Chapter 1

Welcome to *Moving Dutchess 2*

Moving Dutchess 2 is the sixth long-range, Metropolitan Transportation Plan of the Poughkeepsie-Dutchess County Transportation Council (hereafter referred to as the "Transportation Council"), continuing an almost 35-year tradition of metropolitan transportation planning in Dutchess County, New York.

From its designation in 1982 as the Metropolitan Planning Organization (MPO) for the Poughkeepsie Metropolitan Area to its present role in the three-county Mid-Hudson Valley Transportation Management Area, the Transportation Council has sought to meet the transportation needs of the county's residents, workers, and visitors. This goal has been at the core of previous Metropolitan Transportation Plans and endures with *Moving Dutchess 2*. The premise behind each and every Transportation Plan has remained the same – to identify policies and projects that will maintain and prepare the existing and future transportation system to meet the mobility challenges in the coming decades. What has changed is how the Transportation Council has tried to accomplish these goals.

As Dutchess County has changed over the past 35-years, the Transportation Council, as an organization and through its policies, has adapted to meet new challenges, while still adhering to its core transportation mission:

To provide the resources (funding) and tools (planning) necessary to build and maintain a transportation system that promotes the safe and efficient movement of people and goods in a sustainable manner.

Supporting this mission has required that the Transportation Council recognize shifting norms, be they based on demographics, human behavior, technology, or the environment. Flexibility has therefore become a mainstay for the Transportation Council, allowing it to maintain its relevancy to the community by addressing local transportation priorities that transcend basic statutory obligations. This is especially important given the significance of the transportation system to the health, safety, and welfare of the public–a fact that requires decisions be based on a thorough understanding of regional and local conditions.

The Metropolitan Planning Organization (MPO)

Federal transportation laws require that Urbanized Areas be represented by a MPO, which is responsible for ensuring that federal transportation funding (highway and transit) is committed through a locally driven, comprehensive planning process.[1,2] The MPO provides a forum for state and local officials to address various transportation issues and reach consensus on transportation plans and projects. The United States Department of Transportation (USDOT) relies on each MPO to make sure that federally funded projects are the products of a credible planning process, meeting the goals and priorities of the metropolitan area, while also addressing federal planning priorities.

Transportation Council Responsibilities

The Transportation Council's planning area covers the entirety of Dutchess County and it produces three core documents, common to all MPOs, which are necessary to meet federal transportation planning requirements:

Metropolitan Transportation Plan (MTP)

The MTP serves as the strategic, guiding document for improving transportation in Dutchess County over the next 20 to 25-years. The MTP establishes goals for the county's future transportation system, which are supported by specific project and planning recommendations. These goals and recommendations influence the types of projects pursued in the five-year Transportation Improvement Program (TIP) and the planning studies supported by the annual Unified Planning Work Program (UPWP) (both discussed below). Federal guidance requires an update to the MTP every five years for an MPO located in an EPA designated air quality attainment area. Federal law also requires that recommendations in the MTP be based on a reasonable assumption of future funding, reflecting fiscally constrained conditions.

Transportation Improvement Program (TIP)

The TIP lists the funding sources, locations, schedule, and sponsors for federally-funded transportation projects over a five-year period. The TIP implements the short range goals and recommendations of the MTP. The Transportation Council, working with member agencies, updates the TIP on a biannual basis, with project scheduling based on the Federal Fiscal Year (FFY) calendar, which starts on October 1st and ends on September 30th of the following year. In addition to federally-funded projects, the TIP also lists major transportation projects wholly financed by state funding or through agencies such as NYSDOT, MTA, NYS Bridge Authority, and NYS Thruway Authority. The Transportation Council's TIP is included in the Statewide Transportation Improvement Program (STIP), which is managed by NYSDOT.

Unified Planning Work Program (UPWP)

The UPWP serves as the annual statement of work that describes the activities, budget, and planning studies the Transportation Council will complete during the upcoming year. As with the TIP, the UPWP must support the actions promoted in the MTP; this especially holds true for Transportation Council staff work on local transportation planning studies. The UPWP is organized around the State Fiscal Year (SFY), which starts on April 1st.

Mid-Hudson Valley Transportation Management Area

The planning boundary for the Transportation Council stems in part from its location within the Poughkeepsie-Newburgh NY-NJ Urbanized Area, which was designated by the Census Bureau in March 2012.[3] This four-county Urbanized Area (UA) includes parts of Dutchess, Orange, and Ulster counties in New York and Passaic County in New Jersey. The UA has an urbanized population of over 423,000, well over the 200,000 population threshold used by USDOT to designate a Transportation Management Area (TMA).[4] Figure 1-1 shows

the PDCTC Urbanized Area, while Figure 1-2 shows the Mid-Hudson Valley TMA Area.

The TMA denotation, first instituted by the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA), carries additional responsibilities for an MPO. These include the development of a Congestion Management Process (CMP), methods to disburse Federal Transit Administration (FTA) funds, and an in-person federal certification review every four years. The most recent TMA federal certification occurred in 2014 and concluded that the MPOs were in compliance with federal transportation planning requirements.

Prior to the 2000 Census, two MPOs – our Transportation Council and the Orange County Transportation Council (OCTC) – operated within the Mid-Hudson Valley. In 2002 a third MPO, the Ulster County Transportation Council (UCTC), was designated as the MPO for the newly designated Kingston UA. Since then, the three MPOs have participated in a collaborative planning partnership that focuses on addressing regional transportation issues and meeting the federal requirements for a TMA. The joint CMP completed in 2005, supplemented by follow on reports in 2006 and 2011, is an example of this ongoing collaboration, as is the annual allocation of regional FTA funds to local transit operators. Though the three MPOs collaborate on regional issues, they each produce an individual MTP, TIP, and UPWP for their respective county.

In 2014 the three MPOs began to work with the North Jersey Transportation Planning Authority (NJTPA) – the MPO responsible for the federal transportation planning process in Passaic County, New Jersey – on meeting the planning requirements for the Poughkeepsie-Newburgh NY-NJ UA. This relationship was formalized through a Memorandum of Understanding between OCTC and NJTPA in early 2015.[5]

TMA Responsibilities

In addition to developing the MTP, TIP, and UPWP, the Transportation Council must also addresses issues related to traffic congestion and transit funding, which are products of the county's location and population density.

Congestion Management Process (CMP)

An MPO located within a designated TMA must develop a CMP[6], which institutes a formal process to measure and manage the performance of the transportation system. Such a process must describe methods to collect and analyze transportation system data, with the intent of developing effective strategies to mitigate identified congestion. The Transportation Council, OCTC, and UCTC adopted a joint CMP in 2005, followed by a report of congestion in 2006. The MPOs subsequently completed a travel time survey in 2011.

Federal Transit Funding

Federal transit funding is apportioned to the Poughkeepsie-Newburgh Urbanized Area as a whole, based on statistics reported by transit operators through the National Transit Database (NTD).[7] The annual FTA apportionment does not directly allocate transit funding to transit operators; instead,

Figure 1-1. PDCTC Urbanized Area (2010)

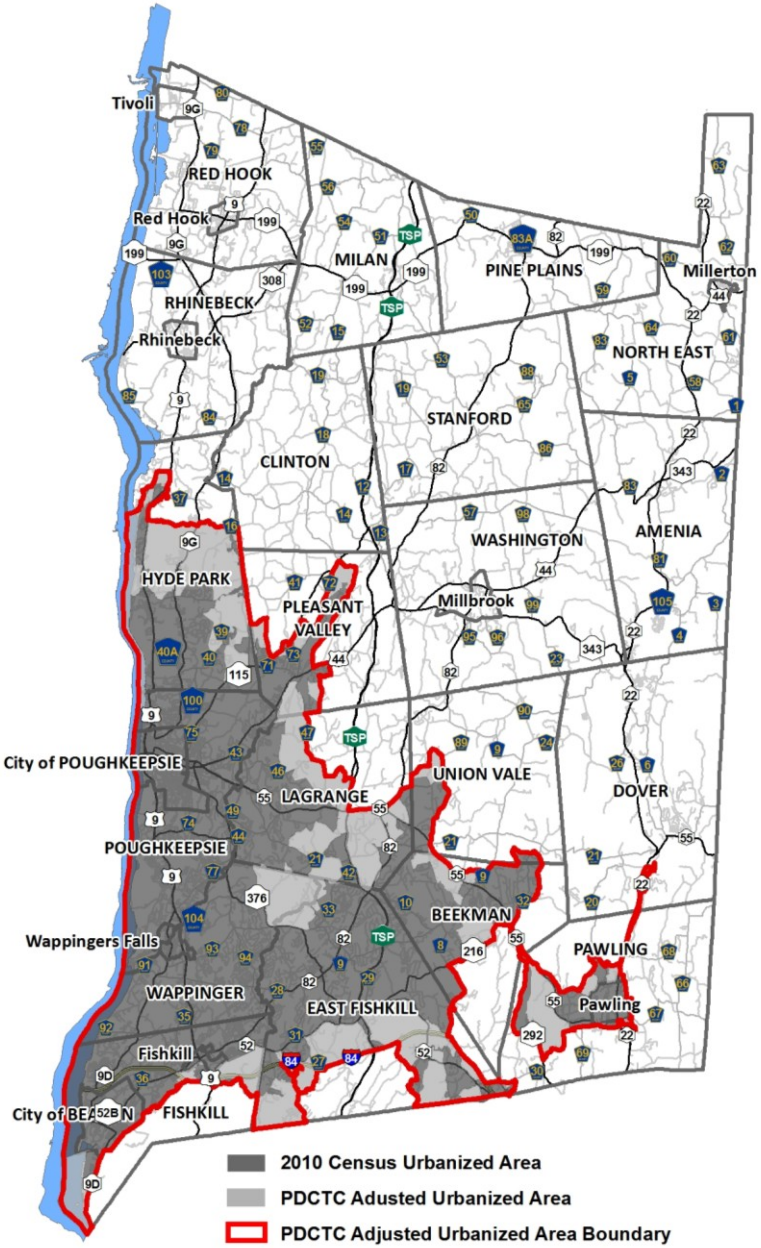
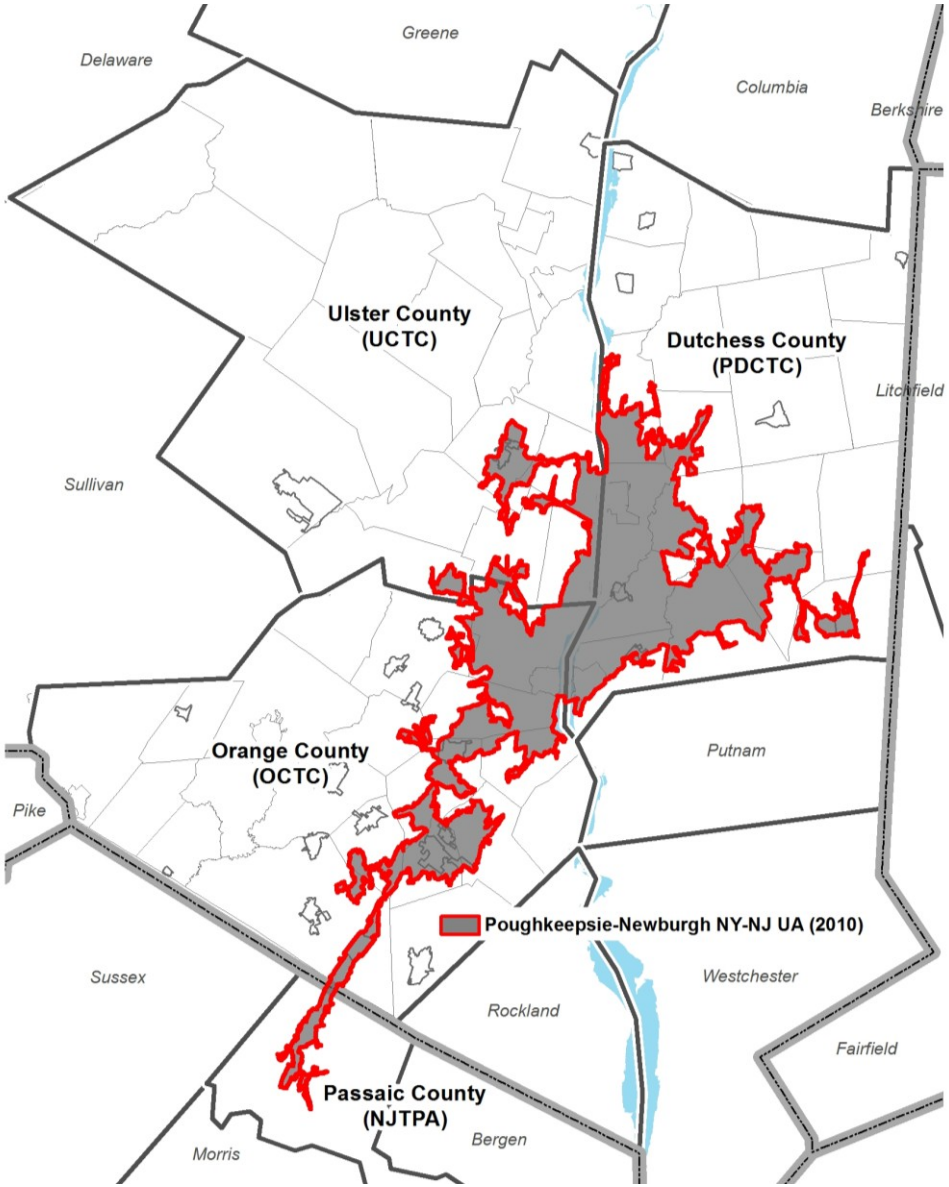


Figure 1-2. Poughkeepsie-Newburgh NY-NJ Urbanized Area & TMA



this responsibility rests with the three MPOs of the Mid-Hudson Valley TMA. It is the responsibility of our Transportation Council, OCTC, and UCTC to distribute the funds across the three counties, and then sub-allocate the funds to eligible public transit operators within each county. In Dutchess County, these include Dutchess County Public Transit, the City of Poughkeepsie bus system, and MTA. These transit operators are referred to as designated recipients.

Transportation Council Organization

The Transportation Council, acting as the local MPO decision-making body, is comprised of 16 voting members. Membership on the Transportation Council is based on a municipality's urbanized area classification, with the urbanized cities and towns serving as permanent voting members and the remaining towns and villages serving on a rotating basis or as nominated by the Dutchess County Supervisors and Mayors Association. In addition, Dutchess County, NYSDOT, and the MTA serve as voting members on the Transportation Council, while the FHWA, FTA, NYA Bridge Authority (NYSBA), and the Dutchess County Department of Planning and Development, Department of Public Works (DCDPW), and Division of Public Transit (DCPT) serve as non-voting advisory members. Figure 1-3 shows the Transportation Council's voting structure.

The Transportation Council relies on a number of agreements to carry out the transportation planning process in Dutchess County:

1. NYSDOT-PDCTC Master Agreement (1982): the original agreement between NYSDOT and Dutchess County that established the Transportation Council and its responsibilities.
2. Mid-Hudson Valley TMA Memorandum of Understanding (2006): provides a common understanding and structure for the continuing coordination and communication among the MPOs responsible for the TMA.
3. PDCTC Written Agreement (2011): identifies the roles, responsibilities, and cooperative procedures for carrying out the metropolitan transportation planning process in Dutchess County, agreed to by the Council, Dutchess County, City of Poughkeepsie, NYSDOT, MTA/Metro-North Railroad, and NYS Bridge Authority.
4. NYSDOT-PDCTC Host Agency Agreement (2012): reauthorized the host agency relationship between Dutchess County and NYSDOT and provided a 10-year schedule for funding Council activities.
5. PDCTC Public Participation Plan (2015): establishes the framework for public involvement during the development of the MTP, TIP, and UPWP and outlines standard public participation activities.
6. PDCTC Bylaws (2015): establishes the roles, responsibilities, and structure of the Council, to include voting membership, meeting protocols, decision-making process, and procedures for changing transportation projects on the TIP. The Bylaws codified voting membership based on the 2010 Census defined Urbanized Area.

Figure 1-3.Transportation Council Membership

Permanent Voting Members

Dutchess County Executive (Permanent Chairperson)
NYSDOT Commissioner
Metropolitan Transportation Authority Chairman and CEO
City of Beacon Mayor
City of Poughkeepsie Mayor
Town of Beekman Supervisor
Town of East Fishkill Supervisor
Town of Fishkill Supervisor
Town of Hyde Park Supervisor
Town of LaGrange Supervisor
Town of Poughkeepsie Supervisor
Town of Wappinger Supervisor

One Member from the Partially Urbanized Towns (rotating)

Town of Pawling Supervisor
Town of Pleasant Valley Supervisor
Town of Union Vale Supervisor

One Member from the Urbanized Villages (rotating)

Village of Fishkill Mayor
Village of Pawling Mayor
Village of Wappingers Falls Mayor

Two Members from the Non-Urban Towns and Villages[1]

Town of Amenia Supervisor
Town of Clinton Supervisor
Town of Dover Supervisor
Town of Milan Supervisor
Town of North East Supervisor
Town of Pine Plains Supervisor
Town of Red Hook Supervisor
Town of Rhinebeck Supervisor
Town of Stanford Supervisor
Town of Washington Supervisor
Village of Millbrook Mayor
Village of Millerton Mayor
Village of Red Hook Mayor
Village of Rhinebeck Mayor
Village of Tivoli Mayor

Non-Voting Members

Federal Highway Administration
Federal Transit Administration
NYSDOT Regional Director (Permanent Secretary)
NYS Bridge Authority Director
Dutchess County Department of Planning & Development
Dutchess County Department of Public Works
Dutchess County Division of Public Transit

[1] As nominated by the Dutchess County Supervisors and Mayors Association.

Planning Committee

The Transportation Council is assisted by a Planning Committee that reviews plans and programs prior to Transportation Council action. The Planning Committee is responsible for providing agency, municipal, and public input during the development of the MTP, TIP, UPWP, and other Transportation Council products. Membership on the Planning Committee is open to all 30 municipalities in Dutchess County.

Transportation Council Staff

Day-to-day Transportation Council activities are performed by staff at the Dutchess County Department of Planning and Development, which assumes primary responsibility for the development and administration of the UPWP, the coordination of plans and projects, maintenance of the TIP, and long-range transportation planning.

The Dutchess County Department of Planning and Development and NYSDOT-Region 8 provide administrative and logistical support for Transportation Council staff. The Dutchess County staff section includes a Transportation Program Administrator, Senior Planner, and Junior Planner. The mechanics of how the Transportation Council carries out its mission, including how it involves the public, are codified in its Bylaws and Public Participation Plan that were updated effective January 1, 2015.[8]

Guiding Principles for *Moving Dutchess 2*

Moving Dutchess 2 is a 25-year, multi-modal transportation plan for Dutchess County. With a planning horizon year of 2040, it identifies strategies to preserve the existing transportation system and meet future demands as determined by projected demographic and travel trends in the county. To meet this objective, the Transportation Council identified four planning principles for *Moving Dutchess 2*. These principles were based on a review of existing laws and guidance, and an understanding of how the federally-supported, metropolitan transportation planning process is applied at the State, regional, and local level:

1. Relevant: *Moving Dutchess 2* will not only meet federal and state planning requirements, but will serve as a valuable planning tool, relevant to the public, local communities, and decision-makers.
2. Sustainable: *Moving Dutchess 2* will establish a fiscally and environmentally sustainable way forward to meet our future transportation challenges, with the intent of creating livable communities that improve our quality of life.
3. Targeted: *Moving Dutchess 2* will identify specific measures, both planning and project-based, to improve the safety, efficiency, and effectiveness of our transportation system to meet our future mobility needs.
4. Inclusive: *Moving Dutchess 2* will seek input from a full range of stakeholders and interests, addressing the diverse transportation needs of all our residents and visitors.

These principles provide the framework for how *Moving Dutchess 2* was developed and organized.

Transportation Plan Organization

The previous MTP – *Moving Dutchess* – served as the foundation for the new Transportation Plan. Therefore, *Moving Dutchess 2* follows the same structure as its predecessor, addressing the various federal planning requirements through the following chapters:

Chapter 2: Federal, State, Regional, & Local Guidance & Plans

Moving Dutchess 2 begins with a review of relevant federal, state, regional and county laws, policies, and planning guidance that have a direct or indirect effect on the metropolitan transportation planning process. Given the importance that our transportation system plays in maintaining our safety, environment, economy, and quality of life, many public bodies and government agencies have passed laws or issued guidance about the direction, shape, and scope of the transportation planning process.

The literature review sought to capture those planning policies and recommendations that best support the Transportation Council's mission and the goals set forth in *Moving Dutchess 2*. More often than not, similar themes arise from these documents, whether they were legal statutes, state, regional and local plans, or best practices. The Transportation Council referred to these themes as it established the ten planning goals for *Moving Dutchess 2*:

1. Preserve our highways and bridges.
2. Maintain our transit system.
3. Improve transportation safety.
4. Reduce traffic congestion.
5. Increase bicycling and walking.
6. Increase the use of carpools/vanpools.
7. Improve transportation security.
8. Reduce transportation-related impacts to the environment.
9. Increase public participation in the transportation planning process.
10. Improve the delivery of federally-funded transportation projects.

Moving Dutchess 2 summarizes the key points from available literature and identifies those aspects most relevant to its goals.

Chapter 3: Regional Perspective

The Transportation Council recognizes that our transportation system is part of an interconnected regional, statewide, and national system. *Moving Dutchess 2* provides an overview of the Mid-Hudson region, focusing on the common regional transportation and land use issues facing Dutchess and its neighbors – especially Orange and Ulster counties. The Plan also notes how the three counties have worked together to address regional issues and makes recommendations for future planning efforts, with a focus on addressing regional freight and transit needs.

Chapter 4: Demographic Overview

Though discussed in the language of funding and projects, a transportation system has more to do with people than infrastructure. Our transportation system has one simple, fundamental purpose: to serve people, whether for their own personal mobility or the mobility of the goods and services they require. Given the link between people and transportation, effective planning requires that we understand the nature of the population we serve. The new Transportation Plan provides an overview of Dutchess County using data relevant to transportation planning. This countywide snapshot includes data on population and socio-economic characteristics, employment, housing, and travel behavior. Recognizing the link between land use decisions and the transportation system, *Moving Dutchess 2* includes an assessment of two land use scenarios:

1. Build-out Analysis: the amount of development that could occur in each community under current local zoning laws and bulk regulations.
2. Center-Focused Build-out Analysis: the amount of development that would occur if the county's *Centers and Greenspaces* guide was fully implemented by local communities.

Chapter 5: Transportation & Natural Resource Overview

Moving Dutchess 2 seeks to identify projects and plans necessary to maintain the transportation system in a state of good repair and meet future travel needs, while preserving our natural and historical resources in the most sustainable manner possible. Inventorying and assessing existing conditions is a necessary step in this process. The Transportation Plan provides an overview of transportation facilities and resources in the county, discussing the key components of the transportation system: roads, bridges, transit, sidewalks, trails, and bicycle facilities, as well as park-and-ride facilities, freight activity, and safety and security. The chapter also analyzes vehicle crash data for the most recent five-year period to identify locations with safety concerns, and also travel time data to identify locations with congestion. *Moving Dutchess 2* also outlines important natural and historical resources in the county, including wetlands, floodplains, air quality, agricultural land, and historic districts, and their interplay with the transportation system.

Chapter 6: Area Transportation Plans

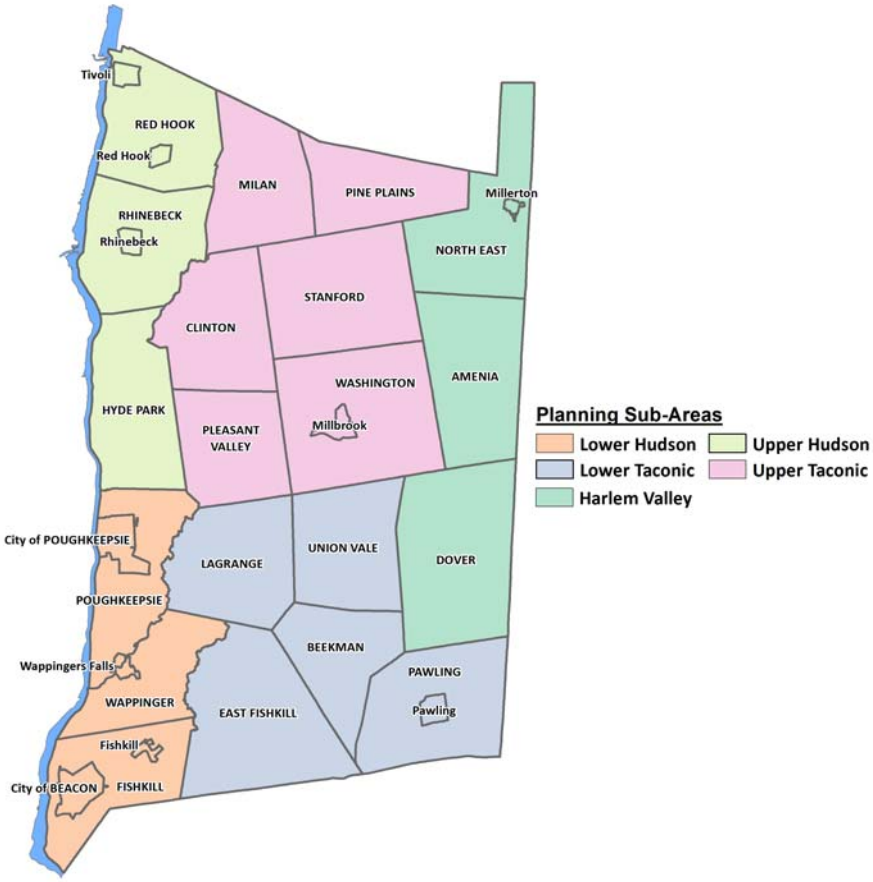
Moving Dutchess 2 then takes a closer look at the characteristics and special needs of five distinctive areas within the county, which represent groups of similar communities. The five areas were first established in 2011 with *Moving Dutchess* through an assessment of development patterns, travel characteristics, and demographic profiles. This approach supports the Transportation Plan's four guiding principles, by providing greater detail on existing and future conditions, and targeting resources to meet future needs.

Analyzing smaller areas has allowed the Transportation Council to better comprehend local nuances and increase the Plan's value to local communities. *Moving Dutchess 2* accordingly describes each area's demographics, activity

centers, and transportation facilities, and summarizes transportation issues identified in local comprehensive plans and previous studies. The Transportation Plan looks at the following planning areas (shown in Figure 1-4):

1. Upper Hudson: The northwestern section of communities located near the Hudson River, encompassing the Village of Tivoli, Town and Village of Red Hook, Town and Village of Rhinebeck, and Town of Hyde Park.
2. Lower Hudson: The southwestern section of communities located near the Hudson River, encompassing the City and Town of Poughkeepsie, Town of Wappinger, Village of Wappingers Falls, Town and Village of Fishkill, and City of Beacon.
3. Upper Taconic: The north-central section of communities located along the Taconic State Parkway and Route 82 corridors, encompassing the towns of Clinton, Milan, Pine Plains, Pleasant Valley, Stanford, and Washington, and the Village of Millbrook.
4. Lower Taconic: The south-central block of communities located along the Taconic State Parkway and Route 55 corridors, encompassing the towns of LaGrange, Union Vale, East Fishkill, Beekman, and Pawling, and the Village of Pawling.
5. Harlem Valley: The eastern section of communities located near Connecticut and along the Route 22 corridor, encompassing the towns of North East, Amenia, and Dover, and the Village of Millerton.

Figure 1-4. Moving Dutchess 2 Planning Areas



The area planning strategy seeks to identify the varied transportation needs across different parts of the county, which sometimes get lost when viewed from a 'one size fits all' standpoint: for example, the transportation needs of a heavily urbanized area are often different from the needs of a more rural area. Zeroing in on smaller areas allows the Transportation Council to better comprehend local nuances

and increase its value to local communities. Each area chapter will describe its demographics, activity centers, and transportation facilities (e.g. roads, bridges, and transit), and a summary of transportation issues identified in local comprehensive plans and previous Transportation Council studies.

Chapter 7: Performance Monitoring

Public agencies are increasingly using performance measures to gauge progress towards meeting specific goals. The Transportation council is no different. *Moving Dutchess 2* carries over 70 performance measures to quantify progress on meeting our short-range and long-range goals. The performance measures rely on available data to measure existing conditions for key aspects of the transportation system, including safety, highway/bridge maintenance, transit operations, bicycle/pedestrian facilities, the environment, public participation, and project deliverability. Each performance measure uses current data to establish a base starting point. Goals are then established for two future years: 2020 (the next update) and 2040 (the planning horizon year).

Chapter 8: Recommendations & Financial Plan

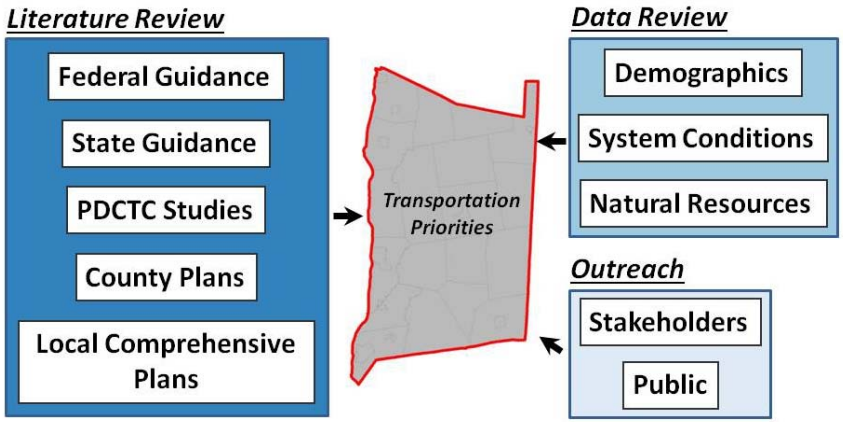
Moving Dutchess 2 includes over 170 specific recommendations to preserve and improve the transportation system. The Transportation Council developed these recommendations through a review of existing guidance, input from State and local agencies, an analysis of transportation system data, and feedback from the public. The Transportation Council chose to identify specific projects to increase the value of the Transportation Plan to public agencies and communities – providing them greater detail on where to target future investments.

The recommendations are divided into short-range (2016-2020), mid-range (2021-2030), and long-range (2031-2040) time periods, which are related to each project's relative priority and complexity, and the availability of funding. The Transportation Plan categorizes recommendations into eight major project types:

1. Bridge Maintenance: replacement or rehabilitation of bridges that are in or are expected to be in poor condition.
2. Highway Maintenance: reconstruction or rehabilitation of roadway segments that are in or are expected to be in poor condition.
3. Highway Operations: intersection, turning lane, and traffic signal projects to improve operations and reduce congestion.
4. Safety: projects and studies to improve safety.
5. Pedestrian/Bicycle: construction or rehabilitation of sidewalks, crosswalks, and trails to improve safety and accessibility.
6. Travel Demand Management: rideshare/vanpool services to reduce congestion.
7. Transit: bus replacements, operating assistance, and preventive maintenance for transit providers, as well as facility upgrades for bus and commuter rail.
8. Planning: topics or locations that require additional transportation planning work.

These categories, and their related recommendations, represent the transportation priorities identified by the Transportation Council through its review of existing guidance, data analysis, and public outreach (see Figure 1-5).

Figure 1-5. Moving Dutchess 2 Planning Process



Moving Dutchess 2 includes a financial plan that uses planning-level cost estimates and forecasts of reasonably expected funding to financially constrain its recommendations and avoid a wish list of projects. Project cost estimates are adjusted for inflation based on the project's Year of Expenditure, providing a more realistic estimate of funding needs. The financial plan uses three funding scenarios that are tied to the three time-periods:

1. Short-Range (2016-2020): This scenario uses current funding targets to prioritize recommendations. These targets form the basis of the upcoming 2017-2020 STIP, with the short-range recommendations mostly representing projects already programmed on the TIP. This is a system preservation program, reflecting a lack of substantial increases in federal transportation funding.
2. Mid-Range (2021-2030): This scenario assumes that funding will return to pre-2007-2009 recession levels, sometime during 2021-2030. This would enable a larger number of system preservation projects and some state of good repair projects to move forward. It would also enable small-scale improvement projects to progress.
3. Long-Range (2031-2040): This scenario assumes that funding increases above pre-2007-2009 recession levels and continues to increase with the rate of inflation, further enabling the progression of state of good repair and system preservation projects, and even large-scale improvement projects.

Moving Dutchess 2 also identifies unfunded project concepts (i.e. illustrative projects) that were provided during public workshops or garnered from local comprehensive plans and previous studies.

> *Moving Dutchess 2 recommends the investment of over $1.1 billion in highway, transit, and planning projects to preserve and improve the county's transportation system over a 25-year planning period.*

Given that there is insufficient funding available to reach a true state of good repair, *Moving Dutchess 2* outlines a preservation-based approach to maintain transportation safety and mobility. However, the Transportation Council does recommend a number of projects that go beyond just preservation to meet future needs,

including two regionally-significant, long-range projects to improve transportation safety and operations:

1. Redesigning the Route 9/44/55 interchange in the City of Poughkeepsie
2. Redesigning the I-84/Route 9D interchange in the Town of Fishkill

Appendices

Moving Dutchess 2 includes five appendices that cover definitions used throughout the Transportation Plan, a list of recommended bridge repairs, public outreach summary, ADA inventory data, and an illustrative list of unfunded projects.

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[1] *Fixing America's Surface Transportation Act*, Public Law 114-94, December 4, 2015, and *Moving Ahead for Progress in the 21st Century Act*, Public Law 112-141, July 6, 2012.
[2] 76 *Fed. Reg. No.164* (53030), August 24, 2011: an Urbanized Area consists of contiguous, densely settled census block groups and blocks that meet minimum population density requirements, along with adjacent densely settled census blocks that together encompass a population of at least 50,000 people.
[3] 77 *Fed. Reg. No. 59* (18652), March 27, 2012: established the Poughkeepsie-Newburgh NY-NJ Urbanized Area with a total urbanized population of 423,566.
[4] 23 *CFR* 450.306 (2009) and 49 *CFR* 613.100 (2007).
[5] Memorandum of Understanding on MPO Boundaries and Coordination of Transportation Planning and Programming between OCTC and NJTPA (February 17, 2015).
[6] 23 *CFR* 450.320 (1999).
[7] 49 *USC* 5307.
[8] PDCTC Resolution 14-07, December 17, 2014.