



Receive Update on FY22&23 Climate Action Implementation Plan

Sep. 22, 2021



Recommendation

That the Council receive the information and provide guidance to staff, as needed.



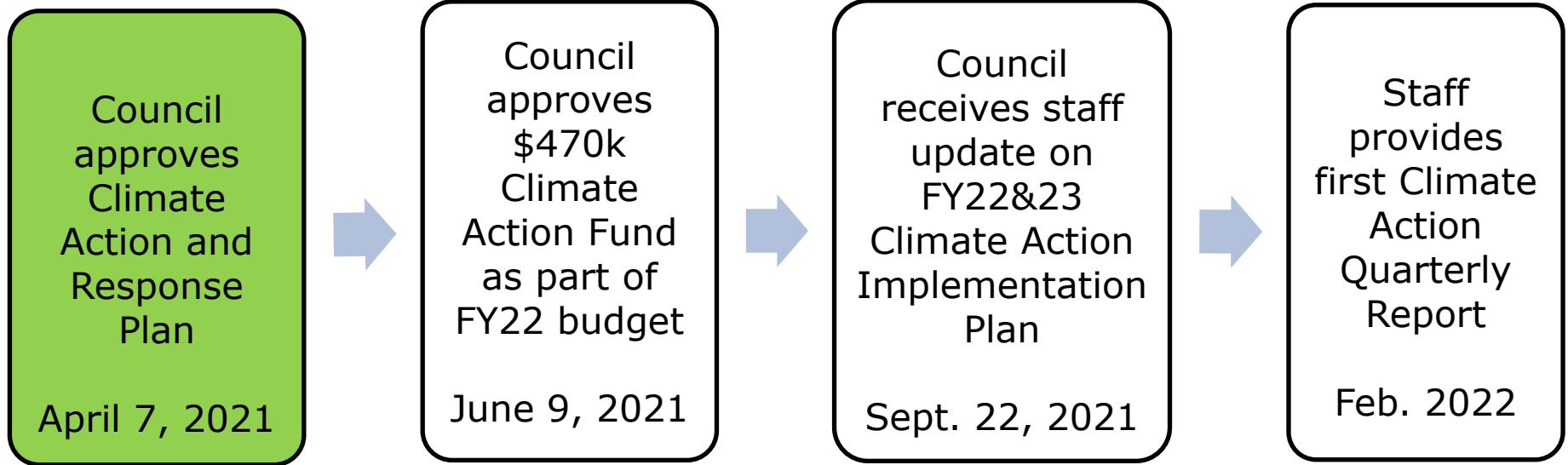
Overview

1. Brief Recap
2. Implementation Plan Overview
3. Priorities
4. Metrics
5. Recommendation

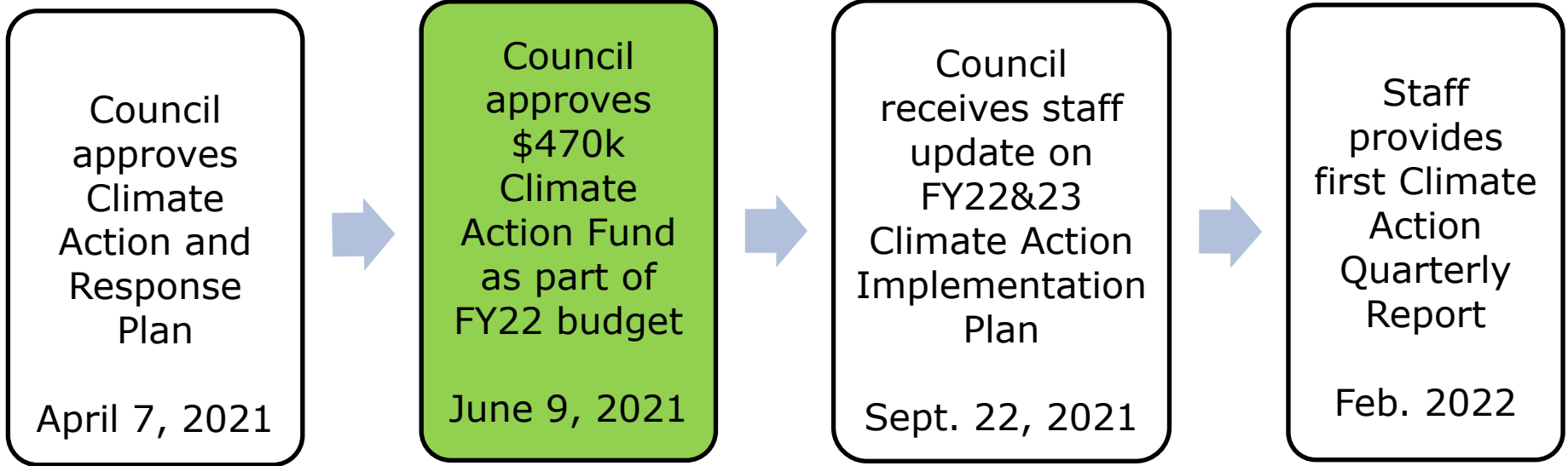


1. Brief Recap

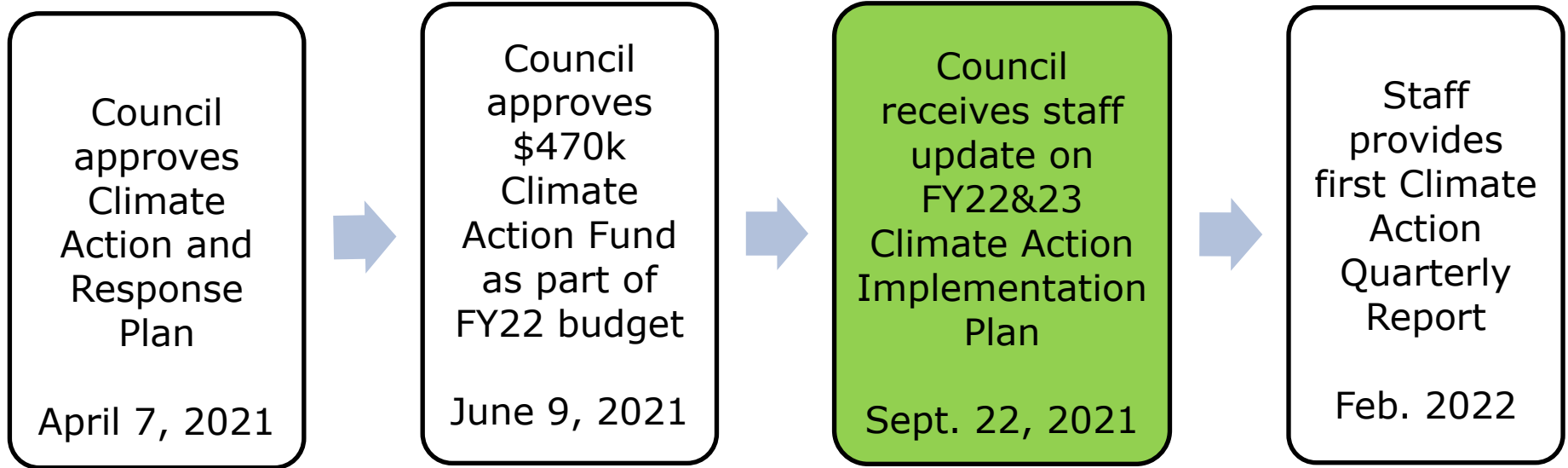
Timeline



Timeline



Timeline





1. Green the grid ▼30-31%



2. Sustainable transport. ▼12-13%



3. Sustainable development ▼11%



4. Green building retrofits ▼6-7%

Resiliency ▼ recovery time



Action Examples

Green infrastructure planning

Tree planting + invasive species removal

Target Examples

Green infrastructure ordinance by 2022

Plant 200+ trees per year

Taking Action Together



**Buildings
& Energy**



**Transportation
& Land Use**

95% of Community emissions



**Waste, Water &
Natural Resources**



Resiliency

2. Implementation Plan Overview

Implementation Plan

- I. Priorities
- II. Listing of Actions by Action Category
- III. Action Details by Impact Category

Implementation Plan

- I. Priorities
- II. Listing of Actions by Action Category
- III. Action Details by Impact Category

Taking Action Together



**Buildings
& Energy**



**Transportation
& Land Use**



**Waste, Water &
Natural Resources**



Resiliency



Buildings & Energy

Action	Q1	Q2	Q3	Q4	Outcome	Budget	Reference
Update Council's Green Building Policy					Local Policy	\$50-75k	BE I.1.a
Create pathways/incentives for net-zero buildings thru LUMO rewrite				>	Ordinance	\$15-30k	BE I.2.a-b
Participate in the 2021-22 International Code Council (ICC) process				>	Building Code	time	BE I.3.a
Advocate for and support rulemaking that supports C-PACE					State Policy	time	BE I.4.a
Advocate for and support the North Carolina Clean Energy Fund				>	Financing	time	BE I.4.b
Design for an MSC that achieves LEED and AIA 2030 goals				>	Green Building	time	BE II.1.a
Assess public housing for more energy/water efficiency upgrades					Upgrades	\$36-40k	BE II.2.a
Assess Town's top 5 energy consuming buildings for more upgrades				>	Utility savings	\$25-40k	BE II.3.a
Upgrade Cedar Falls ballfield lighting with LEDs					Utility savings	\$70k*	BE II.3.b
Complete LED retrofit assessment for parking lot lighting					Staff Report	time	BE II.3.c
Continue enhanced refrigerant management in Town buildings				>	Staff Procedure	time	BE II.4.a
Scope a "green rentals" utility savings program				>	Staff Report	time	BE III-IV.1.a
Scope a "big buildings and parking lots" energy saving program				>	Staff Report	time	BE III-IV.2.a
Determine who is experiencing energy burden in homes/businesses					Study	\$5-15k	BE III-IV.3.a
Scope a building upgrade grant program with local housing partners					Staff Report	time	BE III-IV.4.a
Explore on-bill energy upgrade pilot with utility providers					Pilot Program	time	BE III-IV.4.b
Comment on and track Duke Energy's 2020 IRP filing with NCUC					State Policy	time	BE V.1.a
Support rulemaking for State to join Regional GHG Initiative (RGGI)				>	State Policy	time	BE V.1.b
Assess options for investing in utility-scale renewable energy				>	Staff Report	\$5-15k	BE V.2.a
Coordinate with UNC to support climate action + decarbonization				>	Coordination	time	BE V.3.a

Active ■ Continues FY23 > Includes grant or other funds * Partially funded ^ "time" = Council/staff time "Reference" = plan citation



Transportation & Land Use

Action	Q1	Q2	Q3	Q4	Outcome	Budget	Reference
Create walkable, transit-served neighborhoods thru LUMO rewrite				>	Ordinance	\$750k	TLU I.1.a-b
Complete the Estes Drive Connectivity Project				>	Infrastructure	\$1.1M*	TLU II.1.a
Complete the Old Durham-Chapel Hill Road Project					Infrastructure	\$1.7M*	TLU II.1.b
Complete the Fordham <u>Sidpath</u> Project				>	Infrastructure	\$227k*	TLU II.1.c
Complete sidewalks and multiuse path on Homestead Rd				>	Infrastructure	\$1.4M*	TLU II.1.d
Complete on-road bike lanes for Culbreth Rd					Infrastructure	\$10k*	TLU II.1.e
Complete bike lanes and multiuse path on Estes Dr Extension				>	Infrastructure	\$900k*	TLU II.1.f
Complete multiuse path and bike lanes on Elliott Rd Extension					Infrastructure	\$265k	TLU II.1.g
Complete Fordham <u>Sidpath</u> from Willow to Old Durham-CH Rd				>	Infrastructure	\$450k*	TLU II.1.h
Complete pedestrian improvements on NC 54					Infrastructure	\$43k*	TLU II.1.i
Evaluate bike lanes for Willow Drive east of Fordham					Infrastructure	\$22k*	TLU II.1.j
Evaluate bike lanes for Burning Tree Dr					Infrastructure	\$15k*	TLU II.1.k
Complete bike lanes on Country Club Rd					Infrastructure	\$22k*	TLU II.1.l
Develop next set of priority Mobility Plan projects					Strategy	time	TLU II.2.a
Finalize design for Ephesus Church Rd sidewalk and bike lanes					Design	\$94k	TLU II.2.b
Finalize design for Morgan Creek Trail West and East extensions				>	Design	\$500k^	TLU II.2.c
Monitor the federal infrastructure bill for project funding					Funding	time	TLU II.2.d
Develop a Wayfinding Strategy for Town's Mobility Plan					Strategy	\$50k	TLU II.3.a
Begin piloting signage and other wayfinding strategies				>	Infrastructure	\$100k*	TLU II.3.b
Have the Town join the Electrification Coalition for EV transitioning				>	Commitment	time	TLU III.1.a

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Water, Wastewater & Natural Resources

Action	Q1	Q2	Q3	Q4	Outcome	Budget	Reference
Participate in creation of countywide Solid Waste Master Plan				>	Plan	time	WNR I.1.a
Coordinate with UNC to support community waste reduction					Coordination	time	WNR I.2.a
Launch compost pail program for Town employees					Outreach	\$3.8k*	WNR I.3.a
Respond to Council petition regarding storage basins and studies					Staff Report	time	WNR II.1.a
Respond to Council petition about review of stormwater regulations					Staff Report	time	WNR II.1.b
Create outreach plan to strengthen stormwater controls maintenance					Plan	time	WNR II.2.a
Promote water conservation through OWASA's <u>AquaVista</u>				>	Outreach	time	WNR II.3.a
Include water conservation as part of building upgrade program scope					Program Scope	time	WNR II.4.a
Expand rainwater sensor technology to enhance flood alert systems					Monitoring	\$9k	WNR II.5.a
Coordinate with Food Council on community food assessment				>	Assessment	time	WNR II.6.a

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Resiliency

Action	Q1	Q2	Q3	Q4	Outcome	Budget	Reference
Determine who is most affected by climate stressors in Chapel Hill					Study	time	R I.1.a
Plant at least 200 or more canopy species trees					Infrastructure	\$40k*	R II.a
Work with consultant to develop a Green Infrastructure ordinance				>	Infrastructure	\$25k	R II.b
Present a "leave the leaves/healthy yards" campaign for Council					Program	time	R III.1.a
Begin recruitment of position to assist with climate outreach				>	Staff Support	time	R III.2.a
Move climate action plan implementation to the web				>	Outreach	\$6k	R III.3.a
Build and promote 1-2 climate action outreach campaigns				>	Outreach	\$6k	R III.4.a
Explore climate action as part of the Peoples Academy				>	Outreach	time	R III.5.a
Advocate for expanded water conservation measures					Planning	time	R IV.2.a
Scope future resiliency actions from strategies within plan					Planning	time	R IV.3.a
Finalize Orange Co. Long-Term Recovery and Transformation Plan					Planning	time	R V.1.a
Explore permanent options for Franklin St. COVID path					Infrastructure	time	R V.1.b
Communicate about disaster preparedness kits and how to make them				>	Outreach	time	R V.2.a
Explore what kind of disaster preparedness support is most helpful					Planning	time	R V.2.b
Scope future emergency management actions from plan strategies					Planning	time	R V.3.a

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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

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 MTCO_{2e}

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. Priorities






Buildings & Energy

- Determine who is experiencing energy burden 
- Begin scoping energy saving programs for: homes, big buildings/parking lots, rentals 
- Assess/make energy upgrades to public housing 
- Evaluate utility-scale solar investment options 
- Update Council's Green Building policy 
- Continue advocating for clean energy policy 

High-impact actions 



Transportation & Land Use

- Develop EV priority station location mapping tool 
- Install and plan for 46+ public EV stations 
- Complete 5, advance 7 Mobility Plan projects 
- Begin piloting 3 and order up to 7 more E-buses
- Advance BRT planning and design
- Complete solar/battery study for Transit facility
- Develop fleet electrification plan

High-impact actions 



Water, Wastewater & Nat. Res.

- Begin countywide Solid Waste Master Plan
- Respond to Council petitions re: flood storage basins and stormwater regulations
- Expand flood alert system sensor technology
- Launch compost pail program for Town employees



Resiliency

- Determine who is most affected by climate stressors
- Plant 200 or more canopy species trees
- Develop a green infrastructure ordinance
- Explore a “leave the leaves/healthy yards” campaign

Leave the Leaves

- Leaving the leaves is good for our ecosystem
- Coordinate with local Audubon chapter
- Voluntary program for homes and businesses



4. Metrics

Metrics

Transportation & Land Use Metrics

INDICATOR	MEASURE(S)	HOW/WHY WE MEASURE
Vehicle travel	Vehicle Miles Traveled (VMT)	Reduction in VMT directly relates to transportation emissions. Compact development patterns bring housing, jobs, and other daily needs closer together, reducing VMT and offering other travel options. Data on VMT is readily available.
Pedestrian and bicycle travel	Pedestrian and bicycle counts Mode Share	Pedestrian and bicycle counts and mode share can track shifts to these modes of travel over time. Sources may include the North Carolina Non-Motorized Volume Data Program or local data
Pedestrian and bicycle facilities	Miles of bike lanes Funded projects (bike facilities, sidewalks, ADA improvements)	Implemented bicycle and pedestrian facility investments and improvements support shifts to these modes of travel over time.
Walkability	Walkscore GIS analysis	Walkability evaluation tools assess the availability of destinations and pedestrian and/or bicycle connections between them.

5. Recommendation

Recommendation

That the Council receive the information and provide guidance to staff, as needed.



Questions

Do you have any questions about the implementation plan?

Is there anything you wanted to hear more about?

