

An aerial photograph of a large lake surrounded by dense, green forested hills. The sun is low on the horizon, creating a warm, golden glow over the landscape. The sky is filled with soft, white clouds. The text 'VI. GOALS, OBJECTIVES, PERFORMANCE MEASURES AND NEEDS' is overlaid in large, white, sans-serif font on the upper left portion of the image.

VI. GOALS, OBJECTIVES, PERFORMANCE MEASURES AND NEEDS

Photo by: Gerald Berliner

GUIDING PRINCIPLES

The LRTP needs were determined using the following major principles:

An Affordable Transportation System: Affordability is a key determinate that underlies the discussion of need. With limited fiscal resources, every jurisdiction that owns and operates part of UCTC's transportation system must consider what they can afford to operate, maintain and improve now and in the future. Elements of the transportation system that are overbuilt may need to be realigned to new forecasts of population growth or economic activity. Pressure to accommodate high traffic volume even when it occurs infrequently, such as peak recreation or holiday volumes, may need to be overlooked in favor of more pressing maintenance needs and changing trends may force investment for safety or sustainability reasons such as cycling or climate change. The transportation system plan must be SMART enough to adapt to these needs and flexible enough direct the financial resources where they are needed most. One example of this is consideration in the context of infrastructure age and condition, such as when bridge is nearing the end of its predicted useful life, the owner may want to replace it, but may only be able to afford a rehabilitation that will add ten years to the life cycle.

The needs in this Plan have been constrained by forecasts of affordability.

Land Use Focus: The LRTP focuses on Primary Corridors and the places they link in order to support an efficient land use pattern of compact development capable of serving the multimodal needs of urban centers. These centers include Kingston, Ulster, New Paltz, Saugerties, Woodstock, and Ellenville and the smaller hamlets along these corridors of Rosendale, Marlboro, Highland, Gardiner, Wallkill, Stone Ridge and Phoenicia. The corridors themselves will also receive priority in project selection for system preservation and multimodal mobility actions.

User Expectations: Another balance that must be struck is between the expectations of transportation system users and the feasibility of meeting those expectations. Input from stakeholder and public meetings and other contacts (see Appendix D) was utilized to understand these expectations. With the advent of performance-based, outcome-oriented planning, the user perspective must be more explicitly considered in the development of the Plan. As UCTC moves ahead in measuring and reporting performance across a number of metrics, the public and decision makers will be given more explicit information on how planned investments are impacting their travel. An example of this is the regional Congestion



Main Street, Phoenicia Ulster County NY

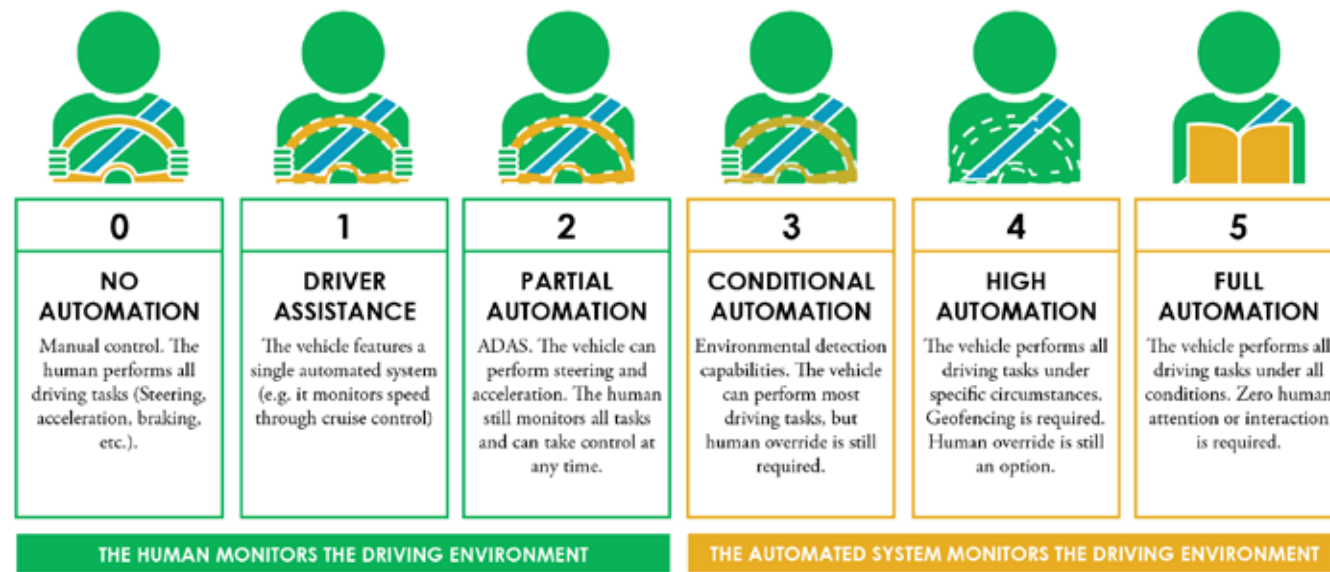
Management Plan. While the perspective of the travelers may help UCTC set priorities, fiscal constraint and engineering feasibility will impose limits on meeting expectations.

Technological and Social Change: This LRTP relies on the credible forecasts of future conditions, some of which are seen in both National and State policies such as climate change, use of alternative fueled vehicles, disruption in the transit sector, and the needs of an aging population. There is also the recognition that unanticipated changes can happen that may have profound impacts on community and transport needs. This is one reason behind the requirement that the LRTP be updated at least every five years.

The LRTP recognizes a number of potential major shifts from traditionally understood transportation system functions. While these do not explicitly affect the quantification of need, they are worthy of discussion.

- ▶ **Transportation technology:** Level 1 autonomous vehicle features are now optional among a wide variety of new vehicles today. The next generation of self-driving cars will be entering the fleet in greater numbers within the time horizon of this plan, including across delivery, freight and transit sectors. Connected vehicles communicate continuously with other vehicles and with roadside infrastructure like traffic signals. The primary focus is a positive impact on safety resulting from a variety of crash-prevention and crash-avoidance applications. Autonomous vehicles perform across a continuum of self-driving features. Simple applications like self-parking cars are available now. Fully autonomous cars are currently in testing and development. When these vehicles reach full acceptance, they have the potential to influence everything from car ownership to travel demand. People currently unable to drive, including children, seniors, and those with disabilities, may be able to rely on autonomous cars for transport. Early examples of automated trucks are also in development. These may increase efficiency of long haul trips by obviating the need for driver hours-of-service rules; and assist in the implementation of off-hours urban delivery schemes.
- ▶ **Shared Mobility:** Shared mobility is an umbrella term that encompasses a variety of transportation modes including carsharing, bikesharing, peer-to-peer ridesharing, on-demand ride services, microtransit, and other modes. Shared mobility has the potential to vastly decrease the costs of transportation for users by allowing riders to select the mode that best suits their needs, thereby releasing them from the burden of car ownership and single-occupancy trip generation. Simultaneously, the distribution of the costs and benefits that shared mobility will have on public transit, local congestion, and transportation equity, are not yet fully known or understood.
- ▶ **Communications technology:** There is no question that the Internet and related communication technology will continue to evolve. This will have unknown impacts across many industries, and on individual lifestyle choices, including greater emphasis and popularity of remote work and learning, which changes trip types and VMT generation.
- ▶ **Sustainable communities:** There is a growing focus on how to become more sustainable in terms of energy generation and consumption, locally sourced food, and urban form and structure. There may be unexpected improvements in any of these areas that can affect travel demand and mode choice.

LEVELS OF DRIVING AUTOMATION



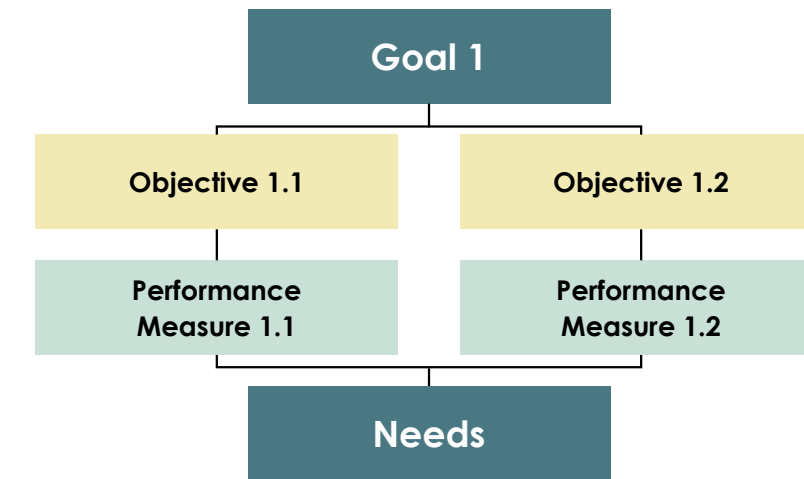
Source: <https://www.synopsys.com/automotive/autonomous-driving-levels.html>

- ▶ **On-line Shopping:** Increased use of on-line shopping will create additional needs related to freight and local delivery while at the same time offer a reduction in congestion at major retail centers.
- ▶ **Climate Change:** State policies as well as local goals will drive increase use of electric vehicles significantly altering emissions over the life of the LRTP as well as seeing the introduction at scale of charging technology.
- ▶ **Mode Shift:** increase focus on walkable communities, trails, and bicycle use will drive the need to invest in pedestrian and bicycle facilities over the life of the Plan.

GOALS

Goals form the foundation of the LRTP. They offer explicit guidance on the priorities for the investment of transportation dollars, the outcome of that investment and the importance to the region served by the Ulster County Transportation Council.

The Goals are founded on three core principles: that the transportation system must serve the needs of its community today, respond to change, and be affordable for all users. Implementation of these simple principles relies on understanding the complex interactions of preservation versus expansion, accommodation of new or expanding uses and different modes, and the use of new products or technology. Goals are the base on which stand the strategies, plans, and priorities for investment.



The Goals in the LRTP were developed in coordination with the following::

- ▶ UCTC leadership, through the Policy and Technical Advisory Committees.
- ▶ The FAST Act, which established seven National Performance Management Goals that all states and MPOs must use as a basis for performance-based planning (see Introduction, p. 4).
- ▶ The New York State Department of Transportation, which has a set of principles called the Forward Four. These principles define NYSDOT’s overall approach to its stewardship of the State Highway System which are detailed in Section 2 of this report (System Performance).
- ▶ Stakeholder and Public Input.

Note: Goals are not in order of priority. Priorities are established as projects, strategies, and actions.

OBJECTIVES

Each Goal is supported by a series of **objectives**. Objectives add specificity, spelling out how implementation will support goal achievement. The objectives in the LRTP are specific, measurable, achievable, relevant and time-bound (“SMART”) For example, “Improving pedestrian safety” as an objective is not SMART, while “Reducing pedestrian fatalities and severe injuries from crashes by 10% over the first 10 years of the Plan” can form the basis for selecting actions.

PERFORMANCE MEASURES

Objectives are in turn supported by **performance measures**. To initiate performance-based planning, the UCTC has selected metrics that will be used to measure achievement or progress on each objective. In each case, there must be a means to collect or access the necessary data, analyze it, create solutions, and fund

implementation. It should be noted funding is a major challenge to achieve many of these objectives. One example is the lack of federal funds to meet long term local bridge goals while at the same time local funding for bridges is hampered by the NYS-mandated tax cap. The tax cap limits many smaller municipalities capabilities to fund transportation improvements.

NEEDS

The LRTP directs the investment of available resources towards meeting the region’s priority **needs**. Priority Needs are determined using the using the following decision process:

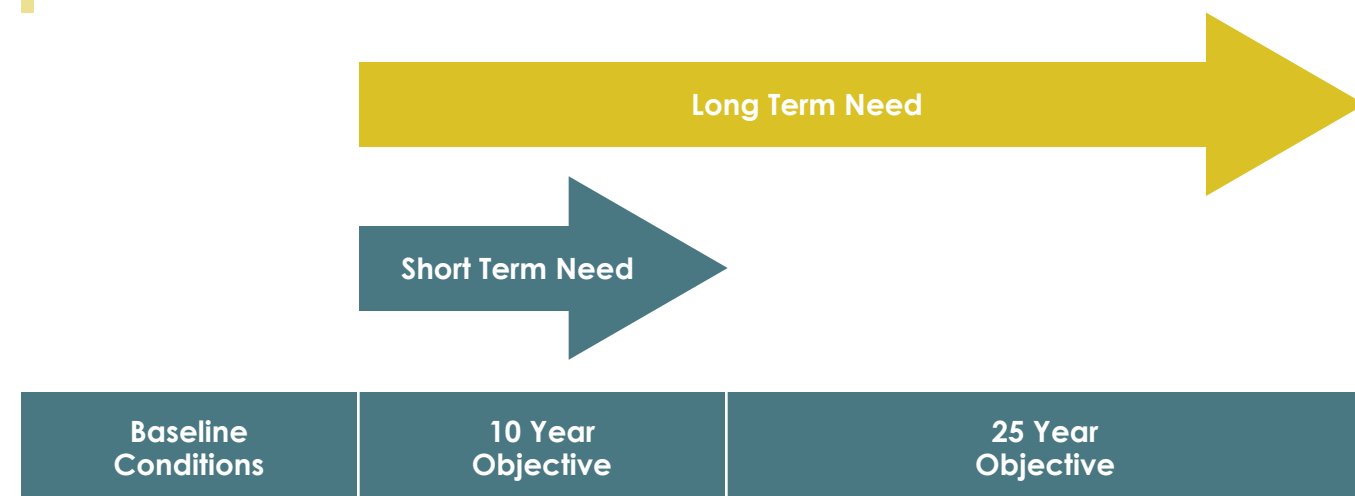
- ▶ Guiding Principles: Affordability, Land Use, User Expectations, Technological and Social Change.
- ▶ Plan Objectives: Identify the most important objectives to accomplish over the life of the plan”
- ▶ Current Conditions and Forecasts: Examine barriers and solutions based on current knowledge.

Needs span the twenty-five year reach of the plan. Some may be addressed in the near term, while others will be of greater concern ten or twenty in the future. Sometimes satisfying needs is sequentially dependent, when a preliminary step facilitates the next one.



The Carmine Liberta Memorial Bridge crosses the Walkkill River in New Paltz. *Daily Freeman*

Figure 6.1: Transportation Objectives and Time-Based Need



The illustration above depicts the concept of time-based need and may apply to any of the transportation system elements. Using bridge condition as an example, the baseline may be 28% Good, the 10-year objective is to increase that to 45% Good, and the 25 year objective to 60% Good.

FEDERAL PERFORMANCE MANAGEMENT REQUIREMENTS

The following eight Ulster County LRTP goals, objectives and performance measures were developed prior to the January 2018 US DOT Performance Measurement requirement and represent the UCTC’s core focus areas. They should not be confused with Federal Performance Management Goals, which are detailed in the System Performance Report in Section 7 of this document.

GOAL 1: SYSTEM PRESERVATION



Wynkoop Rd bridge in Hurley.

Invest in transportation system infrastructure to bring all facilities and modes into a state of good repair.

The UCTC is committed to continuously evaluating the condition of our roads and streets, bridges, sidewalks, transit buses and facilities, and traffic signals and other devices. System Preservation will rely on utilizing a risk-based asset management approach. Investment decisions will utilize NYSDOT’s “preservation first” methodology as opposed to a “worst first” approach. This approach applies low to moderate cost treatments to more assets that are in fair condition to extend their service life for several years rather than spending greater dollars fixing those assets that are already in poor condition and

whose further deterioration does not greatly increase the cost of repair. Achieving this goal requires striking a balance between projects that address infrastructure that is already in poor condition and those that apply the preservation approach to infrastructure in fair condition.

OBJECTIVE 1.1 – BRIDGE INFRASTRUCTURE

- A** Reduce the number of structurally deficient bridges on the State highway system by 10% by 2025, and 20% by 2045.
- B** Reduce the number of locally owned structurally deficient bridges by 5% by 2025, and by 10% by 2045.
- C** Improve functionally obsolete bridges that are not structurally deficient only when the bridge poses a demonstrable safety hazard, or an impediment to economic development.

Performance Measure 1.1: Number of structurally deficient bridges reported by NYSDOT to the National Bridge Inventory.

Status

The definition of Structurally Deficient (SD) changed in 2018 and removed some additional conditions that could trigger a bridge to be considered structurally deficient. Despite this change in methodology, the number of structurally deficient bridges reported in the NBI increased from 69 bridges to 85. This increase occurred largely on the local bridge system which increased from 48 to 66. Improvements were seen on the state system from NYSDOT and the NYSTA with a reduction of 3 structurally deficient bridges. This emphasizes the importance of bridge funds for the local system which encompasses nearly 60% of bridges in the UCTC MPA.

Number of Structural Deficient Bridges		
Owner	2014	2019
City	1	0
County	36	47
Town/Village	11	19
NYSDOT	13	12
NYSTA	7	5
NYSBA	0	0
NYC Water	1	2

Need – Bridges

To meet the short-term objective for bridge conditions, there will be 5 fewer State bridges and 10 fewer local bridges classified as structurally deficient by 2025.

To meet the long-term objective for bridge conditions, there will be 10 fewer State bridges and 20 fewer local bridges classified as structurally deficient by 2045.

In all cases, bridges on critical corridors and within urban areas will receive priority.

OBJECTIVE 1.2 – PAVEMENT INFRASTRUCTURE

- A** Reduce the number of lane-miles of pavement on critical corridors rated Poor or IRI rated Unacceptable by 20% by 2025.
- B** Reduce the number of lane-miles of pavement on other State Touring Routes rated Poor, or IRI rater Unacceptable by 15% by 2025.
- C** Achieve a State of Good Repair for all Federal-aid eligible pavements by 2045, where that is defined as “State of good repair is the condition state of the system that can be maintained in perpetuity at the lowest annual cost.”

Performance Measure 1.2: Pavement ratings, using NYSDOT surface scoring methodology and International Roughness Index.

Status

Data collection on locally owned streets and roads continues to be a significant need. NYSDOT implementation of routine pavement scoring has lagged behind promised timelines. Accordingly, UCTC lacks knowledge of the extent of the need on the local system and the owners of these roads do not have a basis for making the best pavement management decisions.

Needs - Pavements

Significant mileage of arterial pavements on the State Touring Route System are rated Fair, or have IRI scores rated unacceptable. NYSDOT faces significant challenges to meet stated pavement goals. A “Preservation First” approach will make the most economically efficient use of available fiscal resources for pavement work. The LRTP directs NYSDOT Region 8 to support and implement a focus on Primary Corridors first.

OBJECTIVE 1.3 – TRANSIT INFRASTRUCTURE

- A** Maintain the UCAT a fleet to meet the Federal Transit Administration guidelines for service life for each category of bus over the life of the Plan.

Performance Measures 1.3: Transit fleet profile updated annually; UCAT Transit Asset Management (TAM) Plan.



UCAT Bus at the ready.

Status

Refer to Appendix B for full UCAT transit fleet profile.

Needs - Transit Fleet

UCAT acquired the Kingston Citibus fleet in 2019 and is in a continual process of fleet modernization. As of 2020, UCAT has 35 active fixed route buses, 7 active paratransit buses and 4 support vehicles. The average age of fixed-route vehicles is 5.5 years and the average age of paratransit vehicles is 6.5 years. UCAT has begun the long-term process of fleet electrification with orders for the first three 35' electric buses purchased for delivery in 2021.

The UCTC is supporting two active planning studies focusing on the various complexities and needs associated with fleet electrification and the identification of an additional site for expanded fleet storage space.

GOAL 2: ECONOMIC VITALITY

Invest in transportation system improvements that are necessary to support the current regional economy and make strategic system investments to support future economic growth.

Each sector of the regional economy places different demands on the transportation system. Consumer-oriented sectors like health care and retail establishments require good access by all modes for both customers and workforce. Manufacturing and warehouse/distribution requires efficient freight access. Tourism destinations are often seasonal with steep travel demand peaks. While transportation is only one factor in economic success, its importance cannot be underestimated.

OBJECTIVE 2.1 – COORDINATION WITH ECONOMIC DEVELOPMENT GOALS

A Coordinate the transportation needs identified by regional economic development entities with investment in the transportation system. Support large scale economic trends and investments by making corridor improvements, addressing congestion and improving transit connections.

Performance Measure 2.1: Ensure that Critical Corridors satisfy and support economic development objectives.

Status

Under review. Public participation process and continual feedback from key agencies, local municipalities, businesses and economic development entities will be instrumental in gauging this measure.

GOAL 3: SAFETY

Improve the safety of all users of the transportation system by responding to identified safety deficiencies and proactively addressing future safety needs.

The public expects to be able to travel safely, whether they are driving, using public transit, walking, or bicycling. Safety is reflected primarily in the number and severity of crashes. Fatal and severe personal injury incidents are always of greater concern than those that cause minor injuries or only property damage. Because of the role of human behavior in crashes, safety is considered in terms of the “4 Es”: engineering, education, enforcement, and emergency response. The LRTP considers safety both reactively, by addressing high crash locations; and proactively, by looking at demographic and societal trends and getting ahead of problems. An aging population will require a greater investment in signage and wayfinding and other proven techniques that address safety needs of elderly drivers and pedestrians.

The LRTP also considers the content and objectives of the NYSDOT Strategic Highway Safety Plan (SHSP). The existing SHSP focuses on intersection, pedestrian, and lane departure crashes, with proposed actions to mitigate both frequency and severity.

OBJECTIVE 3.1 – MOTOR VEHICLE SAFETY

A Reduce the number of fatal and serious injury motor vehicle crashes on the federal aid eligible highway system by 5% for each 5 year period of the Plan.

Performance Measure 3.1: Number of fatal and serious injury motor vehicle crashes reported through New York State crash records systems.

Status

UCTC is currently conducting a planning area safety study that will determine where crashes are over-represented, what factors are contributing to crashes, and identifying solutions to improve the safety of roadway users. This effort includes recommended solutions for up to 10 locations. The Safety Analysis will be used to inform projects for consideration on the Transportation Improvement Program (TIP).



Need– Motor Vehicle Safety

Based on the record, UCTC will need to reduce average fatal crashes by 1 and injury crashes by 90 in each five-year period of the plan.

OBJECTIVE 3.2 – PEDESTRIAN AND BICYCLE SAFETY

A Reduce the number of crashes resulting in fatality and serious injury to pedestrians and bicyclists by 5% for each 5 year period of the Plan.

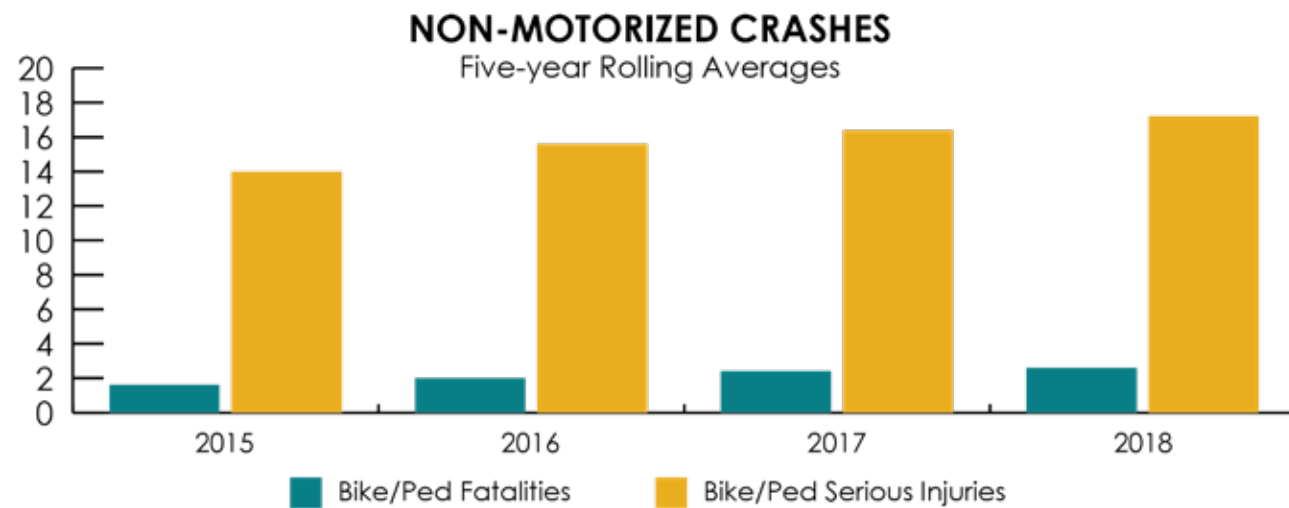
Performance Measure 3.2: Number of crashes resulting in fatality and serious injury to pedestrians and bicyclists reported through New York State crash records systems.

Status

UCTC’s ongoing safety analysis will provide the necessary data on locations and causes of crashes involving pedestrians. NYSDOT recently implemented the Pedestrian Safety Action Plan, which provides added pedestrian safety treatments to all roadways under state jurisdiction in UCTC’s planning area. Select local streets in the City of Kingston also received funding and implementation is ongoing.

Need

Based on the objective, which combines bicycle and pedestrian crashes, UCTC needs to reduce annual fatalities by one and injuries by 11 during each five year period.



OBJECTIVE 3.3 – TRANSIT SAFETY

A Reduce the number of crashes involving transit vehicles that result in fatality or serious injury to zero over the life of the Plan.

Performance Measure 3.3: Number of crashes in Ulster County involving transit vehicles reported through the New York State crash records system.

Status

Reported Crashes over time provided below

Reported Crashes Involving UCAT Buses, 2015-2019

2015	2016	2017	2018	2019
1	1	2	2	1

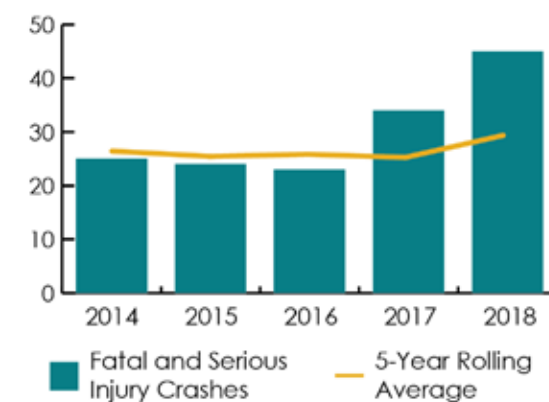
OBJECTIVE 3.4 – SAFETY OF SPECIAL USER GROUPS

A Improve the safety of senior citizens, young people, and handicapped and other identified user groups through pro-active measures that have demonstrated crash reduction potential.

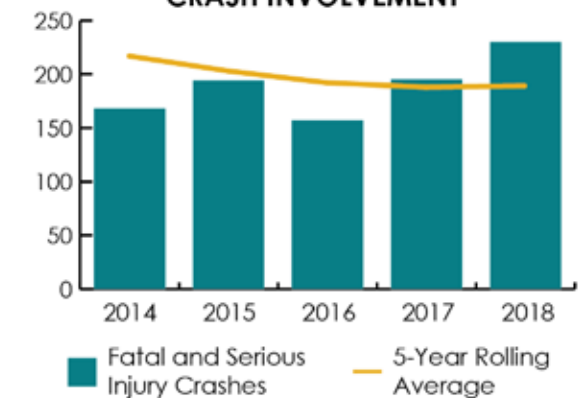
Performance Measure 3.4: Number and severity of crashes involving identified special user groups reported through the New York State crash records system.

Status

OLDER DRIVER (65+) CRASH INVOLVEMENT



YOUNGER DRIVER (UNDER 25) CRASH INVOLVEMENT



Need– Safety of Special User Groups

This objective requires matching demographic trends to current and evolving practice for systemic safety improvements and countermeasures. The implementation of NYSDOT’s Intersection and Pedestrian Safety Action Plans is an extremely positive first step and is presently informing the UCTC Road Safety Action Plan. This Plan will detail crash trends throughout the county and specific information on appropriate investments.

GOAL 4: SUSTAINABILITY

Ensure that transportation system users have a sustainable and secure environment and that the transportation system is capable of providing adequate service during severe weather events.

The sustainability of the transportation system infrastructure and the security of transportation system users is a critical investment factor in this LRTP. While the initial perspective on this planning factor related to security concerns from terrorist events, experience with Hurricane Irene and Superstorm Sandy has made it clear how important it is for the transportation system to be able to maintain function during these events and provide security for residents through evacuation, rescue, and recovery phases.

OBJECTIVE 4.1 – RESILIENCY PLANNING

A Complete an Ulster County Transportation Infrastructure Resiliency Plan no later than 2021.

Performance Measure 4.1: Completed Resiliency Plan in coordination with Ulster County Departments of Public Works and the Environment

Status

Resiliency planning coordination underway; UC Department of the Environment has coordinated with UCTC and DPW to focus initial efforts on stream/road crossings in multiple watersheds throughout the county. Future efforts will focus on other elements of the transportation system through a comprehensive resiliency study.



Washout damage from Hurricane Irene, Shandaken. Daniel Case

OBJECTIVE 4.2 – RESILIENCY PLAN IMPLEMENTATION

A Implement the high priority recommendations for critical infrastructure resiliency by 2025.

Performance Measure 4.2: Number of high priority infrastructure resiliency recommendations implemented, monitored annually from Resiliency Plan completion through 2025.

Status

Resiliency planning coordination underway between 2015-2020; UC Department of the Environment has coordinated with UCTC and DPW to focus initial efforts on stream/road crossings. Future efforts will focus on other elements of the transportation system through a comprehensive resiliency study. DPW is also engaged in a public policy of ensuring that its bridge and culvert replacement plans can survive a minimum of 50 yr. flood re-occurrence interval.

Need– Resiliency Planning

UCTC is responding to this need by including a Resiliency Plan/Vulnerability Study in its current Unified Planning Work Program. Once that study is completed, a commitment to implementing high priority recommendations will be a policy for future funding. It is noted that several non-federal transportation funding sources are available for this effort including FEMA disaster mitigation funds and special funding in the New York City watershed.



Culvert washout. Ulster County Culvert Assessment Project

OBJECTIVE 4.3 – TRANSIT SYSTEM SECURITY

A Reduce the number of security-related incidents at bus stops and on transit vehicles operated by UCAT.

Performance Measure 4.3: Monitor and assess the extent to which UCAT implements its Public Transportation Agency Safety Plan (PTASP).

Status

FTA and FHWA published the final rule on Statewide and Nonmetropolitan Transportation Planning and Metropolitan Transportation Planning on May 27, 2016. On July 19, 2018, FTA published the Public Transportation Agency Safety Plan (PTASP) Final Rule, which requires certain operators of public transportation systems that receive federal funds under FTA's Urbanized Area Formula Grants to develop safety plans that include the processes and procedures to implement Safety Management Systems (SMS). The rule applies to all operators of public transportation systems that are recipients and sub-recipients of federal financial assistance under the Urbanized Area Formula Program (49 U.S.C. § 5307).

MPOs are required to reference the safety performance targets and agency safety plans in their TIPs and Metropolitan Transportation Plans updated or amended after July 20, 2021. The planning products must include a description of the performance measures and performance targets used in assessing the performance of the transportation system, for transit asset management, safety, and the FHWA performance measures. This should also include, to the maximum extent practicable, a description of the anticipated effect of the TIP toward achieving the performance targets identified in the metropolitan transportation plan, linking investment priorities to those performance targets.

The safety targets included in the Ulster County Area Transit Public Transportation Agency Safety Plan was endorsed by the UCTC on December 18, 2019 under UCTC Resolution 2019-20 and approved by UCAT on May 22, 2020.

GOAL 5: MOBILITY AND RELIABILITY



NYS DOT is investing over \$10 million in safety and congestion improvements.

Provide for efficient and reliable travel by all modes by investing in strategies that mitigate both recurring and non-recurring congestion.

Mobility is a measure of the efficiency of travel. The predictability of travel time is one measure of that efficiency and of increasing concern to commuters, transit operators, freight movers and other logistic companies. Knowledge of recurring congestion can be factored into schedules whereas, non-recurring congestion such as that caused by highway incidents, work zones, or weather events makes it difficult to plan time-sensitive travel. The strategies for reducing the variability of travel time are different from those that address recurring congestion, often focusing on the active management and operation of the transportation system.

OBJECTIVE 5.1 – ADDRESS RECURRING CONGESTION

A Reduce vehicle-hours of delay that occur as a result of recurring congestion on principal arterials and arterial streets.

Performance Measure 5.1: Total peak-period vehicle-hours of delay.

Status

The CMP effort mentioned above is ongoing and will address travel time reliability.

OBJECTIVE 5.2 – ADDRESS TRAVEL TIME RELIABILITY

A Improve the reliability of travel time on principal arterial highways to an averaged travel time index of 1.25 by 2025, and maintain that level to 2045.

Performance Measure 5.2: Travel time index for principal arterial highways averaged over peak periods, reported every 5 years.

Status

The CMP effort mentioned above is ongoing and will address travel time reliability.

OBJECTIVE 5.3 – FREIGHT MOBILITY

A Identify truck bottlenecks by 2021.

Performance Measure 5.3: Freight mobility analysis completed by 2021.

Status

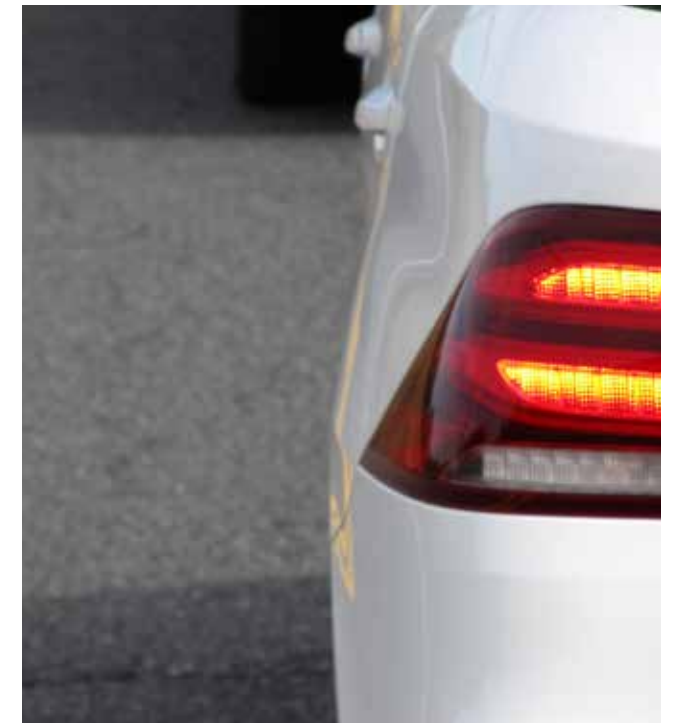
These three objectives are being addressed through UCTC work with the other MPO's in the TMA to complete a Congestion Management Process (CMP) This effort includes cooperation with the SUNY Albany Visualization and Performance Labs (AVAIL) to improve the use and functionality of the National Performance Management Research Data Set (NPMRDS) dataset for use through the Mid-Hudson TMA Congestion Management Process. The dataset is a much more functional and reliable source for measuring congestion, but it requires significant investment of staff time in order to interpret data and generate useful outputs.

Need – Implementation of Congestion Reducing Strategies in the Congestion Management Process

The Congestion Management Process (CMP) forecasts congestion on the region's roadways and evaluates congestion-reducing strategies. Data currently provides locations of areas that experience reoccurring congestion. Solutions may involve the use of intelligent transportation systems, structural improvements or changes in work hours to avoid peaks, to name a few. Most importantly, the CMP provides for a means to evaluate the effectiveness of such strategies.

Need – Improve Freight Mobility

UCTC will need to identify truck bottlenecks within the next 5 years and develop a program of projects to eliminate bottlenecks by 2025.



Recurring congestion is known to occur on several key road segments in Ulster County.

OBJECTIVE 5.4 – TRANSPORTATION TECHNOLOGY

- A** Facilitate deployment of the Connected Vehicle program technology as it is rolled out by USDOT and vehicle manufacturers.
- B** Monitor progress of penetration of autonomous vehicles in the general auto fleet and develop appropriate plans and policies.

Performance Measure 5.4: Monitor deployment of connected vehicle technology and ITS infrastructure – annually.

Status

UCTC is working to ensure that sufficient funds are available to commuter carriers in the region to utilize intelligent transportation system practices. UCAT currently has a mobile application that shows the location and expected arrival of buses, which is associated with its AVL system.

Need – Support Deployment of Transportation Technology

UCTC will work to include all public transit carriers in the TMA region within the 511 system by 2021 and equip all buses with AVL and continue to utilize and expand the functionality of the exiting mobile bus application to provide more accurate data and expand to paratransit service.

UCTC will facilitate deployment of the Connected Vehicle program technology as it is rolled out by USDOT and vehicle manufacturers. Monitor progress of penetration of autonomous vehicles in the general auto fleet and develop appropriate plans and policies.

GOAL 6: ACCESSIBILITY AND CONNECTIVITY

Create and maintain a well-connected transportation system that provides access throughout Ulster County for people and goods traveling by all modes.

A well-designed transportation system provides convenient access to destinations both within and beyond UCTC's planning area. Whether people travel by car, bus, bicycle, or on foot, they need to reach destinations that include employment, school, health care, shopping, and other services. Access is measured not only spatially, but also by time of day. Transit access is especially important to low-income and minority populations that have fewer travel alternatives.

Similarly, freight movement that supports local business requires convenient access from National Highway System roads and freight terminals to final destinations across Ulster County.

OBJECTIVE 6.1 – TRANSIT ACCESSIBILITY

- A** Improve transit access in Kingston, New Paltz and Ellenville, and major intra-county corridors by 2025 so that route structure provides convenient access to prescribed destinations, and hours of operation facilitates access to employment. Continue to modify transit operations as necessary to address changes in population and economy through 2045.

Performance Measure 6.1: Number of employers, healthcare facilities, and schools within ¼ mile of bus routes; number of employment opportunities not accessible within transit operating hours. Increase in ridership along key corridors.

Status

The CMP effort will assist in identification of or the performance measure noted above. Additionally it is noted that UCTC facilitated UCAT's assuming transit service in the City of Kingston and the restructuring of routes within the City in accordance with the performance measure. Intra county transit needs are currently being determine by a TMA sponsored regional transit plan know as Connect Mid-Hudson.

Need - Transit Accessibility

Improve transit access so that route structures provide convenient access to prescribed destinations, and hours of operation facilitates access to employment. Continue to modify transit operations as necessary to address changes in population and economy through 2045. Improved service in Kingston is ongoing with UCAT having taken over service within the City and restructured the routes. New Paltz transit is likely to see increased demand as the community grows with new destinations west of Thruway. Ellenville is significantly underserved and other transit options may be appropriate for this area.



Village of Ellenville, NY.

OBJECTIVE 6.2 – PEDESTRIAN ACCESSIBILITY

- A** Improve pedestrian access through completion of sidewalks in critical locations by 2025; and throughout urban and suburban locations by 2045.

Performance Measure 6.2: Sidewalk inventory updated every 5 years.

Status

UCTC is currently completing a sidewalk inventory for major activity centers in its planning area.

Need - Pedestrian Accessibility

Improve pedestrian access through completion of sidewalks in critical locations by 2025; and throughout urban and suburban locations by 2045. Encourage local development approvals to include pedestrian improvements where warranted.

OBJECTIVE 6.3 – BICYCLE ACCESSIBILITY

A Provide safe and convenient access for cyclists through a system of on-road accommodations, completion of the Ulster County trail system, and access to transit systems for cyclists.



Cyclists enjoying trail system.

Performance Measure 6.3: Bicycle facility inventory updated every 5 years.

Status

Refer to Section 4 for a full inventory of all non-motorized facilities in the Planning Area.

Need - Bicycle Accessibility

Provide safe and convenient access for cyclists through a system of on-road accommodations and completion of the Ulster County trail system.

OBJECTIVE 6.4 – FREIGHT ACCESSIBILITY

A Improve designated connections from the National Highway System to shipper/receiver destinations throughout Ulster County in priority order through the life of the Plan.

Performance Measure 6.4: Roadway inventory (geometry and operations) for “last mile” connections.

Status

Under development

Need - Freight Accessibility

Improve designated connections from the National Highway System to shipper/receiver destinations throughout Ulster County in priority order through the life of the Plan.

GOAL 7: PROTECT AND ENHANCE THE ENVIRONMENT

Contribute to making Ulster County a sustainable place by protecting and enhancing the natural and built environment, reducing greenhouse gas and other motor vehicle emissions, supporting sustainable construction and maintenance practices, and coordinating land use and transportation plans.

Transportation and the environment are inextricably linked. Impacts can be negative as a result of road construction and maintenance activities, energy consumption and air emissions associated with motor vehicle travel, and noise associated with railroad grade crossings. Impacts can also be positive by actions that facilitate the switch of single-occupant vehicle trips to shared ride modes or non-motorized travel. It is also valuable to encourage the use of alternative fuel vehicles by providing essential infrastructure.

OBJECTIVE 7.1 – LAND USE

A Implement transportation investments that support the goals of regional, county and local land use plans, throughout the life of the Plan.

Performance Measure 7.1: Conformity of project investments with land use plan recommendations, reviewed as plans are updated.

Status

Task performed by staff and members of the Ulster County Planning Board; staff support provided by UCTC.

Need - Coordinate with Land Use Plans

Land use planning in New York is done by local governments through comprehensive plans and zoning ordinances. UCTC supports land use concepts that result in more compact development in and around existing activity centers and the preservation of transportation capacity along primary corridors through access management. UCTC will continue to focus on transportation investments that are consistent with these broad policies and will work closely with local governments so that they understand how their land use plans and decisions can be best supported by transportation plans and investments.

OBJECTIVE 7.2 – CLIMATE CHANGE

A Reduce greenhouse gas (GHG) emissions from on-road vehicles through support of travel demand management and alternative fueled vehicles.

Performance Measure 7.2: GHG emissions modeled annually.

Status

Annual GHGs are reported under Section 5 and have shown an overall decline due primarily to reductions in annual VMT. Estimates will be updated as improved data is made available.

Need - Reduce Greenhouse Gas Emissions

In June of 2019, New York State lawmakers agreed to the NYS Climate Leadership and Community Protection Act (6 NYCRR Part 496) – the most ambitious climate legislation enacted in the United States to date. The Act will require the state to achieve a carbon free electricity system by 2040 and reduce greenhouse gas emissions 85% below 1990 levels by 2050. While this goal is not specific to the transportation sector, emissions from vehicles constitute about one-third of the state’s GHG emissions. UCTC can contribute to accomplishing the statewide goal by actions and programs that reduce fossil fuel consumption. These include reducing VMT by shifting trips from single-occupant vehicle mode to both shared-ride modes that include transit and carpooling, and to non-motorized modes. Concurrently, UCTC can encourage vehicle owners to switch to more efficient and alternative-fueled vehicles. These include hybrids, plug-in hybrids, and electric vehicles (EV).

Ulster County has already begun installing EV charging stations in county owned parking facilities. Working with NYSEDA, they can expand that program not only in response to demand, but as a means to facilitate EV purchase decisions. Ulster County is now focusing significant resources toward the goal of transit system electrification. UCTC will support efforts by partner agencies and departments to continue planning for EV implementation throughout all modes and sectors.

UCTC will also continue to monitor the use of existing park-and-ride facilities and the need for additional capacity or new facilities particularly in southern Ulster County.



Electric Vehicle Charging Station at the Ulster County Office Building.

OBJECTIVE 7.3 – IMPACTS OF NEW CONSTRUCTION

A Reduce environmental impact of roadway and bridge construction and maintenance by sharing best practice on sustainable methods to county and municipal transportation agencies.

Performance Measure 7.3: Assessment of transportation agencies on use of sustainable construction and maintenance practices. Funding priority to use of sustainable techniques as part of TIP development.

Status

All federal aid construction projects included on the UCTC TIP are required to adhere to US Clean Water Act – Phase II Stormwater compliance practices. In some instances, federal aid sponsors are electing to go beyond basic stormwater compliance and integrate best practices as standard practice. NEPA and SEQR are also required components of every federal aid transportation construction project, further emphasizing the need for integrating sustainable practices into construction.

Need - Reduce Impact of Construction

There are a number of ways that construction of roads, bridges, and even trails can create negative environmental impacts. These range from emissions from construction machinery to materials that are used, to stormwater runoff from construction sites. There are well documented ways to reduce and mitigate many of these impacts, but research is also underway on “green construction” techniques. UCTC will research these techniques and share them with County and Town highway superintendents and will provide additional points for TIP projects that utilized these techniques.

GOAL 8: TRANSPORTATION EQUITY

Develop and integrate strategies that seek to mitigate negative effects related to the transportation system that impact the most vulnerable members of the community, such as low-income residents, minorities, children, persons with disabilities, and older adults.

Negative health effects related to the transportation system can fall hardest on vulnerable members of the community, such as low-income residents, minorities, children, persons with disabilities, and older adults. Households in low-income areas typically own fewer vehicles, have longer commutes, and have higher transportation costs.

Inadequate or substandard infrastructure in low-income and minority communities can prevent people from using active transportation. It can also make walking and bicycling unsafe for those who do rely on these modes to get around, leading to higher incidences of collisions involving pedestrians and cyclists.

Low-income and minority communities are more likely to be located near highways and other transportation facilities that produce local reduced air quality, and to suffer from negative health effects such as asthma. These communities are also less likely to have convenient access to parks, healthcare, and healthy food.

Many of the strategies that transportation agencies can take to increase active transportation, improve safety, improve air quality, and improve connectivity can improve equity if they are targeted in low-income and minority communities. ¹

OBJECTIVE 8.1 – LAND USE

A Ensure equity in the transportation planning process by focusing public outreach efforts within EJ communities.

Performance Measure 8.1: Planning projects within or adjacent to EJ communities as identified in the UCTC LRTP receive specific attention and focus of the public outreach process.

Status

Transportation Equity was added to the 2045 LRTP for the first time in 2020. Future updates of the LRTP will include further inquiry regarding transportation equity and useful metrics to evaluate its implementation.

¹ US DOT, Transportation and Health: Equity. <https://www.transportation.gov/mission/health/equity>