New Mexico Department of Transportation

CARBON REDUCTION STRATEGY

NOVEMBER 2023

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

November 06, 2023

It is with great enthusiasm that I formally adopt this Carbon Reduction Strategy (CRS) on behalf of the New Mexico Department of Transportation (NMDOT). This exciting development signifies a crucial step forward in our ongoing efforts to advance clean and sustainable transportation in New Mexico.

The CRS reflects the state's commitment to reducing greenhouse gas emissions, mitigating climate change, and fostering a more sustainable and environmentally responsible transportation system. The CRS outlines a comprehensive approach to address transportation emissions and promote cleaner transportation practices and it aligns with NMDOT's core values and long-term goals.

The CRS focuses on four key categories of activities, each of which plays a vital role in achieving our carbon reduction objectives:

1. Reducing Vehicle Miles Traveled
2. Reducing Emissions of Vehicles
3. Reducing Emissions from Operations and Materials
4. Carbon Sequestration

NMDOT developed the CRS in coordination with the state's Metropolitan Planning Organizations and Regional Transportation Planning Organizations. Implementation of the activities identified in the CRS requires leadership and action from all transportation stakeholders. I look forward to working with our partners on this important effort.

Together, we can create a transportation system that meets our mobility needs, but also leads the way in reducing carbon emissions.

Sincerely,

DocuSigned by:
Ricky Serna
5910E8A6255842F...

Ricky Serna
Cabinet Secretary

U.S. Department of Transportation
Federal Highway Administration

1200 New Jersey Ave., SE
Washington, DC 20590

February 20, 2024

In Reply Refer To:
HEPN-30

Mr. Ricky Serna
Secretary
New Mexico Department of Transportation
1120 Cerrillos Road
Santa Fe, NM 87504

Subject: Certification of New Mexico Carbon Reduction Strategy

Dear Secretary Serna:

The Federal Highway Administration (FHWA) has completed our review of the New Mexico Carbon Reduction Strategy required under 23 USC 175. Based on the review, FHWA certifies that the New Mexico Carbon Reduction Strategy meets the statutory requirements.[1]

Certification of this strategy does not indicate FHWA approval or authorization of any specific project. Please continue to coordinate with your FHWA division office on the implementation of programs and projects identified within your Carbon Reduction Strategy.

As a reminder, updates to Carbon Reduction Strategies are required no less frequently than every four years.[2] The FHWA will follow up with States on specific opportunities for improvement in future year strategies and will continue to provide technical assistance and guidance as States continue implementation.

Sincerely,

Emily Biondi

Emily Biondi
Associate Administrator
Office of Planning, Environment and Realty

cc: New Mexico Division Office

[1] 23 USC 175(d)(1) and 175(d)(2)
[2] 23 USC 175(d)(3)

TABLE OF CONTENTS

1 INTRODUCTION

Climate change is affecting every region of the world, including New Mexico. Efforts at all scales and levels of government are necessary to address the threat of climate change. The 2021 Intergovernmental Panel on Climate Change (IPPC) Sixth Assessment Report[1] predicts that increases in drought and fire weather will be a certain consequence of continued climate change in Western North America, along with increases in extreme precipitation events. Reducing greenhouse gas emissions is vital to the health, well-being, and sustainability of life for all.

New Mexico's 2019 Climate Change Strategy[2] paints a grim picture of the current and future impacts of climate change on the state and its residents.

> "We see changes in our weather manifested in hotter and longer summers, more intense storms, and more frequent droughts. We see less predictable and robust harvests of our agricultural products, an increase of natural disasters like flash floods and brushfires, and in the health of New Mexicans- who are experiencing higher rates of asthmas and heat-related illnesses. Warmer year-round temperatures mean additional energy costs to keep residences and businesses cool throughout the year. Our critical infrastructure is vulnerable, including roads, overpasses, bridges, and rail; electrical power distribution systems; drinking water and sewer pipes; and flood control and drainage systems."

Transportation, which includes privately owned cars and trucks, commercial trucking, delivery vehicles, aviation, and rail, is the second largest source of greenhouse gas (GHG) emissions in New Mexico[3]. The decarbonization of the transportation sector will require a combination of policy, regulatory action, markets, personal choices, and private and governmental investment.

On November 15, 2021, President Biden signed the Infrastructure Investment and Jobs Act (IIJA) into law. The IIJA authorized a new Carbon Reduction Program, codified at 23 USC 175, to reduce transportation emissions through the development of state carbon reduction strategies and by funding projects designed to reduce transportation emissions.

[1] IPCC Report available here: https://www.ipcc.ch/assessment-report/ar6/
[2] 2019 New Mexico Climate Strategy, Initial Recommendations and Status Updates available here: https://www.climateaction.nm.gov/wp-content/uploads/sites/39/2023/07/NMClimateChange_2019.pdf
[3] Sharad Bharadwaj et al., "New Mexico Greenhouse Gas (GHG) Emissions Inventory and Forecast" (Prepared for the Center for the New Energy Economy at Colorado State University by Energy and Environmental Economics, Inc., October 27, 2020), available here: https://www.emnrd.nm.gov/ecmd/greenhouse-gas-emissions-analysis/

The IIJA requires each state to develop a Carbon Reduction Strategy (CRS or Strategy) in consultation with the state's Metropolitan Planning Organizations (MPOs) and submit the CRS to the Federal Highway Administration (FHWA) by November 15, 2023. Per the legislation and the FHWA Carbon Reduction Program Implementation Guidance Memo[4], this Strategy must be updated at least every four years and shall:

- support efforts to reduce transportation emissions;
- identify projects and strategies to reduce transportation emissions;
- support the reduction of transportation emissions of the State;
- at the discretion of the State, quantify the total carbon emissions from the production, transport, and use of materials used in the construction of transportation facilities within the state; and
- be appropriate to the population density and context of the State.

Within the context of the Carbon Reduction Strategy, FHWA defines transportation emissions as "carbon dioxide [CO_2] emissions from on-road highway sources of those emissions within a state." Therefore, this will be the focus of NMDOT's strategy, although references to GHG and CO_2 equivalencies are included throughout, as many efforts and inventories are not solely focused on on-road CO_2 emissions reductions. This Strategy incorporates these requirements and captures New Mexico's efforts, initiated by Governor Michelle Lujan Grisham's 2019 Executive Order on Addressing Climate Change and Energy Waste Prevention.

This strategy, with a focus on reducing on-road CO_2 emissions, includes a broad set of activities to reduce on-road CO_2 emissions that generally fall within four categories:

- **Reduce Vehicle Miles Traveled (VMT)**: facilitating the use of alternatives to single occupant vehicle trips, including public transportation facilities and services, pedestrian facilities, bicycle facilities, and shared or pooled vehicle trips.
- **Reduce Transportation Emissions of Vehicles**: facilitating the use of vehicles or modes of travel that result in lower transportation emissions per person-mile traveled, as compared to existing vehicles and modes.
- **Reduce Emissions of NMDOT Operations Including Materials**: facilitate approaches to the operations and construction of transportation assets, as well as improvements to facilities and organizational business practices that result in lower transportation emissions as compared to existing approaches.
- **Carbon Sequestration**: facilitate the development and implementation of projects that capture carbon dioxide through revegetation, mitigation, and restoration of natural and working lands.

[4] FHWA Carbon Reduction Program Implementation Guidance Memo available here: https://www.fhwa.dot.gov/environment/sustainability/energy/policy/crp_guidance.pdf

NMDOT developed this Strategy in coordination with the MPOs and Regional Transportation Planning Organizations (RTPOs) to ensure the activities identified herein are appropriate to the context of the State of New Mexico. To support the efforts to reduce transportation emissions, this Strategy describes the context for carbon reduction in New Mexico, identifies on-going efforts, and lists activities (strategies and projects) that New Mexico plans to undertake in the next four years to reduce on-road transportation emissions and the emissions of the state.

2 New Mexico's Context for Carbon Reduction Strategies

The effectiveness of implementing activities within the Carbon Reduction Strategy depends upon their alignment with the specific context and population density of the state. The NMDOT collaborated with the MPOs and RTPOs to develop the state's contextual framework. Within this framework, the state's economic landscape, demographic composition, and development patterns present distinct opportunities and challenges when striving to reduce transportation-related emissions. This section describes the New Mexico context for carbon reduction strategies. An understanding of the sources of transportation emissions in New Mexico is also critical in shaping the proposed activities in the Strategy. The sources are described in the next section.

New Mexico is a diverse state in terms of people, cultures, landscapes, and travel. The state's transportation system plays a pivotal role in facilitating the efficient flow of people and goods, enhancing the quality of life for its residents, and contributing to the economic vitality of the state, region, and country. New Mexico's unique characteristics create opportunities and challenges to reduce on-road CO_2 transportation emissions.

New Mexico is the 5th largest state, in terms of land area, and one of the most rural states, with only 17 persons per square mile, compared to 87 across the entire United States[5]. Almost one-third of New Mexico's land is federally owned. There are 23 tribes located in New Mexico, 19 Pueblos, three Apache tribes, and the Navajo Nation.

According to the 2020 Census, approximately 770,000 people, or just over 36% of the state's population lives within the Albuquerque Metropolitan Area. Another third lives in urban areas with populations between 5,000 and 200,000 people. Over 25% of the state's population live in areas with populations under 5,000 people. Approximately 20% of New Mexico's population is under the age of 18, and 18.5% of the population is 65 years and older. This subset of the population may not have access to a vehicle or have the ability to drive, thus relying on transit, active transportation, or other drivers to access services, food, and jobs.

[5] New Mexico Economic Development Department's New Mexico Census Data summary available here: https://edd.newmexico.gov/site-selection/census-data/

The 2021 American Community Survey[6] provides insights into the travel patterns of workers in the state. Approximately 72% of workers 16 years and over drove alone to work, 8.5% carpooled, 0.4% used public transportation, 0.6% biked, and 1.6% walked. Additionally, 15.2% of New Mexicans indicated they worked from home. Further, 15.4% of residents do not have an internet subscription, compared to 9.7% in the United States. Please note, some travel patterns may be different than historic worker travel patterns due to the effects of the COVID-19 pandemic.

The rural nature of the state and the fact that the majority of workers drive alone to work indicate that a significant portion of New Mexico's residents rely on traveling via personal vehicles to access services, food, and jobs. Improving access to broadband internet and more efficient modes of transportation has the potential to reduce the need for some vehicle trips.

2.1 Land Use and Transportation Nexus

Land use and transportation are deeply intertwined with each other, and together they shape critical aspects of our built environment that directly relate to efforts to reduce transportation related carbon emissions. Decisions related to the density of building development affect how people move about those spaces. For example, single family residential zoning is a less dense zoning category than multifamily residential zoning (e.g., townhouses, apartments, etc.). Lower building density means the spaces between dwellings and the adjacent commercial spaces are more spread out, and therefore less conducive to walking or riding a bike and more conducive to driving, since distances between destinations are longer. Therefore, less dense land use development patterns tend to increase VMT, decrease the feasibility of walking or biking, and thus impede the reduction of carbon emissions from transportation. (Note: There are numerous other ways land use decisions affect transportation, but for simplicity, this section focuses on the density of building development.)

Table 1. Persons per Automobile Registration in the United States

Year	Persons per Automobile Registration (U.S.)[7]
1920	13.1
1930	5.4
1940	4.8
1950	3.8
1960	2.9

New Mexico's total population, according to the 2020 U.S. Census, is 2.1 million. As of the 1940 U.S. Census, the state's population was 531,818.[8] These numbers indicate that most of New Mexico's development happened during and after World War II, when the national rates of vehicle ownership

[6] U.S. Census American Community Survey Results available here: https://data.census.gov/table?q=United+States&t=Commuting&g=010XX00US_040XX00US35

[7] Transportation Research Board, "Trends in Automobile Ownership and Indicators of Saturation," Table 1 available here: https://onlinepubs.trb.org/Onlinepubs/hrr/1966/106/106-001.pdf

[8] U.S. Census Bureau 1940 Decennial Population Volume New Mexico available here: https://www2.census.gov/library/publications/decennial/1940/population-volume-1/33973538v1ch07.pdf

increased (see Table 1 at right) and then became commonplace. The rise of vehicle ownership is one factor that encouraged and continues to encourage more dispersed land use development patterns.[9]

Changing land use development and transportation patterns in New Mexico is challenging but necessary to achieve climate goals. This requires interagency collaboration, policy alignment across all levels of government, and implementation tools and resources that focus on the intersection of housing, transportation, land use and climate. An additional challenge is that land use decisions are primarily under the purview of local/tribal jurisdictions, where local priorities related to development, growth, and housing density are implemented and thus, impact the transportation network.

Across the state, RTPOs, MPOs, Economic Development Districts, and Councils of Government support local governments in housing coordination and economic development that is appropriate to the region. Local and regional coordination on housing and transportation is critical to support land use decisions that facilitate walking, biking, transit, and economic development.

Land use development policies should include processes to guide the development and growth of communities, with the goal of better coordination between land use and transportation to promote pedestrian and bicyclist safety and mobility, enhance public transportation service, and improve road network connectivity. There are many tools and strategies that local jurisdictions can use to achieve land use and transportation development patterns that support carbon reduction on transportation facilities:

1) develop long-range plans for the region that include a multimodal approach to transportation;
2) integrate smart growth principles into planning and policy documents;
3) adopt form-based codes that regulate development to achieve specific urban forms; and
4) implement transit-oriented development incentives.

The Texas Transportation Institute[10] provides an overview of these tools, issues, and best practices including some that are currently implemented in parts of New Mexico that can be adopted by others.

2.2 Beyond Urban and Rural New Mexico

During the development of this Carbon Reduction Strategy with the state's MPOs and RTPOs, participants emphasized that the activities identified within the strategy should be encouraged anywhere in the state, regardless of the urban or rural context. Urban and rural communities face similar challenges in improving access to transit services, housing coordination and development,

[9] Texas A&M University, Texas Transportation Institute, "Land Use & Transportation" Policy Strategy available here: https://mobility.tamu.edu/mip/strategies-pdfs/travel-options/technical-summary/land-use-planning-4-pg.pdf

[10] Texas Transportation Institute Land Use and Transportation Policy Strategy brief available here: https://mobility.tamu.edu/mip/strategies-pdfs/travel-options/technical-summary/land-use-planning-4-pg.pdf

infrastructure investment, job access, and capacity to implement federally funded transportation projects. As such, the activities in this Carbon Reduction Strategy can be implemented throughout the state.

2.3 Equity Considerations

NMDOT is committed to advancing an equitable transportation system for New Mexico. Carbon reduction activities must be appropriate for and take into consideration the needs of vulnerable, historically disadvantaged or underserved communities across the state. For example, low-income communities may have less access to potentially more expensive alternative fuel vehicles and rural communities may have fewer destinations accessible through active modes such as bicycle and transit. Ensuring carbon reduction projects are sensitive to the context and needs of each community is a critical equity consideration during project selection and development.

3 Sources of On-Road CO_2 Emissions in New Mexico and Measures

Transportation sector Greenhouse Gas (GHG) emissions primarily result from the burning of fossil fuels by motor vehicles and other types of transportation equipment. According to the EPA's "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019[11]," CO_2 emissions due to fossil fuel combustion account for the vast majority of transportation sector total GHG emissions. During the inventory's evaluation period, passenger vehicles and freight trucks were the biggest contributors to transportation sector CO_2 emissions, accounting for approximately 41% and 24%, respectively. Light-duty trucks (sport utility vehicles, pickup trucks, minivans) contributed an additional 17%. Rising Vehicle Miles Traveled (VMT) (see section 3.1 below) caused an increase in on-road vehicle GHG emissions which more than offset modest improvements in vehicle fuel economy.

In 2020, a study conducted by Colorado State University for the New Mexico Energy Minerals and Natural Resources Department analyzed New Mexico's GHG emissions in detail, providing the best estimates to date of New Mexico's recent and projected emissions[12]. The study relied on extensive New Mexico-specific data sources; New Mexico's transportation fossil fuel consumption and emissions estimates for 2018 are summarized below in Table 2. The methodology accounts for GHG emissions associated with combustion of all gasoline and diesel sold within the state; there is no adjustment made to account for either fuel sold in-state, but used to drive miles outside the state, or fuel sold outside

[11] Report available here: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks
[12] Sharad Bharadwaj et al., "New Mexico Greenhouse Gas (GHG) Emissions Inventory and Forecast" (Prepared for the Center for the New Energy Economy at Colorado State University by Energy and Environmental Economics, Inc., October 27, 2020)

state boundaries but consumed within the state. Please note that aviation emissions are not included in the results, as the Carbon Reduction Program is focused on carbon dioxide emissions from on-road highway sources. The analysis uses CO_2 equivalencies as the unit of measure.

Table 2. Transportation fossil fuel consumption and emissions (2018)

Fuel	2018 emissions (MMT CO_2e)
Natural Gas	0.56
Motor Gasoline	7.84
Diesel	6.86
Total emissions	15.26

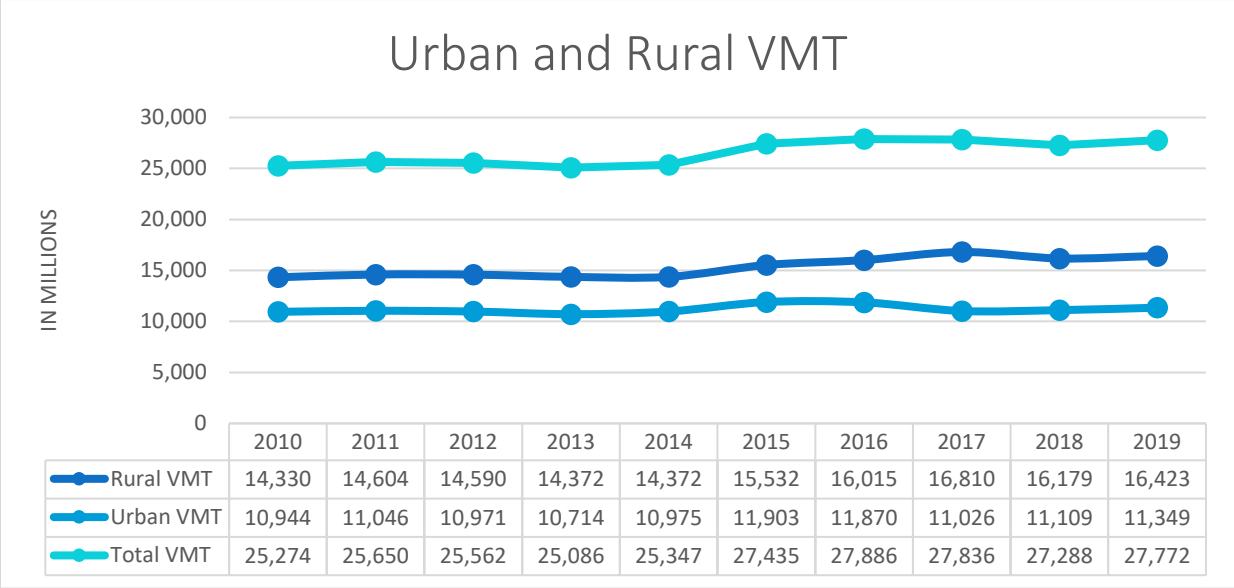
3.1 Vehicle Miles Traveled

Emissions and vehicle miles traveled are linked. The more miles driven, the more emissions from vehicles. Reducing VMT of all vehicles, especially vehicles that emit GHG on the roadways, will help reduce transportation CO_2 emissions and impacts to the roadways that increase maintenance requirements. Unfortunately, VMT continues to increase in New Mexico and across the United States. In 2022, FHWA released a Forecast of Vehicle Miles Traveled[13] based on economic and demographic outlook scenarios for 2022 through 2049. Highlights from the report include:

- Long-term forecast of National Vehicle Miles Traveled has total VMT increasing by 22% from 2019 to 2049;
- Light Duty Vehicle VMT, the largest component of travel demand, is projected to grow by 17% over the next 30 years;
- Combination Truck (tractor unit with one or more trailers) VMT is forecast to increase 57% and Single-Unit Truck (a non-passenger vehicle without a separate trailer) VMT 101% by 2049.

Excluding the outlier years of 2020 and 2021 (due to the onset of the COVID-19 pandemic), New Mexico roads experienced a 9.9% increase in VMT between 2010 and 2019, with the most pronounced increases occurring between 2014 and 2017. In 2018, VMT totaled 27,288 million, with 25% of the VMT occurring on Interstates. Figure 1 illustrates the state's VMT trends from 2010 to 2019. Rural VMT represents approximately 60% of VMT in the state.

[13] 2022 FHWA Forecasts of Vehicle Miles Traveled available here: https://www.fhwa.dot.gov/policyinformation/tables/vmt/vmt_forecast_sum.cfm



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Rural VMT	14,330	14,604	14,590	14,372	14,372	15,532	16,015	16,810	16,179	16,423
Urban VMT	10,944	11,046	10,971	10,714	10,975	11,903	11,870	11,026	11,109	11,349
Total VMT	25,274	25,650	25,562	25,086	25,347	27,435	27,886	27,836	27,288	27,772

Figure 1. NM 2019 Vehicle Miles Traveled (in millions)

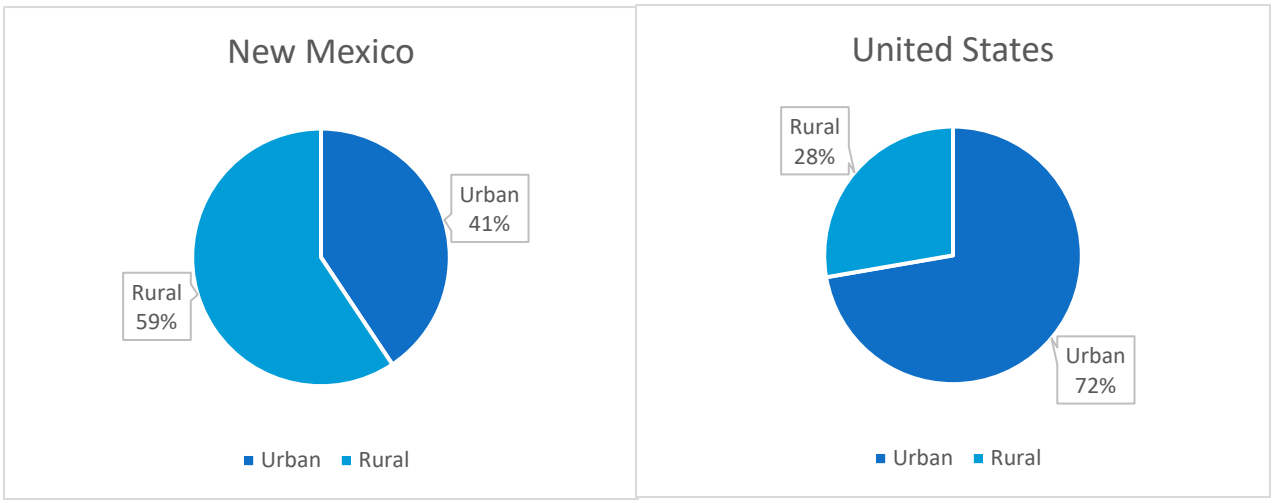


Figure 2: New Mexico and US Urban and Rural VMT Comparison in 2019 Source: https://www.fhwa.dot.gov/policyinformation/statistics/2019/hm44.cfm

Where people are driving the most miles is one factor to consider when determining where to invest in carbon reduction strategies. The United States has a much higher percentage of urban VMT than New Mexico, 72% compared to 41% (Figure 2). Travelers in urbanized areas are more likely to have access to additional modes of transportation, beyond automobiles, compared to people in rural or small towns.

3.2 Electricity and Fuels

Fuel production, including generation of electricity for electric vehicles (EVs), is not traditionally attributed to the transportation sector. [14] In addition to charging EVs, electricity is required to power traffic lights, message boards, and other roadway lighting. Electricity is also used in roadway lighting equipment during construction projects. The transition away from petrochemical and coal sources of electricity in New Mexico is addressed by the state's 2019 Energy Transition Act and is outside the scope of this Carbon Reduction Strategy.

3.3 Materials and Construction

At this time, NMDOT is not attempting to quantify the total carbon emissions from the production, transport, and use of materials used in the construction of transportation facilities within the state due to the lack of data available. NMDOT has active research projects underway to investigate materials that decrease carbon emissions. The findings from these projects will be used to help establish the future emissions inventories needed for quantifying total carbon emissions. However, NMDOT is still including activities in this Strategy that related to carbon reduction in materials and construction processes.

The "embodied" carbon from the construction process should be considered in the emissions of the transportation sector. From the Center for Environmental Excellence by the American Association of State Highway and Transportation Officials (AASHTO)[15], "embodied carbon is the carbon footprint of a material. It considers how many greenhouse gases (GHGs) are released throughout the supply chain. This includes the extraction of materials from the ground, transport, refining, processing, assembly, in-use and finally its end-of-life recycling of disposal." Research and pilot projects are underway across the country to identify opportunities to reduce the embodied carbon in the construction process and ways to quantify the benefits.

3.4 GHG Performance Measure Proposed Rule

On July 7, 2022, FHWA announced a Notice of Proposed Rulemaking (NPRM) for states and municipalities to track and reduce estimated greenhouse gas emissions. The NPRM identified the transportation sector as a large producer of GHG emissions. FHWA proposed utilizing the existing national performance management framework to track estimated tailpipe CO_2 emissions on the National Highway System, which in this case is a function of gallons of fuel sold in a state, a CO_2 factor

[14] This may depend on source-specific sector definitions. Note that the U.S. EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019 began attributing CO_2 emissions generated from electric vehicle charging to the transportation sector in 2017; previously, they had been attributed to the residential and commercial sectors.
[15] AAASHTO's article, "Can Highway Construction Achieve "Net Zero" Carbon Emissions?" available here: https://etapnews.transportation.org/can-highway-construction-achieve-net-zero-carbon-emissions/

for that fuel, and a ratio of National Highway System (NHS) Vehicle Miles Traveled (VMT) to total VMT on all roads in the state.

AASHTO developed a tool and provided a user documentation report[16] to test the sensitivity of the proposed GHG measure calculation to various inputs. The tool helps state DOTs and MPOs project GHG emissions based on fuel consumption. Fuel consumption is assumed to vary based on fleet fuel efficiency, EV adoption, and VMT.

The tool uses 2019 data to inform the estimates of total GHG (in metric tons) and total GHG on the National Highway System (NHS). Table 3 shows the results. The spreadsheet with the calculations is included in the appendix.

Table 3. AASHTO GHG Prediction Tool, New Mexico Results

Description	Baseline (2019)
Total GHG (metric tons)	13,963,742
Total NHS GHG (metric tons)	6,609,044

4 Current Initiatives and Opportunities to Reduce Emissions

The state of New Mexico is working to address climate change across the state and across all sectors. As a result of Governor Michelle Lujan Grisham's Executive Order on addressing climate change, described below, state agencies partnered to develop Climate Change Strategy Reports that identify strategic actions. Reducing GHG emissions from the transportation sector requires developing and implementing a broad range of activities. This section describes NMDOT's current activities and identifies opportunities to reduce the emissions of GHG pollutants of the state within the four-year time horizon of this Strategy.

4.1 Executive Order 2019-003

In January 2019, Governor Lujan Grisham signed Executive Order (EO) 2019-003 on Addressing Climate Change and Energy Waste Prevention[17], announcing that New Mexico will support the 2015 Paris Agreement Goals and set a statewide goal to reduce GHG emissions by at least 45% by 2030, relative to 2005 levels. The EO 2019-003 also created the Interagency Climate Change Task Force (CCTF) to direct the efforts of multiple state agencies to reduce GHG emissions, improve air quality, and protect natural resources. The CCTF established ten interagency Climate Action Teams (CATs) to propose, plan, and implement strategies. The CCTF identified transportation decarbonization, including electrification, as

[16] AASHTO tool available here: https://www.tpm-portal.com/tool/ghg-performance-calculator-draft/
[17] Gov. Lujan Grisham Executive Order 2019-003 available here: https://www.governor.state.nm.us/wp-content/uploads/2019/01/EO_2019-003.pdf

critical to reaching state's GHG reduction goals. State agencies, including NMDOT, are working together to advance decarbonization strategies, and recent successes include the May 2022 adoption of a Clean Cars Rule[18].

Since the signing of EO 2019-003, the CCTF released three Climate Strategy Reports[19]. The 2019 New Mexico Climate Strategy details initial recommendations and provides a status update. This report identifies transportation as the second largest source of GHG emissions in the state and discusses two main strategies within the transportation sector: increasing clean vehicle adoption and reducing Vehicle Miles Traveled (VMT). The subsequent strategy reports, in 2020 and 2021, describe statewide efforts, successes, new data, and next steps.

4.2 New Mexico 2045 Plan

NMDOT completed the New Mexico 2045 Plan (*NM 2045 Plan*)[20], the state's federally mandated long-range statewide transportation plan, in July 2021. NMDOT's commitment to reducing transportation emissions is integrated throughout the *NM 2045 Plan's* goals, objectives, and strategies. Relevant goals, objectives, and strategies are presented in Table 4.

Table 4. NM 2045 Plan Goals, Objectives, and Strategies Relevant to the CRS

Goal	Objectives	Strategies
Mobility and Accessibility *Efficiently and equitably invest in infrastructure and technology to provide reliable multimodal access and connectivity, improve mobility, foster economic growth, and minimize transportation's contribution to climate change*	--Improve mobility and accessibility in strategic corridors. --Facilitate the transition of the fleet to electric vehicles and alternative fuels --Expand transportation choice through multimodal investments and complete streets design	--Invest in and establish partnerships to build direct current fast charging (DCFC) stations along EV corridors and expand corridors to provide better coverage across NM. --Promote and support the expansion of vanpooling services to close transit service gaps, improve mobility and reduce Vehicle Miles Traveled (VMT). --Develop a NMDOT Climate Change Plan to develop adaptation and resiliency strategies as well as strategies to reduce transportation emissions. --Update Guidance Manuals and processes to include Complete Streets Principles. Develop and conduct training for staff on process changes. Integrate Complete Streets approaches into the development process of new and reconstruction projects.
Program Delivery *Deliver transportation programs through*	--Implement projects and programs that reduce negative	--Establish procedure guidelines for integrating context-sensitive solutions (CSS). Identify project eligibility to determine where the CSS process will

[18] Information on the Clean Car Rule available here: https://www.env.nm.gov/the-road-to-clean-cars-new-mexico/
[19] New Mexico Climate Strategy Reports available here: https://www.climateaction.nm.gov/climate-strategy-reports/
[20] 2045 Plan available here: https://www.dot.nm.gov/planning-research-multimodal-and-safety/planning-division/nmdots-long-range-statewide-transportation-plan/

approaches and processes that improve resiliency, respect New Mexico's unique cultures, and promote fiscal and environmental stewardship	impacts on the natural environment	be deployed. Train staff on CSS procedures and tools. --Study revenue options and projections, continue coordination with RUC West (a multi-state organization dedicated to exploring Road Usage Charging (RUC)) to learn from efforts from other states and build legislative support for alternative revenue sources to supplement motor fuel taxes, including electric vehicle fees and road user charges. --Continue to explore road user charge pilot project in partnership with neighboring states. Establish evaluation process, collect data, and evaluate performance.
Safety *Improve safety for all transportation system users*	--Reduce the number of nonmotorized fatalities and serious injuries Invest in infrastructure and programs that improve pedestrian safety.	--Implement recommendations from the NM Bike Plan for reconstruction and rehabilitation projects to increase safety for local and tourist cyclists and reduce VMT. --Implement recommendations from the NMDOT Pedestrian Safety Action Plan.

4.3 Reducing VMT

Vehicle Miles Traveled (VMT) is a measure that reflects the movement of all vehicles in a geographic area over a given period of time. This measure encompasses all vehicle types and is calculated as the sum of the number of miles traveled by each vehicle. Currently, measures of VMT do not differentiate between electric vehicles, hybrid vehicles, or internal combustion vehicles. Strategies aimed at reducing VMT generally focus on causing a mode shift, which is changing a vehicle trip from a single-occupancy vehicle (SOV) trip to a more efficient mode including transit, carpooling, bicycling, or walking. Reducing the number of trips and replacing trips with more efficient forms of transportation has the potential to reduce on-road CO_2 emissions as there are fewer miles traveled by vehicles that emit CO_2 while on the road. Providing safe, accessible, comfortable, equitable, and interconnected networks for bicycling, walking, and accessing transit creates an integrated, intermodal transportation system that provides travelers with a real choice of transportation modes.

While the main goal of reducing VMT is to reduce GHG emissions, other potential benefits include reductions in overall air pollutant emissions, water pollution, wildlife mortality, and traffic congestion; improvements in health and safety; and savings due to reduced maintenance costs of the roadways and vehicles.

4.3.1 Funding Active Transportation

NMDOT administers numerous federal and state funding programs that support the planning, design, and construction of transportation infrastructure for people walking, biking, rolling, and accessing transit. Improvements to increase connectivity, safety, and access include the installation of: bike lanes, multiuse trails, sidewalks, improved crossings at intersections or mid-block locations, lighting, bike parking, benches, and bus shelters. Appropriate improvements vary depending on roadway context, existing conditions, current and future land use, and local and regional planning documents.

Funding programs for these types of infrastructure include the Transportation Alternatives Program (TAP), Congestion Mitigation and Air Quality Improvement Program (CMAQ), Carbon Reduction Program (CRP), and Transportation Project Fund (TPF). Multimodal safety projects also may be funded with the Highway Safety Improvement Program (HSIP). Active transportation improvements are also funded with more general funding sources including Surface Transportation Block Grant funds. Depending on the funding program, funds are awarded to eligible Tribal/ Local Public Agencies as well as NMDOT-led projects. NMDOT will continue to administer funding programs to support projects that improve safety and access to active transportation infrastructure and support a mode shift for the traveling public.

4.3.2 New Mexico Prioritized Statewide Bicycle Network Plan

NMDOT adopted the New Mexico Prioritized Statewide Bicycle Network Plan (NM Bike Plan)[21] in 2018. The plan is a long-range infrastructure plan that identifies which NMDOT owned and maintained roadways are desirable for bicycle infrastructure investment through the establishment of a statewide priority network, as called for in the New Mexico 2040 Plan (NMDOT's prior long-range state transportation plan). The plan provides design guidelines to inform the implementation of bikeways along the priority network during major roadway rehabilitation or reconstruction.

The NM Bike Plan is one of the ways NMDOT is investing in bicycle infrastructure and will improve opportunities for people to ride a bike to work, school, or services, instead of driving.

[21] NM Bike Plan available here: https://www.dot.nm.gov/planning-research-multimodal-and-safety/planning-division/multimodal-planning-and-programs-bureau/bicycle-pedestrian-and-equestrian-coordinator/

4.3.3 Transit

Investment in transit services in New Mexico is led by NMDOT's Transit and Rail Division[22] and implemented by public and non-profit transit providers across the state. The Bureau works to increase access to reliable transit services including sponsoring the NM Vanpool program, managing the NMDOT Park and Ride intercity bus service, administering federal transit grant funding and programs for public and private non-profit transit systems, and assisting local governments to develop regional transit districts. Improving access to transit increases opportunities for people to eliminate or reduce single-occupant vehicle trips, reducing the number of vehicle miles traveled, and emissions.

Figure 3: New Mexico Park and Ride and Railrunner Commuter Train

4.3.3.1 Connect New Mexico: the NM Statewide Public Transportation Plan

NMDOT's Transit Bureau began updating the statewide public transportation plan in the fall of 2022 to evaluate the needs of New Mexico's rural, urban, and intercity public transportation services[23]. The new plan will identify, define, and prioritize transit programs and investments to fill gaps in the existing network of services across the state. The plan will present transit investment projects and programs for the next ten years. The plan will provide recommendations that align with goals of the state's Long Range Transportation Plan: Safety, Mobility and Accessibility, Program Delivery, and Asset Management.

The Transit Bureau is developing strategies to address unmet needs. These strategies could include:

- New services to meet the existing and future needs:
  - Maintaining existing services
  - New areas of service
  - New service designs
  - Additional vehicles and other capital equipment
- Coordination of human service and transit services

[22] NMDOT's Transit Bureau's website available here: https://www.dot.nm.gov/planning-research-multimodal-and-safety/modal/transit-rail/
[23] Connect New Mexico project page available here: https://www.connectnmstudy.com/

- Wide variety of opportunities to combine services, training, safety programs, dispatching, or any aspects of service that could be coordinated.
- Consolidated services.

4.3.4 Metropolitan and Regional Planning

Metropolitan and regional transportation planning is conducted by the state's five Metropolitan Planning Organizations (MPOs) and seven Regional Transportation Planning Organizations (RTPOs). MPOs are federally designated forums for cooperative decision making in metropolitan areas with populations over 50,000 people. The RTPOs are state designated forums for cooperative planning and decision making in areas outside of the metropolitan areas. These organizations work with their member entities to enhance the planning, coordination, and implementation of statewide strategic long-range transportation plans and transportation improvement programs with an emphasis on addressing the needs of their regions. MPOs develop Metropolitan Transportation Plans and RTPOs develop Regional Transportation Plans to capture the regional transportation context, goals, and priorities of the regions to prioritize transportation investments. The state's MPOs and RTPOs are critical partners in development and implementation of transportation carbon reduction strategies and projects, especially transit, multimodal prioritization and investment, and housing and land use coordination to improve access to multimodal transportation options.

4.3.4.1 Housing Coordination and Carbon Reduction

Land use development patterns, housing, and transportation networks are intrinsically linked. A National Academy of Sciences Special Report[24] discusses the nexus of land use, housing, and transportation to reduce VMT. On land use, the authors state that the impact of development density alone may not create a significant impact on VMT, and that "a diversity of land uses those results in locating desired destinations, such as jobs and shopping, near housing (preferably in centers) and improved accessibility to these destinations from either home or work are also necessary." In the same report, the authors conclude development designs and street networks that provide connectivity and provide multimodal options, in addition to demand management policies, are important to VMT reduction.

The Infrastructure Investment and Jobs Act (IIJA) made several additions to the metropolitan transportation planning process to integrate housing considerations including:

- updating the policy (23 U.S.C. 134(a)(1)) to include, as items in the national interest, encouraging and promoting the safe and efficient management, operation, and development of surface transportation systems that will better connecting housing and employment;

[24] Driving and the Built Environment: The Effects of Compact Development on Motorized Travel, Energy Use, and CO_2 Emissions -- Special Report 298, available here: https://doi.org/10.17226/12747

- requiring the metropolitan transportation planning process for a metropolitan planning area to provide for consideration of projects and strategies that will promote consistency between transportation improvements and State and local housing patterns (in addition to planned growth and economic development patterns).

NMDOT will work with the MPOs and RTPOs to determine how to best integrate transportation into local and regional housing, land use, transportation, and economic development planning efforts.

4.3.5 Safety Initiatives

Improving the safety of the transportation network is critical to make walking or biking a more attractive option to people. NMDOT has several safety initiatives in development or in implementation. In 2021, NMDOT adopted the NMDOT Pedestrian Safety Action Plan[25] that provides NMDOT with strategic actions for how to make pedestrians safer in New Mexico. Actions include process, infrastructure, and educational recommendations.

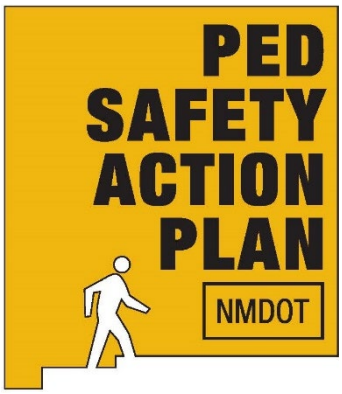


Figure 4. NMDOT Pedestrian Safety Action Plan Logo

NMDOT is currently developing a Vulnerable Road User (VRU) Safety Assessment[26] that will identify high risk areas in New Mexico for vulnerable road users, which includes bicyclists, pedestrians, people using mobility assistance devices, and other non-motorized means of transportation (skateboards, roller skates, etc.). The VRU Safety Assessment will inform the development of the department's Strategic Highway Safety Plan.

NMDOT also administers numerous behavioral programs designed to reduce crashes and fatalities on New Mexico Roadways identified in the NMDOT Highway Safety Plan[27]. The Look for Me Campaign is a travel safety campaign partnership between the University of New Mexico Center for Injury Prevention, Research and Education (CIPRE) and NMDOT's Traffic Safety Division.

4.3.6 Opportunities to reduce VMT

In addition to the activities described above, NMDOT will pursue additional strategies to reduce VMT in the state. One opportunity is to explore options to reduce the travel of NMDOT employees. Continued support for virtual meetings and alternative work sites, coupled with identifying options to incentivize non-single occupancy vehicle trips for NMDOT employees has the potential to significantly reduce non-essential miles traveled. A related opportunity is partnering with state and local agencies to increase

[25] NMDOT's Statewide Pedestrian Safety Action Plan available here: WalkSafeNewMexico.com
[26] NMDOT's Vulnerable Road User Safety Assessment and Strategic Highway Safety Plan project website available here: https://newmexicodotshsp.com/
[27] NMDOT's Traffic Safety Diivision's webpage available here: https://www.dot.nm.gov/planning-research-multimodal-and-safety/modal/traffic-safety/

access to broadband thus reducing the number and distance of vehicle trips to jobs, goods, and services. Specifically, NMDOT has been working with the New Mexico Office of Broadband Access and Expansion[28] to connect people to affordable, reliable high-speed internet.

NMDOT works with partners across the state to support educational campaigns and outreach for active transportation events, including International Walk to School Day, International Bike to School Day, Pedestrian Safety Month, National Dump the Pump Day, Earth Day, Bike to Work Day, and more. NMDOT will continue these outreach efforts and identify additional opportunities.

Adjusting how NMDOT identifies, develops, and implements projects provides opportunities to reduce VMT. NMDOT is currently developing a Complete Streets Strategic Plan that will function as a road map for the Department to establish standards and/or policies that will ensure the safe and adequate accommodation of all users of the transportation system, including pedestrians, bicyclists, public transit riders, children, older individuals, individuals with disabilities, motorists, and freight vehicles. Further, NMDOT can explore improvements to the project development process to ensure projects will not result in increased VMT yet will still serve the needs of the traveling public.

Research and partnerships provide opportunities to develop strategies to reduce VMT. NMDOT is participating in the Road Usage Charging America Consortium, which is a multistate consortium of state transportation organizations that facilitates development and sharing of best practices, ideas, and information on Road Usage Charge[29]. Developing projects also include strategic support of transit-oriented development in communities and studying the feasibility of micro-transit for transit providers across the state.

4.4 Reducing Transportation Emissions of Vehicles

NMDOT's efforts around electrification are focused on facilitating the use of vehicles or modes of travel that result in lower transportation emissions per person-mile traveled, as compared to existing vehicles and modes. Strategic investment in alternative fuel charging infrastructure coupled with low-emission and zero-emission standards for new cars and trucks offered for sale in New Mexico are the core activities within this strategy.

4.4.1 Alternative Fuels Corridor Designation

In response to the provisions in 23 U.S.C. 151, the Federal Highway Administration (FHWA) has designated alternative fuel corridors to support installation of EV charging, hydrogen, propane, and natural gas fueling infrastructure at strategic locations along major national highways. In July 2020, FHWA announced the first designation of alternative fuel corridors in New Mexico, followed by

[28] Information on the New Mexico Office of Broadband Access and Expansion available here: https://connect.nm.gov/office-of-broadband.html

[29] More information on RUC America available here: https://www.rucwest.org/

subsequent designations[30]. Designation of alternative fuel corridors creates eligibility for funding under the National Electric Vehicle Infrastructure (NEVI) Formula Program and the Charging and Fueling Infrastructure Discretionary Grant Program.

The goal of the national network is to:

- Accelerate equitable adoption of EVs, including for those who cannot reliably charge at home.
- Reduce transportation-related greenhouse gas emissions and help put the U.S. on a path to net-zero emissions by no later than 2050.
- Position U.S. industries to lead global transportation electrification efforts and help create family-sustaining union jobs that cannot be outsourced.

NMDOT and the New Mexico Energy Minerals and Natural Resources Department are partnering to improve and designate alternative fuel corridors in the state including hydrogen and electric.

4.4.2 Clean Car Rules

On May 5th, 2022, the New Mexico Environmental Improvement Board (EIB) voted to adopt New Motor Vehicle Emission Standards as part of the New Mexico Administrative Code, with a July 1, 2022 effective date. The Clean Car Rule sets low-emission and zero-emission standards for new cars and trucks offered for sale in New Mexico. The Albuquerque-Bernalillo County Air Quality Control Board followed this decision by adopting the nearly identical Clean Car Rule specific to their jurisdiction.

The adoption and implementation of this rule is projected to produce significant reductions in GHGs and smog-forming pollutants. It will also reduce health-damaging emissions of particulate matter and toxic air contaminates.

On July 3, 2023, Governor Lujan Grisham announced a proposal for Advanced Clean Cars and Advanced Clean Trucks rules to further advance New Mexico's goals of increasing access to zero-emission vehicles such as electric cars and hydrogen trucks. The Advanced Clean Car rules apply to the automakers, not auto dealers or consumers, and require automakers to deliver an increasing percentage of new zero-emission cars and light duty trucks for sale in New Mexico each year. If adopted, the rules will result in the requirement that by 2032, 82% of all new vehicles delivered by the automakers to New Mexico are zero-emission vehicles. [31]

NMDOT will coordinate with the New Mexico Environment Department on the development and implementation of these rules.

[30] For the current list of designated routes in New Mexico visit: https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/all_corridors/

[31] Information on Advanced Clean Cars and Advanced Clean Trucks available here: https://www.env.nm.gov/transportation/

4.4.3 New Mexico Electric Vehicle (EV) Infrastructure Deployment Plan

In July 2022, NMDOT adopted its New Mexico EV Infrastructure Deployment Plan[32]. The Plan is required for the state to access approximately $38 million in federal funds over 5 years, as authorized in the 2019 IIJA. The plan outlines how New Mexico will use National Electric Vehicle Infrastructure (NEVI) funds to deploy publicly accessible direct current (DC) fast chargers along Interstate corridors over the next two years. It also describes how the state will continue to facilitate the deployment of publicly accessible chargers to serve community, recreation, and other needs by leveraging additional funding sources and builds on existing state and private sector initiatives.

Figure 5. Electric Vehicle Charging Stations at NMDOT District 3

4.4.4 Regional Electric Vehicle (REV) United States Plan

In October 2017, the Governor of New Mexico signed a memorandum of understanding (MOU) along with seven other states (Arizona, Colorado, Idaho, Montana, Utah, and Wyoming) to provide a framework for creating Intermountain West Electric Vehicle Corridors that will make it possible to drive an EV across major transportation corridors in the west with adequate opportunities for recharging. In 2019, the signatory states signed a revised MOU to update their EV corridor goals based on the progress made since 2017. Activities currently underway include developing best practices and procedures to enhance EV adoption, coordinating on EV charging station locations, creating voluntary minimum standards, and leveraging economies of scale. The group is facilitated by the National Association of State Energy Officials[33].

4.4.5 Freight Planning and Investments

In March 2023, NMDOT adopted the New Mexico 2045 Freight Plan Update[34] that establishes the vision of how New Mexico maintains and improves the condition and performance of the multimodal freight network in the state. Within the Program Delivery Goals of the Plan, NMDOT includes an objective related to carbon reduction, indicating the department will work to reduce emissions by promoting cleaner commercial fleet technologies and alternative fuel corridors, as well as help facilitate the

[32] NM EV Infrastructure Deployment Plan available here: https://www.dot.nm.gov/nevi/
[33] Information on REV-US available here: https://www.naseo.org/issues/transportation/regional-collaboration
[34] New Mexico 2045 Freight Plan Update available here: https://www.dot.nm.gov/planning-research-multimodal-and-safety/planning-division/multimodal-planning-and-programs-bureau/technical-and-freight-planning/

transition of the commercial fleet to electric vehicles, zero emission vehicles and other alternative fuel vehicles that reduce carbon dioxide and other GHG emissions.

The NM Freight Plan identifies critical freight corridors and prioritizes funding for strategic improvements. These priorities in conjunction with clean truck rules have the potential to reduce the emissions of freight traveling in and through the state.

4.4.6 Opportunities to Reduce the Emissions of Vehicles

On October 16, 2023, Governor Lujan Grisham signed Executive Order 2023-138[35], "Transitioning the State of New Mexico's Vehicle Fleet to Net Zero Emissions. The EO committed New Mexico's state agencies to acquire zero emission vehicles for all new vehicle acquisitions where one or more zero-emissions vehicle (ZEV) options for the appropriate class of vehicle are available. The order also calls for NMDOT and the New Mexico General Services Department to institute state fleet purchase requirements.

Figure 6. One of NMDOT's fully electric vehicles

NMDOT and the New Mexico Energy Minerals and Natural Resources Department are partnering to develop a Fleet Transition Plan and Assessment for New Mexico state agencies to replace light- and medium-duty vehicles with electric vehicles and/or plug-in hybrid vehicles. This Fleet Transition Plan, in addition to NMDOT utilizing current federal funding programs to support investment in low or zero emission vehicles, will increase the demand for and speed up the transition to more efficient vehicles in the state.

4.5 Reduce Emissions of NMDOT Operations and Materials

NMDOT is working to reduce the transportation emissions produced from the way the department operates, conducts business, and selects materials. Improvements include building efficiency upgrades, shifting to paperless processes, building resilient infrastructure, selection and deployment of less energy-intensive materials, and project development processes that provide opportunities to reduce the CO_2 emissions of the state.

4.5.1 Energy Efficiency Upgrades

NMDOT invested in energy efficiency upgrades and installed solar panels and electric vehicle infrastructure on NMDOT properties. Upgrades are complete at the General Offices in Santa Fe, District

[35] Executive Order 2023-138 available here: https://www.governor.state.nm.us/wp-content/uploads/2023/10/Executive-Order-2023-138.pdf

5 offices in Santa Fe, and District 3 offices in Albuquerque. The NMDOT Statewide Facilities Bureau plans to implement additional upgrades over the next three years. An energy audit of the improvements at District 3 offices estimated an annual emissions reduction of 439 metric tons of CO_2. An audit of the District 5 improvements estimated an annual emissions reduction of 411 metric tons of CO_2.

4.5.2 Paperless Processes

Shifting NMDOT processes from paper to digital has the potential to save time, improve accuracy, and reduce emissions from NMDOT operations. NMDOT participated in the FHWA Every Day Counts initiative to begin paperless processes at NMDOT construction sites, known as e-ticketing. Additional efforts to digitize as-builts (construction plans showing how the project was designed and constructed) are underway. NMDOT also adopted electronic document signing for contracts and other forms, reducing the need for mailing or transporting documents of record to numerous offices around the state.

4.5.3 Building Resilient Infrastructure

Investing in resilient infrastructure, or infrastructure that can better withstand extreme events and natural hazards, reduces the need to replace infrastructure damaged by current or future extreme weather events, reduces maintenance needs and costs, reduces life-cycle costs of the infrastructure, and provides an opportunity to incorporate green stormwater infrastructure into projects.

The Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program is designed to help make surface transportation more resilient to natural hazards. PROTECT allocates federal funding to states by formula and is guaranteed through Federal Fiscal Year 2026. Eligible activities must either improve the resilience of existing surface transportation infrastructure to natural hazards or be designed for resilience purposes. NMDOT is currently developing a Resilience Improvement Plan (RIP) to identify critical NMDOT assets that are vulnerable to natural hazards and will help identify potential projects. The final RIP is expected fall 2023.

4.5.4 Opportunities to Reduce Emissions of NMDOT Operations and Materials

Identification of construction materials and processes that result in lower GHG emissions is an on-going area of research and development. NMDOT is participating in research projects and developing new projects quantifying the emissions benefits of using various construction materials and approaches, including balanced asphalt mix designs, performance based concrete requirements, recycled asphalt and concrete used in road base construction, sources of materials such as those which are locally produced, and alternative low-carbon and sustainable materials.

The NMDOT Statewide Maintenance Bureau replaced all traffic signal heads with LED lights and is beginning to replace streetlights with LED lights. The Bureau is identifying opportunities to partner with communities on lighting and maintenance agreements to upgrade the lights on a faster timeline.

Another opportunity is to pursue a project development approach that will help project developers and stakeholders implement more sustainable, resilient, and equitable projects. The external verification of project-specific sustainability measures via tools such as Envision[36] has the potential to reduce life-cycle emissions by helping decision makers and project teams identify sustainable approaches during infrastructure project planning, design, and construction. NMDOT will explore opportunities to provide trainings to NMDOT staff and consultants on evaluation tools and strategies and explore opportunities to incorporate an evaluation tool in the project development process.

4.6 Carbon Sequestration

Biologic carbon sequestration practices, especially along the NMDOT right-of-way, has the potential to capture and store CO_2. From FHWA's Guidance Memo on State DOTs Leveraging Alternative Uses of the Highway Right-of-Way[37], "vegetation management practices along the highway ROW can affect the amount of carbon that is biologically sequestered or removed from the atmosphere." Treatments, such as increased mowing heights and planting native grasses, can increase the amount of carbon that is absorbed from the atmosphere and stored in the soil." NMDOT has been implementing projects and practices including wetland mitigation, land restoration, and green stormwater infrastructure improvements.

Figure 7. Roadside vegetation management utilizing native species

4.6.1 Wetland Mitigation

The NMDOT and NM Department of Game & Fish (NMDGF) are coordinating to develop a plan to use NMDOT water rights to expand and create wetlands on NMDGF-managed lands. The NMDOT owns significant water rights purchased during construction projects and is exploring ways to use this valuable resource. When the water rights are used to create or enhance wetlands, NMDOT can "bank" the wetlands through an agreement with the FHWA and the U.S. Army Corps of Engineers that can be used in the future to offset construction impacts to wetlands. This will reduce future project costs and prevent construction delays by streamlining the wetland mitigation process. The NMDGF will manage the wetlands for waterfowl and other wildlife habitat, while providing expanded opportunities for

[36] Institute for Sustainable Infrastructure, Envision Overview: https://sustainableinfrastructure.org/envision/overview-of-envision/

[37] FHWA"s Memo on State DOTs Leveraging Alternative Uses of the Highway Right-of-Way Guidance available here: https://www.fhwa.dot.gov/real_estate/right-of-way/corridor_management/alternative_uses_guidance.cfm

sportsmen, birdwatchers, and tourists. An added benefit is that wetlands have a remarkable capacity to sequester carbon by storing highly stable carbon, and this joint agency venture will assist in achieving national and state carbon reduction goals.

4.6.2 Green infrastructure

The National Cooperative Research Program's report "Landscape Design Practices for Roadside Water Management: Domestic Scan 16-02[38] developed a transportation specific definition for green infrastructure. The definition included "roadside stormwater management, Low Impact Development or LID, hydro-modification, and watershed actions that conserve water, buffer climate change impacts, improve water quality, water supply, public heath, and restores and protects rivers, creeks and streams as a component of transportation development projects and operations." NMDOT has been incorporating green infrastructure into projects, as appropriate, and updating guidance and practices to institutionalize the approach.

NMDOT is incorporating green stormwater infrastructure into projects as opportunities arise. Further, the Department is currently updating the Drainage Design Manual to include standard drawings, guidance, and additional resources on when, where, and how to include green infrastructure into NMDOT projects.

To best maintain installed green infrastructure, the NMDOT Asset Management Division is incorporating the location and relevant project information into the Maintenance Management System, a database for tracking assets and maintenance needs.

4.6.3 Context Sensitive Solutions

Context Sensitive Solutions (CSS) functions within the NMDOT Environmental Bureau and is an inclusive process where community members help shape transportation projects so that the end results reflect the values and unique character of New Mexico's cities, towns, and villages. CSS is a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. NMDOT's use of this approach often leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions. NMDOT will continue to implement this approach in the project development process and continue trainings of NMDOT staff on the process to further understanding of approach and its implementation.

5 ACTIVITIES TO REDUCE TRANSPORTATION CO_2 EMISSIONS

This section is comprised of NMDOT's carbon reduction activities to meet requirements of the CRS and to advance NMDOT's efforts to reduce on-road emissions in the state. These activities and the emissions

[38] Report available here: https://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-68A_16-02.pdf

reduction benefits are described in Section 4 of this document. Within each of the tables, one for each carbon reduction category, a set of activities is listed, and the following information provided:

- Activity Type: the activity is described as either a project or a strategy. Projects are discrete activities that can be tracked with a control number for federally funded projects, or specific limits. A strategy is a broader set of actions.
- Description: a brief description of the activity. Additional context for the activities is provided in Sections 4.3—4.6.
- Status: activities that have already been initiated or are part of NMDOT's processes are described as on-going, while new activities have been identified as part of the strategy development process.
- Related Control Number: If an activity has been or will be funded with Federal funds or is regionally significant, a project is identified in the NMDOT Statewide Transportation Improvement Plan (STIP). Project information is available by searching the STIP database[39] for the control number. Searches can also be conducted by project type, funding source, or programmed year.
- Responsible Parties: This field lists the responsible agency and group within the agency to implement the activities.
- Implementation Partners: In addition to the responsible parties, the activity can be coordinated and implemented in partnerships at the state, regional, or local levels. Partners include Federal agencies, state agencies, Metropolitan Planning Organizations, Regional Transportation Planning Organizations, Regional Transit Districts, Economic Development Districts, Tribal entities, and local public agencies.

[39] NMDOT Statewide Transportation Improvement Program available here: https://estip.dot.state.nm.us/

5.1 CRS Activities to Reduce VMT

Activity Type	Description	Status	Associated Control Number	Responsible Parties	Implementation Partners
Strategy	Implement the strategies identified in the NMDOT's long range statewide transportation plan, *NM 2045 Plan*.	On-going		Department-wide	State Regional Local
Strategy	Implement infrastructure improvement recommendations identified in the New Mexico Prioritized Statewide Bicycle Network Plan during roadway reconstructions and major rehabilitation projects, and as opportunities arise during other roadway projects.	Plan adopted 2018, implementation ongoing		Department-wide, NMDOT Districts, NMDOT Design Centers	State Regional Local
Strategy	Implement recommendations in the New Mexico Pedestrian Safety Action Plan.	Plan adopted 2021, implementation ongoing	U900320	Department-wide, NMDOT Districts, NMDOT Design Centers	State Regional Local
Project	Develop a Vulnerable Road User (VRU) Safety Assessment to identify locations of crashes involving vulnerable road users (pedestrians and bicyclists) and identify areas for improvement. Incorporate VRU Assessment into Strategic Highway Safety Plan.	VRU in-development expected 11/15/2023	9901180	NMDOT Planning Division	State

Strategy	Explore opportunities and options to incentivize non-Single Occupancy Vehicle (SOV) trips by commuting NMDOT employees (i.e., count some/all commute time by transit or active modes as productive time, subsidize bike repairs and transit passes, or other eligible activities under the CMAQ Program).	New		NMDOT Leadership	State
Strategy	Provide opportunities and resources for virtual NMDOT meetings to reduce travel.	On-going and as opportunities arise		NMDOT Leadership	State
Strategy	Provide alternative work sites and flexible schedule options for NMDOT employees to reduce commuting distances.	On-going		NMDOT Leadership	State
Strategy	Continue to fund Active Transportation projects, and projects that reduce emissions and VMT with TAP, RTP, CRP, CMAQ, and HSIP (as appropriate) funding programs.	On-going	Numerous	NMDOT Planning Division	State
Strategy and Project	Continue educational campaigns and outreach for active transportation events, including International Walk to School Day, International Bike to School Day, Pedestrian Safety Month, National Dump the Pump Day, Earth Day, Bike to Work Day, Bike Month and more as opportunities arise.	On-going and as opportunities arise	U900590	NMDOT Planning Division, NMDOT Communications Division	State Regional Local

Project	Develop a Complete Streets Strategic Plan for NMDOT to adopt Complete Streets standards and/or policies. The strategic plan will function as a road map for NMDOT to establish standards and/or policies that ensure the safe an adequate accommodation of all users of the transportation system, including pedestrians, bicyclists, public transportation users, children, older individuals, individuals with disabilities, motorists, and freight vehicles.	Started in June 2023, expected summer 2024	P923020	NMDOT Planning Division	State
Strategy and Project	Promote and support the expansion of vanpooling services to close transit service gaps, improve mobility, and reduce VMT.	On-going		NMDOT Transit and Rail Division	State Regional Local
Project	Complete the New Mexico Statewide Public Transportation Plan that will evaluate the needs of New Mexico's rural and intercity public transportation services.	Started in October 2022, expected Fall 2023		NMDOT Transit and Rail Division	State
Strategy	Support efforts in New Mexico to advance initiatives to integrate transportation into housing and land use decision making.	On-going and as opportunities arise		NMDOT Planning Division	State Regional Local
Project	Continue to support the operations and maintenance of the New Mexico Rail Runner Express, operated by Rio Metro Regional Transit District.	On-going	TA00434	NMDOT Transit and Rail Division	State Regional

Strategy	Support MPOs in developing strategies to integrate housing and transportation planning into local land use decisions/policies (new transportation planning factor under IIJA).	New	P123030; P523060; P323000; P123040; P523070	NMDOT Planning Division	State Regional
Strategy	Coordinate with the New Mexico Office of Broadband Access and Expansion to utilize the NMDOT right-of-way to deploy broadband infrastructure.	On-going		NMDOT Leadership	State Regional Local
Strategy	Explore developing project review requirements that assess the emissions impacts of vehicular capacity projects for inclusion in the NMDOT Location Study Procedures Guidebook.	New		NMDOT Leadership, Planning Division, Environmental Bureau	State
Strategy	Pursue opportunities to support Transit Oriented Development.	New		NMDOT Transit and Rail Division	State Regional Local
Project	Complete a microtransit study to identify best practices for rural microtransit in states comparable to New Mexico. Develop a step-by-step guide to assess microtransit adoption for NM agencies considering the microtransit option.	Initiated in August 2023		NMDOT Transit and Rail Division	State
Project	RUC West- Continue participation in the Road Usage Charging Consortium (RUC West).	On-going	TPF5(451)	NMDOT Research Bureau, NMDOT Leadership	State

5.2 CRS Activities to Reduce Emissions of Vehicles

Activity Type	Description	Status	Associated Control Number	Responsible Parties	Implementation Partners
Strategy	Implement low emission vehicle (LEV) standards at the state level (Clean Car Rule), adopted July 1, 2022.	Rule Adopted and in effect 7/1/2022		NMED	State
Strategy	Support rule making efforts of the state for advance car and advance truck rule	Proposed rule announced July 2023, hearings scheduled for October 2023		NMED and NMDOT	State
Strategy and Projects	Implement the strategies and investments identified in the NMDOT NEVI plan, including an emphasis on electrifying and hydrogen-izing Interstate and US Highway routes as a priority. Invest in and establish partnerships to build direct current fast charging (DCFC) stations along EV corridors and expand corridors to provide better coverage across NM.	Plan adopted 2022, implementation ongoing	Numerous	NMDOT	State Regional Local

Project	Complete the NM Fleet Transition Plan Development and Assessment for NM state agencies to replace current light- and medium-duty vehicles with electric vehicles and/or plug-in hybrid vehicles, consistent with the New Mexico Alternative Fuels Acquisition Act and the US Department of Energy's Energy Policy Act.	In development	U900710	NMDOT and EMNRD	State
Strategy	Invest in low/zero emissions transit vehicles using applicable funding programs.	On-going	Numerous	NMDOT Transit and Rail Division, Planning	State Regional Local

5.3 CRS Activities to Reduce Emissions from Operations and Maintenance

Activity Type	Description	Status	Associated Control Number	Responsible Parties	Implementation Partners
Strategy	Identify opportunities to use recycled asphalt during roadway projects.	As opportunities arise		NMDOT Asset Management Division	State Local
Strategy	Develop and implement research projects to identify construction materials that result in lower emissions of CO_2 than traditional materials.	On-going and as opportunities arise		NMDOT Research Bureau and Materials Bureau	State
Strategy	Develop a project to quantify the emissions benefits of low-carbon construction materials.	New		NMDOT Leadership, Research Bureau, and Materials Bureau	State

Strategy	Install solar panels and efficiency improvements at NMDOT facilities including District Offices and patrol yards. Identify opportunities and implement energy efficiency upgrades and/or improvements for NMDOT owned facilities.	GO, D5 and D3 complete, other locations in development		NMDOT Statewide Facilities Director	State
Project	Install and/or upgrade highway lighting to LED highway lighting.	Replacement on-going; projects in development for T/LPA maintained facilities		NMDOT Statewide Maintenance Bureau	State
Strategy	Integrate green stormwater infrastructure into statewide maintenance management system so improvements can be monitored and maintained, extending benefits.	In-development		NMDOT Asset Management Division	State
Strategy	Implement paperless processes at NMDOT, such as: using e-ticketing in construction, electronic as-builts, transitioning to phones and tablets for field construction inspection staff, and utilizing e-signing technologies for office processes.	Phase 1 of e-ticketing complete, moving to implementation; DocuSign completed		NMDOT and Construction and Civil Rights Bureau	State

Strategy	Identify opportunities to offer a training for NMDOT staff and consultants on an externally verified sustainability evaluation tool. The tool will aid decision makers and help project teams identify sustainable approaches during infrastructure project planning, design, and construction (e.g., ENVISON). Use program in 3 projects of various scopes and scales.	New		NMDOT Leadership Environmental Bureau	State

5.4 CRS Activities for Carbon Sequestration

Activity type	Description	Status	Associated Control Number	Responsible Parties	Implementation Partners
Strategy	Develop Wetland Mitigation Banking program with New Mexico Game and Fish Department to use NMDOT water rights to expand and create wetlands on NMDGF-managed lands.	In-development		NMDOT Environmental Bureau	State
Strategy and Project	Continue statewide dust mitigation program and projects, with activities including restoration and revegetation	On-going		NMDOT Environmental Bureau and Districts	State
Strategy	Integrate green stormwater infrastructure into NMDOT documents including drainage design manuals, maintenance processes, project development processes	In-development and as opportunities arise		NMDOT Environmental Bureau, Drainage Bureau,	State

Strategy	Continue to implement a Context Sensitive Solutions (CSS) approach in project development to develop and maintain infrastructure. Establish procedure guidelines for integrating CSS into projects. Identify project eligibility to determine where the CSS process will be deployed. Train staff on CSS procedures and tools.	On-going		NMDOT Environmental Bureau	State Regional Local
Project	Develop study to identify optimum locations for and the benefits of Green Infrastructure on NMDOT Transportation System Environment	Project initiated in FFY2023, On-going	R923040	NMDOT Research Bureau and Drainage Bureau	State

6 Strategy Development Process and MPO and RTPO Coordination

Table 5 below provides on overview of NMDOT's coordination with the MPOs and RTPOs as part of the development of the Carbon Reduction Strategy.

During the development of the Carbon Reduction Strategy, NMDOT held two coordination meetings with MPO and RTPO staff to gather information, feedback, and priorities. The information shared by meeting participants provided invaluable perspectives that shaped the content and approach of the CRS. Meeting notes from the two coordination meetings are included in the appendix. NMDOT released the Carbon Reduction Strategy for comment from stakeholders including the MPOs and RTPOs. NMDOT provided informational slides to support MPO and RTPO staff in presenting the draft strategy to their respective policy boards.

Table 5. CRS Development Coordination

Outreach and Coordination Events	Date	Participants
MPO Quarterly- Agenda item and discussion at meeting to discuss coordination approach, content, and goals	9/13/2022	MPO staff
RTPO Roundtable- Agenda item and discussion at meeting to discuss coordination approach, content, and goals.	10/24/2022	RTPO staff
MPO and RTPO Coordination Meeting #1	1/12/2023	MPO and RTPO staff, NMDOT staff, NMED staff, EMNRD staff
Presentation at TransCon on Carbon Reduction Strategy	4/12/2023	Transportation stakeholders, planners, engineers,
MPO and RTPO Coordination Meeting #2	5/10/2023	MPO and RTPO staff, NMDOT staff, NMED staff, EMNRD staff
MPO Quarterly- agenda item to discuss status, solicit feedback on coordination meeting 2 topics, and discuss MPO board coordination	6/21/2023	MPO staff
Draft Strategy shared with MPO and RTPOs, information brought to board for comment by MPO and RTPO staff	9-10/2023	MPO and RTPO Policy Boards
MPO Quarterly – agenda item to discuss status of CRS, discuss coordination with MPO-Policy Committees, and request for comments	9/18/2023	MPO staff
RTPO Roundtable- agenda item to discuss status of CRS development, discuss coordination with policy committees, and request for comments	9/26/2023	RTPO staff

7 APPENDIX

7.1 AASHTO GHG PREDICTION WITH DEFAULT VALUES AND CALCULATIONS

DRAFT AASHTO State-Level Transportation GHG Calculator
Inputs and Summary Results

Baseline Data

Description	Default	Override
State		New Mexico
VMT (millions)	27,772	
NHS VMT (millions)	13,145	
Gasoline Consumption (000 gallons)	959,431	
Special Fuels Consumption (000 gallons)	607,689	

Other Parameters

Description	Default	Override
Analysis Period (years)	4	
Annual VMT Growth	1.06%	
Vehicle Occupancy, Carpools	2.3	
Gasoline CO2 Content (kg/gallon)	8.10	
Special Fuels CO2 Content (kg/gallon)	10.19	
Percent of VMT, Autos	89.6%	
Percent of VMT, Single Unit Trucks and Buses	4.4%	
Percent of VMT, Combo Trucks	5.4%	
Percent of VMT, Motorcycles	0.6%	
Percent of Auto VMT for Work Trips	19.0%	

Journey to Work Data

Description	Default	Baseline	Future
Percent of Work Trips Driving Alone	79.85%		
Percent of Work Trips Carpooling	10.08%		

Fuel Consumption Data by Vehicle Type

	Default			
Description	Autos	Single Unit Trucks	Combo Trucks	Motorcycles
Fuel Efficiency, Non-EV (mpg)	22.8	7.5	6.0	44.0
EV Percent of Fleet	1%	0%	0%	0%
Percent of Non-EVs Using Gasoline	98%	28%	13%	100%

Results

Description	Baseline	Future
Total GHG (metric tons)	13,963,742	14,565,285
Total, NHS GHG (metric tons)	6,609,044	6,893,755

7.2 NMDOT, MPO AND RTPO COORDINATION MEETING NOTES

NMDOT

Carbon Reduction Strategy MPO/RTPO Coordination Meeting #1
Meeting Summary
1/12/2023- 1-2:30 via Microsoft Teams

Attendees:

Anne Guayante, El Paso MPO
Bianca Borg, Mid-Region RTPO
Bonney Hughes, NM Env Dept Climate Change Bureau
Claudia Patricia Merlo, Mid-Region MPO
Dominic Loya, Mesilla Valley MPO
Erick Aune Santa Fe MPO
Forest Replogle, Mid- Region MPO
Gabriela Lopez, El Paso MPO
Hannah Burnham, Santa Fe MPO
Jason Coffey, NMDOT
Joseph Moriarty, NMDOT
Katrina Provenghi, MVMPO
Kendra Montanari, Mid-Region COG
Lucy Foma, EMNRD, Energy Conservation and Management Division
Maria Lohmann, New Mexico Energy Minerals and Natural Resources Department
Michael McAdams, MVMPO
Neala Krueger, NMDOT
Olivia Groeber, Farmington MPO
Paul Sittig, NCNMEDD, Northern Pueblos & Northeast RTPOs
Peter Koeppel, Farmington MPO
Priscilla
Raul Rodriguez III, Eastern Plains COG
Ron Shutiva, NMDOT
Rosa Kozub, NMDOT
Shannon Glendenning, NMDOT
Steven Montiel, Mid Region MPO
Timothy McDaniel, EPMPO
Vincent Soule, EPCOG

Meeting Overview:
The New Mexico Department of Transportation (NMDOT), hosted and facilitated by Shannon Glendenning, held the first Metropolitan Planning Organization/Regional Transportation Planning Organization Coordination meeting for the NMDOT 2023 Carbon Reduction Strategy. The CRS is a new requirement under the Infrastructure Investment and Jobs Act (IIJA) and is due to the Federal Highway Administration (FHWA) by November 15, 2023. The CRS must be developed in coordination with the state's Metropolitan Planning Organizations (MPOs), and NMDOT is including the Regional Transportation Planning Organizations (RTPOs) as part of the strategy development to ensure rural and non-metro perspectives are represented.

See attached slides for meeting presentation and results from Mentimeter polling throughout the meeting. The slides include responses received from participants.
Additional discussion and comments were received in the chat, summarized below:

- Regarding potential measures of transportation emissions, suggested measures include: sale of electric vehicles, number of credits or incentives claimed.
- Regarding measuring emissions from transportation materials, the NMED Climate Change Bureau would be interested in a comprehensive statewide GHG emissions study. Others commented:
    - "If there was a tool for project managers to use, it would be useful and easy to gather"

- "There needs to be a "easy" way to calculate the emissions from construction"
- "Also, methodology makes a difference in the calculations, so there needs to be a standard calculating tool"

- Regarding housing coordination, comments received in the chat or verbally include:
  - MRMPO has housing contacts that we reach out to in our planning process, and we find out where new development projects are planned which we use in our forecasts. We also analyze jobs in relationship to housing.
  - NCNMEDD and EPCOG are working on housing affordability, to access Housing and Urban Development (HUD) funding for communities and transportation is part of the planning process
  - SWNMCOG shared that when they look at economic development opportunities, they look at transportation accessibility, they try to work with developers in the design and development of housing to include multimodal access. Opportunities exists and should be developed concurrently with housing, broadband, and transportation. And transportation should support economic development.

Next Steps and Actions:

NMDOT will hold a second MPO/RTPO Coordination meeting around April with discussions around the following topics:

- How to integrate equity into strategies and projects
- New Mexico's context for strategies and projects
- Presentation on draft strategies and projects
- Other items to be determined

After the second meeting, NMDOT will share a draft strategy, and requests MPOs and RTPO share this draft strategy with their policy committees for their review and feedback.

NMDOT will submit the final Carbon Reduction Strategy to FHWA-NM by November 15, 2023.

Carbon Reduction Strategy Contact:

Please send any questions or comments on this meeting or future meetings to Shannon Glendenning, Shannon.Glendenning@dot.nm.gov, or 505-231-4300.

NMDOT Carbon Reduction Strategy MPO/RTPO Coordination Meeting #1

Shannon Glendenning, AICP

Programs Unit Supervisor

Multimodal Planning and Programs Bureau

Today's plan

- Please enter name and organization into chat
- This meeting is being recorded; I'll provide a meeting summary from this recording.

- Meeting Outline
  - Carbon Reduction Strategy Requirements and Goal
  - New Mexico Policy Context
  - NMDOT Plans and Initiatives
  - Transportation CO2 Emissions in NM
  - Potential Quantification/baselines/measures
  - Draft Strategy Outline
  - Next Steps

Where are you joining the meeting from today?

18

Carbon Reduction Strategy Requirements

- New requirement under IIJA
- Strategy to FHWA by November 15, 2023
- Strategy must be updated every four years
- Must be developed in "consultation" with any MPO designated in the state
- Strategy shall:
  - support efforts to reduce transportation emissions,
  - identify projects and strategies to reduce transportation emissions,
  - support the reduction of transportation emissions of the State,
  - At the discretion of the state, quantify the total carbon emissions from the production, transport, and use of materials used in the construction of transportation facilities within the state
  - and be appropriate to the population density and context of the state.

- Transportation Emissions definition: transportation emissions as "carbon dioxide emissions from on-road highway sources of those emissions within a state

Goal of NMDOT's 2023 Carbon Reduction Strategy

Capture on-going efforts

Describe developing initiatives

Identify best practices from planning partners, and

Identify opportunities for new projects and strategies

New Mexico Policy Context

- Executive Order 2019-003
  - Established a statewide goal to reduce greenhouse gas emissions by at least 45 percent by 2040, relative to 2005 levels, in all sectors
  - Established Climate Change Task Forces and Climate Action Teams
  - Subsequent Climate Strategy Reports identify two main strategies within transportation sector
    - Increasing clean vehicle adoption
    - Reducing vehicle miles traveled

New Mexico Policy Context

Energy Transition Act of 2019

- Requires New Mexico's utilities to use at least 50 percent renewable energy by 2030 and will drive continued reductions in electricity sector emissions

Clean Car Rule

- New rule adopted May 5, 2022
- Clean Car Rule sets low-emission and zero-emission standards for new cars and trucks offered for sale in New Mexico

Alternative Fuels Corridor Designation

- Designation identifies areas of I-25, I-10, US-70, and US-285 as alternative fuel locations

NMDOT Plans and Initiatives

- New Mexico Long Range Statewide Transportation Plan- New Mexico 2045 Plan
  - Outlines 25-year transportation vision for NM
  - Carbon reduction goals, objectives and strategies throughout
    - Mobility and Accessibility
    - Program Delivery
    - Safety

NMDOT Plans and Initiatives-NM 2045 Plan

Goal	Objectives	Strategies
Mobility and Accessibility **Efficiently and equitably invest in infrastructure and technology to provide reliable multimodal access and connectivity, improve mobility, foster economic growth, and minimize transportation's contribution to climate change**	--Improve mobility and accessibility in strategic corridors. --Facilitate the transition of the fleet to electric vehicles and alternative fuels --Expand transportation choice through multimodal investments and complete streets design	--Invest in and establish partnerships to build direct current fast charging (DCFC) stations along EV corridors and expand corridors to provide better coverage across NM. --Promote and support the expansion of vanpooling services to close transit service gaps, improve mobility and reduce Vehicle Miles Traveled (VMT). --Develop a NMDOT Climate Change Plan to develop adaptation and resiliency strategies as well as strategies to reduce transportation emissions. --Update Guidance Manuals and processes to include Complete Streets Principles. Develop and conduct training for staff on process changes. Integrate Complete Streets approaches into the development process of new and reconstruction projects.
Program Delivery **Deliver transportation programs through approaches and processes that improve resiliency, respect New Mexico's unique cultures, and promote fiscal and environmental stewardship**	--Implement projects and programs that reduce negative impacts on the natural environment	--Establish procedure guidelines for integrating context-sensitive solutions (CSS). Identify project eligibility to determine where the CSS process will be deployed. Train staff on CSS procedures and tools. --Study revenue options and projections, continue coordination with RUC West (an multi-state organization dedicated to exploring Road Usage Charging (RUC)) to learn from efforts from other states and build legislative support for alternative revenue sources to supplement motor fuel taxes, including electric vehicle fees and road user charges. --Continue to explore road user charge pilot project in partnership with neighboring states. Establish evaluation process, collect data, and evaluate performance.
Safety **Improve safety for all transportation system users**	--Reduce the number of nonmotorized fatalities and serious injuries Invest in infrastructure and programs that improve pedestrian safety.	--Implement recommendations from the NM Bike Plan for reconstruction and rehabilitation projects to increase safety for local and tourist cyclists and reduce VMT. --Implement recommendations from the NMDOT Pedestrian Safety Action Plan.

NMDOT Plans and Initiatives

New Mexico Electric Vehicle (EV) Infrastructure Deployment Plan

- With established criteria, identifies areas for investment and installation of charging stations within next 2 years, and next 5 years

New Mexico Prioritized Statewide Bicycle Network Plan

- Identifies NMDOT owned roadways appropriate for investment in bicycle facilities during roadway reconstruction/major rehabilitation projects
- Provides recommendations for robustness of infrastructure given roadway characteristics and priority tier

PROTECT (formula funds)

- Finalizing New Mexico Resilience Improvement Plan
- Identifying eligible projects for funding

NMDOT Plans and Initiatives

Wetland Mitigation Banking and Carbon Sequestration

- NMDOT and NM G&F to use water rights to develop and maintain wetlands

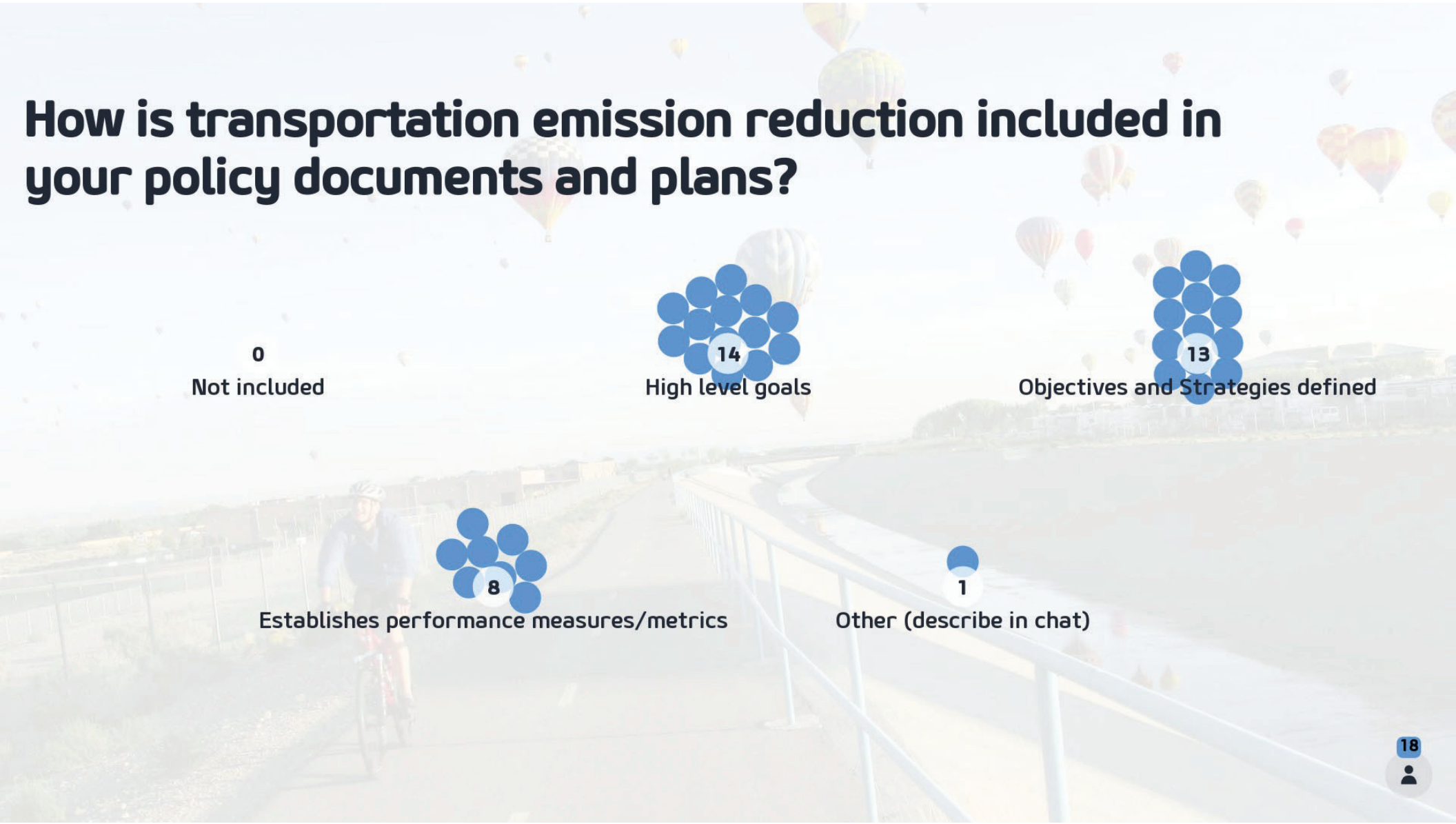
Safety Planning

- NMDOT Pedestrian Safety Action Plan
- Strategic Highway Safety Plan- Update in next few years
- VRU Safety Assessment- Due 11/15/2023
- Highway Safety Plan

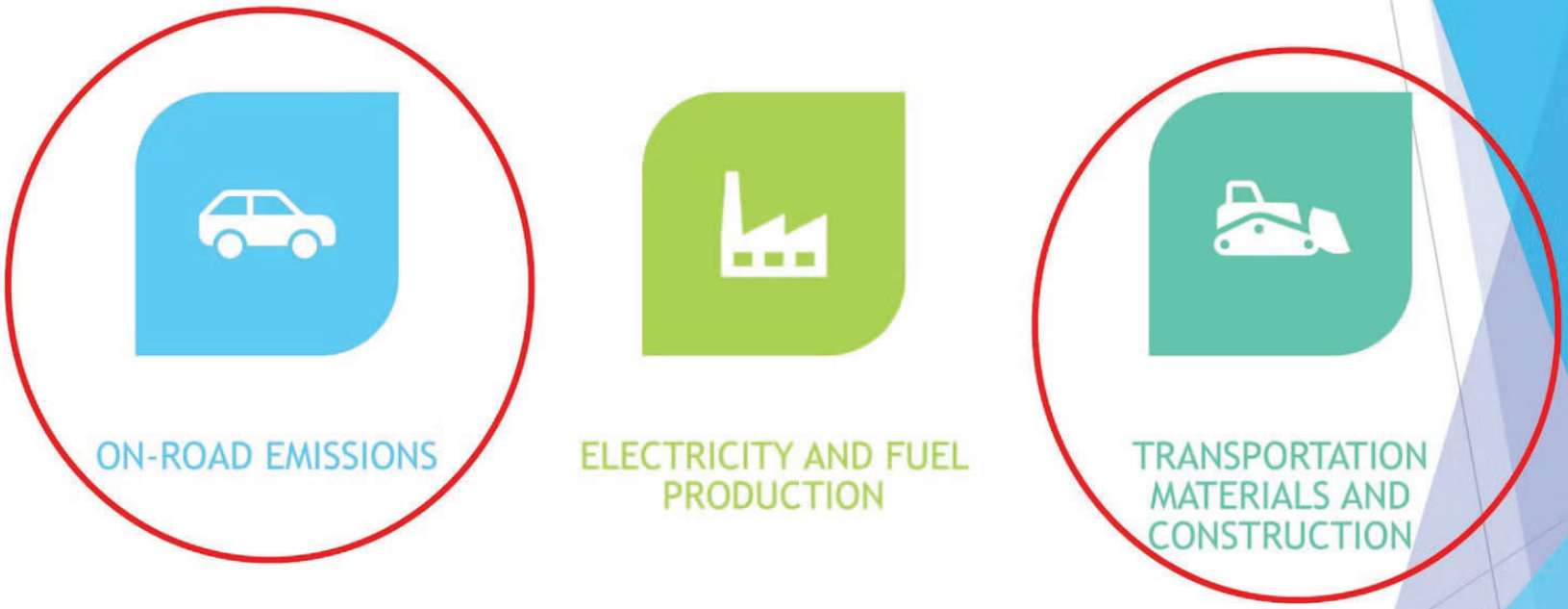
Complete Streets

- Released a Complete Streets on-call RFP, with the first step a NMDOT Complete Streets Strategic Plan

How is transportation emission reduction included in your policy documents and plans?



Transportation CO2 Emissions in NM



Where are opportunities to support the reduction of transportation CO2 emissions in the work you do? (Response slide 1/4)

Work from home policies :)

work from home

Continued focus on preservation versus new facilities.

Work with local utilities to clean up power sources

The Project Selection Process

Bike/ Ped Plan Implementation

transit

complete streets

Transportation Alternative Program funding. Transit. Ev charging infrastructure

19

Where are opportunities to support the reduction of transportation CO2 emissions in the work you do? (Response slide 2/4)

Implementation of clean car rules, development of advanced clean truck rules

bike/ped

incentives for bike to work, or electric vehicles

Work from home, rolling start times. Safe Routes to school, transit, zoning code rewrite to make areas more walkable/accessible

large employers to offer non-SOV incentives to employees

E-Bike credits

electric transit

Encourage ebike adoption, to extend the range and potential for non-auto transportation options (more bike racks, as well as connected bike trails)

Improve Public Transportation connections.

Where are opportunities to support the reduction of transportation CO2 emissions in the work you do? (Response slide 3/4)

Transit & Bicycle and Pedestrian programs

encouraging the following: transit, walkable and bikeable infrastructure, permitting greater residential and commercial density, reducing parking requirements

storm water capture

Electification/Alt fuels for Freight Fleet. Shore Power at truck stops

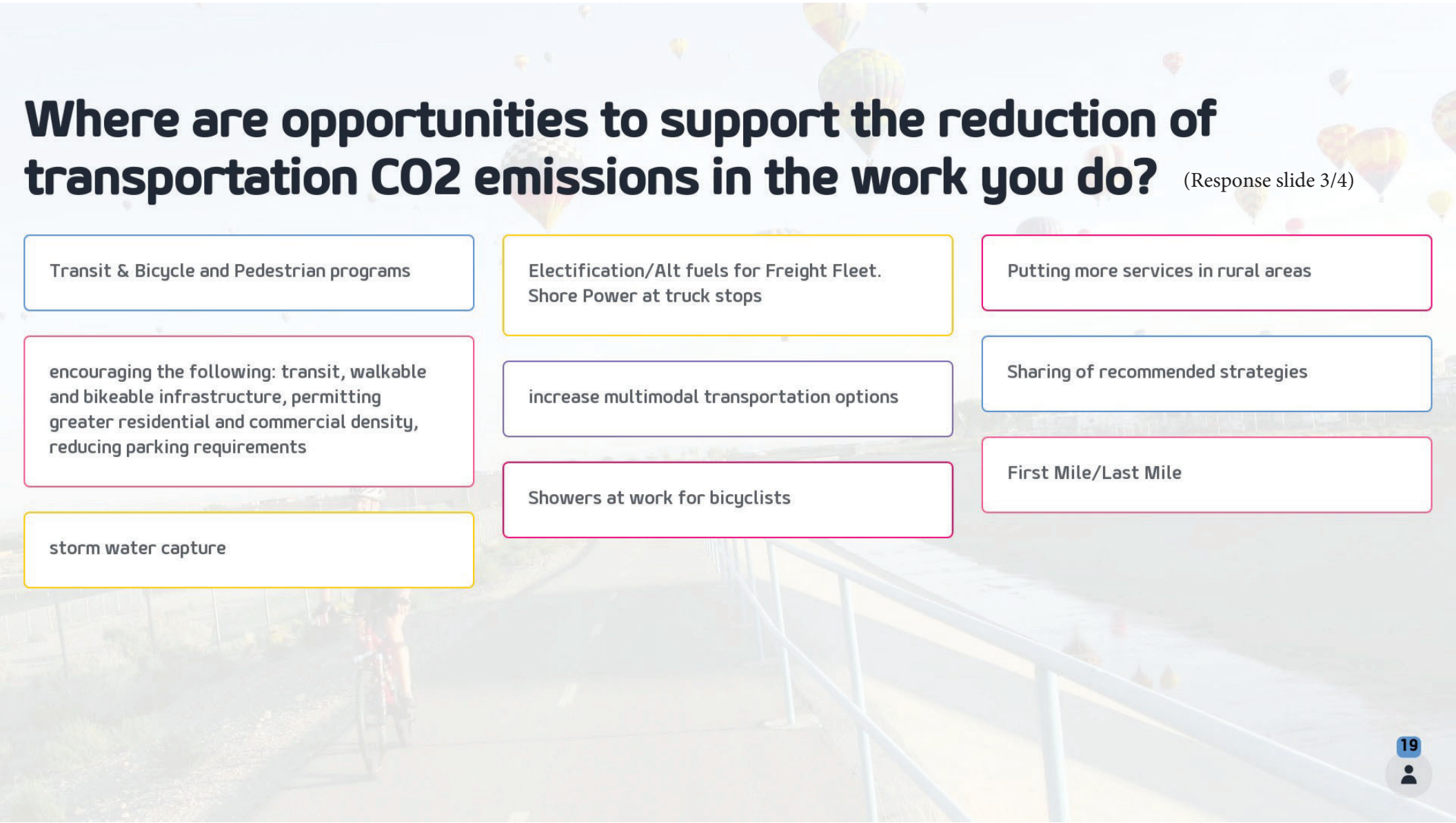
increase multimodal transportation options

Showers at work for bicyclists

Putting more services in rural areas

Sharing of recommended strategies

First Mile/Last Mile



19

Where are opportunities to support the reduction of transportation CO2 emissions in the work you do? (Response slide 4/4)

Encourage more dense land use development

Connected bicycle and pedestrian facilities

Support development of local grocery options and other amenities to reduce the distance people have to travel

long-range plan

Diversion of SOV to alt non-polluting modes

How does your organization consider GHG emissions in transportation planning process?

(Response slide 1/2)

CMAQ Analysis

It is a factor but never the main driver

Scenario planning metrics

Project selection criteria

very soon, the GHG performance measure requirement (currently under rulemaking)

Unknown

Could be addressed in project prioritization, under the broad category of "Improves quality of life/promotes safety/ environmental sustainability"

Getting legislation passed, implementing regulations to reduce GHG

long range plan

How does your organization consider GHG emissions in transportation planning process?

(Response slide 2/2)

- Considering possible RTD in rural area
- Equity
- Trying to support fuels with lower carbon intensity
- Environmental impact analysis and mitigation strategies
- Environmental justice analysis
- Allows a flex schedule
- One of the criteria for electric buses

Potential quantification/baselines/measures

- Countless ways to quantify emissions or benefits, but what is meaningful in decision making?
- FHWA proposed a greenhouse gas performance measure in Notice of Proposed Rule Making
  - Tailpipe CO2 emissions on the NHS
  - Function of gallons of fuel sold, a CO2 factor, and ratio of NHS VMT to total VMT
- To "opt out" of the program for STBG eligibility, states need to demonstrate a reduction in transportation emissions (NMDOT not planning on this, at this time)
  - as estimated on a per capita basis; and
  - as estimated on a per unit economic output basis

In your plans and experience, what have been valuable metrics or measures?

counting pedestrians and bikers. Monitoring this

tourism numbers

Modeled GHG emission performance for scenario comparison

Economic forecasts

Transit ridership

NMED's Air Quality Bureau does air quality monitoring and it is collected and available

commute times

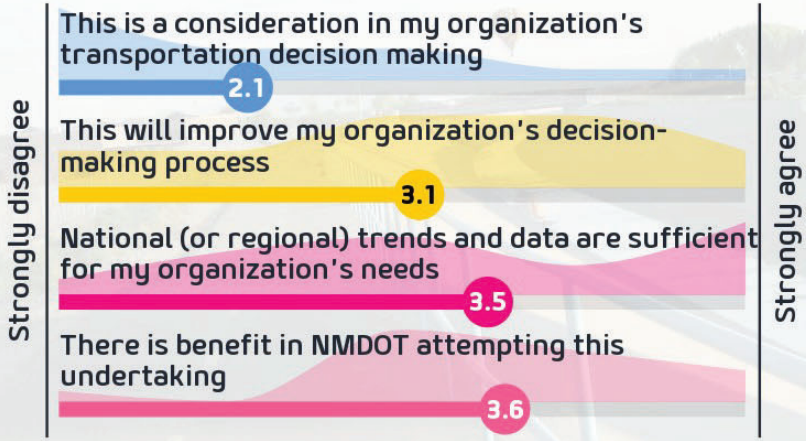
Transit ridership and surveys

Development in proximity to existing infrastructure

“…shall, at the discretion of the state…”

- “…quantify the total carbon emissions from the production, transport, and use of materials used in the construction of transportation facilities within the state”

Quantifying emissions from the production, transport, and use of materials used in the construction of transportation facilities within the state

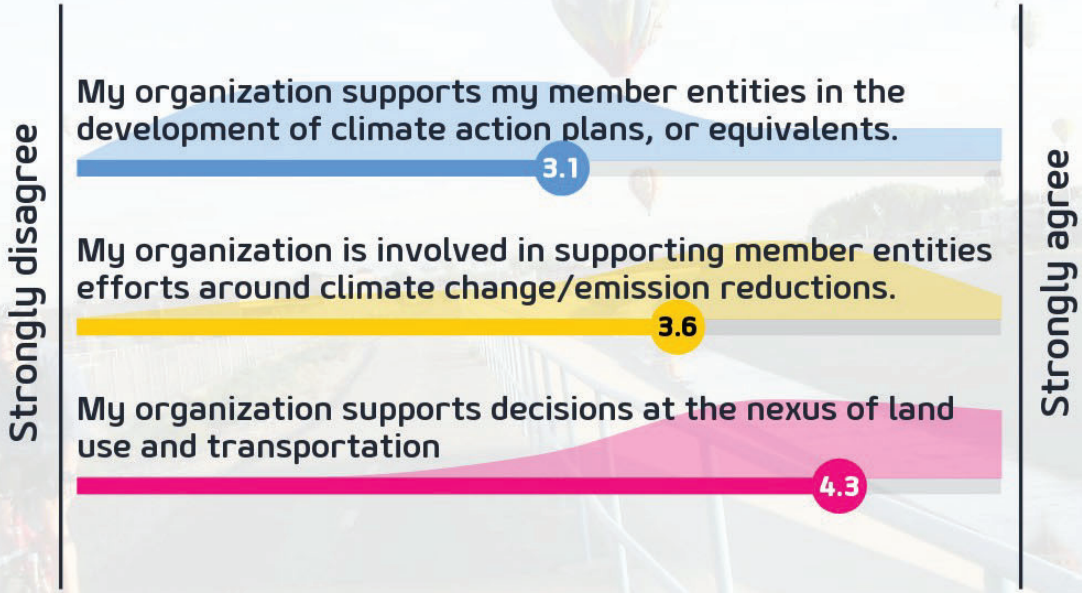


16

MPO/RTPO Support of member entities

- Next 2 questions are about your organization's role in local planning efforts and coordination strategies

MPO/RTPO support of local climate change planning efforts



Describe your housing coordination including any new or continuing efforts, initiatives, or activities. How can NMDOT support this work?

(Response slide 1/2)

Land Use and Transportation Integration committee

development of new subdivisions to increase housing opportunities

Development review

There are incentives for weatherizing housing (windows, doors, heat pumps)

We are able to review and provide comments on development and land use changes

Ours is fairly peripheral, we are working on urban sim modeling that is exploring current and future development (to include housing) will impact emissions

Staff is creating and using an UrbanSIM model to inform future zoning decisions for our local partners.

Not as involved as we would like to be, but may be involved in terms of energy efficiency/solarization/insulation if legislative mandates require or encourage these

Bring in housing agencies and advocates into statewide and regional transportation planning discussions and efforts

Describe your housing coordination including any new or continuing efforts, initiatives, or activities. How can NMDOT support this work?

(Response slide 2/2)

Our MPO is monitoring dwelling unit growth within the context of travel demand modeling. NMDOT could have more modeling support for MPOs..

we have some low income houses being created out of old hotels. NMDOT could have funding for improved walking and biking and transit projects even if its on such "private" land

Empty houses should be taxed at a higher rate from a transportation perspective, to discourage empty houses

Our MPO is involved with review of new developments. Carbon reduction is not presently an evaluation factor. The NMDOT could assist in developing tools to evaluate carbon impact of new developments.

10

Next Steps

Send any documents that include transportation CO2 reduction goals/objectives/strategies to Shannon

- Shannon Glendenning at 505-231-4300 or Shannon.Glendenning@dot.nm.gov

Coordination Meeting #2 (~April):

- Discussion: How to integrate equity in strategies and projects
- Discussion: New Mexico context for strategies and projects
  - Rural vs urban
  - Tribal vs. non-tribal lands
  - Other contexts?
- Presentation of draft strategies and projects
- Anything else?

NMDOT will develop draft after input from meeting #2 and request comments.

- Request that MPO and RTPO staff share draft and solicit any input from Policy Boards.

Final Strategy shared with planning partners, FHWA by November 15, 2023

NMDOT

Carbon Reduction Strategy MPO/RTPO Coordination Meeting #2
5/10/2023- 1-2:30 via Microsoft Teams

Attendees:

Aaron Moore, MRMPO
Angelica Trujillo, NMDOT
Anne Guayante, EPMPO
Bianca Borg, MRCOG
Cerisse Grijalva, SWRTPO
Forest Replogle, MRCOG
Gabriela Lopez, EPMPO
Jessica Griffin, NMDOT
JoAnn Garcia, NMDOT
Joseph Moriarty, NMDOT
Kendra Montanari, MRCOG
Leah Yngve, SFMPO
Lucy Foma, NM EMNRD
Maria Lohmann, NM EMNRD
Nathan Masek, MRCOG
Neala Krueger, NMDOT
Olivia Groeber, FMPO
Peter Koeppel, FMPO
Raul Rodriguez, III, EPCOG
Robert Kuipers, NWRTPO
Ron Shutiva, NMDOT
Shannon Glendenning, NMDOT
Vincent M. Soule, EPCOG

Meeting Overview:
The New Mexico Department of Transportation (NMDOT), hosted and facilitated by Shannon Glendenning, held the second Metropolitan Planning Organization/Regional Transportation Planning Organization Coordination meeting for the NMDOT 2023 Carbon Reduction Strategy. The CRS is a new requirement under the Infrastructure Investment and Jobs Act (IIJA) and is due to the Federal Highway Administration (FHWA) by November 15, 2023. The CRS must be developed in coordination with the state's Metropolitan Planning Organizations (MPOs), and NMDOT is including the Regional Transportation Planning Organizations (RTPOs) as part of the strategy development to ensure rural and non-metro perspectives are represented.

See attached slides for meeting presentation and results from Mentimeter polling throughout the meeting. The slides include responses received from participants.
Additional discussion and comments were received in the chat and via discussion are summarized below:

- Regarding the context of the state of New Mexico:
    - Tribes, especially tribes with areas that are destinations, have expressed interest in EV charging facilities or have installed EV charging infrastructure.
    - When asked if strategies and projects should be tailored to the urban vs rural context of the state or should any of the strategies be applied, regardless of the context, one participant responded that there isn't a one-size-fits-all solution to reduce emissions. Across the state, the ability to implement projects, especially federally funded or reimbursement based creates a stark dividing line.

- One participant noted that even in New Mexico, the population density of our metro areas is not nearly as dense as in other states.
- Someone noted, that in the work they do around housing and transportation integration, there are very different issues between urban and rural areas. For example, densification is relevant in urban areas. But a lot of times the reason that that's helpful or one of the incentives for densification and appropriate areas is the ability to preserve rural areas. For multifamily housing, of course you need to have strategies that support vehicle charging, but that's not going to be appropriate at all in rural areas in general. And then you said the same thing with transit. This is something that ABQ Ride is grappling with right now where they're looking at coverage versus ridership and where are you going to catch the most amount of people versus how you are going to serve the greatest area. Working within the economic realities is something that we all need to deal with, so transit might not be a strategy in the more rural areas. Maybe strategies include more of an on-demand kind of service or broadband to tell opportunities.
- Transportation options is important to provide, especially transit for the socially and economically vulnerable residents of the state. Transportation options are important to improving poverty, access to education, services, and affordable housing.

- Regarding the source of electricity and electrification strategies:
  - One participant noted that New Mexico needs to wean itself from coal and gas-based production of electricity. Eastern New Mexico is working to increase green energy generation.
  - Another participant noted that emissions from oil and gas power plants are easier to regulate and limit emissions than from individual tailpipes of vehicles (point vs non-point sources of pollution)
  - Another participant suggested developing or supporting strategies that support dense or cluster housing patterns in urban areas of the state.
- Questions from participants:
  - Are we cooperating in any way with neighboring states? There is a lot of cross-boarder travel in New Mexico, and coordination is important for EV charging.
- Equity
  - One participant shared that equity was incorporated into the MTP. The transportation project receives an equity factor score if it serves an area with the highest quartile of low-income residents.
  - MRMPO's equity definition: "Equity in transportation planning means working to ensure the special needs of all members of a community are met by the transportation system and that no groups are disproportionately burdened or benefited by transportation decisions and investments. It also refers to working to prioritize improvements for communities that have been traditionally underserved."
- Draft Strategies and Projects: Reduce VMT
  - One participant suggested NMDOT partner with NM Department of Health to incorporate health into infrastructure planning, e.g., expanding transit service areas to clinics/hospitals or a prescription trail initiative. Healthy Kids NM could also be a partner.

- Acknowledging that it's probably outside the purview of NMDOT, but improving access to basic goods and services in rural areas will do a lot to reduce VMT. Investment in broadband infrastructure is one way to get us there.
- Addressing land use and development patterns is going to be really important in addressing VMT, mode shifts, and sustainability.

- Draft Strategies and Projects: Reduce emissions from transportation asset construction
  - Consistently utilize the same materials so leftovers can be used in the next project
  - Improving asphalt road pavement using engineered nano mineral composites, researchers have developed a new, greener nano asphalt binder that produces a new type of asphalt which uses less energy and produces less vapor and fewer greenhouse gas emissions. Source.
  - Matching supply of the roadway to the demand of the road, or "right sizing" a road to reduce materials and maintenance costs.
  - Acoma Pueblo has had great success with CMGC, which is a project delivery model. The Pueblo has been able to see great cost savings because they have a general contractor that comes in and does several projects; there are also emission benefits since the contractors save on mobilization and movement of heavy equipment to various job sites.
- Draft Strategies and Projects: emission of vehicles
  - Work to promote different fuel types on vehicles. There is technology to use natural gas fuels for lang range hauling, where EVs aren't at that point yet. Santa Fe transit has been using natural gas for almost a decade. Hydrogen fuels can be worse than gasoline or diesel, depending on how the hydrogen fuel is made, the carbon intensity of a fuel is important to track.
- Draft Strategies and Projects: other
  - One suggestion was to look at improving freight trains, instead of trucks to reduce emissions.

Next Steps and Actions:
NMDOT will coordinate internally and present these draft strategies and projects throughout the department. NMDOT will release a draft Carbon Reduction Strategy, and requests MPOs and RTPO share this draft strategy with their policy committees for their review and feedback.

NMDOT will submit the final Carbon Reduction Strategy to FHWA-NM by November 15, 2023.

Carbon Reduction Strategy Contact:
Please send any questions or comments on this meeting or future meetings to Shannon Glendenning, Shannon.Glendenning@dot.nm.gov, or 505-231-4300.

NMDOT Carbon Reduction Strategy MPO/RTPO Coordination Meeting #2 May 10, 2023

Shannon Glendenning, AICP

Programs Unit Supervisor

Multimodal Planning and Programs Bureau

Today's plan

- This meeting is being recorded; I'll provide a meeting summary from this recording.

- Meeting Outline
  - Recap of first meeting and Carbon Reduction Strategy requirements
  - Discussion: New Mexico context for Carbon Reduction Strategies
  - Discussion: How/when/where to include equity in our efforts
  - Discussion: Share developing list of projects and strategies and solicit feedback
  - Next Steps

Mentimeter Question 1

Where are you joining from today?

Recap: Carbon Reduction Strategy Requirements

- New requirement under IIJA
- Strategy to FHWA by November 15, 2023
- Strategy must be updated every four years
- Must be developed in “consultation” with any MPO designated in the state
- Strategy shall:
  - support efforts to reduce transportation emissions,
  - identify projects and strategies to reduce transportation emissions,
  - support the reduction of transportation emissions of the State,
  - at the discretion of the state, quantify the total carbon emissions from the production, transport, and use of materials used in the construction of transportation facilities within the state
  - and be appropriate to the population density and context of the state.

- Transportation Emissions definition: transportation emissions as “carbon dioxide emissions from on-road highway sources of those emissions within a state

Recap: Goal of NMDOT's 2023 Carbon Reduction Strategy

Capture on-going efforts

Describe developing initiatives

Identify best practices from planning partners, and

Identify opportunities for new projects and strategies

Recap: Transportation emission reductions are included in policy documents and plans via:

- High level goals (14)
- Defined objectives and strategies (13)
- Established performance measures/metrics (8)

How can we make this Carbon Reduction Strategy appropriate to the population density and context of the state?

- How would you describe the context of the state as it relates to carbon reduction strategies?
  - urban vs rural
  - tribal vs non-tribal
  - reliable access to transit vs unreliable/no access
  - Other?
- How does the state's population density impact the implementation of carbon reduction strategies?

Share your thoughts!

13 Answers

Much of my region is rural and distances may vary by a lot. Electrification would help. No regional transit.

Offer strategies that support dense or cluster housing patterns in urban areas.

are we cooperating in any way with neighboring states? There's lots of crossborder travel in NM which will be important for EV charging

Ensure consideration of rural and population of areas that aren't metros.

Area specific strategies are important but we should try to think beyond just electrification.

Support state policies surrounding intelligent transportation infrastructure to improve efficiency of existing facilities

As long as most electric power is produced by coal fired plants, it's unclear how much electrification will actually reduce overall GHG emissions in the state, since it will increase demand

Support / incentivize mode shift to alternative modes where options exist

Access to Charging Stations in rural areas problematic, may be more realistic in smaller towns and villages. Range of EVs an issue for farmers and ranchers.. Moving to hybrids an incremental step.

Share your thoughts!

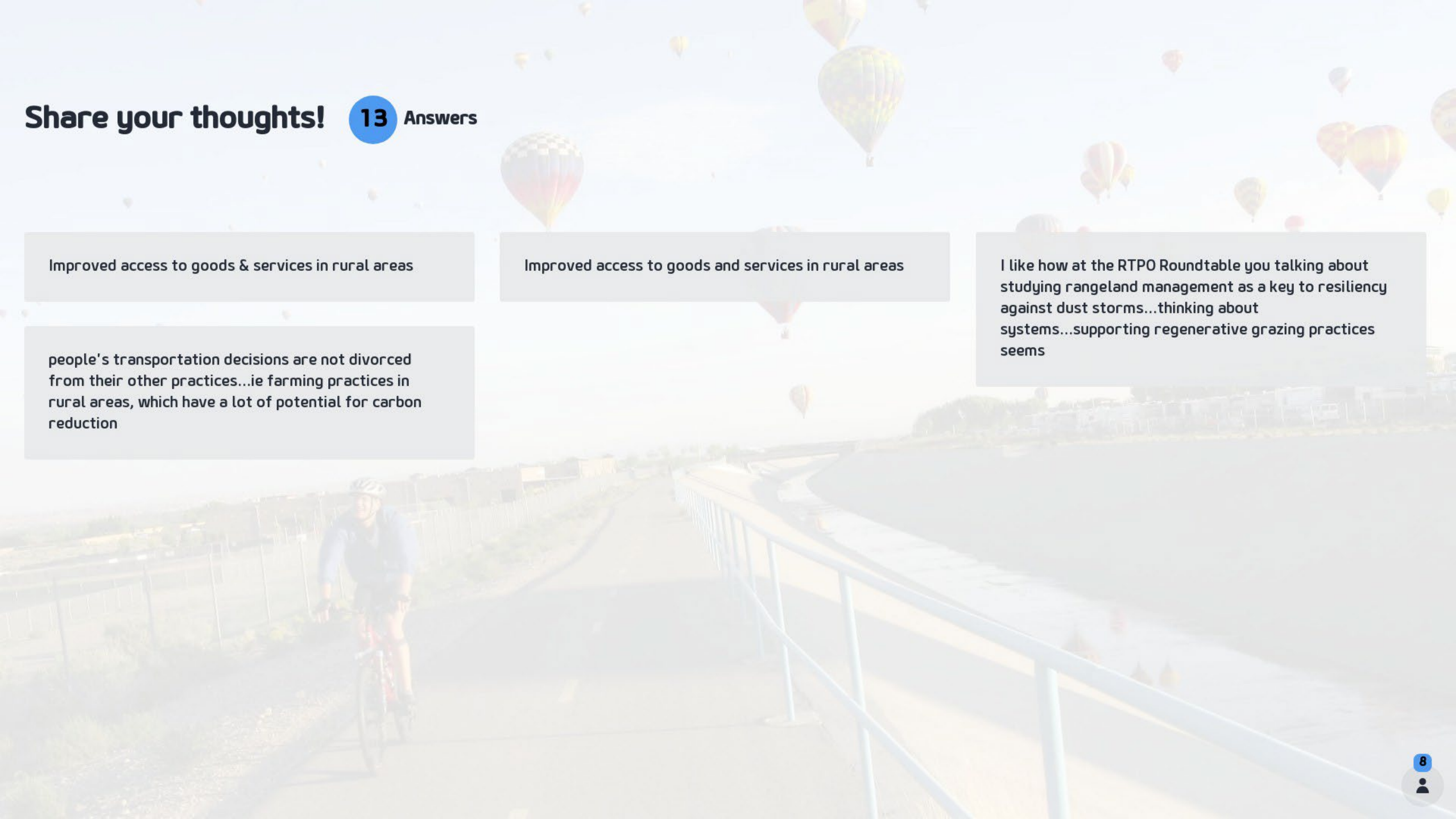
13 Answers

Improved access to goods & services in rural areas

Improved access to goods and services in rural areas

I like how at the RTPO Roundtable you talking about studying rangeland management as a key to resiliency against dust storms...thinking about systems...supporting regenerative grazing practices seems

people's transportation decisions are not divorced from their other practices...ie farming practices in rural areas, which have a lot of potential for carbon reduction



8

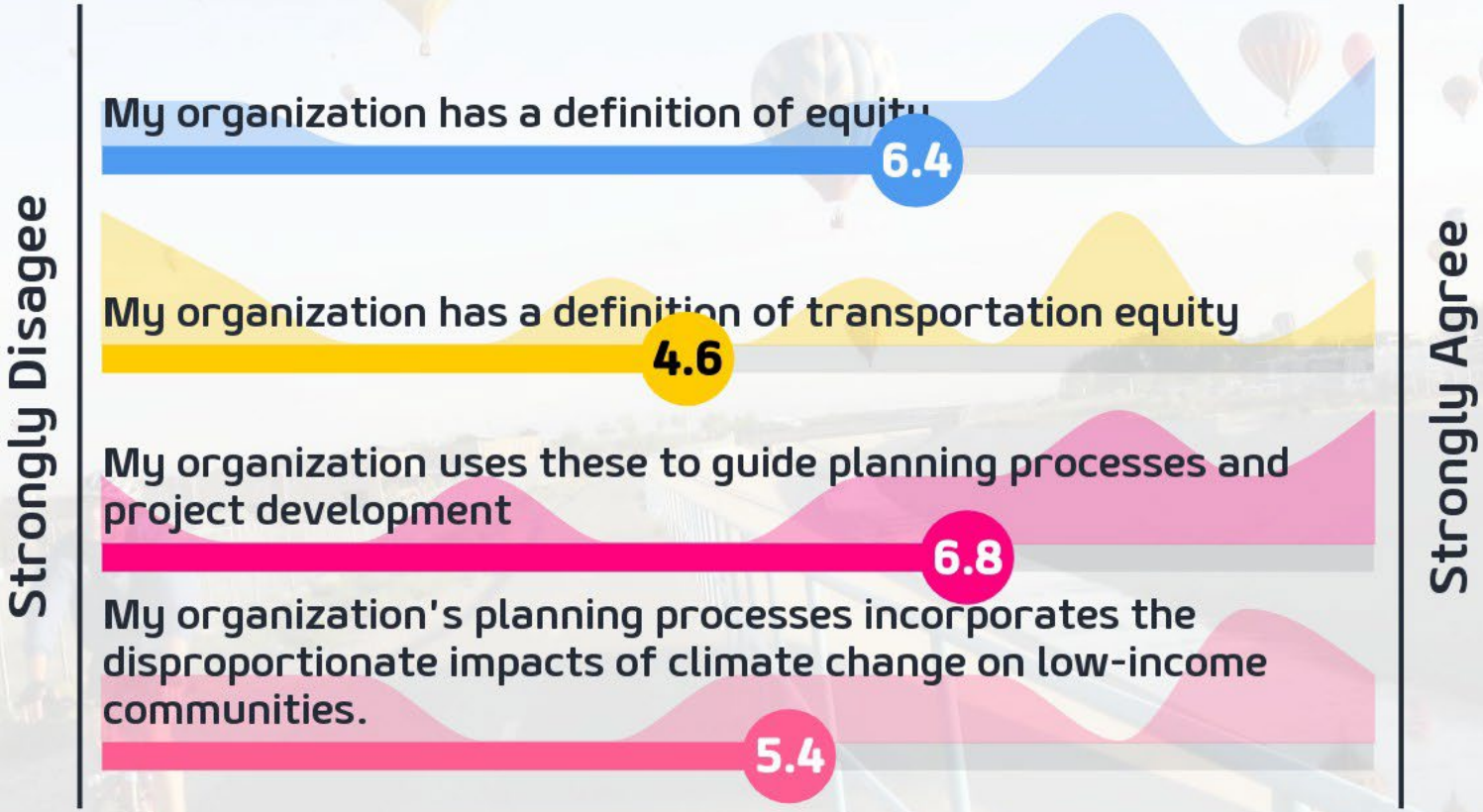
Incorporating Equity in the Strategy

- Equity in transportation seeks fairness in mobility and accessibility to meet the needs of all community members.
- A central goal of transportation is to facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally underserved.
- “CRP funds for projects and inclusion of project elements that proactively address racial equity, workforce development, economic development, and remove barriers to opportunity, including automobile dependence in both rural and urban communities as a barrier to opportunity or to redress prior inequities and barriers to opportunity.” FHWA’s CRP guide

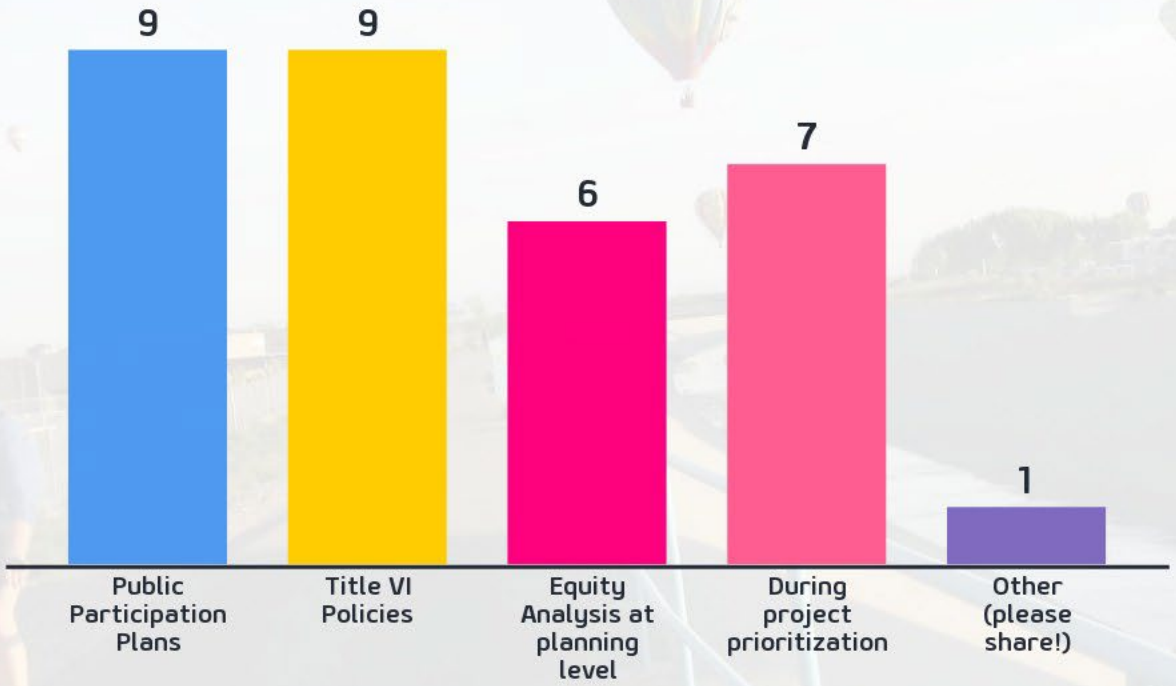
Ideas to incorporate equity considerations

- Do your planning processes and projects look at disproportionate impacts of climate change on low-income communities?
- How can NMDOT use an equity lens to focus investments in communities disproportionately impacted by historic dis/investments in the transportation system and climate change, while trying to support the reduction of transportation carbon emissions?

Equity in your planning processes



How is Equity incorporated into the transportation planning process?



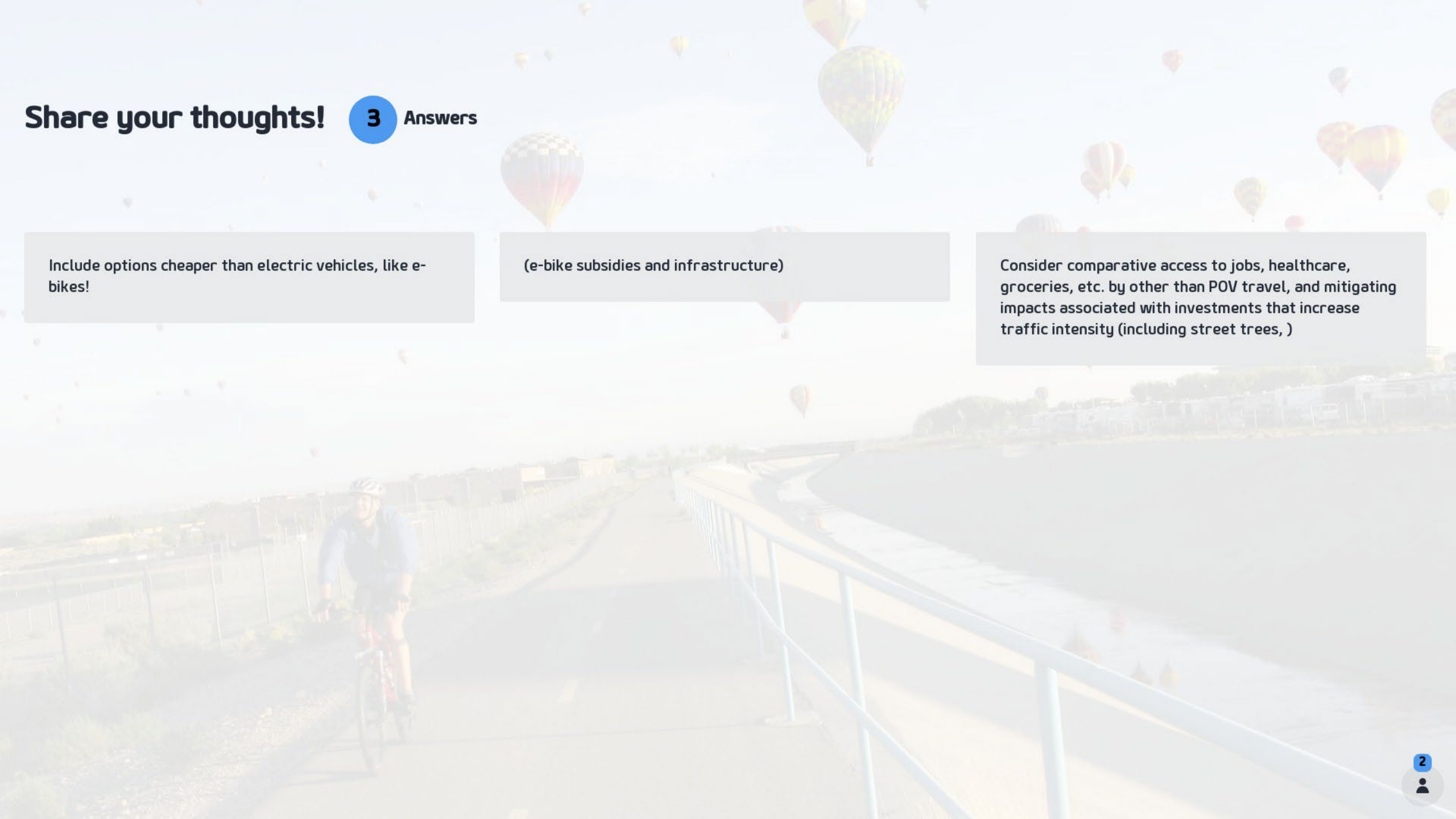
Share your thoughts!

3 Answers

Include options cheaper than electric vehicles, like e-bikes!

(e-bike subsidies and infrastructure)

Consider comparative access to jobs, healthcare, groceries, etc. by other than POV travel, and mitigating impacts associated with investments that increase traffic intensity (including street trees,)



2

Draft Strategies and Projects

Reduce VMT

to reduce traffic congestion by facilitating the use of alternatives to single occupant vehicle trips, including public transportation facilities, pedestrian facilities, bicycle facilities, and shared or pooled vehicle trips within the State or an area served by the applicable MPO, if any

Reduce transportation emission of vehicles

to facilitate the use of vehicles or modes of travel that result in lower transportation emissions per person-mile traveled as compared to existing vehicles and modes; and

Reduce emissions of construction transportation assets

to facilitate approaches to the construction of transportation assets that result in lower transportation emissions as compared to existing approaches

Other

Draft Projects and Strategies: Reduce VMT (1/3)

Strategy or Project	Description
Strategy and project	Implement infrastructure improvement recommendations identified in the New Mexico Prioritized Statewide Bicycle Network Plan
Strategy and projects	Implement recommendations in New Mexico Pedestrian Safety Action Plan
Project	Develop Vulnerable Road User Safety Assessment to identify locations of crashes involving vulnerable road users and identify areas for improvement, creating a safe connected and accessible transportation network for non-motorized vehicle trips
Strategy	Provide opportunities and resources for remote and virtual meetings for NMDOT employees
Strategy	Explore opportunities and options to incentivize non-SOV trips by commuting NMDOT employees
Strategy	Provide alternative work sites and flexible schedule options for NMDOT employees to reduce commuting by each employee

Draft Projects and Strategies: Reduce VMT (2/3)

Strategy or Project	Description
Strategy	Continue to implement a Context Sensitive Solutions approach to project development to develop and maintain infrastructure that fits its setting, leading to preservation and enhancement of scenic aesthetic, historic, community and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions.
Strategy and project	Promote and fund the expansion of vanpooling services to close transit service gaps, improve mobility, and reduce VMT
Strategy	Explore opportunities to update departmental guidance materials to emphasize investment in multimodal options before adding roadway capacity
Strategy and Project	Continue educational campaigns and outreach for mode-specific events and including International Walk to School Day, International Bike to School Day, Pedestrian Safety Month (NHTSA), National Dump the Pump Day, Bike to Work Day, Bike Month, and more as opportunities arise.

Draft Projects and Strategies: Reduce VMT (3/3)

Strategy or Project	Description
Project	Develop and implement a Complete Streets Strategic Plan
Project	Develop, finalize and implement NMDOT Transit Burau's Statewide Transit Plan
Project	Complete a truck parking study

Share your thoughts on Reducing VMT!

5 Answers

Integrating land use to allow shorter trips, reduced parking req, preserving commercial zoned land in residential areas, etc

Operations management

Make parking harder (for non-trucks). Accept lower levels of service in traffic studies.

Subsidizing transit costs for employees, flex-time work schedules

Deep discount for transit fares"Cash for Clunkers" rebates for e-bikes (reduces VMT) and EVs (reduce on-road emissions)

Draft Projects and Strategies: Reduce emissions from transportation asset construction (1/1)

Strategy or Project	Description
Strategy	Develop and implement a training on an externally verified sustainability evaluation tool to aid decision makers and help project teams identify sustainable approaches during infrastructure project planning, design and construction (e.g., ENVISON)
Strategy	Identify opportunities to use recycled asphalt during roadway projects
Strategy	Identify opportunities to use warm mix asphalt
Project	Implement paperless processes at NMDOT; going to e-ticketing in construction. Moving to phones and tablets for MMS, eliminating paper out of process

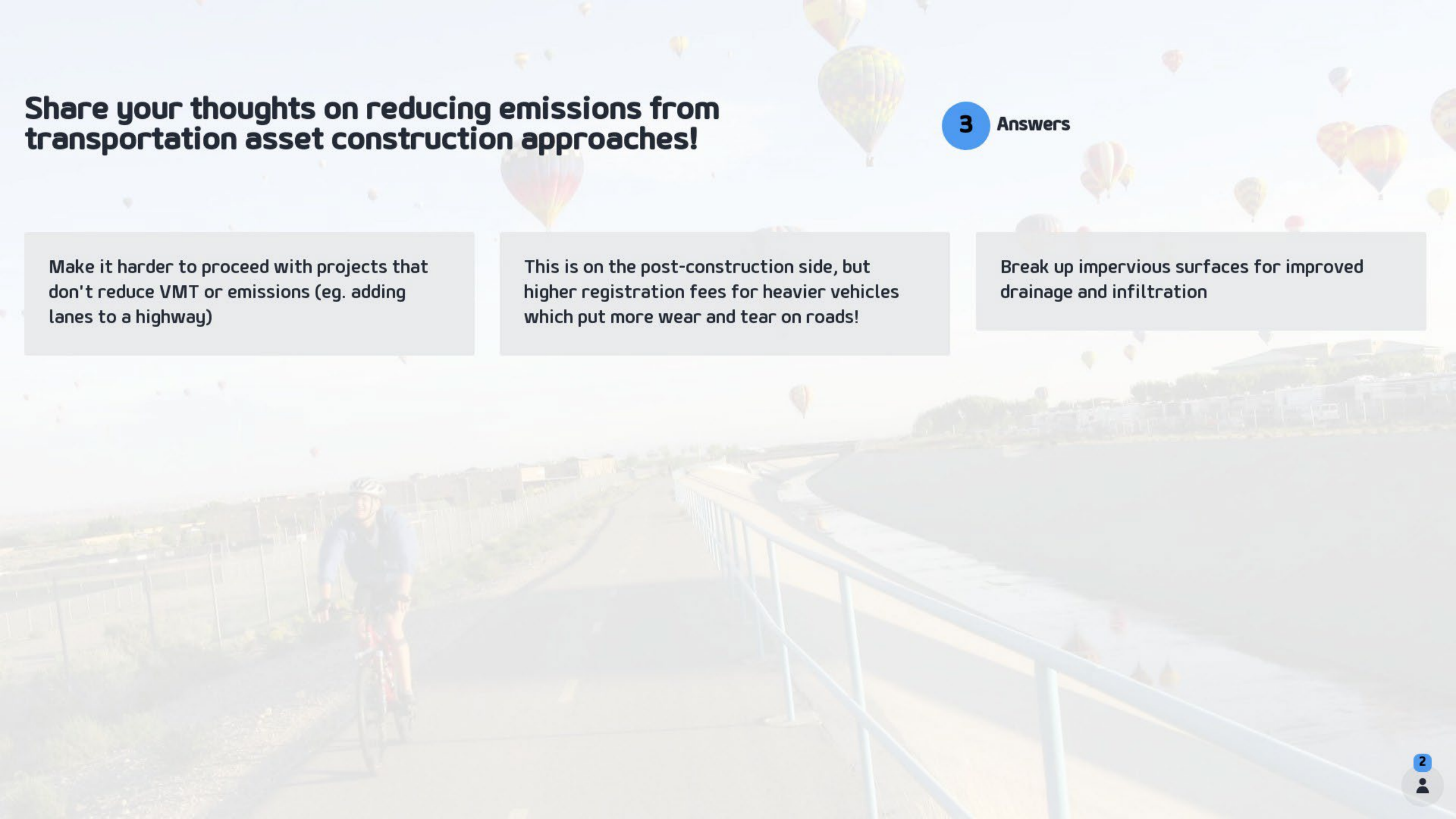
Share your thoughts on reducing emissions from transportation asset construction approaches!

3 Answers

Make it harder to proceed with projects that don't reduce VMT or emissions (eg. adding lanes to a highway)

This is on the post-construction side, but higher registration fees for heavier vehicles which put more wear and tear on roads!

Break up impervious surfaces for improved drainage and infiltration



2

Draft Projects and Strategies: Reduce Transportation Emissions of Vehicles (1/2)

Strategy or Project	Description
Strategy	Invest in and establish partnerships to build direct current fast charging (DCFC) stations along EV corridors and expand corridors to provide better coverage across NM.
Strategy and Projects	Implement low emission vehicle (LEV) standards at the state level (Clean Car Rule), adopted July 1, 2022
Project	Identify NMDOT highway maintenance vehicles eligible for replacement with funds from the federal Diesel Emissions Reduction Act.
Project	State Fleet Electrification Transition Plan for NM state agencies for replacement of current light and medium duty vehicles with EVs and/or plug-in hybrid vehicles
Strategy	Identify opportunities to invest in and install shore power for freight trucks, from NMDOT Freight Plan

Draft Projects and Strategies: Reduce Transportation Emissions of Vehicles (2/2)

Strategy or Project	Description
Strategy	Integrate Smart Signal Communications in projects
Project	Investment in low/zero emissions transit vehicles
Strategy	“Idling Gets you no where” campaign and idle reduction policy for state vehicles
Strategy	Incorporate traffic control measures and features to reduce congestion, including consideration of roundabouts

Draft Projects and Strategies: Other (1/3)

Strategy or Project	Description
Strategy	Install and/or upgrade NMDOT owned/maintained traffic signals with LED lights
Strategy	Install and/or upgrade LED Highway Lighting
Strategy	Continue Integrative Vegetation Management Program
Strategy	Identify opportunities and implement energy efficiency upgrades and/or improvements for NMDOT owned facilities
Strategy and Project	Fund District and T/LPA lead projects with Carbon Reduction Program, CMAQ, TAP, RTP funding to support the implementation of eligible projects to meet all three goals
Strategy	Install Solar Carports– NMDOT General Office and several Districts have solar, complete installation at district offices and patrol yards

Draft Projects and Strategies: Other (2/3)

Strategy or Project	Description
Strategy	Continued involvement by NMDOT leadership and staff in NM Climate Action Teams
Strategy	Study revenue options and projections, continue coordination with RUC West (an multi-state organization dedicated to exploring Road Usage Charging (RUC)) to learn from efforts from other states and build legislative support for alternative revenue sources to supplement motor fuel taxes, including electric vehicle fees and road user charges.
Strategy	Utilize the NMDOT Travel Demand Model, or MPO TDMs, to evaluate project alternatives. Utilize the travel demand model to evaluation when capacity is needed (inducing demand) when there are other alternatives that could meet the project goals?

Draft Projects and Strategies: Other (3/3)

Strategy or Project	Description
Strategy	Support MPOs in developing strategies to incorporate land use into planning/housing (new transportation planning factor under IIJA)
Strategy and project	Institutionalize and implement green stormwater infrastructure best practices in projects
Strategy	Continue to explore road user charge pilot project in partnership with neighboring states. Establish evaluation process, collect data, and evaluate performance. (RUC west)
Strategy and projects	Wetlands Mitigation Program
Strategy and projects	Dust Storm Mitigation and Safety

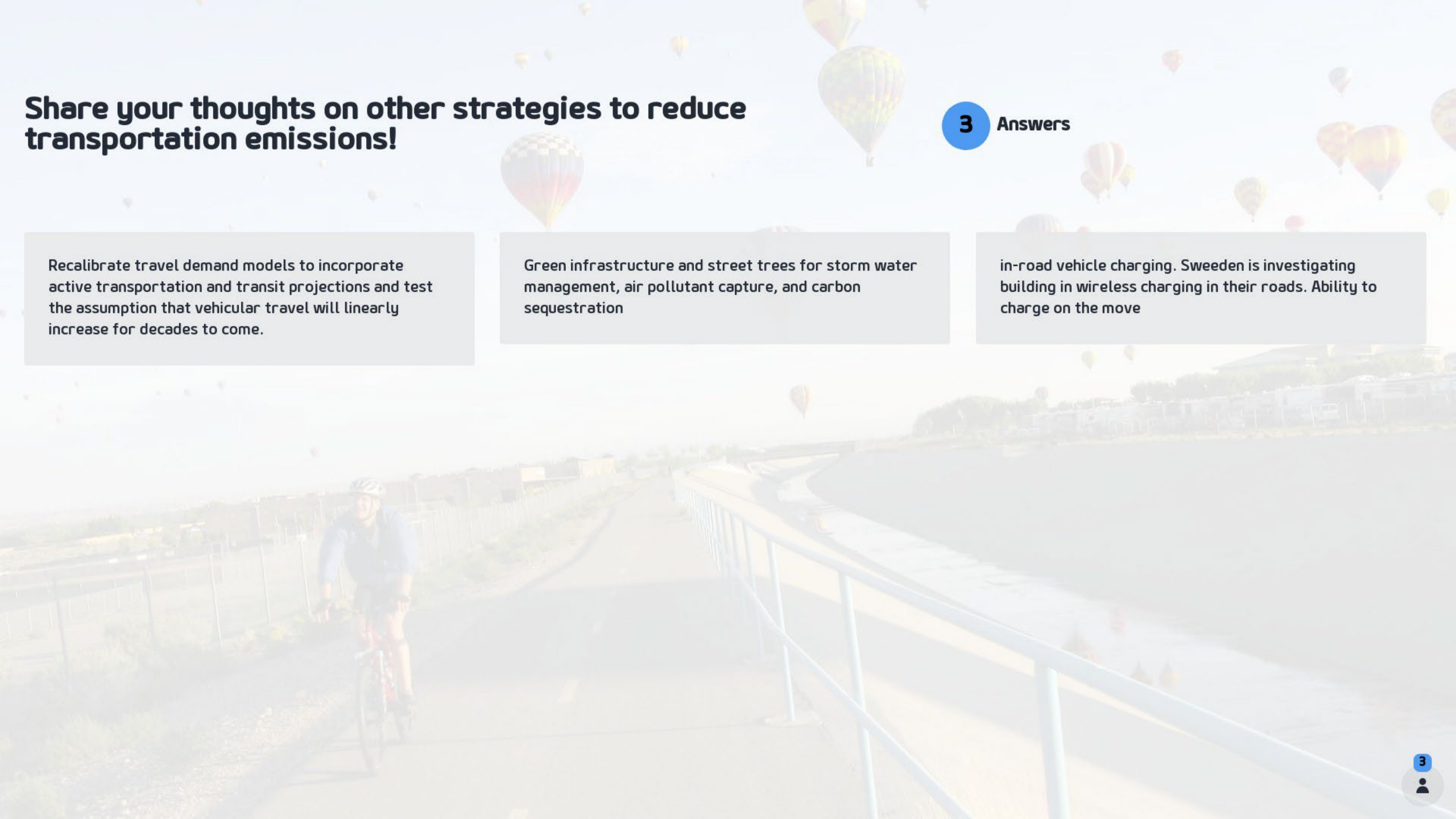
Share your thoughts on other strategies to reduce transportation emissions!

3 Answers

Recalibrate travel demand models to incorporate active transportation and transit projections and test the assumption that vehicular travel will linearly increase for decades to come.

Green infrastructure and street trees for storm water management, air pollutant capture, and carbon sequestration

in-road vehicle charging. Sweeden is investigating building in wireless charging in their roads. Ability to charge on the move



Next Steps

Send any equity definitions or other ideas to:

- Shannon Glendenning at 505-231-4300 or Shannon.Glendenning@dot.nm.gov

Internal and Stakeholder Coordination

Draft Carbon Reduction Strategy Review

- Request that MPO and RTPO staff share draft and solicit any input from Policy Boards/ Committees as informational. Aiming for end of June.

Final Strategy shared with planning partners, FHWA by November 15, 2023