Regional Comprehensive (Mini) CLIMATE ACTION PLAN

www.cleanairnortheastflorida.com

CLEAN AIR NORTHEAST FLORIDA

REGIONAL CLIMATE ACTION PLAN

Regional Comprehensive CLIMATE ACTION PLAN

WHAT IS IT?

Table of Contents

Review the full CCAP

www.cleanairnortheastflorida.com

Northeast Florida (NEFL) is charting a path toward a stronger, more resilient regional economy by improving air quality, reducing pollution, and preparing for future environmental and economic challenges. The Comprehensive Climate Action Plan (CCAP) outlines a data-driven strategy to reduce greenhouse gas (GHG) emissions while supporting economic growth, advancing workforce development, protecting public health, and improving overall quality of life across the region.

The CCAP identifies major sources of GHG emissions across key sectors: transportation, buildings, energy, agriculture and working lands, water, waste, and industry, and establishes practical reduction pathways through 2030 and 2050. It builds on the Priority Climate Action Plan (PCAP) submitted in March 2024, translating near-term measures into a long-term framework that promotes efficiency, innovation, and resource stewardship.

This plan also serves as a foundation for competitive grant applications under the EPA's Climate Pollution Reduction Grants (CPRG) program and related funding opportunities. Through this framework, NEFL is positioned to attract federal, state, and private investment to advance cost-effective solutions that strengthen local economies and infrastructure.

This document is a condensed version of the Clean Air Northeast Florida Comprehensive Climate Action Plan.

THE APPROACH

The CCAP is grounded in data, regional collaboration, and community priorities.

The planning process included the following:

Greenhouse Gas Inventory: Updated from the 2019 baseline to better model regional trends and identify effective GHG reduction strategies.

Measure Identification and Quantification: Assessment of sector-specific strategies using EPA tools to improve efficiency and reduce emissions.

Resilience Integration: Alignment of mitigation strategies with resilience planning to safeguard infrastructure, reduce risk, and improve preparedness for future conditions.

Funding Availability: Review of current federal, state, utility, and private funding programs that can support implementation of selected measures. All funding opportunities referenced in this report reflect availability at the time of authoring and may have been altered by the time of the document's release.

Workforce and Economic Planning: Integration of workforce development strategies to ensure that implementation supports high-quality jobs and long-term economic growth.

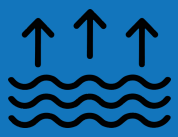
Co-Pollutant and Benefits Analysis: Evaluation of health and economic benefits associated with emission-reduction measures, particularly in communities with the greatest need for reinvestment.

Interagency and Community Engagement: Coordination among jurisdictions, industry partners, and residents to ensure the plan reflects shared regional priorities.

Together, these efforts create a data-driven and actionable roadmap for building a stronger, more resilient, and economically vibrant NEFL.

REASONS FOR CCAP DEVELOPMENT:

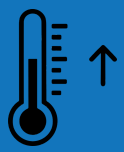
Northeast Florida is experiencing a series of environmental and economic challenges linked to changing weather conditions. Without continued investment in adaptation and risk management, these trends are expected to place increasing pressure on regional infrastructure, housing, and natural systems.



Sea Level Rise/increased tidal event flooding:
Coastal communities such as Jacksonville, St. Augustine, and Palm Coast face growing risks of tidal flooding, storm surge, and saltwater intrusion, which can disrupt transportation networks, utilities, and local economies.

More Frequent and Intense Precipitation:
The region is experiencing heavier rainfall events within and outside of the rainy season that strain stormwater systems, increase flood risk, and create additional maintenance demands on public infrastructure.

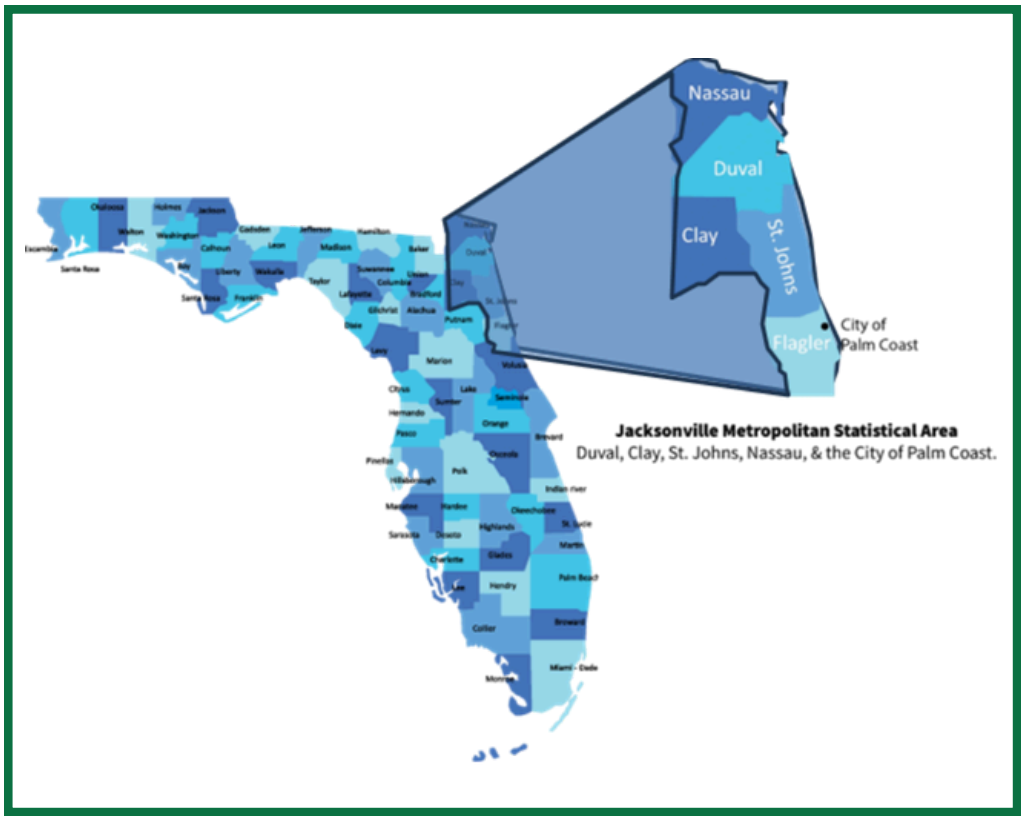
Combined flooding events:
Combined flooding events that stem from rainfall, surge, or tidal flooding simultaneously are increasing throughout the region, especially during the fall at the end of hurricane season and during the highest tidal flooding of the year.



Extreme Temperatures:
Rising average temperatures and heatwaves affect public health, workforce safety, and energy demand, particularly in communities with limited cooling access or aging infrastructure.

WHAT IS THE NORTHEAST FLORIDA MSA?

The Jacksonville Municipal Statistical Area (MSA) includes Duval, Clay, St. Johns, and Nassau Counties, along with the City of Palm Coast in Flagler County. Major population and employment centers include Jacksonville, St. Augustine, Palm Coast, and Atlantic Beach, each contributing to the region's diversified economy, housing market, and infrastructure network. Collectively, these jurisdictions represent a population exceeding 1.6 million residents and encompass a broad range of coastal, suburban, and rural communities that drive NEFL's regional identity.



WORKFORCE DEVELOPMENT

Achieving regional growth and resilience objectives will require strong workforce development to ensure local talent meets future industry needs. Approximately 27,700 to 33,500 additional jobs will be required by 2030 across sectors such as renewable energy, building efficiency, connected communities, resilient infrastructure, and natural systems management. This represents a 30–35% increase over current workforce capacity in these areas, with critical shortages in occupations such as solar photovoltaic installation, electrical work, energy auditing, environmental engineering, and other advanced technical trades.

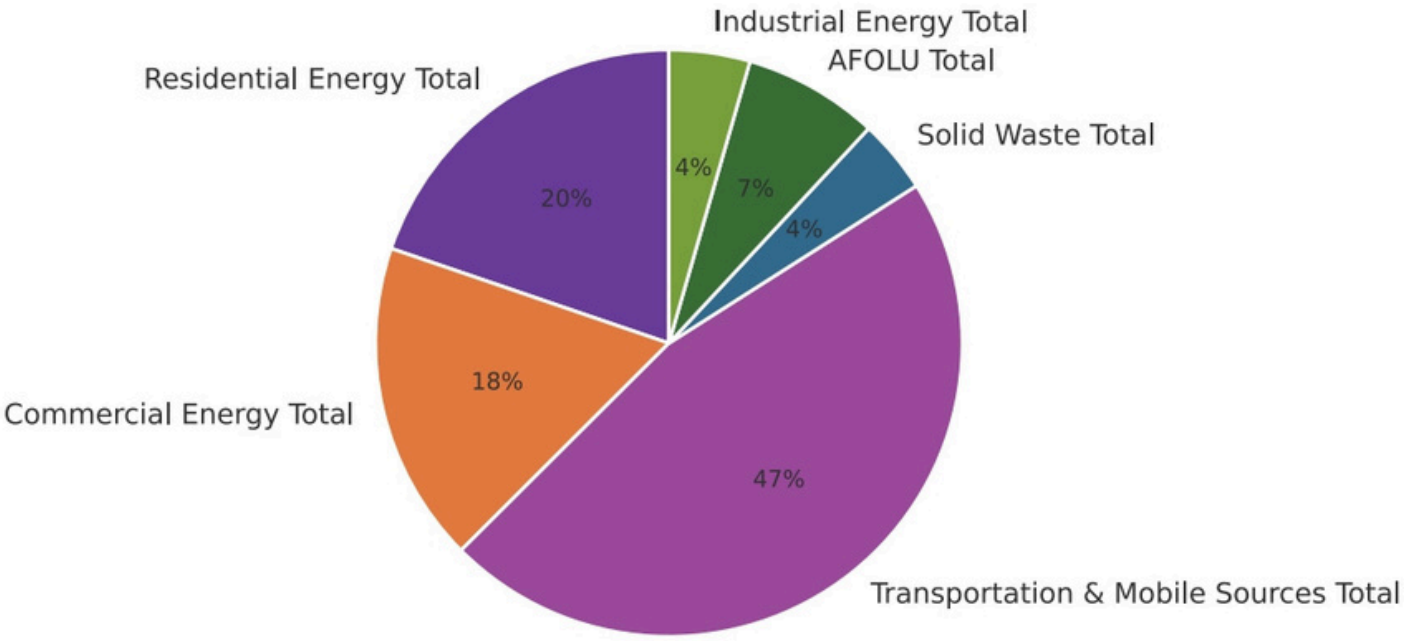
Without coordinated workforce investment, the region risks slower progress toward its emission-reduction targets of 25% by 2030 and 50% by 2050, as well as missed opportunities for federal funding and private-sector growth. By expanding technical training programs, certifications, and industry partnerships, NEFL can unlock several billion dollars in economic impact, prepare workers for high-demand careers, and position itself as a Southeast leader in energy innovation and infrastructure modernization.

ECONOMIC IMPACT

The Comprehensive Climate Action Plan positions NEFL for strong, sustained economic growth by aligning environmental progress with workforce development and infrastructure investment. Implementing the plan's measures is projected to generate tens of thousands of new jobs across sectors, including energy, construction, transportation, water systems, and advanced manufacturing. These opportunities support skilled trades, engineering, operations, and emerging technical fields, helping local workers access stable, well-paying careers while meeting the region's evolving infrastructure and energy needs.

Beyond job creation, the CCAP drives long-term economic value through reduced energy costs, improved system efficiency, and increased resilience of public infrastructure. Strategic investments unlock significant public and private funding, stimulate local supply chains, and strengthen NEFL's competitiveness as a hub for innovation and forward-looking industry. By pairing smart planning with targeted investment, the region can grow its economy, expand its tax base, and build a more reliable foundation for businesses and communities alike.

GHG INVENTORY:
NORTHEAST FLORIDA EMISSIONS, BY SECTOR



GOALS

1. Reduce GHG emissions by 25% below the 2019 NEFL baseline by 2030, reflecting near-term, high-impact actions that build early momentum toward implementation.

2. Achieve a 50% reduction in emissions below 2019 levels by 2050, supporting a long-term transition to a more efficient, diversified, and resilient regional economy

MEASURES:

The regional measures identified in this plan represent a comprehensive, economically grounded strategy to reduce emissions while improving community resilience and competitiveness. Priority actions include expanding distributed energy generation, increasing efficiency in existing commercial, residential, and industrial buildings, and enhancing transportation networks through higher fuel efficiency and emerging technologies.

The plan also promotes nature-based and land management solutions that improve soil health, water retention, and carbon storage while supporting agricultural productivity. Additional measures focus on strengthening water infrastructure, advancing stormwater management to reduce flood risk, and capturing and reusing methane to limit harmful pollutants and improve operational efficiency.
Together, these actions support the region's 2030 and 2050 emission-reduction goals while delivering long-term economic, environmental, and public health benefits.

THE INVENTORY COVERS EMISSIONS FROM THE FOLLOWING SECTORS:

Offices, retail, healthcare, education, and other non-residential buildings; energy use for lighting, heating, cooling, and equipment.

Agriculture, Forestry, and Other Land Use (AFOLU): Land management practices, forestry, and natural carbon sinks.

Electricity generation and fuel supply systems that power buildings, transportation, and industry.

Homes and multifamily housing; energy used for heating, cooling, appliances, lighting, and water heating.

Drinking water treatment and distribution, wastewater collection and treatment, and related system energy use.

Solid waste management, landfills, recycling, composting, and material recovery activities.

Transportation: On-road vehicles, transit systems, freight, marine, aviation, and rail.

Manufacturing and industrial operations, including material production, processing, and on-site energy use.

1. INCREASE DEPLOYMENT OF DISTRIBUTED RENEWABLES AND CLEAN ENERGY

Targets:

Support the deployment of solar process heat systems in industrial facilities with the potential to avoid 12,000 metric tons of CO_2e annually by 2030, and 20,000 tCO_2e annually by 2050.

Encourage a transition to renewable energy to account for 20% of residential and commercial electricity demand by 2030 and 45% by 2050.

Support clean hydrogen pilot production to offset industrial fuel use emissions, beginning with a pilot-scale deployment. This measure aims to offset 1% of annual industrial emissions by 2025, scaling to 5% by 2030 and 25% by 2050.

Sub-actions:

- Increase residential and commercial on-site solar or small wind turbines
- Utilize solar industrial process heating
- Develop and expand battery energy storage, microgrid technology, and new technology for localized, resilient clean energy flow.
- Incentivize clean hydrogen production and use

2. INCREASE ENERGY EFFICIENCY FOR EXISTING COMMERCIAL, RESIDENTIAL, AND INDUSTRIAL BUILDINGS

Targets:

Promote strategies to reduce operational energy in all commercial and municipal buildings (new and existing) by 50% by 2030 compared to 2019 levels, while encouraging all facilities to meet or exceed the latest IECC or ASHRAE 90.1 standards, and by 2050, achieve an 80% reduction in commercial and municipal operational energy use.

Support efforts to lower regional residential energy consumption by 25% by 2030 and 50% by 2050 through targeted energy efficiency upgrades and retrofit programs.

Sub-actions:

- IIncrease energy efficiency of existing city and county buildings
- Expand energy efficiency financing and incentive programs
- Provide free or low-cost home energy audits for residents
- Improve exterior and interior lighting efficiency and scheduling
- Adopt the most recent update to the IECC code

3. BUILD CONNECTED COMMUNITIES

Targets:

Encourage the addition of 5 miles of protected bike lanes per year across the region with a minimum width of 5 feet, resulting in an increase of at least 25 miles regionwide by 2030 and 125 miles by 2050.

Promote expanded transit service, active transportation infrastructure, and compact, mixed-use development to reduce total passenger vehicle miles traveled (VMT) in Northeast Florida by 5% from 2019 levels by 2030 and 25% by 2050.

Prioritize infill development to encourage at least 50% of new housing units by 2030 to be located within existing urban areas or near transit corridors, increasing to at least 70% by 2050.

Promote the development of at least 40 miles of new multi-use trails for active transportation by 2030 and 100 miles by 2050.

Support efforts to increase public transit ridership by 15% above 2019 levels by 2030 and 30% by 2050 through service enhancements and a better-connected network of routes

Sub-actions:

- Build a fast, reliable transit system and create a connected active transportation network that will be a preferred mode of transportation
- Utilize smart city technology and big data solutions to advance mobility as a service
- Build new housing units in transit-oriented development locations
- Promote mixed-use development to reduce the need for long commutes
- Increase ACTIVE transportation

In Jacksonville, the Emerald Trail is enhancing mobility, restoring ecosystems, and reconnecting communities once divided by infrastructure and disinvestment. Through its leadership, Groundwork Jacksonville is setting a regional precedent for community-led resilience and investment. With continued progress, the Emerald Trail will serve as a cornerstone of a more connected, resilient, and forward-looking Jacksonville

READ MORE in CCAP

4. ENCOURAGE THE DEPLOYMENT OF HIGHER FUEL EFFICIENCY VEHICLES

Targets:

Encourage the transition of medium- and heavy-duty public fleets to cleaner fuels with the goal of reducing municipal fleet emissions by 10% from 2019 levels by 2030 and 60% by 2050.

Support the development of low-emission aviation alternatives to reduce aviation-related greenhouse gas emissions by 15% by 2030, and at least 50% by 2050.

Promote the adoption of electric and alternative fuel passenger vehicles, aiming for a 10% increase by 2030 and 60% by 2050, while expanding fueling and charging infrastructure across all sectors, with a prioritized focus on high-emission vehicle categories.

Sub-actions:

- Incentivize Passenger EV Adoption
- Electrify Medium and Heavy-Duty Fleets across the region
- Adopt compressed natural gas and biofuels as cleaner fuel alternatives
- Encourage the use of Sustainable Aviation Fuel (SAF) in regional airports

5. ADOPT SOIL AND LAND MANAGEMENT PRACTICES FOR CARBON SEQUESTRATION

Targets:

Encourage an increase in urban tree canopy coverage by 20% by 2030 and 35% by 2050, prioritizing low-canopy neighborhoods and public rights-of-way.

Promote the protection of existing natural forest and wetland areas within the urban growth boundary to maintain 90% by 2030, with no net loss through 2050.

Encourage at least 40% of new development projects by 2030 to meet green site design or low-impact development criteria that preserve vegetation and soil carbon pools, increasing to at least 70% by 2050.

Sub-actions:

- Plant or replant trees with the intention of increasing urban tree canopy
- Integrate climate mitigation and adaptation into existing land development review and permitting processes to maximize the benefits of natural geographic and watershed features
- Create incentives for resilient and low-impact development
- Implement nature-based solutions that increase carbon storage

6. STRENGTHEN WATER INFRASTRUCTURE AND RESILIENT STORMWATER MANAGEMENT

Targets:

Encourage all new residential subdivisions to incorporate dual-plumbing systems by 2030 to enable reclaimed water use for landscape irrigation, to ensure that by 2050 reclaimed water or other alternative non-potable sources are the primary supply for landscape irrigation in all subdivisions.

Increase the volume of treated wastewater that is reused for non-potable applications, with the goal of reaching 35% by 2030 and 50% by 2050

Promote a reduction in energy consumption in water and wastewater utilities by 15% by 2030 and 30% by 2050 through process optimization and equipment upgrades.

Encourage all new developments constructed by 2030 to reduce post-development runoff volume by at least 25% compared to pre-development conditions, and all new developments constructed by 2050 to achieve at least a 50% reduction, while meeting or exceeding Florida's first-inch stormwater retention standard as a baseline requirement.

Sub-actions:

- Integrate better stormwater management and resiliency into development and redevelopment activity
- Implement innovations in water management technology to expand water reuse, optimize the water treatment process, and improve nutrient recovery
- Expand the use of reclaimed water for non-potable use such as irrigation

Reusing water locally reduces strain on municipal supply systems, lowers long-term operational expenses, and improves regional water security. Over time, these investments pay dividends by reducing utility costs, stabilizing water rates, and extending the lifespan of existing water infrastructure, strengthening both economic and environmental resilience across the region.

READ MORE in CCAP

7. DIVERT ORGANIC WASTE, FOOD WASTE, AND RECYCLABLES FROM LANDFILLS

Targets:

Encourage diversion of at least 10% of organic waste from landfills by 2030 and 40% by 2050.

Increase diversion of recyclable materials to achieve a 30% recycling rate by 2030 and 60% by 2050.

Sub-actions:

- Divert waste from landfills by expanding composting services
- Establish and expand residential and commercial food waste diversion programs
- Develop or expand local recycling and reuse through infrastructure investments and equipment purchases.

8. CAPTURE AND REUSE METHANE (CH4) EMISSIONS

Targets:

Support the improvements of gas collection systems to capture at least 10% of CH4 emissions from active landfills by 2030 and 30% by 2050 through improved gas collection systems.

Install anaerobic digestion facilities to process at least 10% of the region's organic waste by 2030 and 40% by 2050.

Encourage the region to upgrade at least 10% of collected biogas into RNG by 2030 for use in local heating, power generation, or transportation, and 30% by 2050.

Sub-actions:

- CH4 capture and utilization, such as anaerobic digestion and/or biogas upgrading
- Sustainable biosolids management such as composting, land application, and biochar production
- Co-location of water and wastewater with landfills to be used for CH4 capture and process energy opportunities
- Establish waste-to-energy facilities to reduce CH4 emissions from landfills while producing renewable energy.

9. OTHER COMMUNITY RECOMMENDED MEASURES

Targets:

By 2030, establish a voluntary sustainable supply chain program and a benchmarking/disclosure policy for large commercial, industrial, and multifamily buildings, engaging at least 25% of major suppliers and 30% of local building owners in sustainability commitments.

By 2030, cities within the Jacksonville MSA will adopt updated municipal water and electricity resource plans that include explicit sustainability and emissions reduction targets, with at least three measurable performance indicators (such as percentage of renewable energy, water reuse, and total GHG reduction) included in annual public reporting.

By 2030, recruit and train 100 "Community Change Champions" representing neighborhoods across the region and implement climate education programs in 100% of local K–12 schools and at least five community centers, reaching a minimum of 5,000 residents annually through direct engagement.

By 2030, transition at least 50% of city-sponsored events and attractions to zero-waste or low-carbon models, reducing waste generation and event-related emissions.

By 2030, partner with at least 50 local employers to implement remote and hybrid work arrangements, provide training on effective management practices, and achieve a 15% reduction in commuter-related emissions from 2019 levels.

Sub-actions:

- Incorporate sustainability, resilience, and emissions reduction goals within municipal and integrated water and electricity resource plans, strategic visions, and future planning for intergovernmental partners in Northeast Florida
- Promote the development of sustainable supply chains, reducing emissions from production to distribution by working closely with suppliers who adhere to environmentally friendly practices
- Create a corps of community change champions to facilitate conversations, education, and action for sustainability in a direct citizen approach and throughout all neighborhoods
- Develop and implement environmental stewardship education programs in K-12 schools and communities to raise awareness and inspire action
- Launch Community Campaigns to Transition Local Events and Attractions to Zero-Waste and Low-Carbon Models
- Incentivize green and resilient building and development standards
- Prioritize fully remote and hybrid work arrangements. Educate organizations on effective remote work management practices to ensure employee engagement