivize sustainable building and development patterns that advances the strategies above**

        - Timing: FY22+23>
        - Lead: Planning + Sustainability
        - Cost Estimate: $15-30k for sustainable code consultant
        - Desired Outcome: Council adopts a new land development code that supports and incentivizes sustainable buildings and development patterns
        - Next Steps: Select a consultant for the project

II. Increase Bicycling, Walking, and Transit Use (mode shift)

Vision + Targets: Continue shifts to walking, biking, and transit commutes that reach levels of 35% or greater by 2050. Fully implement the Town Mobility Plan by 2035.

Town's authority to act: 🟡 *GHG Reduction:* ▼ 12,505 MTCO2e

1. Strategy: Continue designing and investing in multi-modal facilities as shown in the Town's Mobility Plan

    a. Action: Complete the Estes Drive Connectivity Project

    - Timing: FY22+23
    - Lead: Planning
    - Cost Estimate: $1.1M from Streets and Sidewalks Bond ($6M total project cost with federal support)
    - Desired Outcome: Greater east-west connectivity by the spring of 2023, with raised bike lanes on Estes Drive from MLK Jr Blvd to Caswell Rd, including a sidewalk on the south side and a 10' multiuse path on the north side
    - Next Steps: Complete construction

    b. Action: Complete the Old Durham-Chapel Hill Road Project

    - Timing: Q1-2, FY21-22
    - Lead: Planning
    - Cost Estimate: $1.7M from Streets and Sidewalks Bond ($9M total project cost with federal support)
    - Desired Outcome: Greater north-south regional connectivity by the end of 2021, with sidewalks and on-road striped bike lands on both sides of Old Durham-Chapel Hill Road
    - Next Steps: Complete construction

    c. Action: Complete the Fordham Sidepath Project

    - Timing: Q1-4, FY22 to Q3 FY23
    - Lead: Parks & Rec
    - Cost Estimate: $227k from Streets and Sidewalks Bond ($1.1M total project cost with federal support)
    - Desired Outcome: Greater north-south connectivity by the spring of 2023, with a bike and pedestrian sidepath along Fordham Blvd, from Cleland Drive to Willow Drive
    - Next Steps: Complete construction

d. Action: Complete the Homestead Road sidewalks and multiuse paths in coordination with the Seawell School Rd sidewalk project

- Timing: FY22+23
- Leads: Public Works/Engineering + Planning
- Cost Estimate: $1.4M from Streets and Sidewalks Bond ($6M total project cost with federal support)
- Desired Outcome: Greater east-west connectivity by the spring of 2023, with bike and pedestrian multi-use path and sidewalk along Homstead Rd near Seawell School Rd
- Next Steps: Complete construction

e. Action: Complete on-road bike lanes for Culbreth Road as part of resurfacing project

- Timing: Q1-2, FY22
- Leads: Public Works/Streets & Construction + Planning
- Cost Estimate: $10k for striping from Streets and Sidewalks Bond (part of larger resurfacing project)
- Metric/Desired Outcome: Greater east-west connectivity by the the 2nd quarter of 2021, with bike lanes on both sides of Culbreth Rd
- Next Steps: Complete striping

f. Action: Complete sidewalk, a multiuse path, and raised bike lanes for the Estes Drive Extension project

- Timing: FY22-25
- Leads: Planning + Public Works/Streets & Construction
- Cost Estimate: $900k from Streets and Sidewalks Bond ($4.5M total project cost with federal support)
- Desired Outcome: Greater east-west connectivity by Fiscal Year 2024-25, with raised bike lanes, sidewalk on both sides and a multi-use path along Estes Drive Extension, from MLK Jr Blvd to Carrboro Town limits
- Next Steps: Initiate design

g. Action: Complete sidewalk, a multiuse path, and raised bike lanes for the Elliott Road Extension project

- Timing: Q1-4, FY22
- Lead: Public Works/Engineering
- Cost Estimate: $265k from Streets and Sidewalks Bond ($8.3M total project cost)
- Desired Outcome: Greater east-west connectivity by end of Fiscal Year 22, with raised bike lanes, sidewalk on both sides and a multi-use path along Elliott Rd Extension
- Next Steps: Complete construction

h. Action: Complete Fordham Sidepath, from Willow Drive to Old Durham-Chapel Hill Road

- Timing: FY22-25
- Leads: Planning + Public Works/Streets & Construction
- Cost Estimate: $450k from Streets and Sidewalks Bond ($2.3M total project cost with federal support)
- Desired Outcome: Greater east-west connectivity by Fiscal Year 2023-25, with a bike and pedestrian sidepaths along both sides of Fordham Blvd
- Next Steps: Initiate design

i. Action: Complete pedestrian improvements on NC 54

- Timing: Q1-4, FY22
- Leads: Transit + Planning + Public Works/Streets & Construction
- Cost Estimate: $43k ($1.4M total project cost with federal support)
- Desired Outcome: Improved safety and access for pedestrians and transit riders along NC 54 by the end of FY21-22 with sidewalks, crossings, and bus stop improvements
- Next Steps: Initiate design

j. Action: Evaluate bike lanes for Willow Drive

- Timing: Q1-2, FY22
- Leads: Planning + Public Works/Streets & Construction
- Cost Estimate: $22k
- Desired Outcome: Greater east-west connectivity by the end of 2021, with bike lanes on both sides of Willow Drive, east of Fordham Blvd to Longleaf Drive
- Next Steps: Evaluate project

k. Action: Evaluate bike lanes for Burning Tree Drive

- Timing: Q1-2, FY22
- Leads: Planning + Public Works/Streets & Construction
- Cost Estimate: $15k
- Metric/Desired Outcome: Greater north-south connectivity by the end of 2021, with bike lanes on both sides of Burning Tree Drive, from Pinehurst Drive to Oak Tree Drive
- Next Steps: Evaluate project

l. Action: Complete bike lanes on Country Club Road

- Timing: Q1-2, FY2021-22
- Leads: Planning + Public Works/Streets & Construction
- Cost Estimate: $22k from Streets and Sidewalks Bond (part of a larger street resurfacing project)
- Desired Outcome: Greater east-west connectivity by the end of 2021, with bike lanes on both sides of Country Club Road, from Battle Ln to Raleigh Rd
- Next Steps: Complete resurfacing and striping

2. Strategy: Prepare shovel-ready projects for the anticipated stimulus "infrastructure bill"

a. Action: Develop next set of priorities for Mobility Plan projects Use infrastructure bill funding to build new segments of the Mobility Plan

- Timing: Q1-2, FY22

- Leads: Planning + Parks & Rec
- Cost Estimate: Council + Advisory Board + Staff time
- Desired Outcome: Identify the next set of Mobility Plan infrastructure projects
- Next Steps: Transportation and Connectivity Advisory Board and Parks, Greenways and Recreation Commission share the following priority projects with Council: (1) Morgan Creek Trail West extension, (2) Morgan Trail East extension, (3) Bolin Creek Trail Phase IV, (4) Estes Drive Extension (MLK to Carrboro), (5) Fordham Sidepaths (Willow to Old Durham Road), and (6) multi-use paths on Raleigh Rd
- Note: More funding will be needed to complete planning and design to make priority projects shovel-ready

b. Action: Finalize design for western portion of Ephesus Church sidewalk and bike lanes

- Timing: Q1-2, FY22
- Leads: Public Works/Engineering
- Cost Estimate: $94(design) and $1M (construction)
- Desired Outcome: Complete sidewalk and bike lanes on both sides of Ephesus Church Rd from Pinehurst Dr/Sharon Rd to the Pope Rd roundabout
- Next Steps: Finalize design and seek additional funding to finalize construction.

c. Action: Finalize design for Morgan Creek Trail West and East extensions

- Timing: TBD based on funding
- Lead: Parks & Recreation
- Cost Estimates: $500k (design) and $2.3-2.7M (construction)
- Desired Outcome: Provide greater east-west connectivity by extending the Morgan Creek Trail to reach Smith Level Church Rd to the west and Oteys Rd along Hwy 54 to the east.
- Next Steps: Complete 60% design with remaining bond funds and seek additional funding to finalize design and begin construction.

d. Action: Monitor the federal infrastructure bill as possible funding for planning and project implementation, including all-electric buses, piloting fuel cell buses and bus stop improvements

- Timing: Q1-4, FY22
- Leads: Multiple Departments
- Cost Estimate: Staff time
- Desired Outcome: Track federal infrastructure bill
- Next Steps: Determine what climate action projects are eligible for funding, and whether planning/design can be funded

3. Strategy: Develop a Wayfinding Strategy as called for in the Mobility Plan

a. Action: Work with a consultant to develop a Wayfinding Strategy that supports the Town's Mobility Plan

- Timing: Q1-4, FY22
- Lead: Planning
- Cost Estimate: $50k for Wayfinding Strategy consultant
- Desired Outcome: Council adopts a Wayfinding Strategy to support the Mobility Plan's network
- Next Steps: Select a consultant for the project

b. Action: Begin piloting signage and other wayfinding strategies

- Timing: FY22+23
- Lead: Planning
- Cost Estimate: $100k (Town has applied for funding from the Orange County Community Climate Action Grant Program)
- Desired Outcome: Staff begins implementing strategic wayfinding elements across town, including the creation of at least one demonstration corridor from the Mobility Plan
- Next Steps: Waiting on review of grant application

4. Strategy: Continue planning for a well-connected and convenient transit network

    a. **Action: See action TLU V.3.c.**

III. Electrify the Municipal Fleet

Vision + Targets: Electrify all Town fleet passenger vehicles, light and medium duty trucks by 2040, and all heavy duty vehicles by 2050.

Town's authority to act: 🟡 GHG Reduction: ▼ 803 MTCO2e

2. Strategy: Evaluate a more accelerated fleet replacement program using Electrification Coalition toolkit and set new 5-year targets for 2035-2050

    a. **Action: Use "DRVE" fleet planning software (or similar) to develop a plan for a more accelerated transition to electric fleet vehicles, including new 5-year targets for 2035-2050**

        - Timing: FY22
        - Leads: Public Works/Fleet
        - Cost: Staff time
        - Desired Outcome: Develop an accelerated EV transition plan with 5-year targets
        - Next Steps: Identify best fleet planning software and/or assistance options
        - Note: The FY22 vehicle replacement budget is limited and there are other essential frontline vehicle replacements (e.g., refuse trucks) that compete for these funds

3. Strategy: Pursue grant funding to pilot EV transitions within Town departments and divisions (e.g., DERA, VW Settlement)

    a. **Action: Apply for EPA Diesel Emissions Reduction Act (DERA) funding to purchase 1-3 all-electric refuse trucks and charging station infrastructure**

        - Timing: Q1, FY22
        - Leads: Public Works/Fleet + Solid Waste
        - Cost: Staff time
        - Desired Outcome: Receive grant award

- Next Steps: Review feedback from EPA and consider reapplying for next cycle

4. Strategy: Prioritize replacement of higher emissions vehicles with zero or low emissions vehicles

    a. See Action TLU III.3.a

5. Strategy: Continue purchasing electric vehicles as the fleet expands or turns over

    a. Action: Replace 1-2 Town fleet vehicles with electric vehicles

    - Timing: FY22
    - Lead: Public Works/Fleet
    - Cost Estimate: $26-52k
    - Desired Outcome: Replace 1-2 Town fleet vehicles with EVs
    - Next Steps: Evaluate best options for vehicle replacement
    - Note: The FY22 vehicle replacement budget is limited and there are other essential frontline vehicle replacements (e.g., refuse trucks) that compete for these funds

IV. Electrify the Transit Fleet

Vision + Target: Replace diesel buses and support vehicles with all-electric options over the next 20 years, replacing the oldest, least fuel efficient buses first.

Town's authority to act: 🟡 *GHG Reduction:* ▼ 4,572 MTCO2e

1. Strategy: Pilot up to 10 all-electric buses by 2025

    a. Action: Begin piloting 3 all-electric buses by the end of calendar year 2021

    - Timing: FY22
    - Lead: Transit
    - Cost Estimate: $3M (supplemented by federal, state and local resources) + Transit staff time

- Desired Outcome: Begin piloting electric buses
- Next Steps: Take delivery of buses in September and take final steps necessary to operationalize them

b. Action: Place order for up to 7 additional all-electric buses

- Timing: FY22
- Lead: Transit
- Cost Estimate: $8M (supplemented by federal, state and local resources)+ Transit staff time
- Desired Outcome: Take delivery of 7 e-buses and begin operationalizing them
- Next Steps: Place order

2. Strategy: Issue RFQ to study the potential for on-site solar and battery storage at the Transit facility

a. Action: Complete feasibility study of on-site solar and battery storage potential at Chapel Hill Transit, including coordination for joint projects with Orange County and the Chapel Hill-Carrboro School System

- Timing: FY22
- Lead: Transit
- Cost: $120k (supplemented by federal and local resources)
- Desired Outcome: Develop feasibility study indicating the benefits/costs associated with the investment of solar and battery storage at Chapel Hill Transit and park and rides
- Next Steps: Coordinate with Optony to complete the study

3. Strategy: Advocate for utility incentives that support fast-charging equipment and a transition to all-electric buses

a. Action: Participate in Duke Energy EV stakeholder group discussions and advocate for utility programming to support EV infrastructure as part of NCUC program review

- Timing: FY22

- Lead: Sustainability
- Cost: Staff time
- Desired Outcome: NCUC approves of Duke Energy EV programming that the Town can use to grow local infrastructure
- Next Steps: Consider providing comments as part of the NCUC's review of Duke Energy's proposal

V. Increase Transit Ridership and Implement Bus Rapid Transit (BRT)

Vision + Target: Expand transit service and implement the North-South BRT corridor by 2025.

Town's authority to act: 🟡 *GHG Reduction:* ▼ 2,305 MTCO2e

1. Strategy: Continue to offer fare-free transit service
    a. **Action: Maintain fare-free bus service by the next annual Chapel Hill Transit operating budget for FY22+23**
        - Timing: Q1-4, FY22>
        - Lead: Transit
        - Cost: $25M + Council time (costs are shared among the Transit Partners)
        - Desired Outcome: Maintain fare-free transit service in Chapel Hill
        - Next Steps: Develop annual operating budget for FY22-23 in coordination with action

2. Strategy: Expand transit availability and connectivity, where possible
    a. **Action: Participate in the development of the Orange County Transit Plan, advocating for funding that will help us implement projects in the adopted Short Range Transit Plan for Chapel Hill Transit**
        - Timing: Q1-4, FY22
        - Lead: Transit
        - Cost: Council + Transit staff time

- Desired Outcome: Orange County Transit Plan provides funding for service expansion from the Short Range Transit Plan for Chapel Hill
- Next Steps: Review draft plan

3. Strategy: Implement BRT along the North-South corridor by 2025

a. Action: Complete the NEPA Documented Categorical Exclusion (DCE)

- Timing: Q1-4, FY22
- Lead: Transit
- Cost Estimate: $680k (supplemented by federal and local resources)
- Desired Outcome: Complete the DCE and get federal approval to move into final design and engineering
- Next Steps: Submit required documentation to state and federal agencies

b. Action: Work with NCDOT to secure estimated $35M for NSBRT Project

- Timing: FY23-25
- Lead: Transit
- Cost: Transit staff time
- Desired Outcome: Secure $35M from NCDOT's SPOT program
- Next Steps: Waiting for SPOT process to conclude

c. Action: Issue RFQ to select consultant services to finalize BRT design

- Timing: Q1-4, FY22
- Lead: Transit
- Cost Estimate: $4M (covered by Orange County Transit Plan)
- Desired Outcome: Select consultant and finalize design and engineering for BRT project

- Next Steps: Select consultant and finalize scope

d. Action: Issue RFP for consultant services to complete station area planning in coordination with the LUMO Rewrite project

- Timing: FY22+23
- Leads: Transit + Planning
- Cost: $300k (supplemented by federal and local resources)
- Desired Outcome: Land use plans for station areas
- Next Steps: Issue RFP and select consultant

4. Strategy: Explore the feasibility of an east-west BRT concept along the 15-501

a. Action: Identify funding to study the feasibility for BRT in the 15-501 corridor

- Timing: FY22
- Lead: Transit
- Cost: Transit staff time (study estimated at $500-700k)
- Desired Outcome: Identify funding
- Next Steps: Participate in the Orange County Transit Planning process

VI. Create a Town-wide Electric Vehicle (EV) Charging Station Network

Vision + Targets: Create a Town-wide network of workplace and residential charging stations that helps to convert 50% of all community internal combustion engine vehicles to EVs by 2030 and 100% by 2050. Target investments and partnerships that deliver at least 629 public level 2, 99 public level 3 (fast charge), and 761 private level 2 charging stations by 2050.

Town's authority to act: 🟡 *GHG Reduction:* ▼ 8%

1. Strategy: Develop a plan for a Town-wide EV charging network

a. Action: Utilizing a framework shared by the City of Raleigh, partner with Orange County and other local municipalities to map priority locations for EV charging station infrastructure

- Timing: Q1-4, FY22
- Leads: Sustainability + Technology Solutions
- Partners: Orange County + Hillsborough + Carrboro
- Cost: Staff time
- Desired Outcome: Produce an interactive GIS mapping tool that shows priority locations for public or private EV charging station infrastructure
- Next Steps: Coordinate with municipal partners to scope the project

2. Strategy: Incentive or require charging stations for new construction

    a. Action: Evaluate options for creating a local EV Readiness Ordinance or Council policy

    - Timing: Q1-4, FY22
    - Leads: Sustainability + Planning
    - Cost: Staff time
    - Desired Outcome: Enact an EV Readiness Ordinance or adopt a Council policy that supports the siting of new EV charging stations and the capacity for additional stations as part of new construction
    - Next Steps: Evaluate sample ordinances and explore local options, including work with the Environmental Stewardship and Transportation and Connectivity Advisory Boards

3. Strategy: Streamline process and reduce barriers to installing charging stations

    a. Action: Evaluate options for streamlining existing permitting processes for electric vehicle charging stations

    - Timing: Q2-4, FY22
    - Leads: Sustainability + Community Safety/Inspections
    - Cost: Staff time
    - Desired Outcome: Where possible, streamline and reduce barriers (soft costs) to installing EV charging stations

- Next Steps: Evaluate existing permitting process and work with SSDN Transportation Electrification working group to identify best practices

4. Strategy: Partner with commercial property owners and Duke Energy to establish more workplace and multifamily residential charging
    a. **Action: See action TLU IV.3.b above.**
    b. **Action: Reach out to the Chamber, Downtown Partnership and commercial property owners to let them know of grants and other opportunities to install EV charging station infrastructure**
        - Timing: Q1-4, FY22
        - Leads: Sustainability + Economic Development
        - Cost: Staff time
        - Desired Outcome: Commercial property owners install more EV charging stations
        - Next Steps: Monitor Duke Energy's Pilot program for EV charging station infrastructure opportunities
    c. **Action: Evaluate Duke Energy's Park and Plug Program for possible EV charging station infrastructure at Chapel Hill Public Housing sites**
        - Timing: Q1-4, FY22
        - Leads: Sustainability + Public Housing
        - Cost: Staff time
        - Desired Outcome: Duke Energy installs EV charging stations at public housing sites
        - Next Steps: Coordinate with Public Housing and Duke Energy to determine whether this is a good fit

5. Strategy: Continue pursuing grant opportunities to install more EV charging stations on Town property
    a. **Action: Install 2 dual port EV charging stations at Town Hall**
        - Timing: Q1, FY22

- Leads: Sustainability + Public Works
- Cost estimate: $12k match ($18k grant from NC DEQ VW Settlement Grant)
- Desired Outcome: Install 2 dual port EV charging stations for public and employee use
- Next Steps: Complete hardware installation and commissioning, along with pavement markings and signage

b. Action: Install 1 dual port EV charging station at the Eubanks Park & Ride Lot

- Timing: Q1-4, FY22
- Leads: Sustainability + Public Works
- Cost Estimate: $18k grant from Orange County Climate Action Grant Program
- Desired Outcome: Install 1 dual port EV charging station for public use, as well as charging for Orange County's Mobility on Demand transportation service
- Next Steps: Finalize grant agreement with Orange County

c. Action: Submit an expression of interest form (EOI) to have Duke Energy install, own, operate, maintain and pay for the electricity associated with new EV charging stations at the Hargraves Community Center, Chapel Hill Library, Southern Community Park, Cedar Falls Park, and 140 West (public parking level)

- Timing: Q1-4, FY22
- Leads: Sustainability, with Parks & Rec + Library + Parking Services
- Partners: Duke Energy
- Cost: Staff time
- Action: Submitted expression of interest form to Duke Energy

- Desired Outcome: Have Duke Energy install, operate, maintain and pay for the electricity associated with public EV charging stations at the locations above
- Next Steps: Follow the outcome of Duke Energy's EV Pilot proposal with the NCUC and determine if the Town can move forward with the expression of interest

d. Action: Begin phase 1 of EV charging stations at the Rosemary Parking Deck

- Timing: FY23
- Lead: Economic Development
- Cost Estimate: $100-$200k + Staff time
- Desired Outcome: Install 40 EV charging stations in phases based on utilization data and site demand
- Next Steps: Finalize design

VII. Expand TDM and Plan for Mobility On-Demand Network

Vision + Targets: Increase the share of telework to at least 30% community-wide by 2040, and help increase the percentage of trips not taken alone in a car to 35% by 2050.

Town's authority to act: 🟡 *GHG Reduction:* ▼ 24,119 MTCO2e

1. Strategy: Continue building partnerships with employers to support telecommuting and alternative commute options

a. Action: Reorganize Transportation Management Plan (TMP) Guidance

- Timing: Q1, FY22
- Lead: Planning
- Cost: Staff time
- Desired Outcome: Development review stipulations changed to more effectively support teleworking and alternative commute options with employers
- Next Steps: Update Applicant Planning Package + meet with Downtown Partnership Director

b. Action: Work with the Downtown Partnership to invite businesses to create a Transportation Management Plan (TMP)

- Timing: Q2-4, FY22
- Leads: Planning
- Cost: Staff time
- Desired Outcome: 5-10 Downtown businesses adopt TMPs in FY22 (more business TMPs in years to follow)
- Next Step: Meet with Downtown Partnership Director

c. Action: Scope pilot program for Commute Friendly NC (CFNC) and Go Chapel Hill Mode Maker Program based on National Best Workplaces for Commuters air quality program

- Timing: Q1-4, FY22
- Lead: Planning
- Cost: Staff time
- Desired Outcome: Scope a program that where 25% of Chapel Hill TMP sites achieve a minimum of bronze level certification
- Next Step: Work with TJCOG to complete development of Commute Friendly NC online application and begin invitations to local businesses and TMP sites

2. Strategy: Continue promoting and encouraging transportation alternatives

a. Action: Promote Go Chapel Hill Transportation Demand Management program through Transportation Management Plans, campaigns, social media & website and special events

- Timing: Q1-4, FY22
- Lead: Planning
- Cost: $530 (web services) + Staff time
- Desired Outcome: Increase page views and programming participation numbers by 5%.
- Next Steps: Determine new contacts and list servs through the Downtown Partnership and Chamber

3. Strategy: Enhance incentives for choosing transportation options other than driving

    a. **Action: Promote Share The Ride NC (STRNC) and Commute Friendly NC (CFNC) to promote business connections and statewide designations using gift cards and other incentives**

        - Timing: Q1-4, FY22
        - Lead: Planning
        - Cost: Staff time
        - Desired Outcome: Increase STRNC participation by 5% annually, and have 45-60 CFNC designations by the end of FY22
        - Next Steps: Design, implement, and promote special campaigns at special events

4. Strategy: Explore options for creating a fully integrated mobility on-demand system in Chapel Hill

    a. **Action: Explore mobility on-demand with local and regional partners**

        - Timing: Q2-4, FY22>
        - Leads: Sustainability + Planning
        - Cost: Staff time
        - Desired Outcome: Build greater understanding of options for creating greater mobility on-demand that can serve Chapel Hill
        - Next Steps: Meet with TJCOG staff

BACK TO SECTION 2

Water, Wastewater & Natural Resources

Action Categories:

Produce zero waste

Protect water quality, natural, and agricultural resources

I. Produce Zero Waste

Vision + Targets: Produce zero waste by 2050.

Town's authority to act: 🟡

1. Strategy: Partner with Orange County to develop a solid waste master plan by 2024 that outlines strategies for reaching zero waste by 2045
    a. **Action: Participate in the development of an Orange County Solid Waste Master Plan**
        - Timing: FY22+23
        - Town Lead: Public Works/Solid Waste
        - Cost: Staff time
        - Partners: Orange County, Hillsborough, Carrboro, UNC (Sustainable Carolina), UNC Health
        - Desired Outcome: Orange County and municipal partners adopt a Solid Waste Master Plan by no later than 2024
        - Next Steps: County approves selection of the consultant

2. Explore areas of overlap for waste management and reduction with UNC-Chapel Hill
    a. **Action: See Action WNR I.1.a.**

3. Continue encouraging waste reduction, reuse, and compostable products for one-use items

    a. **Action: Launch Compost Pail Program for Town employees**

        - Timing: Q1-4, FY2021
        - Leads: Library + Public Works/Solid Waste
        - Cost: $3.8k (grant funded) + staff time
        - Partner: Orange County
        - Desired Outcome: Distribute up to 700+ compost pails for employees (first come, first served) to bring food scraps to County composting drop-off sites
        - Note: Part of larger, grant-funded ($22k) zero waste initiative that includes recycling containers, high-efficiency commercial dishwasher, reusable and compostable serving ware and a Library policy
        - Next Steps: Scope program details

II. Protect Water Quality, Natural and Agricultural Resources

Town's authority to act: 🟡

1. Strategy: Improve water quality and stormwater management by completing the Cedar Fork and Booker Headwaters subwatershed studies and implementing the top three projects across all studies by 2025

    a. **Action: Respond to Council petition regarding stormwater storage basins and subwatershed studies**

        - Timing: Q1-2, FY22
        - Lead: Public Works/Stormwater
        - Cost: Staff time
        - Desired Outcome: Provide a report that responds to the specifics of the Council petition
        - Next Steps: Complete staff response and share with Council

    b. **Action: Respond to Council petition regarding comprehensive review of stormwater regulations**

- Timing: Q1-2, FY22
- Lead: Public Works/Stormwater
- Cost: Staff time
- Desired Outcome: Provide a report that responds to the specifics of the Council petition
- Next Steps: Complete staff response and share with Council

a. Action: Create a communications plan to strengthen outreach and informational resources for maintenance of stormwater control measures (SCM)

- Timing: Q1-4, FY22
- Lead: Public Works/Stormwater
- Cost: Staff time
- Desired Outcome: Create a communications plan
- Next Steps: Initiate plan development

2. Strategy: Promote the use of OWASA's AguaVista software to help residents and businesses monitor water usage, identify leaks, and find ways to conserve

a. Action: Develop communications and messaging to help promote water conservation through the use of OWASA's AuguaVista software

- Timing: Q3-4, FY22
- Lead: Sustainability + Communications and Public Affairs
- Cost: Staff time
- Desired Outcome: Help raise greater awareness of OWASA's AguaVista software to assist residents and businesses with monitoring water usage, identifying leaks, and finding ways to conserve
- Next Steps: Collaborate with OWASA on messaging and communications

3. Strategy: Incentivize water conservation measures as part of the Town's energy upgrade program for homes and businesses

    a. **Action: See actions BE II.2.a and BE III-IV.4.a above**

4. Strategy: Pilot smart city technology to enhance maintenance strategies for stormwater controls

    a. **Action: Expand rainwater sensor technology to enhance flood alert systems**

        - Timing: Q1-4, FY22
        - Leads: Technology Solutions + Stormwater + Emergency Management + Sustainability
        - Cost Estimate: $9k
        - Desired Outcome: Install additional stream and rain gauges to enhance flood alert systems
        - Next Steps: Develop a list of priority locations and seek cost estimates

5. Strategy: Partner with Orange County and the Food Council to explore ways of supporting a sustainable and equitable local food system, including Community Supported Agriculture (CSA), farmers markets, community gardens and regenerative practices

    a. **Action: Coordinate with Food Council on community food baseline assessment**

        - Timing: Q2-4, FY22>
        - Lead: Food Council
        - Possible Partner: School of Government
        - Cost: Staff time
        - Desired Outcome: Conduct a community food assessment that prioritizes community leadership and includes important data points for the local food system (e.g., food security and food access)
        - Next Steps: Coordinate with the Food Council to talk about what role the Town can play in supporting this project.

6. Strategy: Identify local food deserts and work with local civic organizations to develop strategies for addressing them

    a. Action: See action WNR II.6.a

BACK TO SECTION 2

Resiliency

Action Categories:

Strengthen early warning systems for climate hazards and heat

Enhance green infrastructure

Expand climate action education, outreach, and awareness

Grow partnerships, funding, and incentives

Broaden community-wide resiliency and recovery actions

I. Strengthen Early Warning Systems for Climate Hazards and Heat

Vision + Target: Provide residents and business owners advanced warning and faster emergency response times through enhanced smart city early warning system technology by 2030.

Town's authority to act: ● *Resiliency:* ▲

1. Strategy: Determine who in our community is most impacted by climate stressors like flooding and extreme heat

    a. **Action: Explore federal and state resiliency assessment products, processes and associated mapping tools and datasets to derive localized information that will help to identify populations within Chapel Hill who are most affected by impacts from climate change, such as higher frequency/severity of flood and extreme heat events**

        - Timing: Q1-4, FY22
        - Leads: Technology Solutions + Sustainability
        - Cost: Staff time
        - Desired Outcome: Develop an analytic process to produce reports and/or interactive GIS maps that provide information about the people, locations, and structures that are most vulnerable to climate impacts

- Next Steps: Leverage existing data and analytic processes to identify the target population(s) and areas. Explore the EPA's Dasymetric Mapping toolset to enhance precision for population analytics to the sub-census block-group scale.

2. Strategy: Develop predictive tools that can anticipate flooding and the need for road closures and other responses in advance of a severe weather event

    a. Action: See action WNR II.5.a

II. Enhance Green Infrastructure

Vision + Target: Plant an average of 200 or more canopy trees every year and enact a new green infrastructure ordinance by 2022.

Town's authority to act: 🟡 *Resiliency:* ▲

a. Action: Plant at least 200 or more canopy species trees

- Timing: Q1-4, FY22
- Lead: Parks + Rec
- Cost Estimate: $40k in funding from Orange County Climate Action Grant Program + additional local donations
- Desired Outcome: Plant 200 canopy species trees
- Next Steps: Develop a detailed planting plan, including specific locations and watering schedules to help ensure survival

b. Action: Work with a consultant to develop a Green Infrastructure ordinance by 2022

- Timing: Q1-4, FY22>
- Lead: Public Works/Stormwater
- Cost Estimate: $25k + Staff time
- Desired Outcome: Council enacts a new Green Infrastructure Ordinance
- Next Steps: Scope the project and develop a request for proposals

III. Expand Climate Action Education, Outreach, and Awareness

Town's authority to act: ● *Resiliency:* ▲

1. Strategy: Promote climate education topics

    a. **Action: Present a "leave the leaves/healthy yards" campaign to Council for their consideration of an FY21-22 campaign**

        - Timing: Q1, FY22
        - Leads: Sustainability + Public Works/Stormwater + Parks & Rec
        - Cost: Staff time
        - Desired Outcome: Council considers beginning a campaign in FY21-22, including some programming
        - Next Steps: Present campaign proposal to Town Council at September 22, 2021 business meeting

2. Strategy: Promote climate education topics

    a. **Action: Begin recruitment of a new position to assist with climate education and outreach**

        - Timing: Q4, FY21-22
        - Lead: Sustainability
        - Cost: Staff time
        - Desired Outcome: Town hires position to help promote climate education topics and related outreach
        - Next Steps: Prepare job description and post in late Q4, 2021-22

3. Strategy: Promote climate education topics

    a. **Action: Move climate action plan implementation and tracking to the web**

        - Timing: Q3-4, FY21-22
        - Leads: Sustainability + Technology Solutions
        - Cost: $6k + Staff time

- Metric/Desired Outcome: Transfer the implementation and tracking of the climate action plan to a web-based platform (e.g. ESRI's ArcGIS Hub)
- Next Steps: Evaluate ArcGIS Hub for web platform

4. Strategy: Promote climate education topics
    a. **Action: Build and promote 1-2 climate action outreach campaigns**
        - Timing: FY23
        - Leads: Sustainability
        - Cost: $6k + Staff time
        - Metric/Desired Outcome: Town launches 2-4 climate action outreach program
        - Next Steps: See action R III.2.a

5. Strategy: Promote climate education topics
    a. **Action: Explore climate action as part of the Peoples Academy**
        - Timing: Q4, FY22>
        - Leads: Manager's Office + Sustainability
        - Cost: Staff time
        - Desired Outcome: Explore how organizational and community-based climate action can be added to the Peoples Academy curriculum
        - Next Steps: Coordinate with Peoples Academy staff leadership

IV. Grow Partnerships, Funding, and Incentives

Town's authority to act: ● *Resiliency:* ▲

1. Strategy: Partner with OWASA on expanded water conservation programming and measures

a. **Action: Participate in OWASA's Strategic Planning process, advocating for coordinated and expanded water conservation programming and measures, particularly to the benefit of low-income and historically marginalized communities**

- Timing: Q1-4, FY22
- Lead: Sustainability
- Cost: Staff time
- Desired Outcome: OWASA adopts a Strategic Plan that includes coordinated and expanded water conservation programming and measures, particularly to the benefit of low-income and historically marginalized communities
- Next Steps: Participate in fall Strategic Planning session

2. Strategy Development

a. **Action: Scope other strategies within plan section R IV. for FY22-23**

- Timing: Q1-4, FY22
- Lead: Sustainability
- Cost: Staff time
- Desired Outcome: Develop actions for FY22-23
- Next Steps: Coordinate on action planning

V. Broaden Community-wide Resilience and Recovery Actions

Town's authority to act: ● *Resiliency:* ▲

1. Strategy: Collaborate with Orange County partners to develop a long-term recovery plan for COVID-19, and look for ways to keep the positives (e.g., teleworking, flexible work schedules, on-road walking and biking paths)

a. **Action: Finalize, seek countywide endorsement for and begin assisting with the implementation of the Long-Term Recovery and Transformation Plan (LTRTP)**

- Timing: Q1-2, FY22
- Lead: Sustainability

- Cost: Staff time
- Desired Outcome: Council endorses a final plan and staff begin implementing local elements, where there is alignment with previously authorized activities and partnerships
- Next Steps: Coordinate with Recovery Support Functions to review feedback from elected officials and revise the LTRTP

b. Action: Explore permanent options for Franklin Street COVID path

- Timing: FY22+23
- Leads: Public Works/Streets & Construction + Planning
- Cost Estimate: No option has been decided; $100k for striping a bike facility, for example
- Desired Outcome: Greater east-west downtown connectivity by the summer of 2022, with bike lanes on both sides of Franklin St
- Next Steps: Explore options with NC DOT
- Note: More funding will be needed to complete planning and design to make priority projects shovel-ready

2. Strategy: Organize emergency staff and volunteers to be ready for rapid response in our community and other parts of the state

a. Action: Communicate with residents and businesses about disaster preparedness kits

- Timing: Q1-4, FY22
- Lead: Communications & Public Affairs
- Cost: Staff time
- Desired Outcome: Provide general messaging and resources for how to build disaster preparedness kits
- Next Steps: Coordinate the timing of messaging

b. Action: Explore what kind of disaster preparedness support is most helpful to residents and businesses

- Timing: Q1-4, FY22

- Lead: Emergency Management
- Cost: Staff time
- Desired Outcome: Inquire as part of the Town's Community Survey and as part of community outreach
- Next Steps: Coordinate on survey questions and outreach

3. Strategy Development

a. Action: Scope other strategies within plan section R V. for FY22-23

- Timing: Q1-4, FY22
- Lead: Emergency Management
- Cost: Staff time
- Metric/Desired Outcome: Develop actions for FY22-23
- Next Steps: Coordinate on action planning

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