

Work Group Plan

Vehicle Miles Traveled Reduction

Vehicle Miles Traveled Reduction

Work Group Plan | 3.30.2023

Each work group plan is divided into four main sections, including:

NCCTP Background and Key Recommendations

The background section provides an overview of the stakeholder process that led to the preparation of the North Carolina Clean Transportation Plan (NCCTP). This section summarizes the key recommendations that must occur to collaboratively advance the work of the NCCTP.

Work Group Supporting Strategies

In support of the NCCTP focus areas, the work groups will continue to meet, collaborate and dedicate time and energy to advance the supporting strategies outlined in this plan. This section highlights the specific ways the work group can continue to support the initiatives of the NCCTP and move the work forward. The strategies are organized to reflect the ideas generated by each work group under the four thematic focus areas and include a consolidated list of strategies that reflects the recurring ideas heard from multiple work groups. Individual work group strategies can be found following the consolidated list of strategies.

Work Group Strategy Tables

The strategy tables are a collection of the strategies proposed by the work group during the NCCTP planning process. For every proposed strategy, additional detail is provided on 1) the key stakeholders best positioned to help move the strategy forward, 2) whether the strategy contributes directly or indirectly to equitable outcomes and 3) other beneficial information to consider when initiating the strategy.

Work Group Next Steps

This section provides a general framework for how the work groups can continue to participate in the achievement of the NCCTP goals. The work groups are encouraged to continuously revise and update the work group plans as progress is made.

NCCTP Background and Key Recommendations

Background

The North Carolina Clean Transportation Plan (NCCTP) is a guidance document that provides a coordinated strategy for accelerating decarbonization in the transportation sector. The plan outlines how North Carolina can prepare for a clean transportation future and provide equitable outcomes for everyone. The NCCTP was co-created with local, regional and state agencies; transportation providers; non-profit organizations; social justice and equity focused groups; environmentally focused groups; academic partners; clean cities coalitions; advocacy groups; utility providers; and private companies. While clean transportation efforts are happening all around our state, Executive Orders (E.O.) 80, 246, and 271 all encouraged a more coordinated strategy. In particular, E.O. 246 establishes goals for a 40 percent emission reduction and reaching 1.25 million zero-emission vehicles (ZEVs).

Why We Need a Plan

Transportation Impacts – According to the 2022 North Carolina Department of Environmental Quality (NCDEQ) Green House Gas (GHG) Inventory, transportation emissions in North Carolina accounts for 36 percent of total GHG emission—the largest contributor in the state. 88 percent of these emissions are attributed to on-road vehicles, including passenger cars, delivery vehicles and freight trucks.

Transportation Challenges – Existing transportation system challenges and constraints, such as a rapidly growing population and demographic disparities in transportation availability, must be identified to understand how to equitably achieve reductions in transportation emission.

Transportation Options—The Deep Decarbonization Pathways Analysis demonstrated that a variety of transportation options, including reducing vehicle miles traveled, zero emission vehicles, and decarbonized fuels, can be used together to result in significant greenhouse gas reduction.

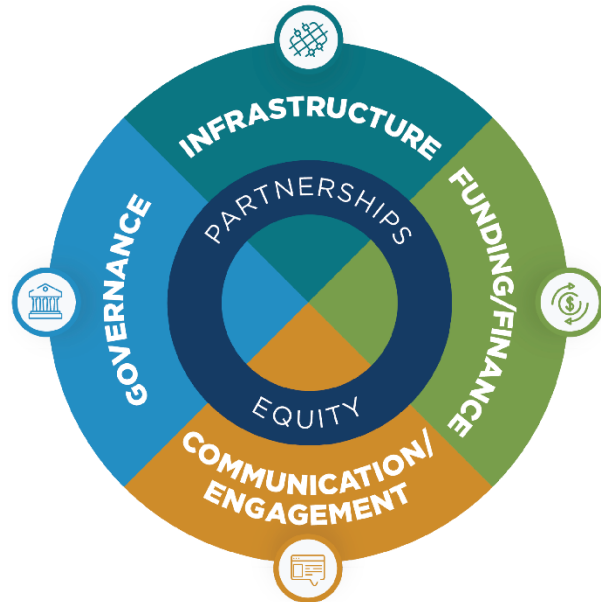
Different Places have Different Needs— Given North Carolina’s mix of geographies, our approach to clean transportation must be versatile and include options for rural, suburban and urban places. This requires an integrated strategy that reflects the needs and opportunities of each of these contexts.

New and Emerging Funding—New funding—including federal legislation, such as the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA)—create opportunities to advance clean transportation.

While NCDOT supported the planning process and many of the strategies will require the department’s leadership or participation, the NCCTP also offers public and private entities, as well as state, regional and local governments, a roadmap to activities for achieving an equitable clean transportation system for North Carolina. This work group plan represents a specific set of activities that the work group stakeholders might choose to move forward.

Key Recommendations

The NCCTP identifies near-term strategies and actions organized around four focus areas: **Infrastructure**, **Funding and Finance**, **Communications and Engagement** and **Governance**. In addition, the NCCTP process identified key partnerships required to accelerate North Carolina’s clean transportation transition and elevate the importance of creating equitable outcomes. Key recommendations from the focus areas include:



Create a dedicated clean transportation team—

This group will be dedicated to advancing the NCCTP objectives, implementing the plan and tracking progress.

Align statewide policy through an interagency task force—This taskforce will coordinate across state agencies to ensure internal alignment of North Carolina policies and reduce barriers to NCCTP implementation.

Increase equitable outcomes in transportation planning projects—Introducing new opportunities, empowering traditionally underserved communities in transportation decision-making and focusing on maximizing key indicators like improved access will lead to more equitable outcomes.

Ensure access and affordability to clean transportation—Policies and programs that promote access and affordability to clean transportation options will prioritize infrastructure investments for traditionally underserved communities.

Evaluate and update project prioritization programs—Bring opportunities identified in the NCCTP to the existing NCDOT Strategic Prioritization Office (SPOT) work group for consideration in the project evaluation process.

Partner with utilities to promote clean transportation—Partnering with electric utilities to promote clean energy and clean transportation options will ensure we’re “energy ready” and will promote effective pricing.

Maximize existing funding to support clean transportation outcomes—Modifying our approach to existing funding programs, such as the Congestion Mitigation and Air Quality (CMAQ), Carbon Reduction Program (CRP) and Diesel Emissions Reduction Act (DERA), can ensure existing dollars do as much as possible to support the clean transportation transition.

Evaluate and apply for new funding that advances clean transportation outcomes—The Inflation Reduction Act (IRA) and Infrastructure Investment and Jobs Act (IIJA) can be used to advance the priority strategies identified in the NCCTP.

Evaluate and deploy clean transportation infrastructure to support all types of fleet vehicles and applications—Investing in zero- and low-emission fueling infrastructure for all types of fleet vehicles makes possible the transition of fleets to clean transportation options.

Expand transportation demand management strategies—Applying transportation demand management programs as described in the VMT reduction toolkit will lessen our reliance on driving and support NCCTP goals.

Establish a coordinated clean transportation communication strategy—NCDOT will seek dedicated funding to support a coordinated communication strategy. Coordinated communications will increase awareness, help align resources and promote partnerships to advance the clean transportation initiative.

Work Groups

The NCCTP planning process was intentionally inclusive. Throughout the NCCTP process, NCDOT was committed to the co-creation of the plan. While NCDOT and the NCDEQ served as support staff to five subject-matter work groups, over 220 state and national stakeholders participated in the process. These volunteer groups were composed of the wide variety of public and private stakeholders listed earlier in this section. The work groups worked collaboratively over six months through a series of meetings to develop ideas leading to the creation of these focused work group plans that address known challenges and leverage opportunities. This allowed the content of the plan to be largely driven by the experience, expertise and perspectives of a variety of interests and allowed participants to explore solution sets without limitations.

This work group plan focuses on the efforts conducted by the vehicle miles traveled (VMT) reduction work group. While summaries of all the work groups are included below, the specific challenges addressed by VMT reduction work group are included at the end of this section.

Light-Duty Zero Emission Vehicles (ZEVs)

These are generally smaller vehicles, including personal cars and trucks that have zero-emission characteristics. These may include vehicles from a range of fuel types, such as electric or hydrogen fuel cell. The focus of this group included:

- Accelerating the pace of transition from conventional gas-powered vehicles to ZEVs.
- Increasing ZEV availability and increasing consumer awareness.
- Advancing ZEV incentives and improving affordability.

Medium- and Heavy-Duty (M/HD) ZEVs

These vehicles are heavier than light-duty vehicles and typically include school buses, public transit buses, freight vehicles and other fleet vehicles. Gasoline- and diesel-powered medium- and heavy-duty vehicles only account for a small portion of registered vehicles, but are responsible for significant greenhouse gas emissions and cause a significant amount of air pollution. The focus of this group included:

- Educating potential users about the unique needs of and supportive infrastructure for M/HD ZEVs.
- Increasing the availability and the pace of adoption of M/HD ZEVs.

Fleet Transition

Fleet transition includes ways to switch large fleet operations from gasoline- and diesel-powered vehicles to zero- and low-emission fleet vehicles. The focus of this group included:

- Accelerating the pace at which state and local public entities transition to zero- or low-emission vehicles.
- Working with private entities to transition their fleets to zero- or low-emission vehicles.
- Increasing the number of zero- or low-emission school buses in use.

Clean Transportation Infrastructure

North Carolina needs sufficient EV and alternative fuel infrastructure to support the private and public fleet transition to zero- and low-emission vehicles. The focus of this group included:

- Improving electric vehicle charging infrastructure, through existing programs such as the National Electric Vehicle Infrastructure program.
- Improving infrastructure associated with alternative fuels.
- Supporting future infrastructure improvements through mapping, siting and identification of gaps.

Vehicle Miles Traveled (VMT) Reduction

The VMT reduction work group plan focuses on the reduction of vehicle miles traveled. The main objective of the VMT reduction work group was to identify effective methods to manage travel demand and promote mode shift through other means of travel including transit, rail, bike, pedestrian and other non-motorized travel as well as land development considerations.

The NCCTP identifies a set of strategies to continue the work of the VMT reduction work group with a focus on the following:

- Advancing the work of the VMT Reduction Task Force.
- Connecting planning efforts related to transit, bike/pedestrian, passenger rail and other non-vehicle transportation modes to clean transportation objectives.

Identified Barriers

Each subject matter work group met six times and discussed the potential objectives, needs and opportunities centered around a series of six cross-cutting themes: equitable access to clean transportation options, education and outreach opportunities, incentives and finance options, transportation influences on public health, economic and workforce development and recommended revisions to NC requirements and guidance. At the outset of this process, the VMT reduction work group was asked to identify barriers and challenges to advancing VMT reduction in the state of North Carolina. Through this discussion, the following barriers were identified:

- Lack of transit, active transportation and multimodal clean travel options and infrastructure.
- Lack of access to transit, active transportation and multimodal clean travel options.
- Lack of political and institutional support for VMT reduction at the statewide level.
- Lack of connection between planning efforts related to transit, bicycle, pedestrian, passenger rail, and other non-vehicle transportation modes to statewide clean transportation objectives.

The focus of the work groups over the six months was to develop a set of strategies and actions that were needed to overcome these barriers. To maintain the momentum of the work group to identify and overcome barriers, continued support and continued cooperation of work group participants and stakeholders is needed. Maintaining momentum will require a coalition of support and continued cooperation. Therefore, the work groups are expected to continue their collaborations beyond the plan, with a renewed focus on advancing their individual work group plans.

Participants

The NCCTP benefitted greatly from the time and energy provided by its work group members. The following groups, agencies and organizations were represented as part of the VMT reduction work group.

AARP	Natural Resources Defense Council (NRDC)
Alliance for Automotive Innovation	NCDOT Environmental Justice Policy Advisor
American Heart Association	NCDOT Freight & Logistics Manager
Asheville Area Arts Council (Arts AVL)	NCDOT Integrated Mobility Division (IMD)
Asheville on Bikes	New City Design Group
AT&T	New Hanover County
Bike Durham	North Carolina League of Municipalities
BikeWalk NC	NC Dept of Public Safety (NCDPS)
Center for Geospatial Analytics	NC Dept of Transportation (NCDOT)
Centralina Council of Governments	North Carolina DOT Board of Transportation
Chapel Hill Town Council/ Go Triangle	North Carolina Electric Membership Corporation (NCEMC)
Charlotte Area Transit System (CATS)	North Carolina Governor's Office
City of Charlotte	Oaks & Spokes
City of Kannapolis	Peanut Belt Reginal Planning Organization (PBRPO)
City of Raleigh	Piedmont Electric
City of Wilmington	Regional Transportation Alliance (RTA)
City of Winston-Salem	Research Triangle Regional Public Transportation Authority (GoTriangle)
CleanAIRE NC	Senior Advisor for Climate Change Policy
Down East & Cape Fear Rural Planning Organization (RPO)	Southern Environmental Law Center (SELC)
Duke Energy	Stewart
Durham County Commissioner	Triangle J Council of Government
Durham-Chapel Hill-Carrboro (DCHC)	Wake Tech/RTA Equity Workforce
Metropolitan Planning Organization (MPO)	WakeUP Wake County
East Coast Greenway Alliance	Whitman, Requardt & Associates
Greensboro Urban Area MPO	
Lumber River RPO	
Metro Mayors	

Background

Between 2003 and 2019, annual Vehicle Miles Traveled, or VMT, in the U.S. grew by 13 percent from 2.89 trillion to 3.26 trillion. During that same period, VMT in North Carolina grew from 93.7 billion to 123.1 billion, an overall increase of 31 percent. In total, the state's VMT increase in this period covered nearly eight percent of the country's total VMT growth.

There are several factors that contribute to VMT growth, including population growth, land use, the available transportation network and societal factors. Given the historic investment in infrastructure geared towards automobiles and prevalence of lower-density land uses, it is unsurprising that North Carolina has higher daily VMT per roadway miles than the national average.

Given North Carolina's unique mix of geographies, the approach to VMT reduction—as it relates to clean transportation—must be versatile and include relevant options for rural, suburban and urban places. This requires an integrated strategy that reflects the needs and opportunities of each of these distinct contexts.

Aligned Initiatives

The VMT Reduction Study

NCDOT published a [VMT Reduction Study](#)¹ in April 2021. This study identified strategies to reduce vehicle miles traveled in urban, rural and regional areas of North Carolina and provides summary pages as a comprehensive introductory resource to organizations considering methods to reduce VMT throughout the state.

The study compiled travel demand management (TDM) project sheets around eight major areas including:

- Worksite and Workplace
- Regional
- Telecommunication
- Land Use
- Public Policy/Regulatory
- Pricing
- Application-Based
- Support

Each project sheet identified benefits and constraints associated with each strategy in addition to the potential VMT reduction impact. Given the different trends associated with rural and urban areas, having a variety of TDM strategies will guide the state in its continued interest in understanding VMT.

With the development of the VMT Reduction Study, the task force also created the [Vehicle Miles Traveled Reduction Study Toolkit](#).² The toolkit is divided into two distinct sections. The first section



¹ <https://www.ncdot.gov/initiatives-policies/environmental/climate-change/Documents/vehicle-miles-traveled-reduction-study.pdf>

² <https://www.ncdot.gov/initiatives-policies/environmental/climate-change/Documents/vehicle-miles-traveled-reduction-study-tool-kit.pdf>

describes TDM measures including pros/cons, success stories in North Carolina, and additional resources. The second section describes the funding programs that could be used to fund implementation of identified TDM measures. The previously completed work acted as a solid foundation for the strategies identified in the NCCTP.

North Carolina Deep Decarbonization Pathways Analysis

According to the 2022 NCDEQ GHG Inventory, transportation emissions in North Carolina account for 36 percent of total GHG emissions—the largest contributor to GHG emissions in the state.³ The [Deep Decarbonization Pathways Analysis](#) showed that transportation must reduce GHG emissions by between 79 and 87 percent for the state to achieve net zero by 2050.⁴ The analysis identified five priority action areas:



While North Carolina can achieve 2030 and 2050 climate targets in multiple ways, the Pathways Analysis highlights the similarities across all scenarios that would benefit the state:⁵

- Accelerate a transition to ZEVs and electric heat pumps in buildings
- Rapidly decarbonize electricity generation by scaling up renewable electricity sources and battery storage
- Encourage high levels of energy efficiency, such as adoption of efficient appliances and vehicles, improvement of building shells and reduction in VMT
- Support commercialization of decarbonized fuels—at minimum—to green hydrogen for industry and large trucks and explore pilots for advancing biofuels using sustainable biomass feedstock
- Reduce non-energy GHG emissions from industry, agriculture, waste and oil and gas systems
- Prioritize sustainable management of natural and working lands to enhance the critical role of carbon sequestration in helping achieve net-zero emissions
- Reduce fuel combustion while decarbonizing the economy to create co-benefits for air quality improvement

The Pathways Analysis confirms the importance of managing VMT to slow growth and ultimately reduce VMT by more than one percent. The analysis highlights the nexus between smart growth policies and active transportation solutions. The VMT reduction work group should leverage the findings and strategies in the Pathways Analysis to advance the goals of the NCCTP as they relate to reducing single-passenger trips.

³ <https://governor.nc.gov/media/3583/open>

⁴ <https://governor.nc.gov/issues/environment>

⁵ <https://governor.nc.gov/media/3572/open>

Work Group Supporting Strategies

Work Group Supporting Strategies

While the key recommendations described in the previous section broadly consider the efforts needed to advance the goals of the NCCTP by the state of North Carolina, the specific ways in which the VMT reduction work group can engage with the advancement of the NCCTP in the near term are organized below under the four focus areas. A more detailed list of work group strategies can be found in the Work Group Strategy Table section. These supporting strategies can be used in support of the eleven key recommendations that can be found in the [NCCTP Summary Report](#).

Updating Governance Activities

Governance activities include guidance that could occur at any level of government (local, regional, state or federal) including legislation, policy codes, ordinances and mechanisms that promote equitable outcomes. Achieving the state's clean transportation goals will require revisions to existing policies, requirements, and procedures. VMT Reduction work group members may:

- Assist in the removal of barriers to the implementation of and access to clean transportation infrastructure.
- Act as an accountability group for policy or decisionmakers.
- Advocate at the local government level to encourage the development of policies and programs to advance and improve access to clean transportation infrastructure and non-motorized travel.

Enhanced standards and guidance will provide a framework for the transition to clean transportation options. VMT Reduction work group members may:

- Coordinate with all work groups and relevant external stakeholders to create a climate, health, equity and VMT reduction rating system for use in planning and analysis.
- Ensure alignment to meet respective work group strategies and ongoing and future VMT reducing state initiatives.
- Provide technical assistance in the creation of design guidance for electric vehicle charging sites that integrates active transportation and transit and requires resiliency.

Modernizing Funding and Finance Programs

These programs include financial resources (public and private), funding programs (ex. State Transportation Improvement Program, grants, municipal Capital Improvement Plans) and financing tools that support equitable outcomes and implementation.

New funding sources will be needed to implement clean transportation options. VMT Reduction work group members may:

- Evaluate different programs to reduce or eliminate the 20% local funding match for non-highway projects, increasing access to opportunities in traditionally underserved communities to reduce or eliminate the up-front costs for funding matches.
- Investigate and identify funding options to support active transportation and public transportation advancements, VMT reduction and equitable outcomes in traditionally underserved communities.
- Recommend modifications to capital program criteria to include equitable access to safe infrastructure and to prioritize funding to traditionally underserved communities.

Funding and financing incentives can support the implementation of the clean transportation system. VMT Reduction work group members may:

- Support the creation of incentive programs for developments or projects that support a reduction in VMT or the use of non-auto travel modes

To better support the implementation of clean transportation options, changes will be needed in the prioritization of current and newly available funding options. VMT Reduction work group members may:

- Support the state's efforts to incorporate GHG evaluation, health, equity and reduced VMT rates into transportation prioritization processes.
- Assist with addressing existing barriers to advancing clean transportation options within existing and emerging prioritization frameworks.
- Support increased funding opportunities for projects that reduce VMT and support mode shift away from single occupant vehicles (SOVs) prioritization programs.
- Review and comment on proposed revisions to existing and emerging prioritization processes.

Technical assistance is essential to support the transition to clean transportation solutions especially for under-resourced communities. VMT Reduction work group members may:

- Assist or support local agencies and employers with gathering technical resources and providing technical support to secure grants to advance active transportation, connected communities, and public transportation.

Implementing More Clean Transportation Infrastructure

Capital investment resulting in the equitable implementation of increased capacity and connectivity of our transportation system including EV charging, modernization of electric grid, active transportation and transit supportive infrastructure.

Support expanded clean transportation options and reduced VMT especially in traditionally underserved communities. VMT Reduction work group members may:

- Strategize how active transportation and safety design elements can be integrated into current road maintenance practices.
- Support and promote travel demand management programs such as carpooling and working from home.
- Invest in charging infrastructure for current and planned park and ride facilities.
- Assist with data collection and data sharing to improve quality of crash data and exposure data for rural and urban contexts.

Communicating the Plan and Engaging People

Methods to increase equitable engagement and empower public, private, and non-profit effectiveness AND methods to directly engage and involve stakeholders, general public and traditionally underserved demographic cohorts.

A coordinated Clean Transportation Communication Campaign will help achieve statewide objectives through increased understanding and access to information. VMT Reduction work group members may:

- Assist or support the creation of a coordinated statewide communication campaign and web portal with publicly accessible resources and tools for educators and local planners to use. These resources and tools may include:
 - An active transportation and public transportation education and outreach toolkit, with model education curricula and an Activities Guide for equitable engagement
 - An interactive map highlighting transportation disadvantages (e.g., mobility gaps and limited access to opportunity)
 - A best practice guide on how to integrate active transportation, transit and resiliency into electric vehicle charging sites. This guide will be co-developed with the Clean Transportation Infrastructure work group.
 - A repository of active transportation and public transportation funding opportunities along with public facing progress reports (dashboards) with clear benchmarks and mechanisms for public feedback.
- Focus on media and education efforts to highlight active transportation and public transportation benefits to community members and local and regional planners including:
 - Identify existing networks, organizations and media platforms that would be used to amplify the statewide communication campaign.
 - Identify VMT reduction and related messaging required to complete the coordinated statewide communication campaign.
- Provide technical support for active transportation and public transportation advancements.
- Participate occasionally in statewide communication campaign activities in the interest of the NCCTP.
- Participate in the sharing of content associated with the NCCTP campaign.

New training opportunities will accelerate the pace of clean transportation transitions and generate new workforce opportunities. VMT Reduction work group members may:

- Participate in the identification of resource materials to inform tailored training materials surrounding active transportation planning and public transportation development.
- Contribute to the development of training materials tailored to traditionally underserved communities.
- Participate in training activities as appropriate.

Accelerating North Carolina's pace of transition to clean transportation options will require state agencies to collaborate with a variety of groups. VMT Reduction work group members may:

- Assist with identifying key partnership opportunities and making connections.
- Work with CBOs and community champions to help bridge communication gaps and ensure traditionally underserved communities and disadvantaged business enterprises experience clean transportation benefits.
- Assist with connecting key entities with coordinated communication plan opportunities.
- Serve as an ambassador to the NCCTP by representing key messaging at appropriate functions and industry events.

Work Group Strategy Tables

Work Group Strategy Tables

Orientation

The following pages contain the proposed strategies identified by the work group. The various strategies listed are not directly endorsed by state agencies and do not necessarily represent a consensus proposal by the work group participants or the NCCTP Advisory Committee. Not all strategies listed are necessarily supported by all work group participants or all members of the NCCTP Advisory Committee. The work group plan organizes and reflects the ideas generated by the work group under the four thematic focus areas: **Governance**, **Infrastructure**, **Funding and Finance** and **Communications and Engagement**. The strategies listed in each table are specific to each group’s work group plan.

For every strategy, additional detail is provided on 1) the key stakeholders best positioned to help move the strategy forward, 2) if the strategy contributes directly or indirectly to equitable outcomes, and 3) what actions are required to initiate the strategy. The ideas are listed in no particular order.

Example Table

Governance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
VMT-6	Create enhanced requirements for concurrent land use and transportation planning.	Local Government, MPOs/RPOs	Indirect	Strengthen requirements for land use and transportation planning by including provisions to support clean transportation goals.

Strategy Table Summary

This work group has identified the following strategies:



Governance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
VMT-1	Define equity population cohorts (traditionally underserved communities) to ensure consistency across agencies and related analysis.	NCDOT	Direct	Consider past categories, identify refinements, and integrate with future engagement programs and prioritization activities.
VMT-2	Agree on a set of metrics for tracking equity, VMT, and related statistics.	NCDOT	Direct	Establish an agreed upon approach to equity inclusion and equity outcomes including accountability metrics.
VMT-3	Supplement level of service with equity, health, VMT and greenhouse gas analyses for capital transportation and land use projects.	Legislative, NCDOT, Local Government, MPOs/RPOs	Direct	Update analysis requirements and evaluation metrics of plans and programs by requiring equity, health, GHG, and VMT considerations.
VMT-4	Include health impacts in prioritization performance measures for funding programs.	NCDEQ, NCDHHS, NCDOT, MPOs/RPOs	Indirect	Define the role and metrics for health associated impacts in evaluation criteria.
VMT-5	Create a climate and health rating system for use in planning and analysis.	NCDEQ, NCDOT	Indirect	Adopt a consistent method/tool of addressing climate and health evaluations.
VMT-6	Create enhanced requirements for concurrent land use and transportation planning.	Local Government, MPOs/RPOs	Indirect	Strengthen requirements for land use and transportation planning by including provisions to support clean transportation goals.
VMT-7	Create model codes that address the following: <ul style="list-style-type: none"> • VMT Reduction • Supportive development patterns • Mode shift • Parking modernization (example: parking max and elimination of parking minimums) • Housing affordability • Medium-heavy duty idling 	NCDOT	Indirect	Support the creation of NC best practices that includes a comprehensive set of best practices and model codes in support of clean transportation goals.
VMT-8	Align NCDOT clean mobility initiatives with initiatives for health, safety, workforce, economic development and equity.	NCDOT	Direct	Assemble initiative leaders to identify potential conflicts and synergies.
VMT-9	Perform a policy diagnostic and modernization effort to create alignment across agencies, departments and divisions.	State Agencies	Indirect	Inventory and evaluate existing policy to reveal conflicts and modernization opportunities.
VMT-10	Eliminate Strategic Transportation Investment barriers to funding dedicated bicycle and pedestrian projects.	Legislative	Indirect	Identify legislative barriers and seek appropriate revisions.
VMT-11	Add vehicle miles traveled and greenhouse gas reduction analysis to required transportation studies.	NCDOT, Local Government, MPOs/RPOs, Private Developers	Indirect	Revise guidance on transportation planning document to establish guidelines.
VMT-12	Create best practices guide for electric vehicle charging sites that integrates active transportation, transit and resiliency.	NCDOT, Local Government, Private Developers	Indirect	Establish task force or work group to identify uniform/best practices.
VMT-13	Eliminate barriers to complete street funding, design, and implementation.	Legislative, NCDOT	Indirect	Identify legislative barriers and seek appropriate revisions.
VMT-14	Modernize statewide procurement procedures to eliminate barriers to/promote electric vehicles.	Legislative, NCDOT	Direct	Identify legislative and departmental policy barriers and seek appropriate revisions.
VMT-15	Include VMT reduction requirements in criteria for recruiting state contractors and financing projects.	NCDOT	Indirect	Develop a meaningful approach to including VMT reduction requirements in state procurement activities.
VMT-16	Limit the expansion of roadways in designated Travel Demand Management (TDM) areas through policy, funding, and regulatory mechanisms.	NCDOT	Indirect	Actively manage/limit the addition of general-purpose roadway capacity in designated TDM

Governance

ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
				zones to ensure that TDM investments lead to desired TDM outcomes.
VMT-17	Allow municipalities to establish complete street road designs for state-maintained streets within their jurisdiction.	NCDOT, Local Government	Indirect	Reduce barriers to implementing complete streets on state-maintained streets.
VMT-18	Develop analysis and visualization tools that highlight traditionally underserved communities and places with limited access to opportunity.	NCDOT	Direct	Build or procure a web accessible data interface that provides consistent/easy access to this information in support of planning, engagement, and analysis.
VMT-19	Enhance Minority and Women Owned Business procurement practices and increase inclusion of community-based organizations in engagement processes.	NCDOT	Direct	This requires revisions to internal procurement practices.

Infrastructure

ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
VMT-20	Leverage maintenance activities as a mechanism for adding complete street elements.	Local Government, MPOs/RPOs, NCDOT	Indirect	Intrusive (underground utilities) and resurfacing activities present opportunities to make enhancements to safety and modal accommodations.
VMT-21	Expand infrastructure for emerging mobility, rail, and public transportation through local and state programs, including last mile infrastructure.	NCDOT	Indirect	More funding is required to accelerate the pace of implementation.
VMT-22	Require repaving on state-owned roads to include bicycle and pedestrian projects identified in local and state plans.	NCDOT, Local Government, MPOs/RPOs	Indirect	This act has both policy and funding implications.
VMT-23	Modify practices to integrate active transportation and safety design elements as maintenance occurs.	NCDOT, MPOs/RPOs	Direct	Coordinate with municipalities to understand needs.
VMT-24	Require freeway improvements to include safe, protected multimodal infrastructure.	NCDOT	Indirect	This action requires refined thinking on mode integration.
VMT-25	Integrate safety and multimodal enhancements into regular maintenance programs.	NCDOT	Indirect	Coordinate with municipalities to understand needs.
VMT-26	Modernize and promote a statewide carpooling - matching program (Share the Ride NC).	NCDOT	Indirect	Identify strategies to better incentivize carpooling across the state.
VMT-27	Identify likely trends in work from home (WFH) and evaluate ways to expand opportunities including expanded broadband access.	NCDOT	Indirect	This can be integrated with TDM and VMT reduction programs.

Funding/Finance

ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
VMT-28	Develop incentive programs for new development that promotes walk, bike, transit usage.	Clean Cities Coalitions, NC Clean Energy Technology Center, Non-profit	Indirect	Conduct policy review across the country to identify best practice incentive programs.

Funding/Finance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
		organizations, Community-Based Organizations		
VMT-29	Give priority to complete streets over highways in capital funding programs.	NCDOT, MPOs/RPOs	Indirect	Amend existing prioritization criteria to reflect and incentivize active transportation infrastructure.
VMT-30	Include equitable access to safe infrastructure in capital program criteria.	Legislative, Non-Profit Advocacy Organizations	Direct	Reimagine capital program criteria to better prioritize equitable outcomes.
VMT-31	Establish a state mitigation program to reconnect traditionally underserved communities impacted by highway construction.	NCDOT	Direct	Identify funding sources and lead actors to support mitigation programs.
VMT-32	Identify dedicated funding for the advancement of non-SOV travel.	Legislative	Indirect	Support the existing NC First Commission to ensure clean transportation goals and outcomes are integrated with their work.
VMT-33	Investigate a state carbon tax to serve as a new revenue source and reward the use of clean vehicles.	Legislative	Indirect	This topic should be researched and considered in NC as a potential method to incentivize clean transportation options.
VMT-34	Minimize the impact of large infrastructure projects through mechanisms like community benefit agreements.	Local Government, MPOs/RPOs	Direct	Tools like this help establish transparency and trust with communities while advancing the Clean Transportation goals.
VMT-35	Identify new revenue streams to supplement/replace existing gasoline tax.	NCDOT	Indirect	Consider best practices from across the nation to inform creation of new revenue stream.
VMT-36	Create special electric vehicle license plates with proceeds towards maintenance of infrastructure.	Legislative	Indirect	This is another opportunity for individuals to express support while collecting supportive revenue.
VMT-37	Evaluate new funding options that promote VMT reduction and equitable outcomes.	Legislative, NCDOT	Direct	Continued support of the NC First Commission should reinforce the importance of VMT reduction and equitable outcomes.
VMT-38	Modernize our prioritization and funding strategies to align with stated VMT reduction and Clean Transportation goals and reduce unintended consequences.	Legislative, NCDOT	Indirect	Modernizing existing capital programs to reflect Clean Transportation Plan goals.
VMT-39	Prioritize funding for vulnerable communities based on financial need, census data, and tax information.	NCDOT	Direct	Establish new ways to make projects that benefit vulnerable communities competitive within existing funding programs.
VMT-40	Consider access to opportunity (education and employment) when prioritizing capital projects for all travel modes.	NCDOT	Direct	Use a consistent method to determine a project's influence on the access to opportunity of vulnerable populations and communities.
VMT-41	Increase funding for active transportation projects especially in denser areas.	NCDOT	Indirect	Accelerating the pace of VMT reduction through mode-shift requires supplemental funding for non-SOV travel.
VMT-42	Establish a mechanism to eliminate or reduce the 20% local funding match in traditionally underserved communities for non-highway projects that increase access to opportunity.	Legislative	Direct	Reduce and eliminate financial barriers for projects that can reduce emissions and promote mobility.

Funding/Finance				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
VMT-43	Create state level incentives for e-bike purchases.	NCDOT, Local Government	Indirect	Identify best practices across the nation to inform program structure.
VMT-44	Create financial incentives for cities assuming responsibility for modernization of state roads within their boundaries.	NCDOT, Local Government, MPOs/RPOs	Indirect	Evaluate the structure of maintenance agreements and the ability of local communities to advance complete street designs.

Communication/Engagement				
ID	Strategy	Key Stakeholders	Contributes to Equitable Outcomes	Notes
VMT-45	Promote awareness and resources through government associations (league of municipalities, metro boards, commissions, etc.)	PlugIn NC, NCDOT, Clean Cities Coalition, NC Clean Energy Technology Center, Non-profit Organizations, Community-Based Organizations	Indirect	Create tailored resources for a wide audience and leverage existing networks as a part of the promotion strategy.
VMT-46	Promote transparency through public facing progress reporting (dashboards), including clear benchmarks and mechanisms for public feedback.	NCDOT	Indirect	Create understandable and accessible information that communicates progress on relevant metrics.
VMT-47	Invest in public facing digital communication tools including social media campaigns to promote awareness and resources.	Clean Cities Coalition, NC Clean Energy Technology Center, universities and colleges, Non-Profit Organizations, Community-based organizations	Indirect	Identify funds to support the creation of a digital communication tool. Identify channels to distribute campaign materials.
VMT-48	Increase public awareness and build community capacity through meaningful and effective engagement and communication.	NCDOT	Indirect	Identify target stakeholders and involve local resources and organization to promote shared understanding and effective engagement.
VMT-49	Develop a toolkit of equitable engagement tools and activities.	Clean Cities Coalitions, NC Clean Energy Technology Center, NCDOT, Non-profit organizations, Community-Based Organizations	Direct	Create an equitable engagement strategy and toolkit in support of more effective and inclusive engagement and increase resource allocation to effective engagement.
VMT-50	Partner with community-based organization (CBO's) to increase the volume and effectiveness of equitable engagement.	NCDOT, CBOs	Direct	Leverage existing networks and organization to promote shared understanding and effective engagement.
VMT-51	Align engagement and outreach to include corporations, non-profit, and government agencies.	NCDOT, Corporations, Non-Profits, Local Government	Indirect	Leverage existing networks and organizations to promote shared understanding and effective engagement.
VMT-52	Establish a clean mobility youth curriculum and promote within NC schools.	NCDOT	Direct	Invest in the future through early engagement with NC youth to cultivate understanding and opportunities.

Next Steps

Next Steps

This work group plan offers the beginnings of what will be an ongoing effort to carry forward the goals of the NCCTP. The work groups are anticipated to continue their work beyond completion of the NCCTP. The following actions act as the preliminary steps for work groups:

- The newly proposed NCDOT Clean Transportation Team will serve as a resource to all five work groups.
- The work group will choose a chair from among its members.
- The work group will establish a calendar for Work Group Plan activities.
- The work group will identify an agreed upon schedule for meeting (early expectations include meeting on a quarterly basis).
- The work group will solidify work group membership, which may extend beyond previously engaged work group members to include additional individuals or groups.
- On occasion, the work group will provide continued leadership for combined work group activities.
- The work group will develop an approach for supporting the NCCTP focus areas and provide updates to the NCDOT Clean Transportation Team and Interagency Task Force for annual reporting purposes.