

# Appendix V: Performance Indicator Report



## Appendix V. Performance Monitoring

### Regulatory Framework

Federal requirements for performance-based planning in the regional transportation planning process are identified in statute and other guidance documents. RTC has aligned the required planning factors and national performance goals, which are identified in Chapter 2 of the Let's Go 2050 Plan, with both regional goals and the project evaluation and prioritization process. The objective of this performance- and outcome-based program is to invest resources in projects that collectively will make progress toward the achievement of the national goals. Planning factors are described in 23 United States Code (USC) Chapter 1, Section 134(h) and 49 USC 5303(h) (see Section E.1.i Criterion 1.c.1). Performance management measures are described in 23 USC Part 490. The purpose of the federal performance management program is to provide for the most efficient investment of federal funds, increasing accountability of the federal aid highway program and improving decision-making.

### Performance Measures

The Secretary of Transportation (Secretary), in consultation with states, metropolitan planning organizations (MPOs), and other stakeholders, is required to establish performance measures in the areas listed below [§1203; 23 USC 150(c)].

- ▶ Pavement condition on the Interstate System and on remainder of the National Highway System (NHS).
- ▶ Performance of the Interstate System and the remainder of the NHS.
- ▶ Bridge condition on the NHS.
- ▶ Fatalities and serious injuries—both number and rate per vehicle mile traveled—on all public roads.

- ▶ Traffic congestion.
- ▶ On-road mobile source emissions.
- ▶ Freight movement on the Interstate System.

States are directed to coordinate with MPOs when setting performance targets for the area represented by that MPO [§1202; 23 USC 135(d)(2)(B)]. MPOs are directed to coordinate with the state and public transportation providers when setting performance targets [§1201; 23 USC 134(h)(2)].

The following plans require performance targets:

- ▶ Metropolitan transportation plans [§1201; 23 USC 134(i)(2)(B)].
- ▶ Metropolitan Transportation Improvement Program (TIP) [§1201; 23 USC 134(j)(2)(D)].
- ▶ Statewide Transportation Improvement Program [§1202; 23 USC 135(g)(4)].
- ▶ State asset management plans under the National Highway Performance Program (NHPP) [§1106; 23 USC 119(e)].
- ▶ State performance plans under the Congestion Mitigation and Air Quality Improvement program [§1113(b)(6); 23 USC 149(l)].

Additionally, state and MPO targets should be included in statewide transportation plans [§1202; 23 USC 135(f)(7)]. States are required to report on the condition and performance of the NHS, effectiveness of the investment strategy document in the state asset management plan for the NHS, progress toward achieving performance targets, and ways in which the state is addressing congestion at freight bottlenecks [§1203; 23 USC 150(e)].

Thresholds are to be established for bridge and pavement condition on the interstate system [§1203; 23 USC 150(c)(3)]. No more than 10% of total NHS bridge deck area may be on structurally deficient bridges [§1106; 23 USC 119(f)].

If a state fails to meet these thresholds, they may be required to reserve a portion of NHPP funding for interstate pavement and NHS bridge projects. In some cases, this may require the state to transfer a specified portion of its Surface Transportation Program funding to NHPP. (See NHPP fact sheet for detail) [§1106; 23 USC 119(f)].

There are additional requirements for states regarding safety measures. If the fatality rate on rural roads in a state increases over the most recent 2-year period, the state must dedicate a specified amount of funds under the Highway Safety Improvement Program (HSIP) for high-risk rural road safety projects.

If the traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a state increase over the most recent 2-year period, the state must detail in its next Strategic Highway Safety Plan how it intends to address increases in those rates.

A state that fails to achieve (or make significant progress toward achieving) its performance targets for the NHS for two consecutive reports must describe in its next performance report to the U.S. Department of Transportation (USDOT) (under amended 23 USC 150(e)) the actions it will take to achieve its targets [§1106; 23 USC 119(e)(7)].

A state that fails to achieve (or make significant progress toward achieving) its HSIP performance targets within 2 years of the targets may be required to dedicate a specified portion of its obligation authority to HSIP projects until the Secretary determines that the state has made significant progress toward or met the targets. It may also be required to annually submit to the Secretary an implementation plan that includes certain specified components related to highway

safety until the Secretary determines that the state has made significant progress toward or met the targets [§1112; 23 USC 148(i)].

The certification of planning process for Transportation Management Areas continues to require the Secretary to certify at least once every 4 years whether the MPO process of meets the requirements, including the requirements of 23 USC 134 and other applicable federal law. One of these requirements is to include a performance-based approach in the Regional Transportation Plan (RTP) (see 23 USC 134(h)(2)). Absent this certification, USDOT may withhold up to 20% of the funds attributable to the metropolitan planning area [§1201; 23 USC 134(k)(5)].

## Integration of Performance Management

As an MPO, RTC establishes performance measures and targets that address the required performance goal areas and tracks these measures over time. Performance targets are selected in coordination with the state (Nevada Department of Transportation [NDOT]) and transit provider (RTC). RTC has the option of adopting NDOT performance targets or identifying a separate quantifiable target for the MPO planning area. The system performance report evaluates the progress toward performance targets.

RTC integrated the federal planning factors, national performance goals, and community input to develop the vision and goals for the Let's Go 2050 Plan. These goals served as the basis for the project evaluation criteria and are carried forward into the performance measures and targets for the plan, as shown in Figure 1 and 1.

Figure 1: Process Summary



A summary of performance measures, targets, and current conditions is provided in Chapter 7 of the Let's Go 2050 Plan.

RTC closely collaborates with NDOT in the establishment and monitoring of performance targets. The Performance Management Working Group includes representatives from NDOT and each Nevada MPO. This group monitors federal performance management requirements and shares relevant data and best practices.

As the regional transit provider, RTC also facilitates continuous coordination between the transit operations and planning departments. This allows for seamless integration of transit needs in the MPO planning process.

Table 1: Let's Go 2050 Goal Areas and National Planning Factors

National Planning Factor	Safety	Mobility	Equitable Access	Preservation	Economic Development	Quality of Life/Health/Environment
Support Economic Vitality		✓	✓		✓	✓
Increase Safety	✓			✓		✓
Increase Security	✓			✓		✓
Increase Accessibility and Mobility of People and Freight		✓	✓		✓	✓
Improve Quality of Life, Environment, Energy Conservation, and Plan Consistency	✓	✓	✓	✓	✓	✓
Enhance Integration and Connectivity Across and Between Modes		✓	✓		✓	✓
Promote System Management and Operations		✓	✓			
Emphasize Preservation of the Existing System				✓		
Improve Resiliency and Reliability	✓	✓	✓	✓		✓
Enhance Travel and Tourism		✓	✓		✓	

Table 2: Effectiveness in Addressing Federal Performance Measures

Performance Measure	RTP Goals					
	Safety*	Mobility	Equitable Access	Preservation	Economic Development	Quality of Life/ Health/ Environment
Safety						
Number of fatalities (5-year rolling average, 2018-2022) <sup>1</sup>	●	⊖	●	○	○	●
Rate of fatalities per 100 million vehicle miles traveled (VMT) (5-year rolling average, 2018-2022) <sup>1</sup>	●	⊖	●	○	○	●
Number of serious injuries (5-year rolling average)	●	⊖	●	○	○	●
Rate of serious injuries per 100 million VMT (5-year rolling average, 2018-2022)	●	⊖	●	○	○	●
Number of non-motorized fatalities (5-year rolling average, 2018-2022) <sup>1</sup>	●	⊖	●	○	○	●
Number of non-motorized serious injuries (5-year rolling average, 2018-2022)	●	⊖	●	○	○	●
Preservation						
Percentage of pavements on the Interstate System in Good Condition	⊖	⊖	⊖	●	○	⊖
Percentage of pavements on the Interstate System in Poor Condition	⊖	⊖	⊖	●	○	⊖
Percentage of pavements on the National Highway System (NHS), excluding the Interstate, in Good Condition	⊖	⊖	⊖	●	○	⊖
Percentage of pavements on the NHS, excluding the Interstate, in Poor Condition	⊖	⊖	⊖	●	○	⊖
Condition of bridges on the NHS	⊖	⊖	⊖	●	○	⊖
Mobility						
Interstate Travel Time Reliability (TTR)	●	●	○	⊖	●	⊖



Performance Measure	RTP Goals					
	Safety*	Mobility	Equitable Access	Preservation	Economic Development	Quality of Life/ Health/ Environment
Non-Interstate NHS TTR	●	●	○	⊘	●	⊘
Interstate Truck TTR Index	●	●	○	⊘	●	⊘
Annual hours of peak hour excessive delay (PHED) per capita	●	●	○	⊘	●	⊘
Percent of non-single occupant travel	●	●	⊘	⊘	●	⊘
On-road mobile source emissions	●	●	⊘	⊘	●	⊘

- Strongest ●
- Strong ⊘
- Less Strong ○

Table 3: Let's Go 2050 Performance Monitoring Report

Performance Measure	Target *	Actual
<b>Safety</b>		
Number of fatalities (5-year rolling average, 2018-2022) <sup>1</sup>	190	219
Rate of fatalities per 100 million vehicle miles traveled (VMT) (5-year rolling average, 2018-2022) <sup>1</sup>	1.0	0.81
Number of serious injuries (5-year rolling average)	792	903
Rate of serious injuries per 100 million VMT (5-year rolling average, 2018-2022)	3.97	5.0
Number of non-motorized fatalities (5-year rolling average, 2018-2022) <sup>1</sup>	65	66
Number of non-motorized serious injuries (5-year rolling average, 2018-2022)	165	182
<b>Preservation</b>		
Percentage of pavements on the interstate system in good condition	2- and 4-year: 81.0% or better	84.9%
Percentage of pavements on the interstate system in poor condition	2- and 4-year: 0.5% or less	0.3%
Percentage of pavements on the National Highway System (NHS), excluding the interstate, in good condition	2-year: 67.0% or better	N/A
	4-year (adjusted): 65.5%	
Percentage of pavements on the NHS, excluding the interstate, in poor condition	2- and 4-year: 0.5% or less	0.4%
<b>Condition of bridges on the NHS</b>		
Bridges in good condition	2- and 4-year: Greater than 35%	52.0%
Bridges in poor condition	2- and 4-year: Less than 7%	0.6%
<b>Mobility</b>		
Interstate travel time reliability (TTR)	2-year: 87.0% or higher	85.1%
	4-year (adjusted): 85.2%	N/A
Non-Interstate NHS TTR	2-year: 87.0% or higher	90.1%
	4-year: 87.4% or higher	N/A
Interstate truck TTR Index	2-year: 127 or less	130
	4-year (adjusted): 129	N/A
Annual hours of peak hour excessive delay (PHED) per capita	2-year: 10.0 hours or less	12.5 hours
	4-year (adjusted): 12.4 hours or less	N/A
Percentage of non-single-occupant travel	2-year: 21.6% or higher	24.1%
	4-year: 21.8% or higher	N/A
On-road mobile source emissions		37.5 kg/day

## Performance Monitoring

As shown in Table 1, RTC continues to monitor progress on the full range of required measures. For the majority of measures, Southern Nevada is achieving or making strong progress toward achieving the targets. One area for additional progress is transportation safety.

The RTC targets include all safety, and the last three under the mobility section (annual hours of PHED per capita, percent of non-single occupant travel, and on-road mobile source emissions). The remaining measures represent NDOT targets.

Further discussion about RTC’s approach for environmental sustainability, reducing project delivery delays, and transit performance are provided below.

### Safety

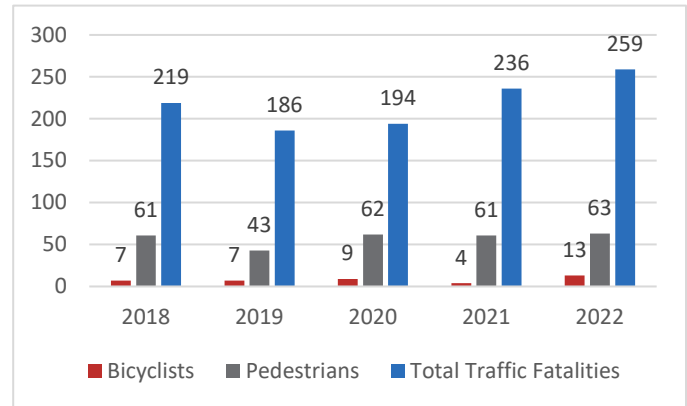
As documented in Chapter 2 of the Let’s Go 2050 Plan, safety was the top concern of most members of the community participating in the engagement process. This reflects the magnitude of the safety needs in Southern Nevada.

The target established in the Access 2050 RTP was a reduction in the 5-year rolling average of traffic fatalities to 190. While progress was made toward this goal in 2019, the subsequent increase in fatalities in Southern Nevada was consistent with national trends. As described in the USDOT 2024 Progress Report on the National Roadway Safety Strategy, the decline in traffic fatalities from 2016 to 2019 was reversed in 2020, which experienced a 7.3% increase in traffic deaths. This was followed by a 10.1% increase in traffic deaths in 2021, when 42,939 lives were lost on U.S. roads, the highest number since 2005. Contributing factors include high travel speeds and impairment. The risk of serious injury or death increases significantly with higher vehicle travel speeds.

As shown in Table 1, the number of traffic deaths, including among people walking and bicycling, has increased in Southern Nevada since 2019. Increases in both speed- and impaired driving-

related fatal crashes occurred between 2020 and 2021. An example of the tragic consequence of impaired driving is the December 10, 2020, crash on US 95 in Clark County, in which a person driving while impaired by methamphetamine use drove a box truck into a group of bicyclists, killing five and seriously injuring four others.

**Figure 2: Southern Nevada Traffic Fatalities, 2018-2022**



As described in Chapter 4 of the Let’s go 2050 Plan, regional agencies have initiated concerted efforts to address the need for safer roadways. Many of these efforts are incorporated into and funded through the Let’s Go 2050 Plan, including the City of Las Vegas Vision Zero program, Safe Routes to School program, off-street bicycle and pedestrian facilities, and a wide variety of complete streets investments that will slow vehicle travel speeds and reduce the number of potential conflict points. These programs incorporate a safety systems approach to roadway design.

RTC has initiated development of a Safe Streets for All Action Plan. Projects identified through this planning process are expected to be included in the next update to the Let’s Go 2050 Plan.

### Preservation

Baseline data for pavement condition was not available at the time the Access 2050 Plan was developed. However, the current available data for pavements and bridges demonstrates that targets for pavements condition on the interstate system have been met, as have bridge condition targets. Data about pavement condition on the NHS,



excluding interstates, is not currently available. Pavement preservation projects included in Let's Go 2050 will further support achievement of these targets.

## Mobility

The 2-year target for interstate travel time reliability is 87.0%. The current value is 85.1%, which is improved over the 2019 value of 78.2%. Data to assess the 4-year performance is not yet available.

The 2-year non-interstate NHS travel time reliability target is 87% or higher. This goal has been exceeded at 90.1%, which is also improved over the 2019 value of 84.8%. Data to assess the 4-year performance is not yet available.

The region is working toward the interstate truck travel time reliability index. The current 2-year target is 1.27 and the current value is 1.3. This is improved over the 2019 value of 1.53.

The 2-year target for annual hours of peak hour excessive delay per capita is 10. The region is working toward this goal, with a current value of 12.5 hours. This reflects a change from the 7.8 hours of delay per capita in 2019.

The region has exceeded the 2-year target of 21.6% non-SOV travel, reaching 24.1%. This is an increase over the 2022 baseline percent of non-SOV travel of 22.4%. Data for the 4-year targets is not yet available.

Travel time reliability will benefit from ITS improvements included in the Let's Go 2050 plan through the RTC FAST program. Investments such as bus stop improvements, complete streets, and off-street paths in the Let's Go 2050 plan will further support implementation of this goal.

## Environmental Sustainability Performance Management

The region's transportation system and suburban development are predominantly auto-oriented. However, mixed-use development, higher residential density, and people-oriented street networks are associated with more daily activity

and exercise, better air quality, fewer pedestrian and bicycle crashes, and less chronic disease. Considering health impacts and equity during transportation planning may result in more livable communities and improved health.

The RTC will have a deliberate focus on the transportation system's influence on the health-related impacts, costs, and benefits in the Southern Nevada Transportation Impacts on Health Study, which was incorporated into the Let's Go 2050 Plan.

RTC is focusing on addressing gaps in access to needs that relate to public health. For example, the RTC regularly identifies food deserts, which are defined by the U.S. Department of Agriculture as areas with a high concentration of low-income populations devoid of full-service grocery stores and having little access to transit, walking, and bicycling facilities. Once identified, plans can be developed to eliminate food deserts and indirectly improve public health. By achieving improved public health outcomes resulting from the RTC's transportation planning and projects, this strategy will improve Southern Nevadans' quality of life, reduce unnecessary consumption of resources, and enhance the region's economic competitiveness.

## Reduce Project Delivery Delays

RTC uses a comprehensive, continuing, and cooperative (3C) planning process and Federal Highway Administration (FHWA) Every Day Counts (EDC) to ensure that the transportation funding is properly distributed in RTC's long-range transportation plan.

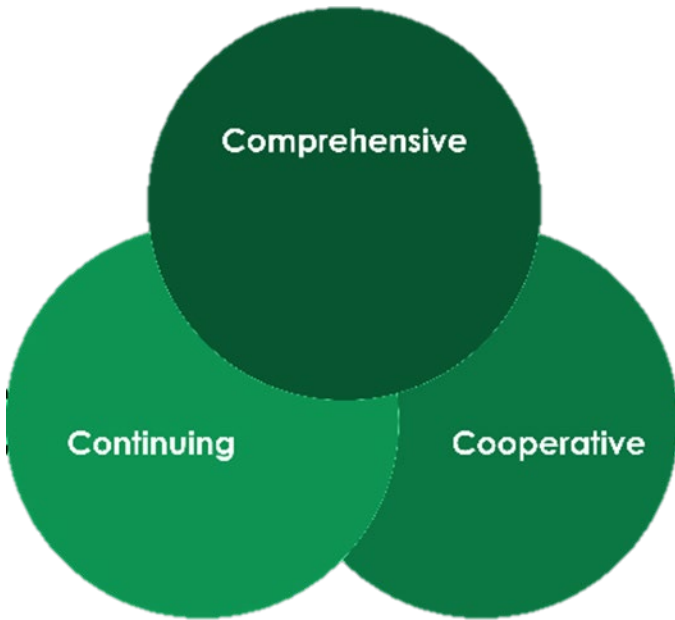
## 3C Planning Process

Transportation planning within a metropolitan region represents a 3C process to support the needs, vision, and goals of the region.

The RTP, TIP, the Unified Planning Work Program (UPWP) and the congestion management process (CMP) are tools that implement strategies pursuant to adopted objectives. Each action of the

CMP is both supportive of and supported by the RTP, TIP, and UPWP. These actions are presented as a sequence of eight activities in the FHWA’s CMP guidebook (Figure 2).

A continuing planning process requires that the RTP, TIP, UPWP, and CMP receive updates on a periodic basis. Depending on regional air quality attainment status, the RTP cycle is every 5 (attainment) or 4 (nonattainment) years. As for the CMP, it must at minimum be updated often enough to provide recent information as an input to each RTP update. To fulfill this requirement, it is prudent to update the CMP at least 1 year prior to each scheduled RTP update. However, more frequent updates provide RTC with timelier feedback.



RTC manages transit, traffic, and metropolitan planning, and it administers Southern Nevada Strong, a collaborative program dedicated to bettering Southern Nevada. It’s the only agency in the country to handle all four of these functions within a single organization. Despite having many capabilities in-house, collaboration with partners—including state, regional, and local transportation facility owners and operators—enhances data collection and analysis.

***FHWA Every Day Counts***

EDC is a state-based model that identifies and rapidly deploys proven yet underutilized innovations to shorten the project delivery process, enhance roadway safety, reduce traffic congestion, and integrate automation. Proven innovations promoted through EDC facilitate greater efficiency at the state and local levels, saving time, money, and resources that can be used to deliver more projects. EDC is Innovation for a Nation on the Move.

FHWA works with state transportation departments, local governments, tribes, private industry, and other stakeholders to identify a new collection of innovations to champion every 2 years that merit accelerated deployment.

After selecting EDC innovations, transportation leaders from across the country gather at regional summits to discuss and identify opportunities implementing the innovations that best fit the needs of their respective state transportation program. Following the summits, states finalize their selection of innovations, establish performance goals for the level of implementation and adoption over the upcoming 2-year cycle, and begin to implement the innovations with the support and assistance of the technical teams established for each innovation.

The EDC program has made a significant positive impact in accelerating the deployment of innovations and in building a culture of innovation within the transportation community.

***Working with Other Planning Agencies***

RTC also coordinates with NDOT and the local planning agencies in the project planning process. RTC facilitates meetings with the agencies periodically to receive updates on the transportation projects.

***Transit Performance Management***

Under the Transit Asset Management (TAM) Final Rule, The Federal Transit Administration (FTA) established four performance measures to

approximate the State of Good Repair (SGR) for four categories of capital assets. Calculating performance measures helps transit agencies quantify the condition of their assets, which facilitates setting targets that support local funding prioritization. TAM measures performance toward SGR in three ways:

- ▶ Rolling stock age.
- ▶ Facilities Transit Economic Requirements Model (TERM) scale.
- ▶ Infrastructure performance restriction.

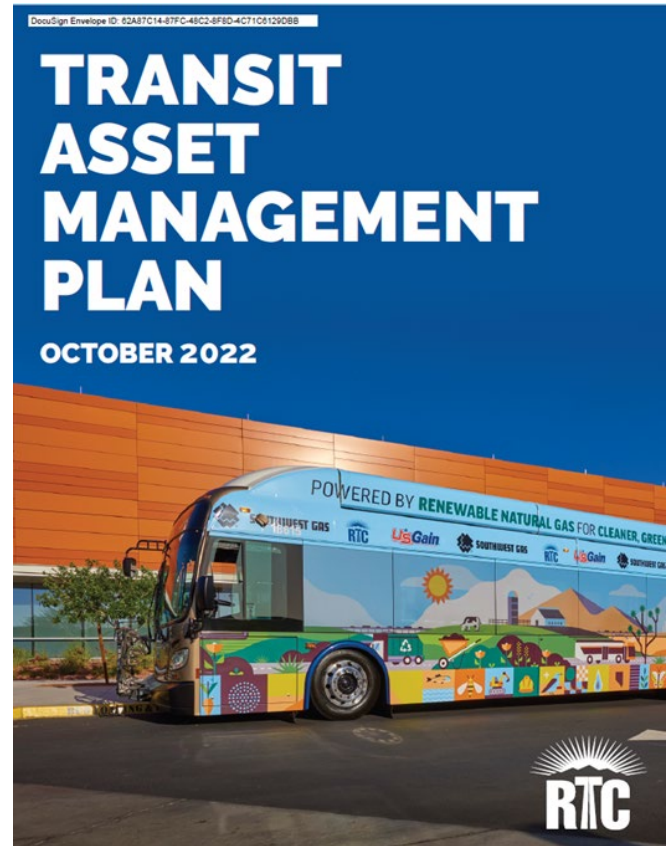
These measures are defined and monitored through the Transit Asset Management Plan, which was most recently updated by RTC in 2022.

### ***Rolling Stock and Equipment***

A transit agency's rolling stock is the vehicles it uses to carry passengers to their destinations. The useful life of a vehicle varies from vehicle type to vehicle type. It is important to replace vehicles as they approach or reach the end of their useful life to ensure safety, reliability, and passenger comfort. A transit agency's support vehicles are equipment used by agency staff to support revenue (or passenger) service.

### ***Facilities***

Transit agencies are responsible for maintaining administrative buildings, maintenance facilities, stations, and park-and-ride areas. Facilities are grouped into two asset classes for the purpose of performance measurement and target setting. These facilities are rated on a scale of 1.0 to 5.0 according to [FTA's Transit Economic Requirements Model](#) (TERM). This scale helps determine whether or not facilities are in a state of good repair.



### ***Infrastructure***

When a segment of track infrastructure falls into disrepair, that section of rail will have certain performance restrictions, meaning that the vehicle has to drive slower than originally designed. There are currently no track-based transit routes operated by the Regional Transportation Commission of Southern Nevada. As a result, there are currently no performance measures for infrastructure.