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# **Development Strategy Overview**

The development of Cape Fear Navigating Change 2050 Metropolitan Transportation Plan (MTP) was deeply rooted in public participation, aiming to create a transportation network that reflects the needs and priorities of the region's residents. By utilizing a variety of outreach methods, the WMPO ensures that public feedback is integral to decision-making, while actively involving a broad range of stakeholders in shaping the region's transportation future. Central to this process are the Citizen Advisory Committee (CAC) and the Metropolitan Transportation Plan Committee (MTPC), which played a critical role in refining the vision, goals, and guided outreach efforts. Other considerations that acted as a basis for the development of goals and objectives include emerging technology and future innovation, congestion management, and travel demand management. This comprehensive approach ensured that Cape Fear Navigating Change 2050 is not only a technical road map but also a plan that prioritizes community involvement and effectively addresses the transportation challenges of the future.

# **Considerations**

### **Public Involvement**

Public participation is a critical component of the development of the plan. The WMPO's Public Participation Plan (PPP) outlines the public involvement process of the Metropolitan Transportation Plan (MTP), which includes a variety of tools and methods of distributing information to the public and gathering feedback. The PPP underscores the importance of public participation in all stages of the transportation planning process. The methods contained within the plan are designed to ensure the priorities of the public are incorporated into transportation decisions.

#### Citizen Advisory Committee

The WMPO established a Citizen Advisory Committee (CAC), as described within the PPP, to oversee and guide the development of Cape Fear Navigating Change 2050. The 13-member volunteer committee was composed of citizen representatives, appointed by each Board member, representing various community and civic organizations, professional and neighborhood associations, and the private sector. The CAC was instrumental in providing citizen perspectives and insights on the plan, while also advising the WMPO on ways to more effectively engage the public and assisting in outreach efforts.

#### Metropolitan Transportation Plan Committee

The WMPO convened a second committee, the Metropolitan Transportation Plan Committee (MTPC), as an additional resource during the planning process. The 18-member committee involved a variety of subject matter experts in transportation, urban planning, public health, emergency management, and others. The MTPC was created to advise and direct plan progression, including criteria and metric development, project evaluation, and policy recommendation review. The committee was instrumental in creating and adopting the plan's vision and goals, as well as reviewing the work of other advisory committees.

Read more about public outreach in the development of this plan in Appendix C.

#### Environmental and Economic Considerations

Cape Fear Navigating Change 2050 seeks to guide transportation investments in a way that supports fair and balanced regional development. Through environmental analysis, this plan aims to ensure access to safe, efficient, and reliable transportation options while reducing or mitigating any potential negative impacts on both people and places. Through proactive stakeholder engagement and thoughtful analysis of community needs, this plan strives to ensure that transportation investments support a high-functioning and efficient multimodal transportation network that is reflective of the priorities of the region.

#### Public Outreach and Participation

Outreach for Cape Fear Navigating Change 2050 was conducted in two phases. Phase I began on August 1, 2023, concluding on November 30, 2023, and included a survey with an interactive map, public meetings, pop-up events, presentations, stakeholder interviews, and the convening of the Citizen Advisory Committee (CAC) to guide outreach strategies. Phase II of public outreach began on May 28, 2025, and concluded on June 27, 2025. Phase II included a one-month public comment period for the draft Cape Fear Navigating Change 2050 MTP. Both outreach phases are discussed in more detail below.

#### Public Outreach Phase I

Over the four-month period of Phase I, the WMPO conducted nine stakeholder interviews, held six public meetings, gave 13 presentations, and attended 16 pop-up events. Along with public outreach events, the WMPO engaged in a social media campaign, distributed posters and handouts, created three informational videos, published three press releases, and facilitated three paid and one donated advertisement opportunities.

WMPO staff were on hand at all public outreach events to assist citizens in taking the survey, which was available online and in person at outreach events and available in both English and Spanish. Additionally, the survey had an interactive mapping section where citizens were able to provide input by transportation mode with an associated geographic location.

The online survey, which included an interactive map element, opened on July 26, 2023, and closed on December 6, 2023. The additional four days prior to the official start of Phase I on August 1, 2023, and six days after the official end of Phase I on November 30, 2023, provided a grace period for early and late survey takers. The survey received a total of 2,347 responses including 5,750 map pins dropped on the interactive map portion of the survey and 6,016 map and survey comments. The survey & map comments include 3,192 map comments and 96 in-person comments collected during public meetings. The responses collected through the survey were analyzed by WMPO staff and each comment submitted was classified into one of the four categories based on the type of comment received: concern, maintenance, policy, or project. The classified responses were provided to the staff of member jurisdictions, modal planning partners, and the MTPC to assist in the development of projects, goals, and objectives. Read more about environmental impact analysis in Appendix M.



Source: Cape Fear Navigating Change 2050 Public Survey.

# **TOP INVESTMENT PRIORITIES:**

# st

Maintaining existing roads

# 2<sup>nd</sup>

Bicyle and pedestrian infrastructure

# 3<sup>rd</sup>

Public transportation system

Source: Cape Fear Navigating Change 2050 Public Survey.

## **CURRENT TRAVEL CHOICES:**







11%

**Bike for** 

3% Use public transportation for over 50% of trips



Source: Cape Fear Navigating Change 2050 Public Survey.

FUTURE TRANSPORTATION MODE PREFERENCES:



3.5 out of 5 would prefer to bike more often in the future.

2.5 out of 5 would prefer to use public transportation more often in the future. 1 out of 5 would prefer to carpool more often in the future.

Less than 1 out of 5 would prefer to drive alone more often in the future.

Source: Cape Fear Navigating Change 2050 Public Survey.

## **TOP TRAVEL PRIORITIES:**

Safety Convenience Travel Time This page left intentionally blank.

## **Future Innovation**

The Cape Fear Navigating Change 2050 Metropolitan Transportation Plan recognizes the many transportation challenges facing the region. These include:

- Coordinating land use and transportation planning to ensure orderly development that does not overburden transportation infrastructure;
- Developing in a way that is sustainable in the long-term and sensitive to the region's many important environmental, cultural, and historic features;
- Finding alternative funding sources to pay for the many transportation needs;
- Promoting the use of alternative modes of transportation to provide viable transportation choices to the region's travelers;
- Working cooperatively as regional partners to address regional and local transportation issues;
- Leveraging technology to enable users to be better informed and make safer, more coordinated, and smarter use of transport networks;
- Improving the resiliency and reliability of the transportation system; and
- Fulfilling the tenets of Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act (ADA) of 1990, and the requirements of a MTP outlined in 23 CFR Part 450, Subpart C.

The incorporation of innovative technologies when addressing transportation needs in the region will become increasingly popular and is already beginning to take place. From preemptive traffic signal timings to cameras on major corridors, the City of Wilmington has already begun to embrace the role of technology in creating a more efficient transportation system. The WMPO hopes to identify technologies that can be adopted in the region including Intelligent Transportation Systems (ITS), future public transportation technology, drones, and autonomous vehicles. The following are future technologies likely to become prevalent during the life of the plan:

#### Intelligent Transportation Systems (ITS)

- Modern data collection using GPS, Bluetooth, etc.
- · Improved data analysis allowing for more efficient signal timing
- Signage communicating real time delays, weather, and event conditions to travelers
- Emergency vehicle preemptive signalization
- Connected Vehicle (CV) technology to identify potential hazards and prevent traffic accidents
- Improved enforcement

#### Future Public Transportation Technology

- Smartphones will allow for greater access to public transportation information
- Modern fare collection will allow for multiple methods of collecting fares
- Bus Rapid Transit (BRT) elements prioritize public transportation with their own travel lane, rapid boarding, and high frequency
- Microtransit, including on-demand microtransit, provides an efficient way to address coverage needs for a transit system
- Micromobility options are increasing, and manufacturers are working with technology

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providers to make these vehicles safer to use

 Fixed Route CAD/AVL systems use computers and GPS to aid dispatchers in tracking transit vehicles to monitor driver performance, increase communication, and decrease operational problems

#### Drones

- Drones are increasingly being used for data collection in dangerous or hard-to-reach locations
- Drones are beginning to be seen as a viable method of transportation and delivery for goods and services
- A Chinese autonomous passenger drone received safety and airworthiness approval in 2023, allowing the commercialization and operation of passenger drones to move forward

#### Autonomous Vehicles

- Levels of automation are already being introduced as features in new cars such as lane detection and speed control, with tech continuing to advance and develop higher levels of automation
- Autonomous vehicles will increase the safety and efficiency of the transportation network
- Parking requirements and sprawl will have to be addressed
- Biggest challenges are currently technology limitations and legislation

## Resiliency

Resiliency is the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions. The FHWA has developed resources for state Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) on integrating resiliency into transportation planning. Utilizing these resources, the WMPO has derived the following steps the region should take:

#### During the Planning Stage:

- Add a goal statement explicitly related to resiliency into long range transportation plans
- Identify sustainable and resilient transportation project criteria that can be used as part of the project prioritization/programming process
- Continue to identify and assess extreme weather susceptibility

#### At the Project Level

- Consider new design approaches and standards that minimize potential disruption due to extreme weather events, such as profile elevation
- Apply design criteria or consider realignments or relocation away from high-risk areas
- Redesign drainage systems to handle larger flows
- Create programs and develop capital projects to address needed drainage improvements

#### **Ongoing Operations and Maintenance**

• Identify pre-planned detour routes around critical facilities whose disruption or failure would cause major network degradation

- Coordinate with NCDOT and emergency responders to identify risk management strategies
- Enhance the resiliency of sign structures and signal wires to prevent disruption
- Dredge the Intracoastal Waterway
- Alleviate potential flooding at Town Creek/US17
- Alleviate potential flooding on NC133 in Brunswick County

The Wilmington region has been significantly impacted by severe weather events in the past, such as Hurricane Debby in 2024 and Potential Tropical Cyclone 8 (PTC8). Because of the continued likelihood of being affected by severe weather in the future, the WMPO Board has voiced support for NCDOT's efforts to secure state and federal funding for improvements to roadway infrastructure to address flooding and accessibility issues experienced in such events.

# Transportation Systems Management and Operations (TSMO)

See Appendix K for details about TSMO. The Moving Ahead for Progress in the 21st Century Act (MAP-21) defined Transportation Systems Management and Operations (TSMO) as "an integrated set of strategies to optimize the performance of existing infrastructure through the implementation of multimodal and intermodal, cross-jurisdictional systems, services, and projects designed to preserve capacity and improve security, safety, and reliability of the transportation system."

The goal of TSMO is to get the best performance out of our current transportation facilities. TSMO examines performance from a systems perspective, where the transportation network is viewed as a unified whole, composed of the different transportation modes and facilities, as well as jurisdictions and agencies that must work together for improved system performance. Enhancing the existing transportation infrastructure through TSMO strategies improves the overall security, safety, and reliability of the transportation system.

TSMO provides a set of strategies that can enhance overall system performance when combined. Cape Fear Navigating Change 2050 recommends the implementation of the following strategies regionally:

- Access management
- Bus pullouts
- Emergency vehicle preemption
- Improved signage and lighting
- Pavement markings
- Social media and smart apps
- Traveler information systems and dynamic message signs
- Transit signal prioritization
- Parking management
- Transportation Demand Management (TDM)
- Advanced communications
- Connected and automated vehicles
- Congestion pricing
- Multimodal services

# **Congestion Management Process (CMP)**

Due to the region's population surpassing 200,000, the WMPO was designated as a Transportation Management Area (TMA) in 2012. Because of this designation, WMPO is required to develop and maintain a Congestion Management Process (CMP). Congestion management is the application of strategies to improve transportation system performance and reliability by reducing the adverse impacts of congestion on the movement of people and goods. Requirements of the CMP include:

- Development of congestion management objectives
- Establishment of measures of multimodal transportation system performance
- Collection of data and system performance monitoring to define the extent and duration of congestion and determine the causes of congestion
- Identification of congestion management strategies
- Implementation of strategies, including identification of an implementation schedule and possible funding sources for each strategy
- Evaluation of the effectiveness of implemented strategies

The WMPO developed its first CMP in 2014, identifying the region's critical roadway corridors and establishing multimodal performance measures to monitor congestion along each corridor.

#### 1. Travel Time Performance Measures

- Average travel time (AM/PM)
- Average delay (AM/PM)
- Hotspot identification

#### 2. Safety Performance Measures

- Rear end collisions
- Bicycle crashes
- Pedestrian crashes

#### 3. Volume Performance Measures

- Average vehicle count
- Truck percentage
- Bicycle counts (AM/PM)
- Pedestrian counts (AM/PM)

#### 4. Transit Performance Measures

• Transit boarding

Additionally, the process identified mitigation strategies to reduce congestion along each identified corridor. The WMPO monitored these corridors and developed reports on a biennial basis until the 2022 CMP Report. Following the adoption of the 2022 CMP Report, the WMPO adjusted to developing the CMP on a 5-year basis to alternate with MTP development schedules. The strategies recommended in the CMP Report were considered throughout the development of this plan as potential projects and policies. Metrics collected through system monitoring were also used to score and prioritize roadway projects.

#### Data Collection and Analysis

Travel time performance measures have historically been collected by the WMPO and City of Wilmington traffic engineering staff. This data has primarily been collected through floating car studies, which use handheld GPS devices to collect data on speed and travel time. With advancements in data collection technologies, the WMPO utilized the National Performance Management Research Data Set (NPMRDS) on 30 available corridors for the 2022 CMP Biennial Report. The City of Wilmington conducted floating car studies on three identified corridors that lacked vehicle probe data.

See Appendix J for more detail on the WMPO CMP.



Safety performance measure data was collected by the NCDOT Traffic Safety Unit through their Traffic Engineering Accident Analysis System (TEAAS) program. This program aggregates and geo-locates traffic incidents from law enforcement officials throughout the state of North Carolina. This program was used to collect data for vehicle crashes, bicycle crashes, and pedestrian crashes.

For the volume performance metrics, the NCDOT Traffic Survey Group provided data on both average annual daily traffic (AADT) and average annual daily truck traffic (AADTT). The capacity performance metric data was derived from the collaborative effort between the NCDOT Transportation Planning Division and the WMPO through the development of the 2045 Transportation Demand Model for the WMPO region.

Transit performance metric data for transit stops and ridership was provided by the Cape Fear Public Transportation Authority (Wave Transit). Passenger totals were aggregated for each roadway segment and a score is provided depending on the number of passengers based on Wave Transit's FY20 and FY21 ridership reports.

Bicycle suitability data was developed by a WMPO study in 2022 while the pedestrian suitability data is based on regional sidewalk, crosswalk, and multi-use path data collected or created by WMPO. The City of Wilmington provided the initial dataset for sidewalks, crosswalks, and multi-use paths within their municipal bonds. The datasets have since been updated and grown to the regional scale following the creation of the WMPO's GIS program in 2018.

The WMPO developed a systematic process to disperse points based on performance metrics to represent the collected data to compare data performance across segments. Mitigation strategies were assigned to address travel time, safety, volume, and multimodal performance. Tables 3.1 and 3.2 illustrate the performance metrics used to compare performance.

Source: 2022 WMPO CMP Report.

| Table 3.1 Travel Time Reliability Scoring  |                 |  |  |  |  |
|--|-----------------|--|--|--|--|
| Performance Metric   | Points Possible |  |  |  |  |
| Volume/Capacity (V/C)  | 10              |  |  |  |  |
| AM Delay Rate (minutes/miles)  | 10              |  |  |  |  |
| PM Delay Rate (minutes/miles)  | 10              |  |  |  |  |
| AM Travel Time Reliability (80th percentile Travel Time/50th percentile Travel Time) | 10              |  |  |  |  |
| PM Travel Time Reliability (8oth percentile Travel Time/5oth percentile Travel Time) | 10              |  |  |  |  |
| Crash Rate (crashes/mile)  | 10              |  |  |  |  |
| Truck Volume (Average Annual Daily Truck Traffic)                                    | 10              |  |  |  |  |
| TOTAL  | 70              |  |  |  |  |

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|--------------------------|-----------------------|-----------|--------|

| Table 3.2 Multimodal Scoring |                 |  |  |  |  |
|------------------------------|-----------------|--|--|--|--|
| Performance Metric           | Points Possible |  |  |  |  |
| Transit (Stops + Ridership)  | 10              |  |  |  |  |
| Bicycle Suitability          | 10              |  |  |  |  |
| Pedestrian Suitability       | 10              |  |  |  |  |
| Bicycle Crashes              | 10              |  |  |  |  |
| Pedestrian Crashes           | 10              |  |  |  |  |
| TOTAL                        | 50              |  |  |  |  |

Source: 2022 WMPO CMP Report.

## Transportation Demand Management (TDM)

Transportation Demand Management (TDM) refers to strategies used to reduce traffic congestion and manage travel demand by redistributing this demand in space (to other modes of alternative transportation) or time (to off-peak commuting hours). It emphasizes the movement of people and goods over the movement of motor vehicles, since it's not always possible to build our way out of traffic congestion. TDM utilizes shorter term, relatively lower-cost strategies than building new roads, travel lanes, or parking for motor vehicles, many of which are single-occupancy vehicles (SOVs). TDM strategies are focused on impacting commuters who already have access to a personal vehicle and are designed to facilitate transportation behavior change towards the usage of alternative modes, although TDM can be applied broadly to benefit a wide range of transportation network's users. By utilizing TDM strategies to reduce the number of SOVs on the road, a community can maximize its transportation system's efficiency and improve everyone's commute time, as well as reduce wearand-tear on existing roadway infrastructure. TDM aims to accomplish a variety of goals in addition to reducing traffic congestion, including improving environmental guality and supporting a range of safe, affordable, and reliable transportation options for all travelers.

#### Alternative Transportation

The term "alternative transportation" refers to modes of transportation other than driving alone. Examples can include:

- Carpooling two or more people driving together in a personal vehicle for most of the trip to or from a common destination
- Vanpooling refers to 7-15 passenger vans provided by employers or transit agencies for employees to ride to work together and split the cost of fares
- Public transportation including fixed-route buses, microtransit, subways, or trains for example
- Bicycling and/or walking
- Teleworking working from an alternative worksite, such as an employee's home
- Alternative work schedules may result in shifting a trip in time to off-peak commute • hours to avoid traffic congestion. Examples include flex time, compressed work weeks, and staggered shifts.

See Appendix L for more information on TDM.

#### Transportation Choices and Preferences in the Wilmington Region

Currently, driving alone is the primary way most people travel in the Wilmington region. According to data from the first phase of public engagement for Cape Fear Navigating Change 2050, 81.8% of survey respondents indicated that they never use public transportation for transportation or recreation; 50.5% indicated that they never carpool; 37.9% indicated that they never bike; and 12% indicated that they never walk. Meanwhile, 76.1% of survey respondents reported driving alone four or more days per week, with a total of 91.5% of respondents reporting driving alone at least one day per week. Twenty-four point six percent of respondents reported working from home (teleworking) all the time, while 33.3% reported never teleworking.

Survey responses also indicate an opportunity and appetite for a variety of transportation options. At the time of the survey in fall 2023, 60% of survey respondents indicated that in the future, they would like to travel by car less often. Seventy two point six percent indicated they would like to walk more often, 68.7% indicated they would like to bike more often, 46.8% indicated they would like to use public transportation more often, and 15.5% indicated they would like to carpool more often.

Transportation demand management promotes a variety of travel modes to maximize a transportation network and its multiple travel options.

# Transportation Demand Management - Alternative Transportation



When asked for their preferred method of transportation, 62% of respondents selected driving alone, while 15.4% selected bicycling, 13.1% selected walking, and 7.7% selected public transit. By considering the public's values and preferences, Go Coast can design and prioritize programs which respond to community needs and goals for transportation choices.

#### **TDM Strategies**

A variety of TDM strategies can be applied to encourage and support the usage of alternative transportation. TDM strategies applied across the world can range from:

• Subsidizing costs to commuters for transit, carpooling, or vanpooling, whether by an employer or through other means

- Financial incentives ranging from tax incentives with transportation fringe benefits (pretax purchasing of transit passes or subsidies) to cash/prizes from gamification
- Financial disincentives (to driving alone) including parking pricing or congestion pricing during peak hours
- Education and commuter support including instructions on how to use alternative transportation, wayfinding infrastructure, carpool ride-matching, and trip planning assistance.
- Infrastructure to support alternative transportation usage, including high-occupancy vehicle (HOV) lanes, park and ride lots, or amenities for bicyclists like bike racks and commuter showers
- Policies promoting flex-time and alternative work locations to reduce congestion at peak hours
- Marketing and outreach to increase familiarity with alternative transportation options

There are many avenues for applying TDM strategies at the employer, municipal, and state levels to encourage the usage of alternative transportation. A consideration of TDM strategies applicable to the Wilmington region is outlined in following sections.

#### TDM in the Wilmington Region

The WMPO works to advance transportation demand management in the Wilmington region through its Go Coast TDM program. TDM has been applied in Wilmington since 2003 with the historic Cape Fear Breeze program. A recommendation from Cape Fear Commutes 2035, the MTP adopted in 2010, was for a full-time TDM coordinator at the WMPO. The TDM program was rebranded to Go Coast in 2015 with the hire of a full-time TDM coordinator. Since then, the Go Coast program has worked with WMPO member jurisdictions, local employers, and other community partners to advance TDM in the Wilmington region.

Go Coast activities are guided by the Go Coast advisory committee as well as a short-range plan which is updated every five years. The most recent TDM short-range plan, Cape Fear Change in Motion 2020, has planned for TDM activities 2021-2025. For 2026-2030 activities, WMPO staff began the process for a short-range plan update in mid-2024 to coincide with the update process for Cape Fear Navigating Change 2050.

As of 2025, current Go Coast activities include:

- Working with the Go Coast advisory committee which includes representatives from WMPO member jurisdictions, employers throughout the region, Wave Transit, higher education, and others to design and implement TDM programs
- Promoting the Be a Looker roadway safety campaign, a campaign to increase safety for bicyclists and pedestrians sharing the road which is biennially highlighted in media and paid advertising
- Managing the Commuter Friendly Employer program, which recognizes employers offering alternative commuter benefits and supporting alternative transportation usage by their employees
- Offering personalized commuter plans with step-by-step directions on how to use alternative transportation

- Supporting carpooling through park-and-ride lots and ride-matching with statewide system, Share the Ride NC
- Supporting teleworking and alternative work schedules; a model policy for employers was developed by the Go Coast committee and approved by the WMPO Board in June 2022
- Conducting outreach and regular events, challenges, and campaigns throughout the year including:
  - National Bike Month in May
  - The River to Sea Bike Ride held the first Saturday in May
  - The Brunswick Heritage Riverside Ride held the last Saturday in September
  - Get There Greener, a sustainable commute challenge held in October
  - Bike to Work Day, encouraging local organizations to host pit stops for cyclists offering water, snacks, and other goodies, on a Friday in October
  - Regular participation in events across the Wilmington region
  - Posting to Go Coast Instagram and Facebook regularly to promote alternative transportation and TDM activities

#### Transportation Demand Management in 2050

TDM objectives aligning with a vision looking to 2050 are included in this metropolitan transportation plan (MTP) which were developed through public and advisory committee input. Inclusion of TDM objectives in the MTP will help unify TDM programming with other planning efforts in alignment with the MTP's five goals: safe, fair, connected, resilient, and proactive. While the objectives are embedded into this long-term MTP, the TDM objectives will be used to guide the development of a separate Go Coast short-range implementation plan, Appendix L. This implementation plan which will contain a detailed work plan for the Go Coast program and will be evaluated annually and updated as necessary by the Go Coast committee.

# Vision, Goals, and Objectives

The MTPC developed the following vision statement and goals to guide the plan's development. The Cape Fear Navigating Change 2050 vision statement and goals can be found below.

## **Federal Planning Factors**

Chapter 1 introduced 10 planning factors outlined in federal transportation legislation. These planning factors, which have evolved over time, are a foundational part of the transportation planning process and were considered throughout the development of this plan's vision and goals.

# VISION

Our region will thrive and prosper through a fair and resilient transportation network that supports regional economic vitality while improving quality of life for residents and enhancing quality of place for neighborhoods.

#### **CHAPTER 3: DEVELOPING THE PLAN**

Table 3.3 on the following page illustrates how this plan's adopted goals are related to the federal planning factors.

## Goals

Cape Fear Navigating Change 2050's goals were developed through the consideration of the adopted vision, and the federal planning factors. In addition, the MTPC played an integral role in refining the goals and establishing what success for each would look like. The goals also considered information gathered from Phase I of public involvement, emerging technologies and innovation, and elements of TSMO and TDM.

The adopted goals guided the identification of modal objectives, outlined below.

#### Safe

- Eliminate transportation-related injuries and fatalities through implementation of injury prevention initiatives and strategies.
- Increase safety through context-sensitive design.
- Ensure the security of technology, infrastructure, and logistics.

#### Fair

- Prioritize fair and balanced investment in transportation projects that reflect local values and responsible planning.
- Increase quality of life and avoid, minimize, or mitigate adverse effects for all populations.
- Increase accessible mobility options and reduce or remove barriers to mobility.
- Ensure meaningful public involvement opportunities and the constructive incorporation of public feedback in the transportation planning and decision-making process.

#### Connected

- Expand efficiency and capacity of the transportation network though increased and connected multimodal transportation options.
- Support multimodal transportation facilities and policies that contribute to quality of place and are integrated with land use planning.
- Develop resources and technology that support intermodal travel.

#### Resilient

- Support transportation infrastructure that withstands and recovers from natural or manmade hazards.
- Provide redundant transportation options that support the movement of people, goods, and emergency responders.
- Ensure long-term viability through a realistic, maintainable, and responsible approach to project development.
- Increase the reliability of transportation options and travel times.

#### Proactive

- Anticipate changing needs and technologies in project design and implementation.
- Integrate transportation and future land use planning.

- Provide timely communication and education around important transportation activities, initiatives, and campaigns.
- Increase opportunities for regional funding.
- Explore new or innovative partnerships, funding and technology.

| Table 3.3 Cape Fear Navigating Change 2050 Goals and Federal Planning Factors |      |      |           |           |           |  |  |
|---|------|------|-----------|-----------|-----------|--|--|
| Federal Factors   | Safe | Fair | Connected | Resilient | Proactive |  |  |
| Support economic vitality   |      |      | х         | Х         | Х         |  |  |
| Increase safety   | Х    | Х    |           |           |           |  |  |
| Increase security   | Х    |      | х         |           |           |  |  |
| Increase accessibility  | Х    | Х    |           |           |           |  |  |
| Protect and enhance<br>environment  |      | Х    |           | Х         |           |  |  |
| Enhance connectivity  |      |      | х         |           |           |  |  |
| Promote efficient<br>management   |      |      | х         |           | Х         |  |  |
| Emphasize preservation  |      |      |           | Х         |           |  |  |
| Improve resiliency and reliability  |      |      |           | Х         | Х         |  |  |
| Enhance travel and tourism  |      |      | Х         |           | Х         |  |  |

This plan's adopted goals were derived in part from the federal planning factors.

## **Modal Objectives**

The objectives were developed with the help of the MTPC and rooted in the adopted goals. The objectives are intended to illustrate how success is defined for each goal under the six transportation modes considered in this plan, as well as for TDM.

Project scoring was designed around the goals and objectives and will be described in the following chapter. Modal policies were also adopted as part of this plan, which the objectives provided a basis for. These policies are outlined in Chapter 5.

#### **Aviation**

Safe

- Ensure the safe and secure arrival and departure of passenger and freight aircraft.
- Provide a safe and secure environment along the full passenger journey.

Fair

- Increase transportation mode choice to ILM, the Business Park and terminal areas.
- Reduce or remove barriers to air travel.

• Ensure aviation growth is grounded in a fair consideration of surrounding communities and the environment.

#### Connected

- Coordinate with roadway and rail network projects that support the development of ILM to include accommodations necessary for truck/rail freight transportation to/from site.
- Provide efficient intermodal connections to/from the airport for passengers and freight.

#### Resilient

• Increase resiliency of airport facilities from disasters or other disruptions, man-made or natural.

#### Proactive

- Support opportunities for rail service to ILM.
- Identify opportunities for new and innovative transportation connections for passengers and freight.

#### **Bicycle and Pedestrian**

Safe

- Build facilities and traffic engineering solutions that prioritize vulnerable road users.
- Increase visual cues and traffic calming strategies that prioritize vulnerable road user safety.
- Maintain, enhance and increase infrastructure to improve safety between non-motorists, cyclists, and/or motorized vehicles.

Fair

- Prioritize new bicycle and pedestrian facilities that connect to employment centers, community resources and/or services.
- Improve ADA accessibility.
- Ensure meaningful participation from a broad range of community members in the planning process.

#### Connected

- Increase multimodal density to facilitate intermodal connection opportunities.
- Create first and last-mile connections (such as bike/ped infrastructure to access to a transit hub).
- Build connections that fill gaps in the existing network that will allow for an uninterrupted bicycle and/or pedestrian path of travel.
- Collaborate with jurisdictions on comprehensive plans, other plans, or ordinances to include bicycle and pedestrian elements.

#### Resilient

- Increase bicycle and pedestrian facilities that provide alternatives to auto transport.
- Consider the long-term costs of constructing bicycle and pedestrian facilities and future funding for anticipated maintenance.
- Encourage facilities with low environmental impact.



#### Proactive

- Identify and reserve right-of-way and/or easements for future bicycle and pedestrian projects.
- Promote and support educational programs that teach bicycle and pedestrian safety.
- Utilize and develop partnerships to support bicycle and pedestrian infrastructure and initiatives.
- Increase promotion of bicycle and pedestrian facilities, amenities, and resources.

#### Ferry and Water Transportation

#### Safe

- Reduce conflicts with non-ferry automobile traffic at ferry terminals.
- Provide a safe and secure ferry system.

#### Fair

• Improve ADA-accessibility on ferry vessels and from ferry terminal to adjacent destinations.

#### Connected

- Prioritize projects that allow for bike share and public transportation at ferry/water transportation terminals.
- Increase infrastructure to promote biking and walking to and from the ferry/water transportation terminal.

#### Resilient

- Prioritize projects and routes that are resilient against natural hazards or reduce overall maintenance costs.
- Improve and maintain the efficiency of evacuation operations.

#### Proactive

- Prioritize projects that develop new ferry routes to serve both commuter and tourism markets.
- Increase the use of new and innovative technologies that support community well-being.

#### **Public Transportation**

#### Safe

- Prioritize installation of crosswalks at or near bus stop locations.
- Prioritize safe design and aesthetics of new and existing transit facilities.

#### Fair

- Identify and pursue opportunities to provide public transportation options that benefit transit dependent populations.
- Improve ADA accessibility.
- Ensure meaningful participation from a broad range of community members in the planning process.

#### Connected

• Increase network of bus shelters, benches, and other amenities at bus stop locations.

• Prioritize new public transportation facilities that connect to employment centers, community resources and/or services.

#### Resilient

• Identify strategies to broaden the ridership base and encourage transit usage.

#### Proactive

- Support community development and placemaking efforts along public transportation routes and near public transportation facilities.
- Provide direct, time competitive transit services that complement other transportation modes.

#### Rail

Safe

- Eliminate and/or mitigate rail conflicts with other modes.
- Enhance infrastructure to improve safety for all other modes (cyclists, pedestrians, etc.).
- Provide a safe and secure rail system and operations.

#### Fair

- Encourage job creation by providing sufficient transportation capacity for rail users.
- Ensure meaningful participation from a broad range of community members during the design of facilities/routes.
- Increase accommodations for passenger to include other non-motorized modes of transportation (i.e. Bicycles, e-bikes).

#### Connected

• Improve or maintain safe and reliable connections to ports, rail terminals, military bases, and major logistics and manufacturing sites.

#### Resilient

• Build and sustain resiliency to extreme events and hazards by designing and constructing less vulnerable infrastructure to minimize loss and by employing rapid restoration techniques.

#### Proactive

- Identify rail-served sites for future rail-served industrial development.
- Promote future opportunities for passenger facilities

#### Roadway

Safe

- Reduce the rate and severity of crashes.
- Increase visual cues and traffic calming strategies that prioritize vulnerable road user safety.
- Maintain, enhance and increase infrastructure to improve safety between non-motorists, cyclists, and/or motorized vehicles.

Fair

• Protect and strengthen the region's unique identity, natural surroundings, and overall quality of life while promoting fairness in how benefits and impacts are shared.

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> Ensure meaningful participation from a broad range of community members in the planning process.

#### Connected

- Support existing and new multimodal facilities and connections along corridors for the movement of goods and people.
- Increase interconnectivity of roadway facilities and the redundancy of routes.

#### Resilient

- Build resiliency to extreme events and hazards by designing and constructing less vulnerable infrastructure to minimize loss and employing rapid restoration techniques.
- Ensure facility design supports efficient emergency response.
- Develop efficient and redundant routes to support the movement of goods.

#### Proactive

- Consider and support projects that facilitate future adaptations and new technology to accommodate changing demands.
- Support community development and place making efforts when designing roadway facilities.
- Consider and support projects that align with anticipated land use patterns and adopted plans.
- Provide timely notification and education around current and future roadway projects.

### **TDM Objectives**

TDM objectives were developed through review by the Go Coast committee and WMPO staff of public input data received from multiple channels. Staff analyzed comments and responses from the survey from Phase I of public input for Cape Fear Navigating Change 2050. Survey data from two WMPO-organized bike rides (the 34th Annual River to Sea Bike Ride scheduled for September 7, 2024, and the 4th Annual Brunswick Heritage Riverside Ride held September 28, 2024) and a survey following the Cape Fear Memorial Bridge preservation project in May 2024 were also analyzed.

In October and November 2024, WMPO staff conducted a set of employer commuting workshops to better understand the commuting needs and challenges of Cape Fear-area employers. Participants included representatives from the City of Wilmington, the Town of Carolina Beach, the Town of Leland, Wilmington Downtown Incorporated, the NC Works Career Center, Flaming Amy's, the Cape Fear Workforce Development Board, Community Care of the Lower Cape Fear, and Approve Payments. The first workshop, held in-person on October 18, 2024, explained TDM and Go Coast and requested participant feedback in facilitated discussions, as well as an impact and feasibility activity assessing various TDM strategies. The second workshop, held virtually on November 14, 2024, brought back for discussion the key messages heard from the previous workshop which would be used to draft TDM objectives and potential implementation plan items.

After reviewing data and comments from the channels detailed above, WMPO staff drafted objectives for review and approval by the Go Coast committee. After receiving approval, objectives were brought to the WMPO Technical Coordinating Committee (TCC) and Board for adoption and inclusion in Cape Fear Navigating Change 2050.

Objectives pertaining to transportation demand management were adopted by the WMPO Board at their January 2025 meeting and are as follows pertaining to the five goals of Cape Fear Navigating Change 2050:

#### Safe

- Bolster education and outreach for safe bicycling and walking to all road users.
- Develop tools for education and awareness surrounding safety for motorized forms of alternative transportation, i.e. carpooling, vanpooling, and public transportation.

#### Fair

• Conduct employer outreach in all areas to a broad range of employer sizes and industries.

#### Connected

- Pursue opportunities to increase carpooling and facilitate carpool ride-matching.
- Coordinate with Wave Transit on outreach to increase familiarity with public transportation.
- Investigate opportunities for Park and Ride lots within the WMPO boundary.

#### Resilient

• Foster a regional culture where alternative transportation usage is legitimized and embraced.

#### Proactive

- Increase marketing and outreach to improve awareness and understanding of alternative transportation options to audiences including area employers, neighborhoods, schools, and others.
- Identify opportunities to facilitate commuter incentives at the employer level.



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#### CHAPTER 3: DEVELOPING THE PLAN