Transportation Performance Management (TPM)

Summary Report 2023 —DRAFT

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Transportation Performance Management (TPM)

MAP-21 Act

The *Moving Ahead for Progress in the 21st Century (MAP-21) Act*, signed into law in July 2012, established **national transportation goals** to transform the **Federal-aid highway program**. It was the first multi-year transportation authorization enacted since 2005.

Federal Aid Highway Program

Provides financial assistance for the construction, maintenance, and operation of the Nation's 3.9 million-mile highway network, including the Interstate Highway System, primary highways, and secondary local roads.

- **Provides a means to the most efficient investment of Federal transportation funds by focusing on national transportation goals**
- **Increases the accountability and transparency of the Federal-aid highway program**
- **Improves project decision-making through performance-based planning and programming**

Performance-Based Transit Planning and Programming

With the passage of MAP-21, public transportation agencies are required to develop plans that incorporate performance-based planning and programming:

Transit Asset Management (TAM) plans include capital asset inventories, condition assessments, decision support tools, and investment prioritization.

Public Transportation Agency Safety Plans (PTASPs) include performance targets based on safety performance criteria and state of good repair standards. PTASPs are part of the overall Public Transportation Safety Program.

National Transportation Goals

Safety — To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

Infrastructure Condition — To maintain the highway infrastructure asset system in a state of good repair.

Congestion Reduction — To achieve a significant reduction in congestion on the National Highway System (NHS).

System Reliability — To improve the efficiency of the surface transportation system.

Freight Movement and Economic Vitality — To improve the National Highway Freight Network (NHFN), strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

Environmental Sustainability — To enhance the performance of the transportation system while protecting and enhancing the natural environment.

Reduced Project Delivery Delays — To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

FAST Act

The *Fixing America's Surface Transportation (FAST) Act*, signed into law in December 2015, continued MAP-21's performance management approach, requiring states and Metropolitan Planning Organizations (MPOs) to undertake performance-based planning and programming to make progress towards the national goals.

Federal Rulemakings

Between 2016 and 2018, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) issued rules that pertain to the national transportation goals. The federal rulemakings can be found in the ***Federal Rulemakings*** sidebar.

IIJA Act

The *Infrastructure Investment and Jobs Act (IIJA)*, also known as the "Bipartisan Infrastructure Law," was signed into law in November 2021. The IIJA continues the performance management approach to planning and programming and continues all funding features found under the FAST Act, with a strong emphasis on improving safety.

Measures

With the development of the national goals and passage of the authorization bills, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) established measures to assess the performance and condition of the Federal-aid highway and public transportation programs. The performance measures established by FHWA were broken down into three categories, and the performance measures established by FTA were included in two transit plans (see sidebar).

Federal Rulemakings

- Highway Safety Improvement Program (HSIP) Final Rule (April 2016)
- Safety Performance Management Measure Rule (April 2016)
- TAM Final Rule (2016)
- National Highway Performance Program (NHPP) Pavement and Bridge Condition Performance Measure Final Rule (2017)
- National Highway Performance Program (NHPP) System Performance/Freight/CMAQ Performance Measures Final Rule (2017)
- PTASP Final Rule (2018)

Performance Measures

- PM1: Safety
- PM2: Infrastructure Condition
- PM3: System Reliability, Freight Movement, and Congestion Reduction
- Transit Asset Management (TAM)
- Public Transportation Agency Safety Plan (PTASP)

With the establishment of performance measures, targets are established by Federal-aid highway funding and public transportation recipients—including state Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and public transportation agencies—to document future performance expectations for individual measures.

Target Setting

Flexibility to support the state DOT's statewide performance measure targets or establish targets for the MPO area, depending on regional priority and analytical capability.

Reporting

In addition to adopting and incorporating performance measures and targets into the Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), Metropolitan Planning Organizations (MPOs) must also develop regular reports to document progress in achieving the targets.

This includes a **System Performance Report** to be included in the Regional Transportation Plan (RTP) at the time of adoption, a Congestion Mitigation and Air Quality (CMAQ) Performance Plan to be included in the State's Baseline Performance Report, a Mid-Performance Period Progress Report, and a Full Performance Period Progress Report.

Target Requirements

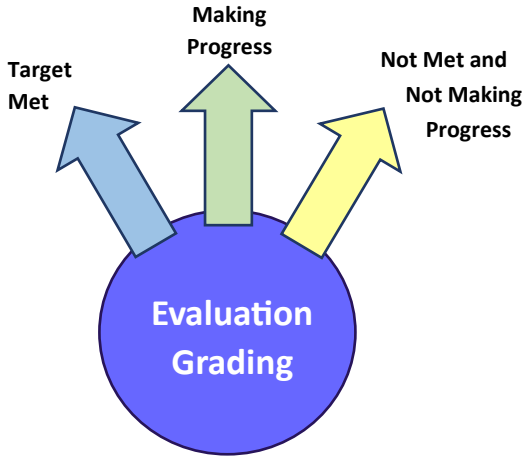
- MPOs must establish performance targets within 180 days of the state DOT's adoption of targets.
- State and regional planning organizations, including MPOs, are required to reference the performance targets and transit performance-based plans in their Regional Transportation Plans (RTPs) and Transportation Improvement Programs (TIPs).

System Performance Report

- Evaluation of system performance with respect to the performance targets
- Includes the performance data and associated performance target information that is available at time of the RTP's adoption.
- Progress reporting should be included in the public involvement process during the development of the RTP and TIP.

Evaluation and Penalties

Once targets have been established, the targets are later graded by a federal agency for their performance. Each target receives one of three grades: (1) target met, (2) making progress, or (3) not met and not making progress.



There are penalties in the event the performance targets are not met by the state DOT. Penalties are dependent upon the specific performance category. More information regarding penalties can be found in TPM folios on the Washington State Department of Transportation, *Transportation Performance Management reports* page.

Transportation Performance Management (TPM) - Categories and Plans

The five categories and plans for Transportation Performance Management are:

Safety (PM1)

Infrastructure Condition (PM2)

System Reliability, Freight Movement, and Congestion Reduction (PM3)

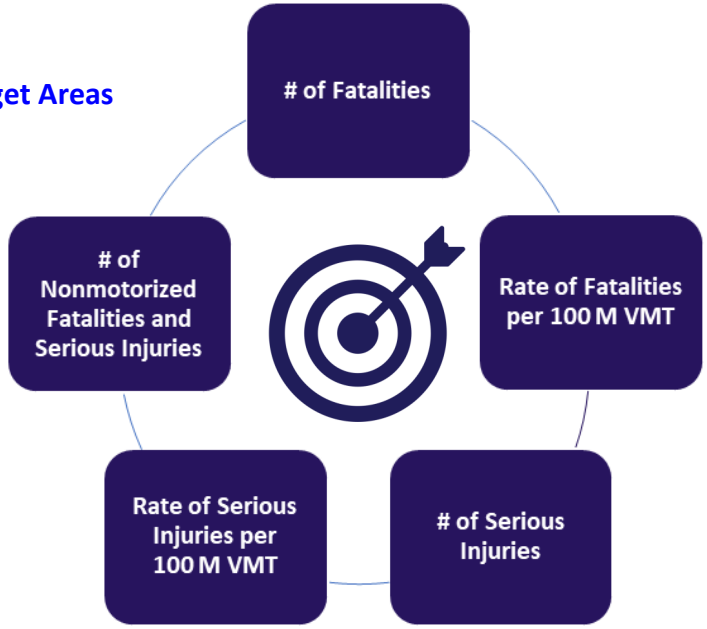
Transit Asset Management (TAM) Plan

Public Transportation Agency Safety Plan (PTASP)

Safety (PM1)

Safety National Goal: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

Target Areas



Target Calculations

5-year rolling averages of fatalities, rate of fatalities, serious injuries, rate of serious injury, nonmotorized fatalities and serious injuries

Federal Rulemakings

- Highway Safety Improvement Program (HSIP) Final Rule (FHWA - April 2016)
- Safety Performance Management Measure Rule (FHWA - April 2016)

Target Requirements

- Required by the Highway Safety Improvement Program (HSIP)
- State and MPOs: 1-year targets
- MPOs: Plans and programs contribute toward the accomplishment of the state DOT HSIP target or by committing to a quantifiable target for the Metropolitan Planning Area.
- MPOs: Establish safety targets within 180 days of the state DOT's established targets.
- MPOs: Report annually to the state DOT.

Data Sources

- Fatality Analysis Reporting System (FARS)
- State Police Traffic Collision Reports
- Highway Performance Monitoring System (HPMS)

Infrastructure Condition (PM2)

Infrastructure Condition National Goal: To maintain the highway infrastructure asset system in a state of good repair.

	Target Areas
Pavement	• % in good condition (Interstate) • % pavement in poor condition (Interstate) • % in good condition (Non-interstate National Highway System (NHS)) • % pavement in poor condition (Non-interstate NHS)
Bridge	• % in good condition • % in poor condition

Transportation System Evaluation—Pavement & Bridge

- Interstate and noninterstate National Highway System (NHS) roadways
- All bridges carrying the NHS, including on- and off-ramps within the state and bridges carrying the NHS that cross a state border, regardless of ownership

Federal Rulemaking

- National Highway Performance Program (NHPP) Pavement and Bridge Condition Performance Measure Final Rule (FHWA - 2017)

Target Requirements

- Required by the National Highway Performance Program (NHPP)
- MPOs: Establish infrastructure condition targets within 180 days of the state DOT's established targets

Pavement

- State: 2- and 4-year targets for noninterstate National Highway System (NHS) roadways and 4-year target for interstate
- MPO: 4-year targets for noninterstate NHS roadways and interstate

Bridges

- State: 2- and 4-year targets for NHS bridges
- MPO: 4-year target for NHS bridges

Data Sources

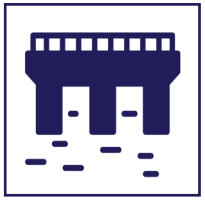
- Highway Performance Monitoring System (HPMS)

Infrastructure Condition (PM2) (cont'd.)

Target Calculation

Pavement

- Criteria for pavement condition includes good, fair, and poor condition (see table below).
- Pavement condition is based on:
  - international roughness index (IRI),
  - cracking percentage,
  - rutting (inches),
  - faulting (inches), and
  - the present serviceability rating



Bridge

- Criteria for bridge condition includes good, fair, and poor condition (see table below).
- Bridge condition is based on deck area.
- Bridge classification is based on:
  - national bridge inventory (NBI) condition ratings for deck area,
  - superstructure,
  - substructure, and
  - culvert

Definitions and criteria for good, fair and poor conditions[1]

	Asphalt	Concrete	Good	Fair	Poor
International Roughness Index (IRI) (inches/mile)	✓	✓	< 95	95 - 170	> 170
Cracking (%)	✓	✓	< 5	CRCP: 5 - 10 Jointed: 5-15 Asphalt: 5-20	> 10 > 15 > 20
Rutting (inches)	✓		< 0.20	0.20 - 0.40	> 0.40
Faulting (inches)		✓	< 0.10	0.10 - 0.15	> 0.15
Present Serviceability Rating (PSR[2]) (0.0-5.0 value)	✓	✓	<4.0	2.0-4.0	<2.0

Data source: Federal Highway Administration.
Note: 1 To be poor, at least two criteria must be poor. To be good, all three criteria must be good, everything else is fair. 2 PSR is a composite of cracking and rutting and may only be used on routes with posted speed limits under 40 mph.

National Bridge Inventory condition rating thresholds for National Highway System bridges

	8 - 7	6 - 5	4 - 3 - 2 - 1 - 0
	Good	Fair	Poor
Deck	≥ 7	5 or 6	≤ 4
Superstructure	≥ 7	5 or 6	≤ 4
Substructure	≥ 7	5 or 6	≤ 4
Culvert	≥ 7	5 or 6	≤ 4

Data source: Federal Highway Administration.

System Reliability, Freight Movement, and Congestion Reduction (PM3)

System Reliability National Goal: To improve the efficiency of the surface transportation system.

Freight Movement National Goal: To improve the National Highway Freight Network (NHFN) and strengthen the ability of rural communities to access national and international trade markets and support regional economic development.

Congestion Reduction National Goal: To achieve a significant reduction in congestion on the National Highway System (NHS).

Target Areas	
System Reliability	• **% person-miles traveled that are reliable (Interstate)** • **% person-miles traveled that are reliable (Noninterstate)**
Freight Movement	• **Truck Travel Reliability (TTTR)**
Congestion Reduction	• **% Nonsingle Occupancy Vehicle Travel** • **Annual Hours of Peak-Hour Excessive Delay** • **On-Road Mobile Source Emissions (*VOC and NO_x Reduction*)**

Federal Rulemaking

- National Highway Performance Program (NHPP) System Performance/Freight/CMAQ Performance Measures Final Rule (2017)

Target Requirements

- Required by the National Highway Performance Program (NHPP)
- State: 2- and 4-year targets
- MPOs: 4-year targets
- MPOs: Establish system reliability, freight movement, and congestion reduction targets within 180 days of the state DOT's established targets

Data Sources

- National Performance Management Research Data Set (NPMRDS)

Transportation System

- Interstate and noninterstate National Highway System (NHS) roadways
- Interstate NHS roadways (freight only)

System Reliability, Freight Movement, and Congestion Reduction (PM3) (cont'd.)

Target Calculation	
System Reliability	**Freight Movement**
• Ratio of longer travel times (80th percentile) to a "normal" travel time (50th percentile) (*Level of Travel Time Reliability (LOTTR*). • Reporting is divided into four periods: Monday through Friday, morning peak (6-10 a.m.), midday (10 a.m.-4 p.m.), afternoon peak (4-8 p.m.), weekends (6 a.m.-8 p.m.) • Data collected in 15-minute segments during all time periods between 6 a.m. and 8 p.m. local time. • Data reflect bus, auto, and truck occupancy levels.	• Ratio of the longer truck travel time (95th percentile) to a "normal" truck travel time (50th percentile) (*Truck Travel Time Reliability (TTTR)* • Reporting is divided into five periods: Monday through Friday, morning peak (6-10 a.m.), midday (10 a.m.-4 p.m.), afternoon peak (4-8 p.m.), weekends (6 a.m.-8 p.m.), overnights for all days (8 p.m.-6 a.m.). • The TTTR index is generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of interstate.

System Reliability, Freight Movement, and Congestion Reduction (PM3) (cont'd.)

Target Calculation—Congestion Reduction

Nonsingle Occupancy Vehicle (SOV)

- Based on The American Community Survey (ACS) Commute data (U.S. Census Bureau), local commuting survey data, or modal volume/usage data

Peak-Hour Excessive Delay

- Based on the travel time at 20 miles per hour or 60% of the posted speed limit travel time, whichever is greater
- Measured in 15-minute intervals
- Peak travel hours are defined as 6-10 a.m. local time on weekday mornings; the weekday afternoon period is 3-7 p.m. or 4-8 p.m. local time, providing flexibility to State DOTs and MPOs.
- The total excessive delay metric will be weighted by vehicle volumes and occupancy.

On-Road Mobile Source Emissions (VOC and NO_x Reduction)

- Based on an assessment of the Congestion Mitigation and Air Quality (CMAQ) Improvement Program and total emissions reduction

Transit Asset Management (TAM) Plan

Transit Asset Management (TAM) Plans determine the required capital investment in what order and magnitude (amount) to maintain service levels. TAM Plans also provide rankings of State of Good Repair (SGR) programs to inform the logical repair/refurbish/replace decisions associated with assets or asset classes.

The TAM targets must be reviewed and set every fiscal year, and the TAM Plan must be updated in its entirety at least every 4 years, covering a horizon period of at least 4 years.

The TAM Plan's performance measures and targets must be reflected in RTC's Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP).

Target Areas

Rolling stock: the percentage of revenue vehicles (by type) that exceed the useful life benchmark (ULB)

Equipment: the percentage of nonrevenue service vehicles (by type) that exceed the ULB

Infrastructure: the percentage of track segments (by mode) that have performance restrictions, considered to have a rating less than 3.0 on the Transit Economic Requirements Model (TERM) scale.

Facilities: the percentage of facilities (by group) that are rated less than 3.0 on the TERM scale

Federal Rulemaking

- TAM Final Rule (FTA - 2016)

Framework

- Monitors and manages public transportation assets
- Improves safety
- Increases reliability and performance to keep systems operating smoothly and efficiently

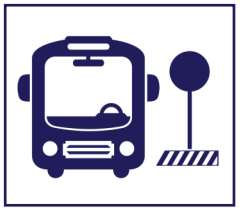
Data Sources

- National Transit Database (NTD)

Transportation System

- Public Transportation System

Public Transportation Agency Safety Plan (PTASP)



Public Transportation Agency Safety Plans (PTASPs) are intended to improve public transportation safety by guiding transit agencies to manage safety risks in their systems more effectively.

Target Areas	Target Calculations
• Total number of reportable fatalities and rate per vehicle revenue miles by mode.	• Number targets – Total number of fatalities, injuries and safety events expected per year.
• Total number of reportable injuries and rate per vehicle miles by mode.	• Rate targets – Total annual vehicle revenue miles or another number as needed for consistency with state/ regional planning requirements.
• Total number of reportable events and rate per vehicle revenue miles by mode.	
• Mean distance between major mechanical failures by mode.	

Evaluation

- Determined by monitoring safety measures and attaining safety performance and standards
- Performance indicators and safety targets are set to achieve safety objectives.

Federal Rulemaking

- PTASP Final Rule (2018)

Data Sources

- National Transit Database (NTD)

Transportation System

- Public Transportation System

Transportation Performance Management (TPM) - Washington State

In Washington State, transportation projects are prioritized through the legislative process. In fact, the Washington state legislature passed a number of **transportation system policy goals** in 2015 that includes the planning and performance of the state's transportation system.

Washington State Transportation Policy Goals	
Preservation	To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services, including the state ferry system
Safety	To provide for and improve the safety and security of transportation customers and the transportation system
Stewardship	To continuously improve the quality, effectiveness, resilience, and efficiency of the transportation system
Mobility	To improve the predictable movement of goods and people throughout Washington State, including congestion relief and improved freight mobility
Economic Vitality	To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy
Environment	To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment

Move Ahead WA

In 2022 the Washington State Legislature passed the *Move Ahead WA* transportation package that invests $16.8 billion in the state's transportation system over 16 years. This package includes funding towards new and existing priority road and bridge projects and system preservation and maintenance.

Washington Performance Framework

Local or regional transportation planning agencies may voluntarily establish objectives and performance measures to demonstrate progress toward the attainment of the transportation policy goals. These goals fall under Washington's Performance Framework. More information about the Policy Framework can be found at https://wsdot.wa.gov/engineering-standards/performance-framework.

Statewide Coordination

In terms of addressing the national goals and associated performance measures and targets, it is essential that Washington Department of Transportation (WSDOT), Metropolitan Planning Organizations (MPOs), Regional Transportation Planning Organizations (RTPOs), and local agencies coordinate their transportation planning efforts that:

(1) can be shared with lawmakers given the legislative process for transportation in the state of Washington and (2) contribute toward national performance targets.

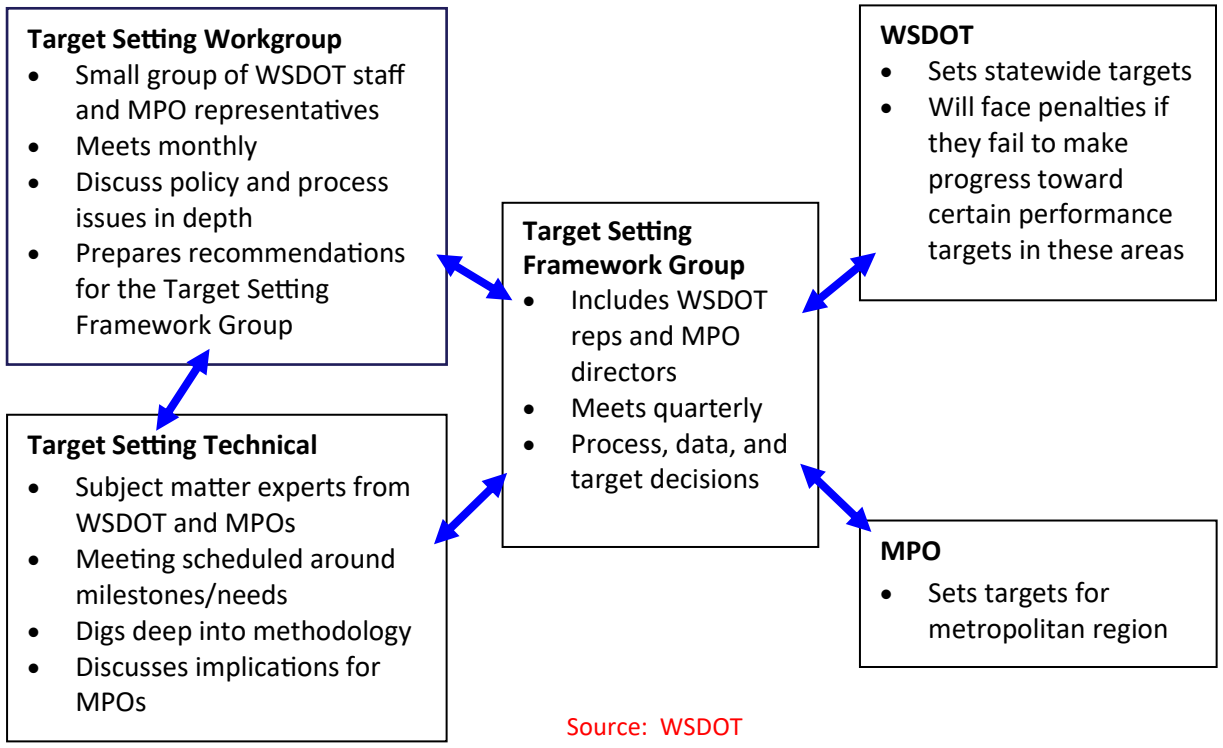
As part of this multiagency coordination, Washington State MPOs and WSDOT work together to develop and set statewide targets. This collaboration includes a joint target decision-making process and coordinated data support. While WSDOT and Washington state MPOs each have responsibilities when it comes to setting targets, the agencies have worked together since mid-2014 to develop a target-setting framework.

Target Setting Framework

As part of this target-setting framework, target setting groups have been developed between the Washington Department of Transportation (WSDOT) and Metropolitan Planning Organizations (MPOs) to improve coordination and the decision-making process (see Figure 2).

For more detailed information regarding WSDOT's performance management process for performance measures and targets, including the target setting collaborative framework, please review the latest folios found in the **Appendix**.

Figure 2: Transportation Performance Management Timeline - Washington State



Source: WSDOT

Transportation Performance Management (TMP) - Southwest Washington

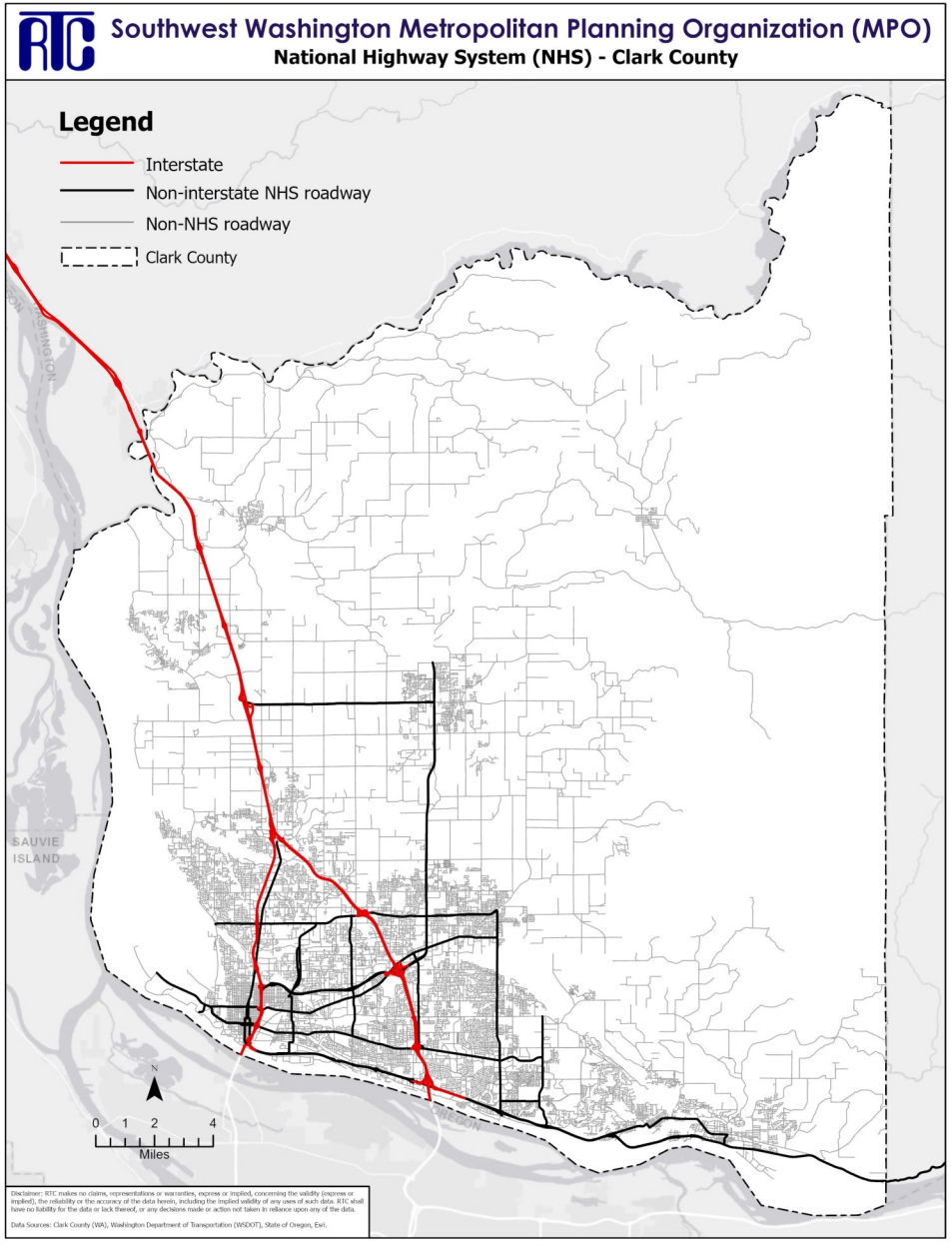
The Southwest Washington Regional Transportation Council (RTC) is the federally designated Metropolitan Planning Organization (MPO) for Clark County and represents the Washington portion of the Portland-Vancouver urbanized area. RTC is responsible for adopting targets to measure how well the National Highway System (NHS) performs within the MPO boundary.

Performance Management and Targets

- RTC supports the targets set by the Washington Department of Transportation (WSDOT) and C-TRAN, the public transportation agency for Clark County.
- RTC is agreeing to plan and program projects, including those in the Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), that contribute toward the accomplishment of the relevant WSDOT and C-TRAN performance targets.
- RTC's region is in air quality attainment; therefore, the congestion reduction performance measures do not apply.

The following sections will provide a current snapshot of transportation performance in Southwest Washington, as well as detailed information on individual performance measure categories.

RTC Board actions relating to performance measures and plans are documented at https://www.rtc.wa.gov/programs/performance/.



2024 Performance Measure Dashboard

Roadway Performance Targets

PM	Category	Target Area	Baseline (2023)	Target		Potential WSDOT Penalty
				1-YR	4-YR	
1	**Safety**	Number of fatalities	30.1	25.8	*N/A*	Yes
		Rate of fatalities per 100 million vehicle miles traveled (VMT)	0.999	0.856	*N/A*	Yes
		Number of serious injuries	117.3	100.3	*N/A*	Yes
		Rate of serious injuries per 100 million VMT	3.866	3.313	*N/A*	Yes
		Number of nonmotorized fatalities and serious injuries	28.7	24.6	*N/A*	Yes
2	**Pavement Condition** *NHS System Lane Miles*	Percent of NHS pavement in good condition (Interstate)	46.0%	N/A	30%	No
		Percent of NHS pavement in poor condition (Interstate)	1.9%	N/A	4%	Yes
		Percent of NHS pavement in good condition (Non-Interstate)	20.3%	N/A	45%	No
		Percent of NHS pavement in poor condition (Non-Interstate)	4.2%	N/A	5%	No
	Bridge Condition Deck area	Percent of NHS bridges in good condition	32.8%	N/A	30%	No
		Percent of NHS bridges in poor condition	8.8%	N/A	10%	Yes
3	**System Reliability** *NHS System*	Percent of person-miles traveled that are reliable (Interstate)	82.4%	N/A	72.5%	Yes
		Percent of person-miles traveled that are reliable (Non-Interstate)	87.8%	N/A	88.4%	Yes
	Freight Movement *Interstate System*	Truck Travel Time Reliability (TTTR)	1.49	N/A	1.53	Yes
	Congestion Reduction	Percent of Non-Single Occupancy Vehicle Travel	*N/A*	*N/A*	*N/A*	*N/A*
		Annual Hours of Peak-Hour Excessive Delay	*N/A*	*N/A*	*N/A*	*N/A*
		VOC Reduction	*N/A*	*N/A*	*N/A*	*N/A*
		NO_x Reduction	*N/A*	*N/A*	*N/A*	*N/A*

2024 Performance Measure Dashboard (cont'd.)

Transit Performance Plans + Targets

PM	Category	Target Areas	Target 4-YR	Report Page #
TAM	Transit Asset Management	Vehicles - Percentage of each vehicle class at or below useful life benchmark (ULB)	80%	33
		Equipment - Percentage of each equipment class at or below useful life benchmark (ULB)	70%	33
		Infrastructure - Percentage of track segments (by mode) that have performance restrictions	N/A	N/A
		Facilities - Percentage of each facility class greater than 2.5 Transit Economic Requirements Model (TERM) scale	70%	33

NA = Not Applicable

Data sources: Washington State Traffic Safety Commission, Fatality Analysis Reporting System (FARS); Washington Department of Transportation (WSDOT), Transportation Data, GIS & Modeling Office

Performance by Category and Plan

Safety (PM1)

The Southwest Washington Regional Transportation Council (RTC) has agreed to align with the Washington Department of Transportation's (WSDOT's) targets for safety. By doing so, RTC has agreed to plan and program projects, including those in the Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), so that they contribute to WSDOT safety targets (*as reported to the Federal Highway Administration (FHWA) as part of WSDOT's HSIP annual submittal*).

WSDOT and its partners have once again adopted the Target Zero target setting approach for TPM where targets are set to achieve zero fatal and serious crashes by 2030.

Actions Taken Toward Achieving Safety Targets:

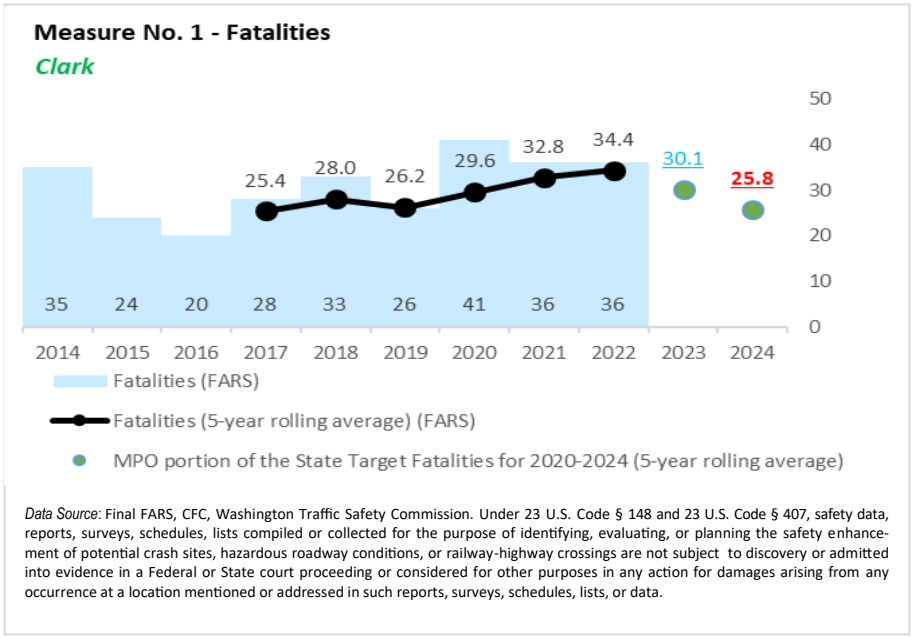
- **2022 Traffic Collision Report**
- **RTC Quarterly Traffic Safety Reports**
    - 1st Quarter Report (March 2023)
    - 2nd Quarter Report (June 2023)
    - 3rd Quarter Report (September 2022)
- ***Safe Streets and Roads for All (SS4A)* Grant Implementation**
- **2024-2027 Transportation Improvement Program:** Project summary table (lists performance measures that each project addresses, including safety.

Safety (PM1) (cont'd.)

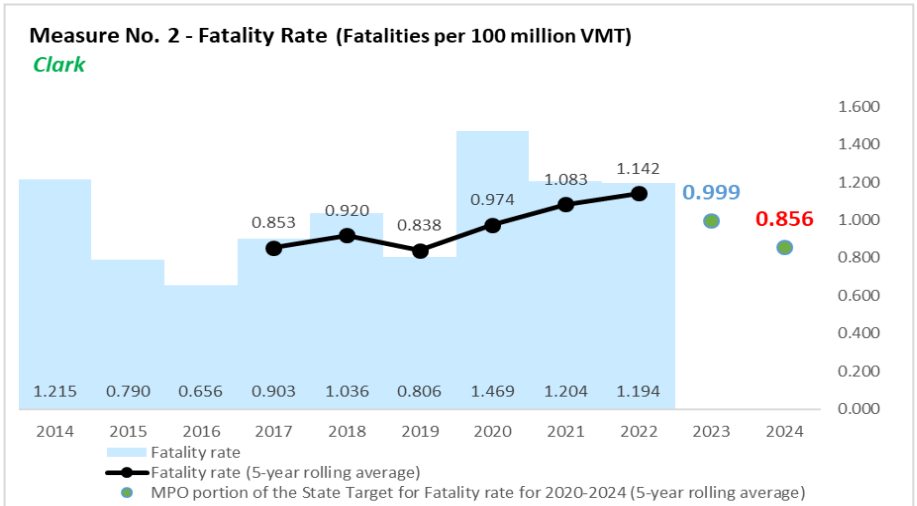
The tables on this and the following page show the state targets for fatalities, fatality rate (fatalities per 100 million VMT), serious injuries, serious injury rate (serious injuries per 100 million VMT), and nonmotorist (bicyclists and pedestrians) fatalities and serious injuries.

- The blue bar chart represents the number per year of fatalities, fatality rate, serious injuries, serious injury rate, and number of nonmotorist fatalities and serious injuries.
- The black line denotes the 5-year rolling average/baseline for each year.
- The blue number on each chart indicates the 5-year rolling average/baseline for 2022, and the red number on each chart indicates the state target for 2023.

2024 Safety Measures and Targets



Data Source: Final FARS, CFC, Washington Traffic Safety Commission. Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.



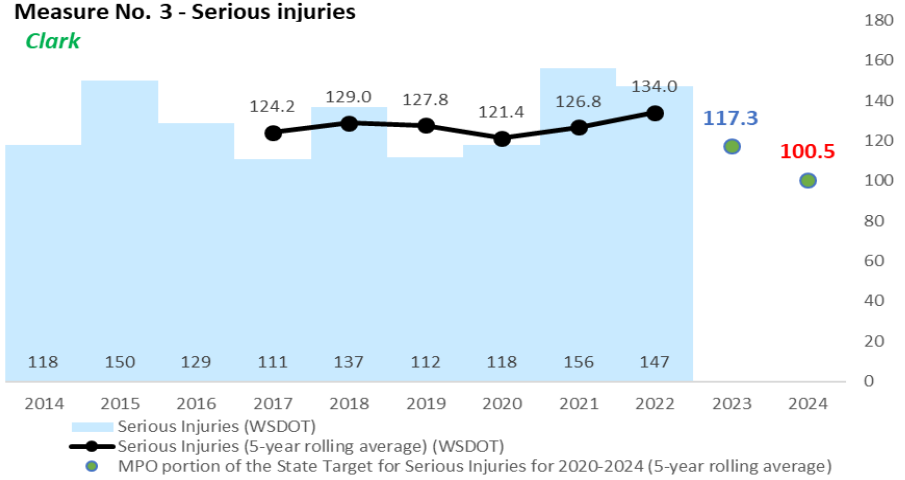
Data Source: Final FARS, CFC, Washington Traffic Safety Commission. VMT from Highway Performance Monitoring System, Washington State Department of Transportation. Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

Safety (PM1) (cont'd.)

2024 Safety Measures and Targets (cont'd.)

Measure No. 3 - Serious injuries

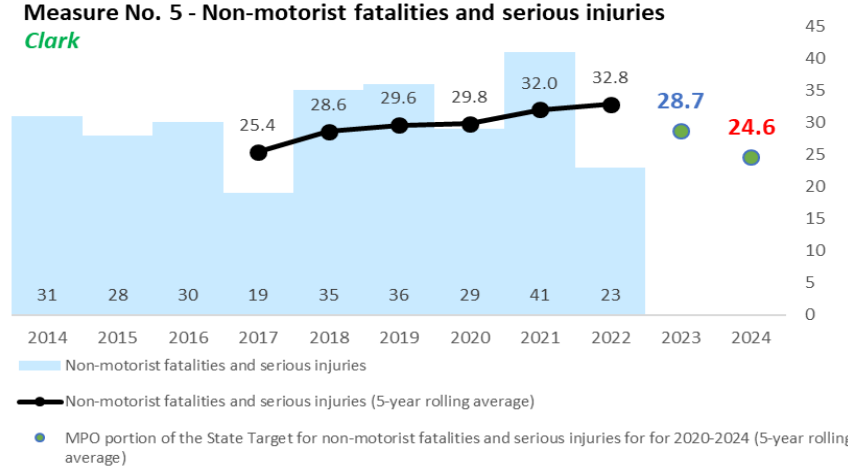
Clark



Data Source: WSDOT Engineering Crash Data, Washington State Department of Transportation. Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

Measure No. 5 - Non-motorist fatalities and serious injuries

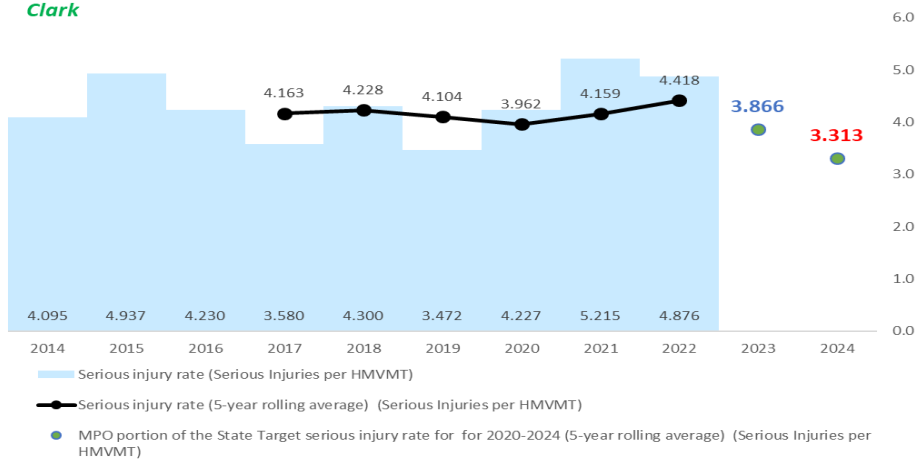
Clark



Data Sources: WSDOT Engineering Crash Data, Washington State Department of Transportation and Final FARS, CFC, Washington Traffic Safety Commission.; VMT from Highway Performance Monitoring System, Washington State Department of Transportation. Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

Measure No. 4 - Serious Injury Rate (Serious injuries per 100 million VMT)

Clark



Data Sources: WSDOT Engineering Crash Data, Washington State Department of Transportation.; VMT from Highway Performance. Monitoring System, Washington State Department of Transportation. Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

Pavement Condition

The Southwest Washington Regional Transportation Council (RTC) supports the targets set by the Washington Department of Transportation (WSDOT) in regard to pavement condition. Using the target setting framework, WSDOT worked with MPOs, including RTC, to establish performance targets, communicate pavement management practices, and explain what these practices mean in the context of the National Highway System (NHS).

WSDOT's Highway System Plan sets the direction for management of infrastructure condition in Washington State, which is to preserve pavements and bridges at lowest life cycle cost. WSDOT has taken a "preservation first" approach to pavement and bridge management. In addition, WSDOT has communicated the annual average state facility needs for pavements and bridges within each MPO boundary.

Washington MPOs, including RTC, and WSDOT have agreed to plan and program projects, including those in the Transportation Improvement Program (TIP), to work toward and achieve Washington pavement and bridge condition targets for infrastructure condition. The specific strategies for pavement and bridge preservation are documented in WSDOT's Transportation Asset Management (TAM) Plan.

Actions Taken Toward Achieving Pavement Condition Targets:

- **2024-2027 Transportation Improvement Program:** Project summary table lists performance measures that each project addresses, including pavement condition.

Pavement Condition

Interstate System Pavement

The baseline condition for the percent of pavement in *Good* condition on the interstate for 2018-2021 was 39.8%, with a target of 30%. The combination of asphalt and concrete renewal expected in the future should leave the percentage of pavement in good and relatively stable condition. Thirty percent is a reasonable target for interstate percent in *Good* condition for both 2024 and 2026. The actual performance for Interstate in *Poor* condition in 2021 was 1.9%. Given the long-term status of aging concrete pavement, in addition to planned construction of the interstate, 4% remains a reasonable target for the percentage of interstate pavement in *Poor* condition in 2026.

Noninterstate System Pavement

The actual pavement condition achieved for the noninterstate NHS in *Good* condition was 18% in 2018 and 45.2% overall for the 4-year period. The actual pavement condition achieved for the noninterstate NHS in *Poor* condition was 5% in 2018 and 4.2% overall for the 4-year period. These trends show that the percent of *Good* pavement on noninterstate roads increased slowly and that the percent of *Poor* pavement also increased. WSDOT's target for pavement in *Good* condition in 2018-2021 was 45%, which will be continued for the 4-year target moving forward.

The table below shows the statewide targets for the percentage of interstate pavement in good condition, percentage of interstate pavement in poor condition, the percentage of noninterstate pavement in good condition, and the percentage of noninterstate pavement in poor condition. The table includes the baseline for each measure, the 4-year target for RTC, and if a penalty could be enforced at WSDOT.

Pavement	Baseline (%)	4-year Target (%)	Penalty
Percentage of Pavements of the Interstate System in Good Condition	46.0	30.0	No
Percentage of Pavements of the Interstate System in Poor Condition	1.9	4.0	Yes
Percentage of Pavements of the Noninterstate NHS in Good Condition	20.3	45.0	No
Percentage of Pavements of the Noninterstate NHS in Poor Condition	4.2	5.0	No

Bridge Condition

The Southwest Washington Regional Transportation Council (RTC) supports the targets set by the Washington Department of Transportation (WSDOT) in regard to bridge condition.

WSDOT develops an in-house Bridge Management Systems (BMS) program, which utilizes bridge condition, as well as performance of bridge components. The BMS program uses optimization techniques with objective functions and constraints. In the initial stage, the BMS program will use the minimization of the percentage of poor bridges as the objective function, with the maximum allowable annual budget as the constraint. In the later stage, the BMS program will focus on simultaneously minimizing the percentage of poor bridges and maximizing the percentage of good bridges using a multifunction optimization technique. In the near term, the performance of bridge assets will decline because of the large backlog of bridge preservation needs due to years of limited funding. In the long term period (more than six years), the performance of WSDOT's bridge assets will improve. This improvement will be illustrated by a downward trend in the percentage of poor bridges and upward trend, or at least maintaining, the percentage of good bridges.

WSDOT develops a condition-driven and performance-based in-house BMS program, which uses optimization algorithms. The deterioration models and improvement strategies for bridge components have been developed and will be implemented starting in 2024. In the early stage, the BMS program will focus on minimizing the percentage of poor bridges while maintaining the percentage of good bridges. WSDOT has a large backlog of bridge preservation needs due to years of limited funding. This has resulted in an increase in the percentage of poor bridges. The trending increase in poor bridges has inertia that will continue to be reflected for several years after the current funding increase. WSDOT expects performance to increase starting in the 6th year due to the *Move Ahead WA* transportation funding package.

Actions Taken Toward Achieving Bridge Condition Targets:

- **Interstate Bridge Replacement Program Updates:** RTC staff provided regular updates to RTC Board of Directors throughout the course of the year.
- **2024-2027 Transportation Improvement Program:** Project summary table lists performance measures that each project addresses, including bridge condition.

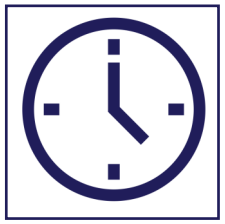
Bridge Condition

2024 Bridge Condition Measures and Targets

The table below shows the statewide targets for percentage of National Highway System (NHS) bridges in good condition and the percentage of NHS bridges in poor condition. The table includes the baseline for each measure, the 4-year targets for RTC, and if a penalty could be enforced at WSDOT.

Bridge	Baseline (%)	4-year Target (%)	Penalty
Percentage of NHS Bridges Classified as in Good Condition	32.8	30.0	No
Percentage of NHS Bridges Classified as in Poor Condition	8.8	10.0	Yes

System Reliability



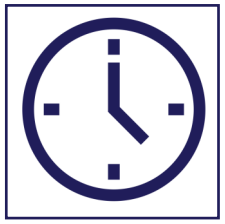
The Southwest Washington Regional Transportation Council (RTC) supports the targets set by the Washington Department of Transportation (WSDOT) in regard to system reliability.

Washington State MPOs, including the Southwest Washington Regional Transportation Council (RTC), and the Washington State Department of Transportation (WSDOT) set, adopted, and reported to the Federal Highway Administration (FHWA) statewide targets for the Highway System Performance, Freight Movement, and Congestion Reduction and Emissions performance measures in 2018.

Actions Taken Toward Achieving System Reliability Targets:

- **2022 Regional ITS Architecture Update**
- **Clark County Signal Timing Plan Project**: identify priority projects for upgraded signal timing plan implementation
- **VAST Steering Committee/CIC**: RTC staff facilitated monthly steering committee and communications and infrastructure committee meetings with ITS stakeholders across the region.
- **VAST 2021 Annual Program Report**
- **Clark County Travel Study**: Regional study to update regional travel behavior models and will be used to estimate future travel demand in the region.
- **2022 Congestion Management Process Report**
- **2024-2027 Transportation Improvement Program:** Project summary table lists performance measures that each project addresses, including system reliability.

System Reliability



2024 System Reliability Measures and Targets

The COVID-19 pandemic has altered travel patterns and shifted the trends since 2020. WSDOT tested several different scenarios, evaluated a range of possible future trends, and found a wide variance between those trends. Given such data variance and uncertainties around how future travel might evolve after COVID, it is challenging to forecast future trends and set targets with high confidence for 2022-2025.

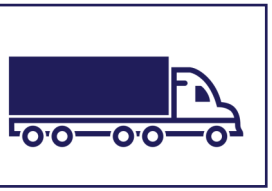
The statewide Travel Time Reliability targets support expectations documented in the Washington Transportation Plan Phase 2, the state's long-range statewide transportation plan. Washington's goal, expressed in that plan, is to enhance multimodal connections and choices by working to achieve better travel time reliability and door-to-door multimodal connections for people of all backgrounds and abilities, through continued application of practical solutions. As the state's population and employment grows and travel time reliability decreases on some roadways in urban areas, Washington supports increases in transit, biking, walking, and rolling connections to foster mobility.

WSDOT and MPOs/RTPOs used the historical trend data from the RITIS MAP-21 data portal for the target-setting process regarding the Interstate Percent of the Person-Miles Traveled. The target-setting method has considered both the pre-COVID data (2017-2019 trend) and COVID data (2020-2021 trend) and first calculated the compound annual growth rate for each period. The average value of the growth rates from those two periods was applied to the 2021 baseline data to forecast future performance and set the 4-year statewide targets.

The table below shows the statewide targets for percentage of person-miles traveled on the interstate that are reliable and the percentage of person-miles traveled on the noninterstate National Highway System (NHS) that are reliable. The table includes the current data for each measure and the 4-year target for RTC.

Highway System Performance	Current Data	4-year Target
Percent of the Person-Miles Traveled on the Interstate That Are Reliable	82.4%	72.5%
Percent of the Person-Miles Traveled on the Noninterstate NHS That Are Reliable	87.8%	88.4%

Freight Movement



The Southwest Washington Regional Transportation Council (RTC) supports the targets set by the Washington Department of Transportation (WSDOT) in regard to freight movement.

To guide freight investments and improve freight system performance in Washington, WSDOT developed the Washington State Freight Investment Plan by engaging various freight partners and stakeholders, including MPOs and RTPOs. The Freight Investment Plan identified freight priority projects and described how those priorities would be invested and funded through National Highway Freight Program (NHFP) funds.

Actions Taken Toward Achieving Freight Movement Targets:

- **National Highway Freight Program (NHFP) Funding Opportunity**: RTC staff communicated funding opportunity details to planning partners.
- **Annual status report on freight planning**: RTC staff provided updates on various freight planning efforts to RTC Board of Directors including:
- **Critical urban freight corridors and critical rural freight corridors**: RTC staff provided update on freight corridors to RTC Board of Directors.
- **2024-2027 Transportation Improvement Program:** Project summary table (Table 3, p. 36) lists performance measures that each project addresses, including freight movement.

Freight Movement

2024 Freight Movement Measure and Targets

The COVID-19 pandemic has altered travel patterns and shifted the trends of freight travel time reliability since 2020. WSDOT found that the truck travel time reliability index decreased 2.8% annually between 2017-2019 but then increased 4.2% between 2020-2021. WSDOT tested several different scenarios and evaluated a range of possible future trends and found a wide variance between those trends. Given such data variance and uncertainties around how future travel might evolve after COVID, it is challenging to forecast future trends and set targets with high confidence for 2022-2025.

The 4-year target established for Freight Reliability supports the long-term national freight goal by continually improving the reliability performance of the interstate portion of the National Highway Freight Network between 2022-2025. It also supports the national goal of improving investment decision-making through implementing performance-based planning and programming in Washington State between 2022-2025.

WSDOT and MPOs/RTPOs used the historical trend data from the RITIS MAP-21 data portal for the target-setting process regarding Truck Travel Reliability (TTTR) index. The target-setting method has considered both the pre-COVID data (2017-2019 trend) and COVID data (2020-2021 trend) and first calculated the compound annual growth rate for each period. Then the average value of the growth rates from two periods was applied to the 2021 baseline data to forecast future performance and set the 4-year statewide target.

The table below shows the statewide target for TTTR index. The table includes the current data for the measure and the 4-year target for RTC.

National Freight Movement	Current Data	4-year Target
Truck Travel Time Reliability (TTTR) Index	1.49	1.53

Congestion Reduction

Actions Taken Towards Achieving Congestion Reduction Targets:

- 2022 Congestion Management Process Summary Report
- **Transportation Alternatives Grant Awards:** Awarded $3,100,000 in federal Transportation Alternative funding:
  - Clark County—Highway 99 Sidewalks
  - Vancouver—Garrison Road Sidewalk Infill
  - Vancouver—Hazel Dell/Burnt Bridge Trail Crossing
  - Washougal – S 27th St. Shared Use Path Project
- **Carbon Reduction Program (CRP) Grant Awards**: Awarded $1,150,000 in CRP funding
  - C-TRAN—Fourth Plain BRT Extension
  - WSDOT—I-5, SR 502 to Cowlitz Way
- **Congestion Mitigation and Air Quality (CMAQ) Grant Awards:** Awarded $1,200,000 in CMAQ funding
  - WSDOT—I-5, SR 502 to Cowlitz Way
- **Surface Transportation Block Grant (STBG) Awards:** Awarded $375,000 in STBG funding
  - Camas—SR 500/Everett, NE 35th Ave to NE 43rd Ave
- **Walkability/Movability Action Institute Grant 2024-2025 Work Plan Development**
- **2024-2027 Transportation Improvement Program:** Project summary table (Table 3, p. 36) lists performance measures that each project addresses, including congestion reduction.

Transit Asset Management (TAM) Plan

Southwest Washington Regional Transportation Council (RTC) supports the targets set by C-TRAN in their Transit Asset Management (TAM) Plan.

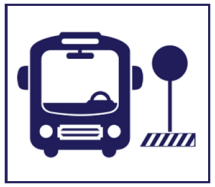
C-TRAN conducts an investment prioritization analysis on an annual basis as part of ongoing TAM activities to maintain a State of Good Repair (SGR) for each asset.

C-TRAN develops the Transit Asset Management (TAM) Plan for Clark County and reports annually on progress toward meeting the targets set in the TAM Plan. The C-TRAN Board of Directors approved the agency's first TAM Plan in 2018 to meet federal performance-based planning program requirements. The current TAM Plan was approved by the C-TRAN Board of Directors in October 2022.

Transit Asset Management Performance Measures	
Federal Performance Measures for Transit Asset Categories	**Targets Established in C-TRAN's TAM Plan (Oct. 2022)**
Rolling Stock (vehicles – revenue and nonrevenue)	80% of each vehicle class at or below Useful Life Benchmark (ULB)
Facilities (passenger stations and parking/maintenance and administrative facilities)	70% of each facility Class greater than 2.5 on Transit Economic Requirements Model (TERM) scale
Equipment	70% of each equipment class at or below Useful Life Benchmark (ULB)

Useful Life Benchmarks			
ULB: Comparison of Replacement Schedules (in years)			
	Vehicle Types		
	Cutaway	**Van/Car**	**Bus**
C-TRAN ULB	10 + 2	7	14 + 2
FTA ULB	7	5	12

Public Transportation Agency Safety Plan (PTASP)



Southwest Washington Regional Transportation Council (RTC) supports the targets set by C-TRAN in their Public Transportation Agency Safety Plan (PTASP).

C-TRAN is required to develop a PTASP for Clark County and measure goals monthly against data from the previous two years, as seen in the table example below. The C-TRAN Board of Directors certified C-TRAN's first PTASP on October 13, 2020, to meet federal performance-based planning program requirements. The Bipartisan Infrastructure Law (BIL) required C-TRAN to update the PTASP with specific changes in 2022. The updated PTASP was adopted by the C-TRAN Board of Directors in October 2022.

Updates to the document in 2022 included:

- Adding language to the document stating that C-TRAN will be consistent with Centers for Disease Control (CDC), Washington State, and local health jurisdiction recommendations to minimize exposure to infectious disease.

- Documenting C-TRAN's commitment to its Safety Committee. The infrastructure law requires all large urban transit agencies to have a 1:1 labor:management safety committee. C-TRAN's Safety Committee already exceeded this requirement prior to the passage of this law.

C-TRAN expects the continuation of a 5% reduction in safety-related events in 2023. The agency's operations were greatly impacted by the effects of the COVID-19 pandemic over the past several years.

C-TRAN

C-TRAN Safety Report

August 2020 and YTD

This report is for Internal Review.
Public records requests are directed to Debbie Jermann.

	Fixed Route	August 2020	August 2019	% Change	Current Trend	YTD 2020	YTD 2019	% Change	YTD Trend	Goal Met
	Reliability									
	Revenue Miles between Major Maintenance Events	10,000	9,000	11.1%	▲	10,000	15,000	-33.3%	▼	■
	Revenue Miles between Minor Maintenance Events	9,000	9,054	-0.6%	◀	9,000	9,054	-0.6%	◀	■
	Near Miss Events									
	Reported Near Miss Events	10	12	-16.7%	▼	100	33	203.0%	▲	■
	Reportable Safety Events									
NTD	**Total Reportable Safety Events**	49	34	44.1%	▲	237	407	-41.8%	▼	■
NTD	Collisions	6	9	-33.3%	▼	91	205	-55.6%	▼	■
NTD	Security Events	41	20	105.0%	▲	143	137	4.4%	▲	■
NTD	Other Events	2	5	-60.0%	▼	3	65	-95.4%	▼	■
NTD	**Reportable Safety Events per Revenue Mile**	9,000	9,054	-0.6%	◀	9,000	9,054	-0.6%	◀	■
ABBG	**Total Collisions**	48	16	200.0%	▲	299	814	-63.3%	▼	■
ABBG	Preventable Collisions on the Road	2	1	100.0%	▲	23	215	-89.3%	▼	■
ABBG	Unpreventable Collisions on the Road	41	13	215.4%	▲	224	35	540.0%	▲	■
ABBG	Collisions on Property	5	2	150.0%	▲	52	564	-90.8%	▼	■
ABBG	**Preventable Collisions per 100k Revenue Mile**	9,000	9,054	-0.6%	◀	9,000	9,054	-0.6%	◀	■
	Reportable Injuries									
NTD	Total Reportable Injuries	99	64	54.7%	▲	943	85	1009.4%	▲	■
NTD	Passengers	41	56	-26.8%	▼	564	56	907.1%	▲	■
NTD	Operator	56	3	1766.7%	▲	325	5	6400.0%	▲	■
NTD	Employee	2	5	-60.0%	▼	54	24	125.0%	▲	■
NTD	Other Injuries	4	1	300.0%	▲	15	155	-90.3%	▼	■
NTD	Reportable Injuries per Revenue Mile	9,000	9,054	-0.6%	◀	9,000	9,054	-0.6%	◀	■
ABBG	Total ABBG Injuries	80	67	19.4%	▲	703	196	258.7%	▲	■
ABBG	Passenger Injuries	54	51	5.9%	▲	454	68	567.6%	▲	■
ABBG	3rd Party Injuries	2	1	100.0%	▲	5	114	-95.6%	▼	■
ABBG	Employee Injuries	24	15	60.0%	▲	244	14	1642.9%	▲	■
ABBG	ABBG Injuries per Revenue Mile	9,000	9,054	-0.6%	◀	9,000	9,054	-0.6%	◀	■
ABBG	Boardings per Passenger Injury	10,000	9,000	11.1%	▲	10,000	15,000	-33.3%	▼	■
ABBG	Hours Lost per FTE	9,000	9,054	-0.6%	◀	9,000	9,054	-0.6%	◀	■
	Fatalities									
NTD	Total Fatalities	-	-	N/A	▲	-	-	N/A	▲	■
NTD	Passengers	-	-	N/A	▲	-	-	N/A	▲	■
NTD	Operator	-	-	N/A	▲	-	-	N/A	▲	■
NTD	Employee	-	-	N/A	▲	-	-	N/A	▲	■
NTD	Other	-	-	N/A	▲	-	-	N/A	▲	■
NTD	Fatalities per Revenue Mile	N/A	N/A	N/A	▲	N/A	N/A	N/A	▲	■

Appendix – State and Public Transportation Agency Performance Management Resources

Washington Department of Transportation (WSDOT) Sources:

- WSDOT's Transportation Asset Management (TAM) Plan
- Transportation Performance Management Reports (WSDOT website)
- WSDOT Freight System Plan (2022)

TPM Folios:

- TPM & Safety (October 2023)
- TPM & Pavement (January 2023)
- TPM & Bridges (January 2023)
- TPM System Performance, Freight and CMAQ (January 2023)

C-TRAN Sources:

- Transit Asset Management (TAM) Plan (C-TRAN), October 2022
- Public Transportation Agency Safety Plan (PTASP) (C-TRAN), October 13, 2020 (updated October 11, 2022)