NJTPA NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY
Defining the Vision. Shaping the Future.

Regional Performance Measures

System Performance Reports: Options

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1. Introduction

23 CFR § 450.324 describes the minimum contents of the metropolitan transportation plan (MTP), which now includes the following requirement for a system performance report:

> *a system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets described in § 450.306(d), including –*
>
> *(i) Progress achieved by the metropolitan planning organization in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data; and*
>
> *(ii) For metropolitan planning organizations that voluntarily elect to develop multiple scenarios, an analysis of how the preferred scenario has improved the conditions and performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified performance targets.*

While the regulations indicate what must be reported, they do not provide any specifications for how the information should be reported or what a system performance report should look like.

Given the minimal requirements described, the simplest approach would list for each performance target the baseline (and, in later years, the prior years' performance); the current year's performance; and a statement to indicate whether the current year's performance has made progress toward the target when compared to the prior year (or baseline year) data. The NJTPA may, of course, wish to go further to ensure that the report is useful to the NJTPA and its stakeholders, rather than just an activity pursued to meet requirements.

This document is designed to help the NJTPA consider what format or formats might be used for the system performance report as part of the long range transportation plan. It provides some options, based on formats that have been used by some other metropolitan planning organizations (MPOs) that have recently developed metropolitan transportation plans, and provides some recommendations for consideration. The information from this report will help the NJTPA to develop its own approach to reporting on system performance, potentially strengthening the agency's overall performance-based decision-making process.

2. How Are Other MPOs Reporting on System Performance?

The NJTPA can get ideas from other MPOs on how to report system performance. We have found examples of agencies using each of the following approaches:

- As a chapter in the MTP: Baltimore Regional Transportation Board
- As an appendix to the MTP: Chicago Metropolitan Agency for Planning
- As an appendix and as stand-alone reports (with some information in the body of the MTP): National Capital Regional Transportation Planning Board
- As a stand-alone resource: Many MPOs who have not completed a new MTP since the requirements went into effect.

Table 1: Summary of Agency Examples and Format Used for System Performance Report

Agency Example	Link	MTP Chapter	MTP Appendix	Stand-Alone Resource
Baltimore Regional Transportation Board	https://www.baltometro.org/sites/default/files/bmc_documents/general/transportation/long-range/2045/Maximize2045_3of4.pdf	☑		
Chicago Metropolitan Agency for Planning	https://www.cmap.illinois.gov/2050/appendices		☑	
Columbus-Phenix City MPO	https://www.columbusga.gov/Planning/trans-perfmgt.htm			☑
Hampton Roads Transportation Planning Organizations	https://www.hrtpo.org/page/performance-management/			☑
Hillsborough MPO	http://www.planhillsborough.org/wp-content/uploads/2016/12/Hillsborough-MPO-2016-SOS-Report_website-version.pdf			☑
Lincoln MPO	https://www.lincoln.ne.gov/city/plan/mpo/mporpts/2018Performance.pdf			☑
Miami-Dade Transportation Planning Organization	http://www.miamidadetpo.org/library/reports/tip-2019-transportation-performance-managemet-system-performance-report-2019-03.pdf			☑
Mid-Ohio Regional Planning Commission	http://www.morpc.org/wordpress/wp-content/uploads/2017/12/20180430_CAC_FINAL-Report-Card.pdf			☑
National Capital Region Transportation Planning Board	https://www.mwcog.org/assets/1/6/Appendix_D_-_System_Performance_Report_-_FINAL1.pdf		☑	☑
North Front Range MPO	https://nfrmpo.org/wp-content/uploads/2045-rtp-system-performance-report.pdf			☑

As a Chapter in the MTP: Baltimore Regional Transportation Board

Baltimore Regional Transportation Board's (BRTB) recent MTP is called Maximize2045. The plan contains a 16-page Chapter 5 titled "Regional Performance Measures and Targets." The chapter starts with the regional goals and descriptions of the federal performance measures and ends with a 9-page system performance report showing the baseline performance and the targets in relation to each of the federal measures. Figure 1 below shows a part of the section of this chapter, showing the highway safety targets, including the baseline and actual performance in relation to the targets.

Highway Safety – Regional Performance Targets

The FHWA's final rule established five performance measures for state DOTs and MPOs to use to carry out the Highway Safety Improvement Program (HSIP). MDOT and the BRTB coordinated on a methodology using crash data to develop regional targets. The source for all fatality data is the most recently available NHTSA Fatality Analysis Reporting System (FARS) data. Serious injury data were obtained through the state's crash data system. Compliant with the final rule, the methodology uses 5-year rolling averages for each of the measures.

The rightmost column in the table below shows 2030 "TZD" targets. This refers to the state's and the region's continued commitment to the concept of "Toward Zero Deaths." While MDOT and the BRTB have adopted short-term yearly highway safety targets in accordance with regulatory guidance and advice received by the FHWA, both organizations nonetheless maintain their long-term commitment to achieving zero deaths on the state's and the region's highways. Consistent with the state's Highway Safety Improvement Plan, the 2030 TZD targets are half the 2008 baseline targets.

Measures related to funding under the Highway Safety Improvement Program (HSIP)					
Measure	2008 Baseline	2016 Actual	2017 Actual	2015-2019 Target	2030 TZD Target
Number of fatalities	242	228	230	184	121
Number of serious injuries	1,868	1,432	1,678	1,211	934
Fatality rate per 100 million VMT	0.93	0.83	0.83	0.70	0.47
Serious injury rate per 100 million VMT	7.21	5.23	6.05	4.62	3.60
Number of non-motorized (ped/ bike) fatalities and serious injuries	286	342	366	222	143

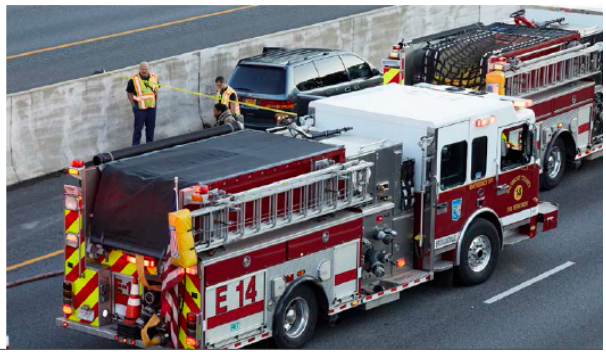


Figure 1: BRTB's system performance report's safety section

As an Appendix to the MTP: Chicago Metropolitan Agency for Planning

Chicago Metropolitan Agency for Planning (CMAP), the Chicago region's official comprehensive planning organization, has included its "System Performance Report" as an appendix to the plan, "ON TO 2050." The appendix, which is 33 pages in length, has a chapter for each performance area. Each chapter starts with a description of the performance area, and then contains two sections: (1) research and projects, and (2) incorporating [that performance area] into local programming. The second portion is where CMAP describes the targets, including stating if they are supporting state targets and what those targets are, such as is shown Figure 2. This section also discusses CMAP's role in incorporating the performance area into project selection and programming of projects.

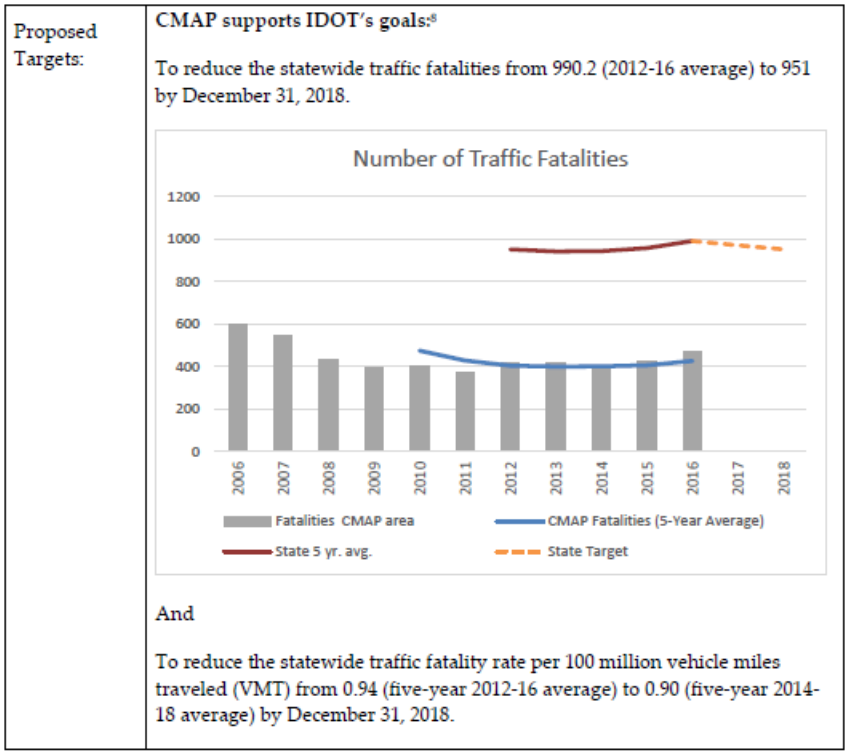


Figure 2: Screenshot of a page of CMAP System Performance Report

As an Appendix and As Stand-Alone Resources: National Capital Regional Transportation Planning Board

The National Capital Region Transportation Planning Board (TPB), the MPO for the Washington, DC metropolitan area, created different versions of its system performance report for different purposes. TPB created a series of reports, with a report for each performance area. These reports are compiled and included as an appendix to the MTP. The MTP also includes a chapter that summarizes the performance targets and approach to setting them, but does not focus on comparing the targets with existing performance. TPB's MTP's story map page includes a section on Performance-Based Planning and Programming (PBPP) where the MPO provides a tabular description of the performance areas and metrics. The agency then provides links to Chapter 6 – Performance Planning and Appendix D: System Performance Report.

Chapter 6 of the MTP is a 10-page summary of all the PBPP areas, including a description of their target-setting approach and targets for each, as shown in Figure 3.

REGIONAL HIGHWAY SAFETY TARGET SETTING APPROACH

The TPB's planning area, for which performance targets are to be established, lies within three different jurisdictions: the District of Columbia, Maryland, and Virginia. As such, regional highway safety targets were determined by identifying sub-targets for the District of Columbia, Maryland, and Virginia portions of the region and applying each state's target setting approach to their respective portion of the region. Targets for the region were developed by mathematically combining the three sub-targets into an overall target for the region (see Figure 6.2).

Figure 6.2 - 2018 Regional Highway Safety Targets (Five Year Rolling Average)

	2018 Target
Number of fatalities	253
Rate of fatalities per 100 million vehicle miles of travel	0.59
Number of serious injuries	3,007
Rate of serious injuries per 100 million vehicle miles of travel	6.79
Number of nonmotorist fatalities and serious injuries	529

Figure 3: Screenshot of half a page from Chapter 6 of TPB's MTP

The full System Performance Report is Appendix D to the MTP and is 63 pages long with a chapter for each performance area and the MPO Board's related resolutions. The report introduction explains the federal context and how TPB is integrating PBPP into its transportation planning process. Each chapter for each performance area then contains:

- **The federal context** with regard to that performance area and explains how the federal context has played out for TPB. For example, after describing the federal requirements that MPOs coordinate with the State DOT, the report provides a paragraph on how the TPB coordinated with State DOT departments for that performance area.
- **The region's approach to setting the target for that performance area**.
- **Calculation of the targets.**
- **Showing the targets and baseline performance** using a variety of line graphs, tables, and bar charts to illustrate the targets and their relationship to trend lines, as shown in Figure 4.

	2012-2016 Actual	2014-2018 Target	Difference	Percent Difference
# of Fatalities	266.2	253.0	↓ 13.2	↓ 4.9%
Fatality Rate (per 100 MVMT)	0.621	0.588	↓ 0.033	↓ 5.3%
# of Serious Injuries	2,967.4	3,007.3	↑ 39.9	↑ 1.3%
Serious Injury Rate (per 100 MVMT)	6.879	6.768	↓ 0.111	↓ 1.6%
# Nonmotorist Fatalities & Serious Injuries	545.6	528.8	↓ 16.8	↓ 3.1%

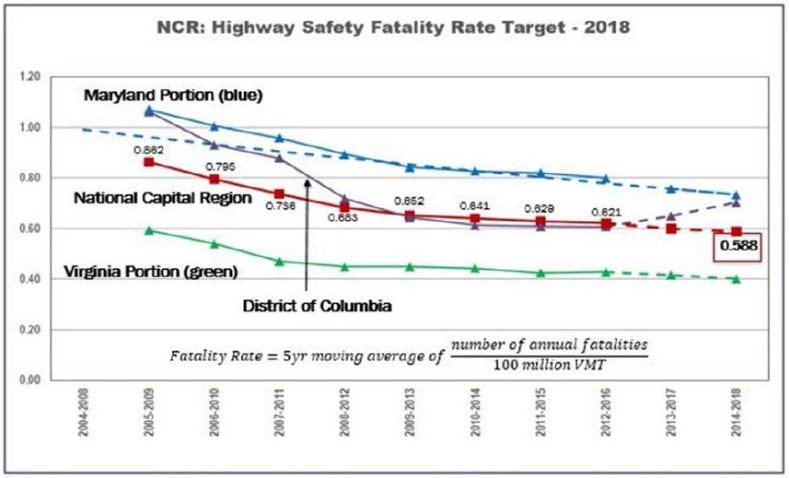
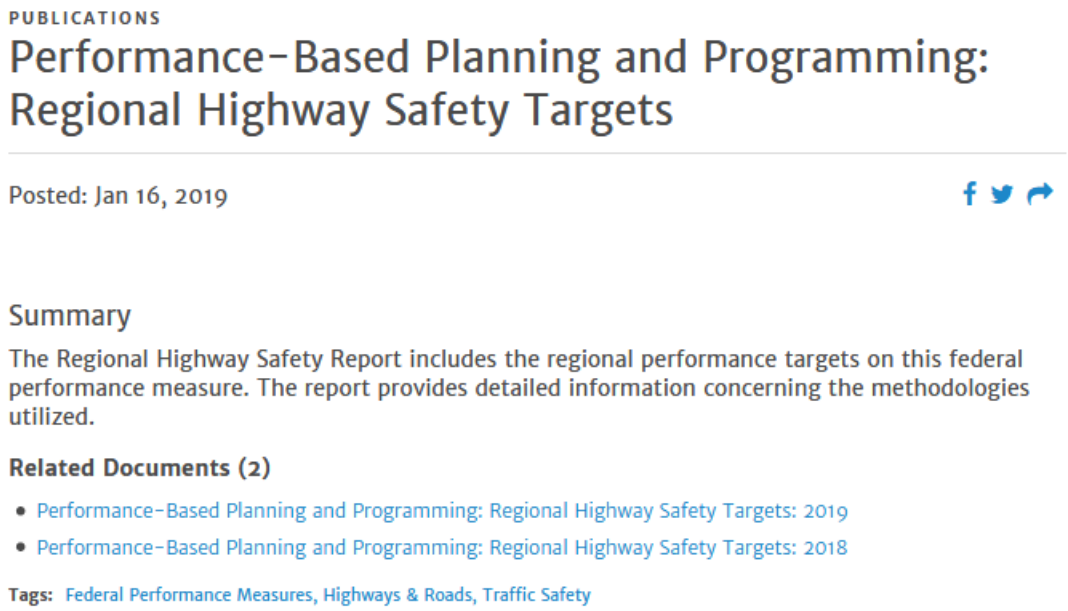


Figure 4: Excerpts from TPB's System Performance Report

Each chapter of the system performance report was also issued alone in a stand-alone report of 13- to 20- pages. Each has its own landing page on their publications site, and they add the next report to the same page as they are developed, as shown in Figure 5.



PUBLICATIONS

Performance-Based Planning and Programming: Regional Highway Safety Targets

Posted: Jan 16, 2019

Summary

The Regional Highway Safety Report includes the regional performance targets on this federal performance measure. The report provides detailed information concerning the methodologies utilized.

Related Documents (2)

- Performance-Based Planning and Programming: Regional Highway Safety Targets: 2019
- Performance-Based Planning and Programming: Regional Highway Safety Targets: 2018

Tags: Federal Performance Measures, Highways & Roads, Traffic Safety

Figure 5: Landing Page for Safety Targets showing multiple years of reports

As a Stand-Alone Resource

Many agencies that have developed system performance reports have not yet developed a new MTP that incorporates the system performance report. These agencies might use these stand-alone resources as a basis to develop a chapter in their MTPs, as an appendix, or incorporate the reports into the plan in other ways, including potentially referencing these reports in the plan. Example agencies include the Columbus-Phenix City MPO, Hampton Roads TPO, Hillsborough MPO, Lincoln MPO, Miami-Dade TPO, Mid-Ohio RPC, and North Front Range MPO.

Columbus-Phenix City MPO, the MPO for the Columbus, Georgia, metropolitan area, put its system performance report up as a page on its website. For each performance area, they list the measures, their baseline conditions, and the state targets (which the MPO is supporting). They also describe the dollar amount of their TIP that is going toward projects related to that performance area.

Hampton Roads Transportation Planning Organization (HRTPO), serving the region of Norfolk-Hampton-Virginia Beach, has a few types of system performance reports available on its performance management web page. The "Regional Performance Measures – System Performance Report" is the version directed toward meeting the federal requirements. The report has a chapter for each performance area, with subheadings for the measures, methodology, current/historical conditions, statewide 2019 targets, and HRTPO 2019 targets. The description of the HRTPO targets explained how they arrived at the targets, and gave HRTPO an opportunity to explain why the performance in some areas is expected to decline, as shown in Figure 6.

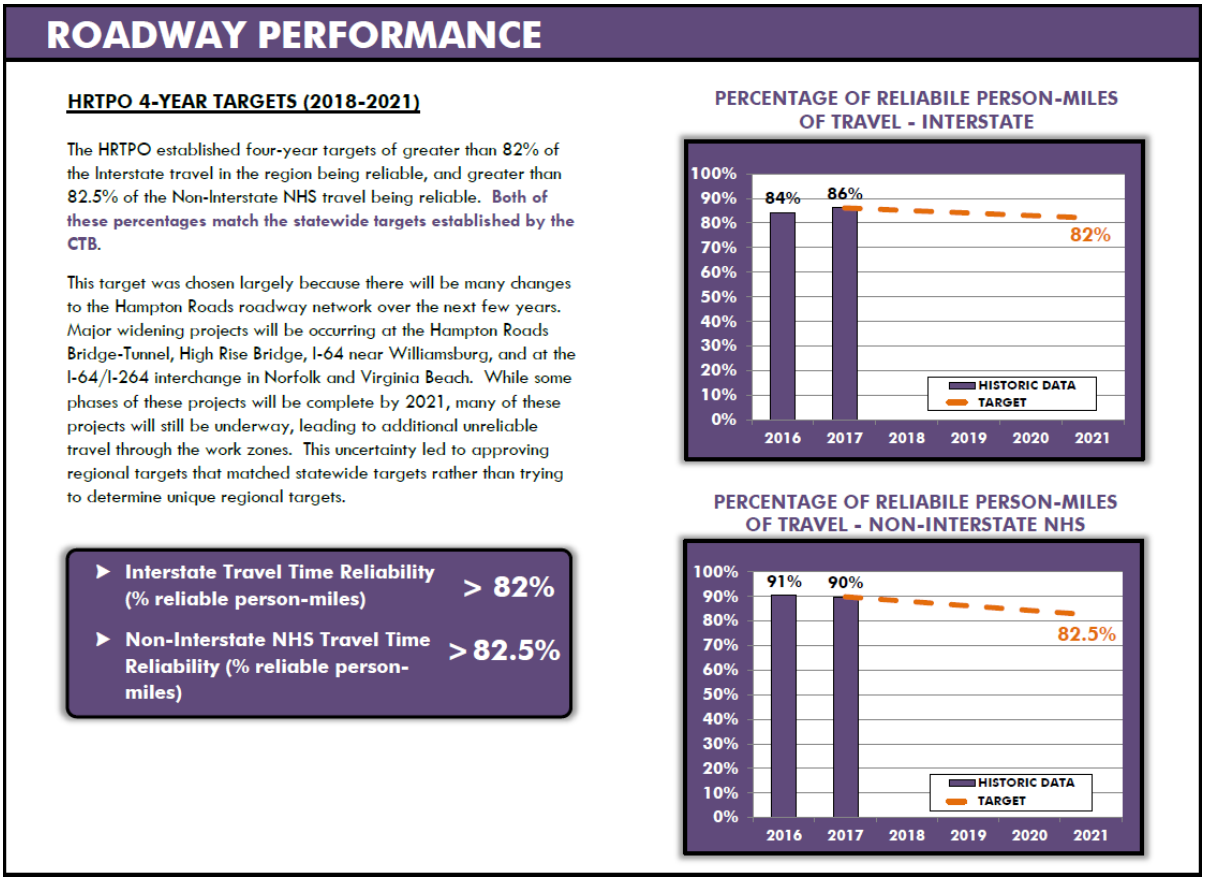
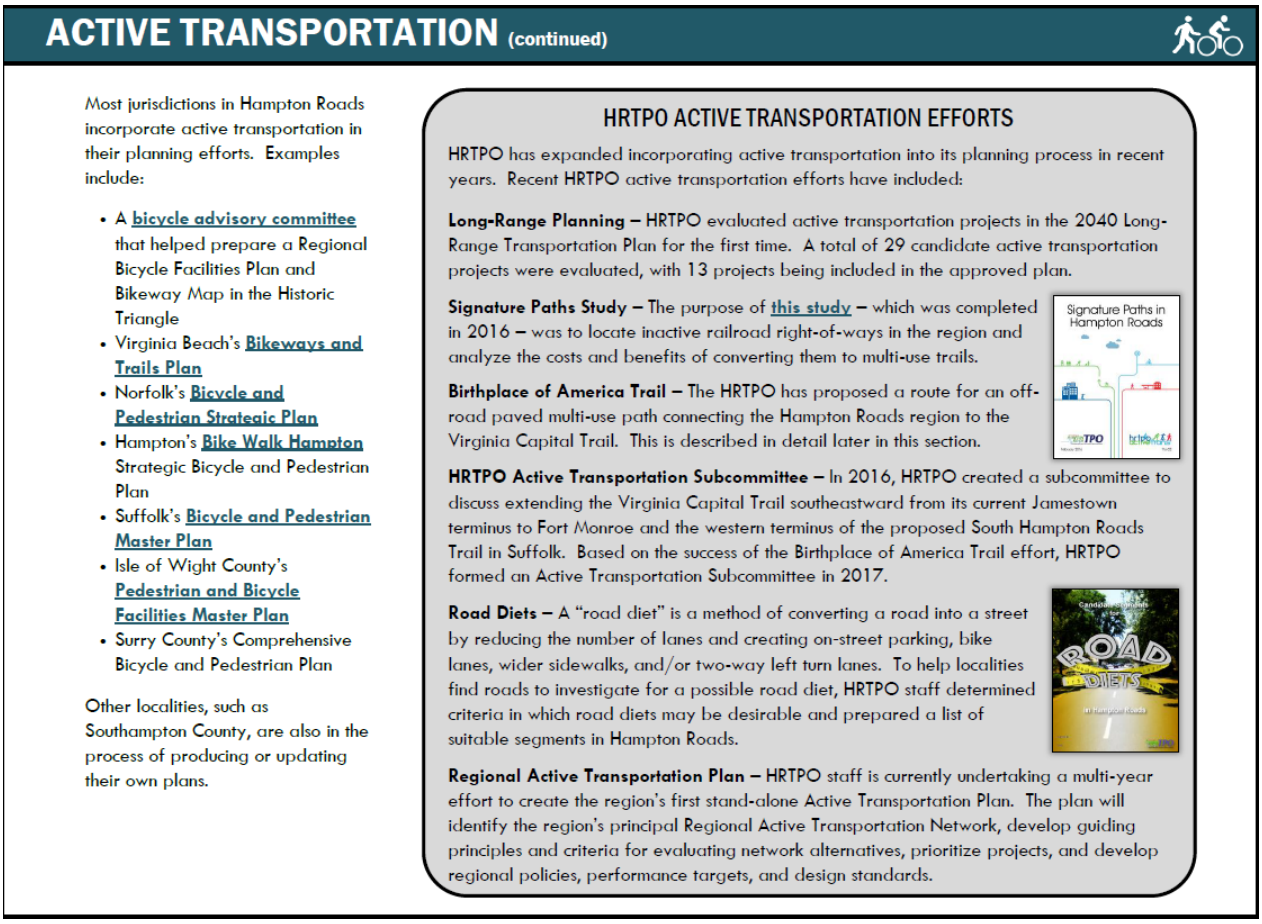


Figure 6: HRTPO Performance Targets showing and explaining a decline in reliable travel

HRTPO also has a section of the same web page devoted to "Annual System Performance Reports" containing the "Annual State of Transportation in Hampton Roads Report" and the "HRTPO Annual Roadway Performance Report;" and a section on "Congestion Management Process – System Performance and Mitigation Report" for which the most recent report is from 2014. These reports are created to fulfill the federal CMP requirements and Virginia-based requirements to adopt a performance-based approach. The Annual State of Transportation in Hampton Roads Report has chapters that focus on performance areas of importance to the region and going beyond the federal requirements, such as air travel, port data, commuting, active transportation, transportation operations, and regional performance measures. These sections offer HRTPO an opportunity to report on current conditions and about "New Developments" and "HRTPO [performance area] Efforts" to improve that performance area, as shown in Figure 7.



ACTIVE TRANSPORTATION (continued)

Most jurisdictions in Hampton Roads incorporate active transportation in their planning efforts. Examples include:

- A bicycle advisory committee that helped prepare a Regional Bicycle Facilities Plan and Bikeway Map in the Historic Triangle
- Virginia Beach's Bikeways and Trails Plan
- Norfolk's Bicycle and Pedestrian Strategic Plan
- Hampton's Bike Walk Hampton Strategic Bicycle and Pedestrian Plan
- Suffolk's Bicycle and Pedestrian Master Plan
- Isle of Wight County's Pedestrian and Bicycle Facilities Master Plan
- Surry County's Comprehensive Bicycle and Pedestrian Plan

Other localities, such as Southampton County, are also in the process of producing or updating their own plans.

HRTPO ACTIVE TRANSPORTATION EFFORTS

HRTPO has expanded incorporating active transportation into its planning process in recent years. Recent HRTPO active transportation efforts have included:

Long-Range Planning – HRTPO evaluated active transportation projects in the 2040 Long-Range Transportation Plan for the first time. A total of 29 candidate active transportation projects were evaluated, with 13 projects being included in the approved plan.

Signature Paths Study – The purpose of this study – which was completed in 2016 – was to locate inactive railroad right-of-ways in the region and analyze the costs and benefits of converting them to multi-use trails.

Birthplace of America Trail – The HRTPO has proposed a route for an off-road paved multi-use path connecting the Hampton Roads region to the Virginia Capital Trail. This is described in detail later in this section.

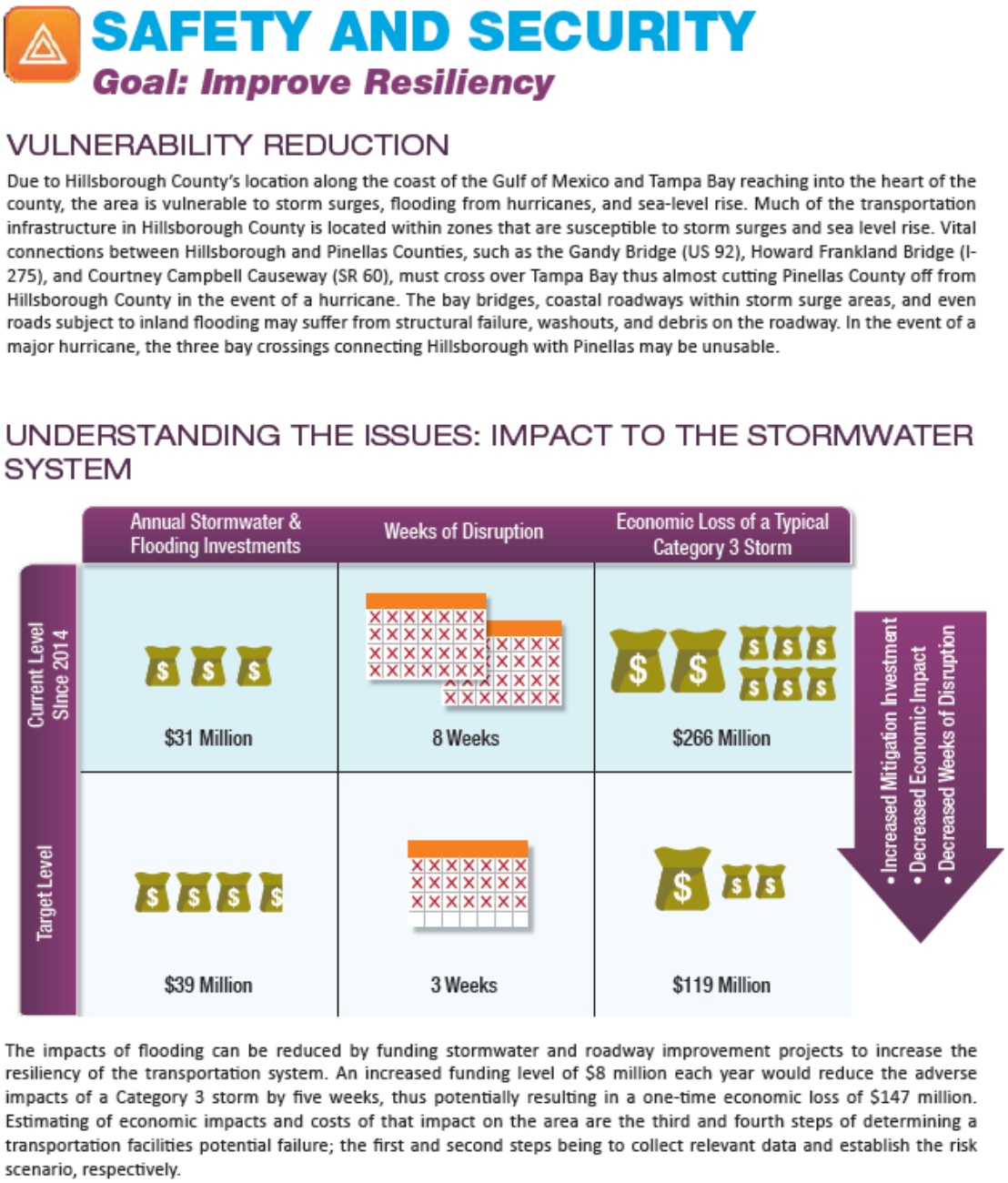
HRTPO Active Transportation Subcommittee – In 2016, HRTPO created a subcommittee to discuss extending the Virginia Capital Trail southeastward from its current Jamestown terminus to Fort Monroe and the western terminus of the proposed South Hampton Roads Trail in Suffolk. Based on the success of the Birthplace of America Trail effort, HRTPO formed an Active Transportation Subcommittee in 2017.

Road Diets – A "road diet" is a method of converting a road into a street by reducing the number of lanes and creating on-street parking, bike lanes, wider sidewalks, and/or two-way left turn lanes. To help localities find roads to investigate for a possible road diet, HRTPO staff determined criteria in which road diets may be desirable and prepared a list of suitable segments in Hampton Roads.

Regional Active Transportation Plan – HRTPO staff is currently undertaking a multi-year effort to create the region's first stand-alone Active Transportation Plan. The plan will identify the region's principal Regional Active Transportation Network, develop guiding principles and criteria for evaluating network alternatives, prioritize projects, and develop regional policies, performance targets, and design standards.

Figure 7: Part of HRTPO's Annual State of Transportation in Hampton Roads Report chapter on Active Transportation

Hillsborough MPO's 2016 State of the System Report was not completed in response to the federal requirements, but it shows another option for presenting the information. The report includes sections on each of their goals areas, using graphics and pictures to convey the current conditions and desired improvements, as shown in Figure 8.



SAFETY AND SECURITY

Goal: Improve Resiliency

VULNERABILITY REDUCTION

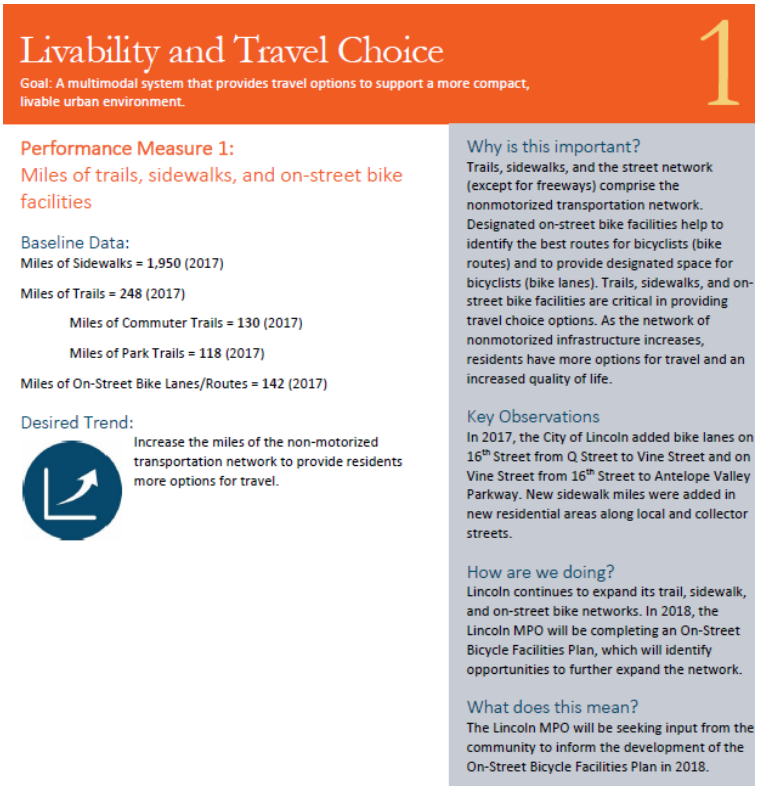
Due to Hillsborough County's location along the coast of the Gulf of Mexico and Tampa Bay reaching into the heart of the county, the area is vulnerable to storm surges, flooding from hurricanes, and sea-level rise. Much of the transportation infrastructure in Hillsborough County is located within zones that are susceptible to storm surges and sea level rise. Vital connections between Hillsborough and Pinellas Counties, such as the Gandy Bridge (US 92), Howard Frankland Bridge (I-275), and Courtney Campbell Causeway (SR 60), must cross over Tampa Bay thus almost cutting Pinellas County off from Hillsborough County in the event of a hurricane. The bay bridges, coastal roadways within storm surge areas, and even roads subject to inland flooding may suffer from structural failure, washouts, and debris on the roadway. In the event of a major hurricane, the three bay crossings connecting Hillsborough with Pinellas may be unusable.

UNDERSTANDING THE ISSUES: IMPACT TO THE STORMWATER SYSTEM

The impacts of flooding can be reduced by funding stormwater and roadway improvement projects to increase the resiliency of the transportation system. An increased funding level of $8 million each year would reduce the adverse impacts of a Category 3 storm by five weeks, thus potentially resulting in a one-time economic loss of $147 million. Estimating of economic impacts and costs of that impact on the area are the third and fourth steps of determining a transportation facilities potential failure; the first and second steps being to collect relevant data and establish the risk scenario, respectively.

Figure 8: Page from Hillsborough MPO's "Improve Resiliency" Goal

The **Lincoln MPO** in Nebraska develops an Annual Transportation System Performance Report to evaluate whether the RTP's goals are being achieved. The report is organized around the MPO's seven goals and several performance metrics in each chapter. Each chapter shows the current performance and projected trends, as shown in Figure 9. The report also evaluates whether the metrics are achieving their targets or moving in the right direction and including a brief discussion of: why is this performance measure important; key observations; "how are we doing?" and "What does this mean? Even where they are still developing data, they included placeholders, as shown in Figure 10.



Livability and Travel Choice 1

Goal: A multimodal system that provides travel options to support a more compact, livable urban environment.

Performance Measure 1:
Miles of trails, sidewalks, and on-street bike facilities

Baseline Data:
Miles of Sidewalks = 1,950 (2017)

Miles of Trails = 248 (2017)

- Miles of Commuter Trails = 130 (2017)
- Miles of Park Trails = 118 (2017)

Miles of On-Street Bike Lanes/Routes = 142 (2017)

Desired Trend:
Increase the miles of the non-motorized transportation network to provide residents more options for travel.

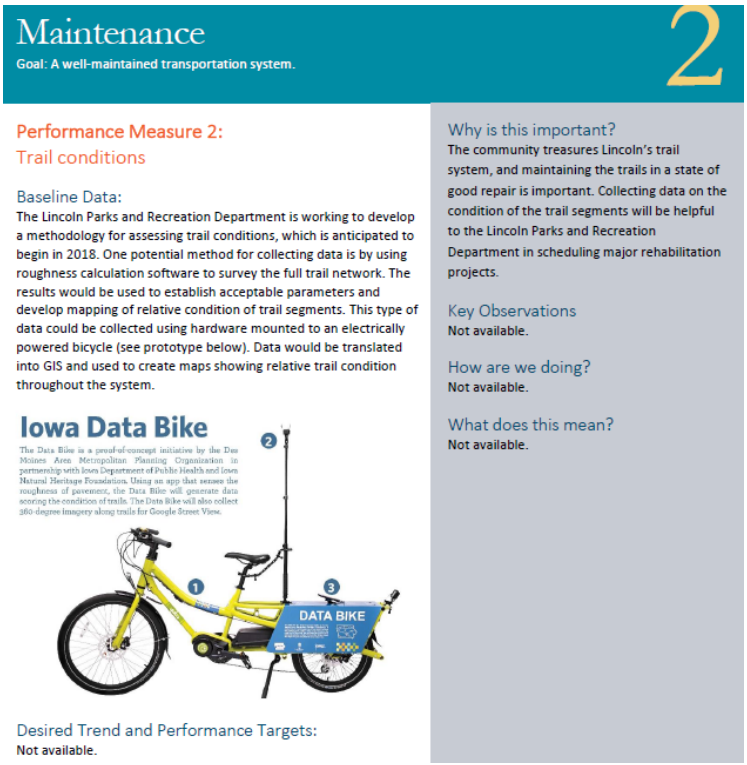
Why is this important?
Trails, sidewalks, and the street network (except for freeways) comprise the nonmotorized transportation network. Designated on-street bike facilities help to identify the best routes for bicyclists (bike routes) and to provide designated space for bicyclists (bike lanes). Trails, sidewalks, and on-street bike facilities are critical in providing travel choice options. As the network of nonmotorized infrastructure increases, residents have more options for travel and an increased quality of life.

Key Observations
In 2017, the City of Lincoln added bike lanes on 16th Street from Q Street to Vine Street and on Vine Street from 16th Street to Antelope Valley Parkway. New sidewalk miles were added in new residential areas along local and collector streets.

How are we doing?
Lincoln continues to expand its trail, sidewalk, and on-street bike networks. In 2018, the Lincoln MPO will be completing an On-Street Bicycle Facilities Plan, which will identify opportunities to further expand the network.

What does this mean?
The Lincoln MPO will be seeking input from the community to inform the development of the On-Street Bicycle Facilities Plan in 2018.

Figure 9: Lincoln MPO's System Performance Report



Maintenance 2

Goal: A well-maintained transportation system.

Performance Measure 2:
Trail conditions

Baseline Data:
The Lincoln Parks and Recreation Department is working to develop a methodology for assessing trail conditions, which is anticipated to begin in 2018. One potential method for collecting data is by using roughness calculation software to survey the full trail network. The results would be used to establish acceptable parameters and develop mapping of relative condition of trail segments. This type of data could be collected using hardware mounted to an electrically powered bicycle (see prototype below). Data would be translated into GIS and used to create maps showing relative trail condition throughout the system.

Iowa Data Bike

The Data Bike is a proof-of-concept initiative by the Des Moines Area Metropolitan Planning Organization in partnership with Iowa Department of Public Health and Iowa Natural Heritage Foundation. Using an app that senses the roughness of pavement, the Data Bike will generate data scoring the condition of trails. The Data Bike will also collect 360-degree imagery along trails for Google Street View.

Desired Trend and Performance Targets:
Not available.

Why is this important?
The community treasures Lincoln's trail system, and maintaining the trails in a state of good repair is important. Collecting data on the condition of the trail segments will be helpful to the Lincoln Parks and Recreation Department in scheduling major rehabilitation projects.

Key Observations
Not available.

How are we doing?
Not available.

What does this mean?
Not available.

Figure 10: Lincoln MPO's Approach to Measures that Are Still In Development

Miami-Dade Transportation Planning Organization (TPO) created their first system performance report as a "companion document" to the 2019 TIP. The first nine pages provide an introduction on reasons – including regulations—for engaging in performance management and how they are doing so. Then they have a chapter for each performance area (for which they had set targets) with sections naming the measure; stating their targets; providing the baseline conditions; and, for the safety chapter, discussing the relevant trends and Miami-Dade TPO's "Contributions to Achieving Safety Performance Targets."

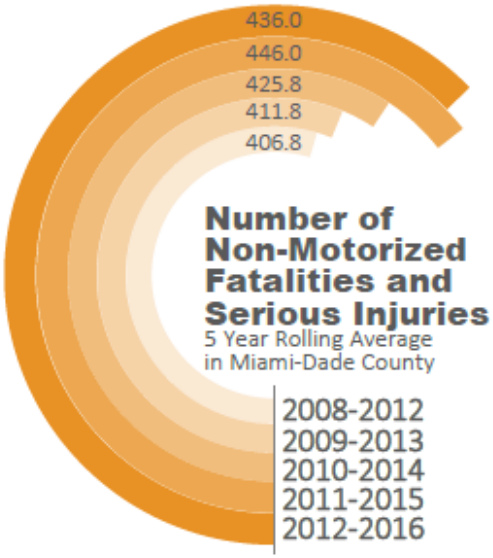


Figure 11: A snapshot of Miami-Dade TPO's presentation of safety trends

The **Mid-Ohio Regional Planning Commission (MORPC)** has had targets as part of its long-range transportation planning for several years, and has regularly reported on progress toward those targets. Figure 12 presents a portion of the 2018 report card that MORPC developed, showing targets for each measure established for 2020 and 2040.[1]

[1] Mid-Ohio Regional Planning Commission. 2016-2040 Columbus Area Metropolitan Transportation Plan: 2018 Report Card. http://www.morpc.org/wordpress/wp-content/uploads/2017/12/20180430_CAC_FINAL-Report-Card.pdf

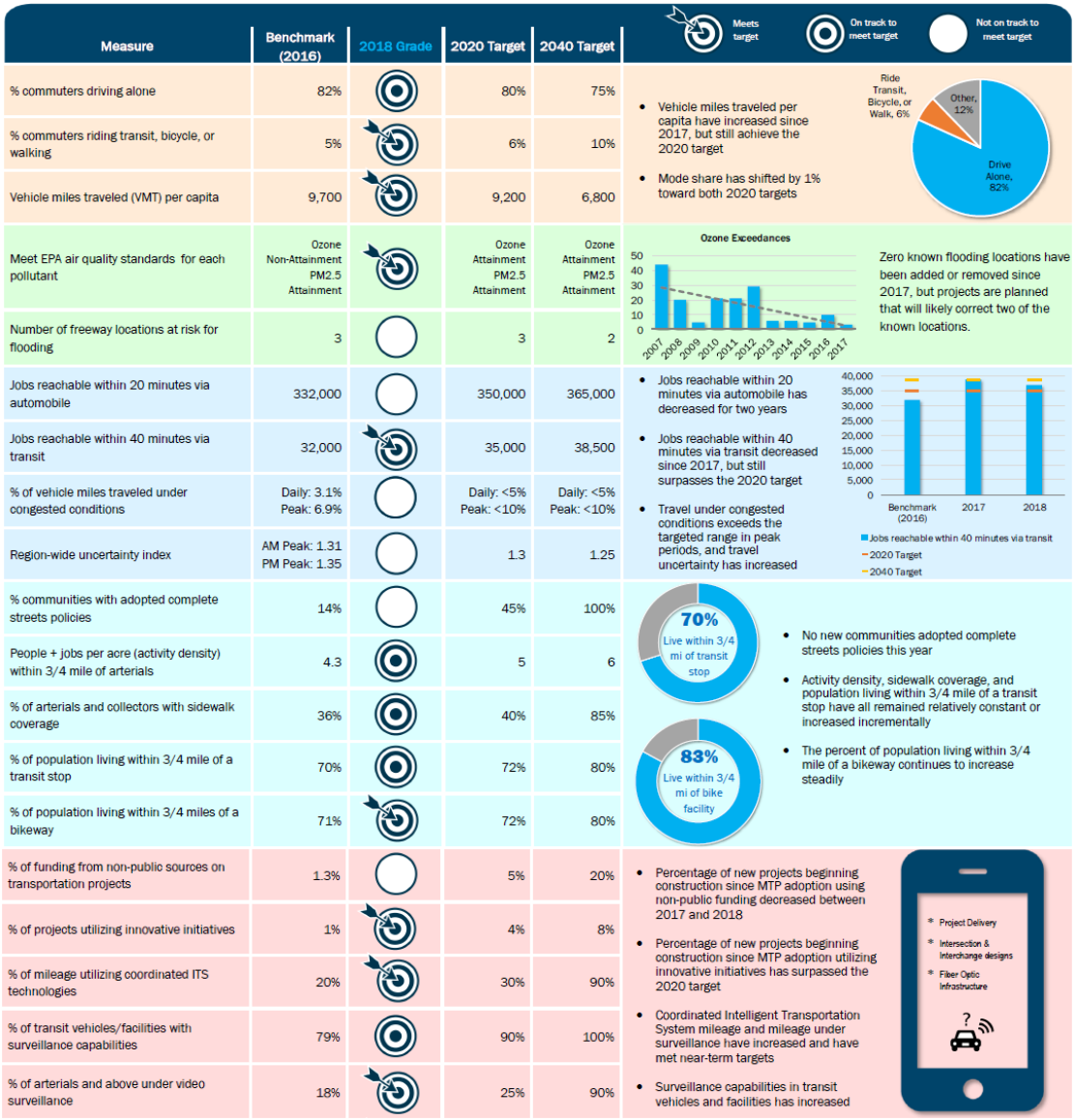


Figure 12: MORPC 2018 Report Card (Portion).

North Front Range MPO, serving northern Colorado, has developed a "2019 System Performance Report" as part of the development of the 2045 Regional Transportation Plan. The report opens with a "performance measure scorecard" that also directs readers to the appropriate page; a portion of the scorecard is shown below as Figure 13. The scorecard uses a simple system to show whether the state or MPO have achieved the target, are trending in the right direction, or are not making enough progress toward the target. NFRMPO set targets by agreeing to support the state targets. The report then has a chapter for each performance area; each chapter's introduction lists some example strategies being used in the MPO region to improve performance in that area.

Performance Measure Scorecard

Category	Performance Measure	Benchmark*	Target	Status	Page
Highway Safety	Number of fatalities	600	644	✓	8
	Rate of fatalities per 100M VMT	1.09	1.20	✓	9
	Number of serious injuries	2,340	2,909	✓	10
	Rate of serious injuries per 100M VMT	4.384	5.575	✓	11
	Number of non-motorized fatalities and serious injuries	512	514	✓	12
Bridge and Pavement Condition	Percent of Interstate pavement in Good condition	42.4%	47%	✗	14
	Percent of Interstate pavement in Poor condition	0.98%	1%	✓	14
	Percent of Non-Interstate NHS pavement in Good condition	41.4 %	51%	✗	14
	Percent of Non-Interstate NHS pavement in Poor condition	2.21%	2%	−	14
	Percent of NHS bridges in Good condition	47.4%	44%	✓	14
	Percent of NHS bridges in Poor condition	3.8%	4%	✓	14

Figure 13: North Front Range Performance Measure Scorecard (portion)

3. Conclusion

The federal regulations do not prescribe an approach for how to include the system performance report in the long range transportation plan. Therefore, the NJTPA can select the approach that meets its goals and provides the level of detail desired. A few options are noted below, along with identified strengths and limitations.

A Chapter in the Plan

Having the report as a chapter in the plan can be a useful tool for explaining the context of the plan. The NJTPA's current long range transportation plan, "Plan 2045: Connecting North Jersey", includes a chapter on "Regional Context & Trends" (Chapter 3), which provides a foundation for a system performance report. This chapter discusses general context for the region, including demographics, employment, and income trends, followed by a discussion of transportation trends, which provides information on system performance issues, such as NJ TRANSIT ridership trends, safety trends, and air quality trends. A chapter like this could be developed in the next version of the long range transportation plan providing information on system performance trends and targets. Or alternatively, a separate chapter could be developed discussing performance-based planning, the targets that have been established, and performance in relation to the targets, following the general regional context.

Some benefits of incorporating the system performance report directly as a chapter in the plan include more fully integrating performance information into the plan and creating more visibility for the performance-focus of the plan. One of the weaknesses is that the large number of performance measures and targets, particularly for transit asset conditions, may make the plan itself somewhat complex and less user-friendly.

As an Appendix to the Plan

Alternatively, the report could include a full system performance report as an appendix to the plan. One limitation of having the system report solely as an appendix is that it may be less likely to be read. On the other hand, having the report as an appendix or stand-alone resource offers some benefits. Most notably, it would allow the NJTPA to provide more detail than might be desired as a chapter in the long range plan. Particularly given the large number of national performance measures and their complexity, it would enable a fuller discussion of the measures, trends, and targets for each.

Moreover, given that the NJTPA has selected regional performance measures to support its regional goals, and must report on system performance in relation to targets that were established for the national performance measures, there will be a lot of potential performance information to report. Having a separate appendix could help to clearly present the regional and national measures and targets in context. This ability to provide detail may be particularly important since the NJTPA has chosen to support the state targets for many of the national measures, and some targets for the national measures (i.e., annual hours per capita of peak hour excessive delay and non-SOV travel) are for urbanized areas (i.e., the New York-Newark NY-NJ-CT UZA and the Philadelphia NJ-PA-MD-DE UZA).

The NJTPA also may be able to use the fact sheets that were developed as part of the Regional Performance Measures Initiative as part of this appendix, plus incorporate the targets and performance trends that must reported in relation to the national measures.

A Hybrid Approach

Finally, the NJTPA could use a hybrid approach with a general discussion of system performance trends and targets in the plan, and more detail on each of the performance measures, trends, and targets in an appendix. This hybrid approach seems to be a strong approach as it would provide the benefits to the reader of seeing information on the condition and performance of the transportation system within the NJTPA region, demonstrate a performance-based approach, and tie performance measures to key goals in the plan. Yet it would enable this information to be relatively concise and provide more detail in an appendix. It may be particularly valuable for the NJTPA to have some of the information appear in an appendix given the large number of transit asset management targets, the complexity of some of the national measures, and the fact that many of the NJTPA's targets do not reflect the NJTPA geographic area (since they reflect support for state targets or address urbanized areas).