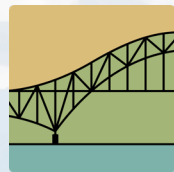


2023 System Performance Report



Chelan-Douglas
TRANSPORTATION COUNCIL
CDTC

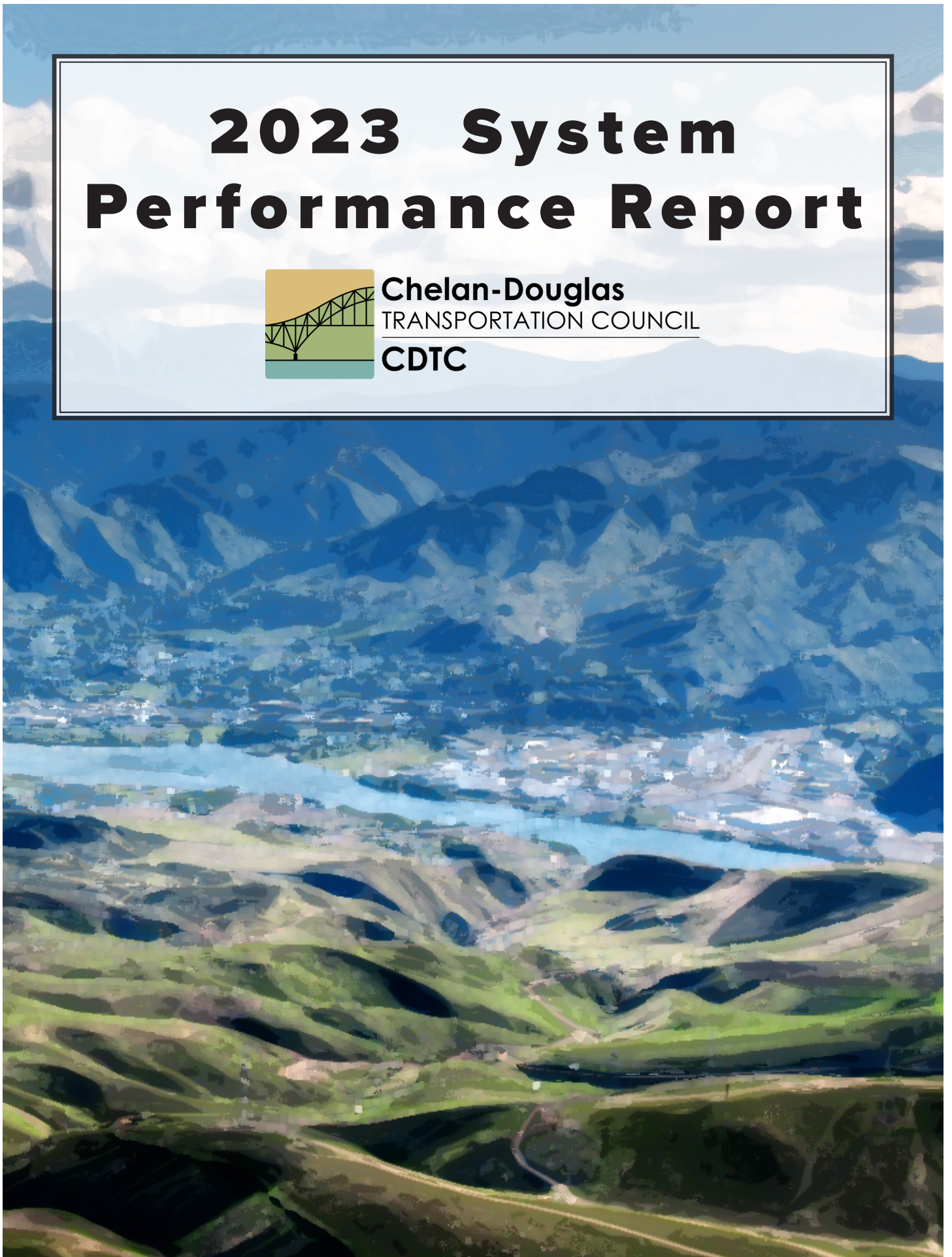


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Introduction

The Federal Highway Administration (FHWA) defines Transportation Performance Management as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals. In short, Transportation Performance Management:

- Is systematically applied, a regular ongoing process;
- Provides key information to help decision makers to understand the consequences of investment decisions across transportation assets or modes;
- Ensures targets and measures are developed in cooperative partnerships and based on data and objective information

The Federal Aid Highway Program as authorized by the Infrastructure Investment and Jobs Act (IIJA) appropriates \$567.5 billion through 2026 for highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, research, technology, and statistics programs that address deficiencies on the Federal-Aid Highway System, which includes the Interstate Highway System, all other state highways and primary local roads.

In 2015, using the Transportation Performance Management Framework, Congress established the following seven Federal Performance Goals (23 USC 150(B)) for the federal aid highway system:

1. **Safety** – Achieve significant reduction in traffic fatalities and serious injuries on all public roads.
2. **Infrastructure Conditions** – Maintain the highway infrastructure asset system in a state of good repair.
3. **Congestion Reduction** – Achieve a significant reduction in congestion on the National Highway System.
4. **System Reliability** – Improve the efficiency of the surface transportation system.
5. **Freight Movement and Economic Vitality** – Improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6. **Environmental Sustainability** – Enhance the performance of the transportation system while protecting and enhancing the natural environment.
7. **Reduced Project Delivery Delays** – 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

With direction from Congress, the U.S. Department of Transportation (USDOT) published rules in 2017 that identify specific processes and timetables for measuring and establishing targets for the performance of National Highway System (NHS) in order to meet the seven federal performance goals. These rules help FHWA, state DOTs, and Metropolitan Planning Organizations (MPO) to plan, program, and invest in transportation where its most needed, while increasing the transparency and accountability of investment of federal dollars. CDTC has nearly \$378 million in federal dollars programmed through 2029 in its six-year Regional Transportation Improvement Program (RTIP).

Performance Measure Framework

USDOT developed a series of rules for national performance measures to be administered by the FHWA and FTA and reported by individual state DOTs, MPOs, and transit agencies. WSDOT coordinates with the MPOs to establish methods and targets at the Metropolitan Planning Area (MPA) level that work toward meeting state targets. CDTC is required to set and report on target attainment for the following performance measures:

1. Safety

- Number of fatalities on all roads
- Fatalities per 100 million vehicle miles traveled (VMT) on all roads
- Number of serious injuries on all roads
- Serious injuries per 100 million VMT on all roads
- Number of non-motorized fatalities and non-motorized serious injuries on all roads

2. Pavement Condition

- Percent of non-interstate pavement on the national highway system in good condition
- Percent of non-interstate pavement on the national highway system in poor condition

3. Bridge Condition

- Percent of national highway system bridges classified in good condition (weighted by deck area)
- Percent of national highway system bridges classified in poor condition (weighted by deck area)

4. Highway System Reliability

- Percent of person-miles traveled on the non-interstate national highway system that are reliable

5. Transit Asset Management

- Equipment: The percentage of non-revenue service vehicles (by type) that meets or exceeds the useful life benchmark (ULB)
- Rolling Stock: The percentage of revenue vehicles (by type) that meets or exceeds the ULB
- Facilities: The percentage of facilities (by group) that are rated less than 3.0 on the transit economic requirements model (TERM) Scale

6. Transit Safety

- Fatalities
- Fatalities per 100 thousand vehicle revenue miles (VRM)
- Injuries
- Injuries per 100 thousand VRM
- Accidents and incidents
- Accidents and incidents per 100 thousand VRM
- Mean vehicle revenue miles per system reliability failure
- On the job injuries

7. Greenhouse Gas Emissions

- Metric tons of CO₂

In January 2021, CDTC approved and adopted Resolution 6-2021 Establishing Regional Transportation System Performance Targets, which outlines target adoption in three different ways:

- CDTC adopted a region-specific share of the state target as developed by WSDOT for measures where CDTC can plan, program, and invest to meet the target (safety and greenhouse gas emissions).
- CDTC adopted statewide targets for measures related to infrastructure condition (pavement condition, bridge condition, system reliability).
- CDTC adopted transit asset management (TAM) and transit safety targets as developed by LINK Transit.

Safety

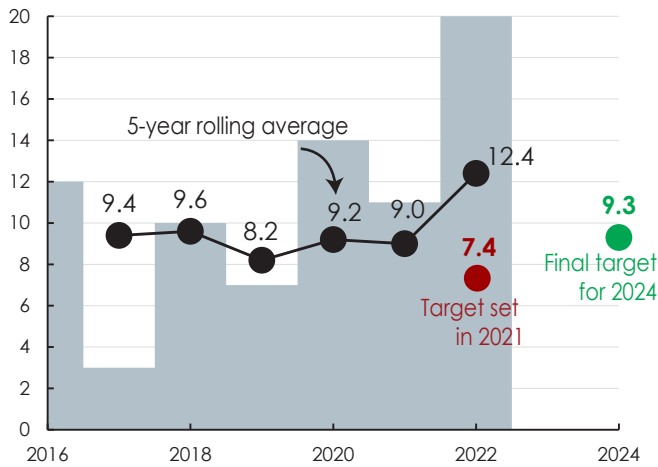
Target Zero, the Washington State Strategic Highway Safety Plan provides the framework for safety performance measures. The state and CDTC have adopted a goal to reduce traffic fatalities and serious injuries on Washington's roadways to zero by 2030. To achieve this goal, safety data is collected, analyzed, and distributed annually by WSDOT to aid MPO planning and programming for safety. WSDOT sets annual safety targets projecting a 5-year rolling average downward to zero by 2030 Using the past years' data. WSDOT provides region-specific shares of the annual target to CDTC and the other MPOs for collective planning and programming that move the entire state towards the Target Zero goal. CDTC's shares for achieving the statewide safety performance targets are provided in Figure 1. Safety targets are assessed for all roads in the region.

Safety had been improving in the region between 2015 and 2019 as indicated by the downward trend of raw totals and five-year averages for the five safety measures. However, in 2020 during the COVID-19 pandemic the trend reversed with more collisions recorded than any of the previous yeas in the region and state-wide. This trend slowed in 2021, but has continued with 2022 have as many or more collisoins than 2020.

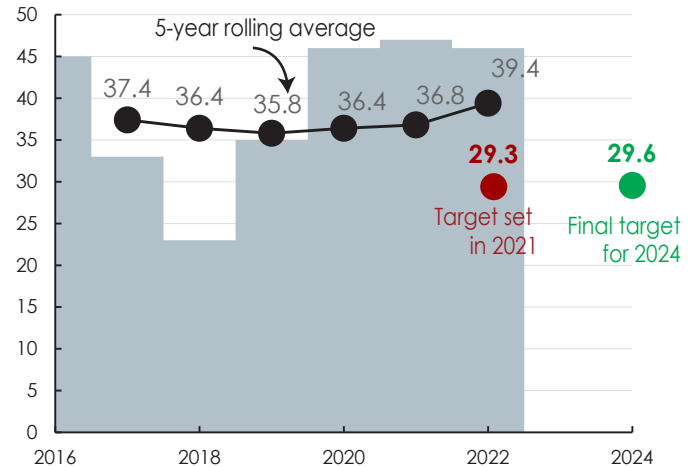
Nearly half (20 of 43) of the projects in CDTC's Regional Transportation Improvement Program (RTIP) explicitly improve the safety of the transportation system for drivers, bus riders, pedestrians, and bicyclists, demonstrating a continued commitment by WSDOT, CDTC, and local agencies to pursue funds and program projects addressing safety in the region. These 20 projects represent approximately \$86.5 million of the \$380 million program, or about 23% of total spending. To achieve the 2024 target, the region needs to reduce crashes by 25% in the next year.

Figure 1: Safety Targets

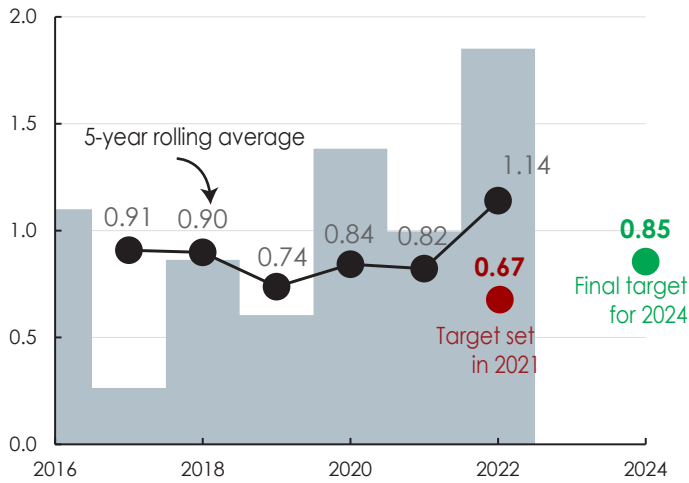
1.1 Total Fatalities



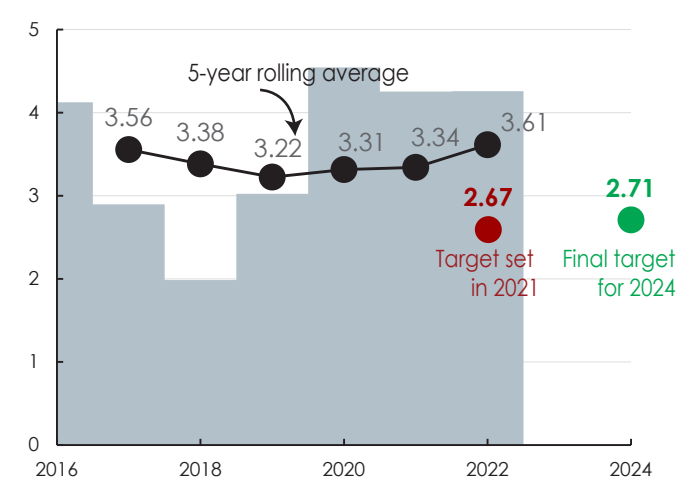
1.2 Total Serious injuries



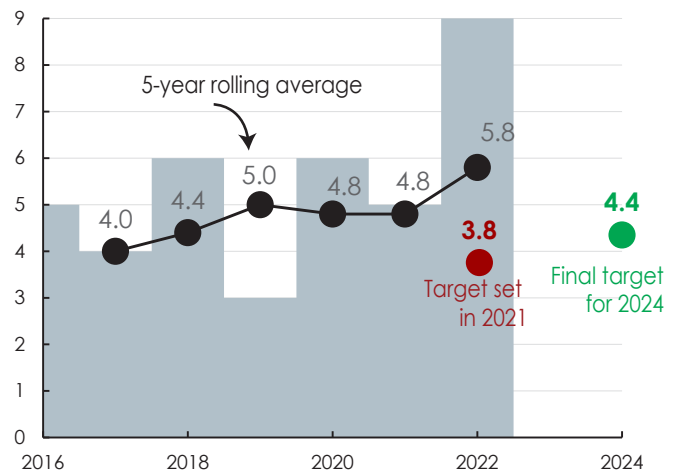
1.3 Fatalities Per 100 Million VMT



1.4 Serious Injuries Per 100 Million VMT



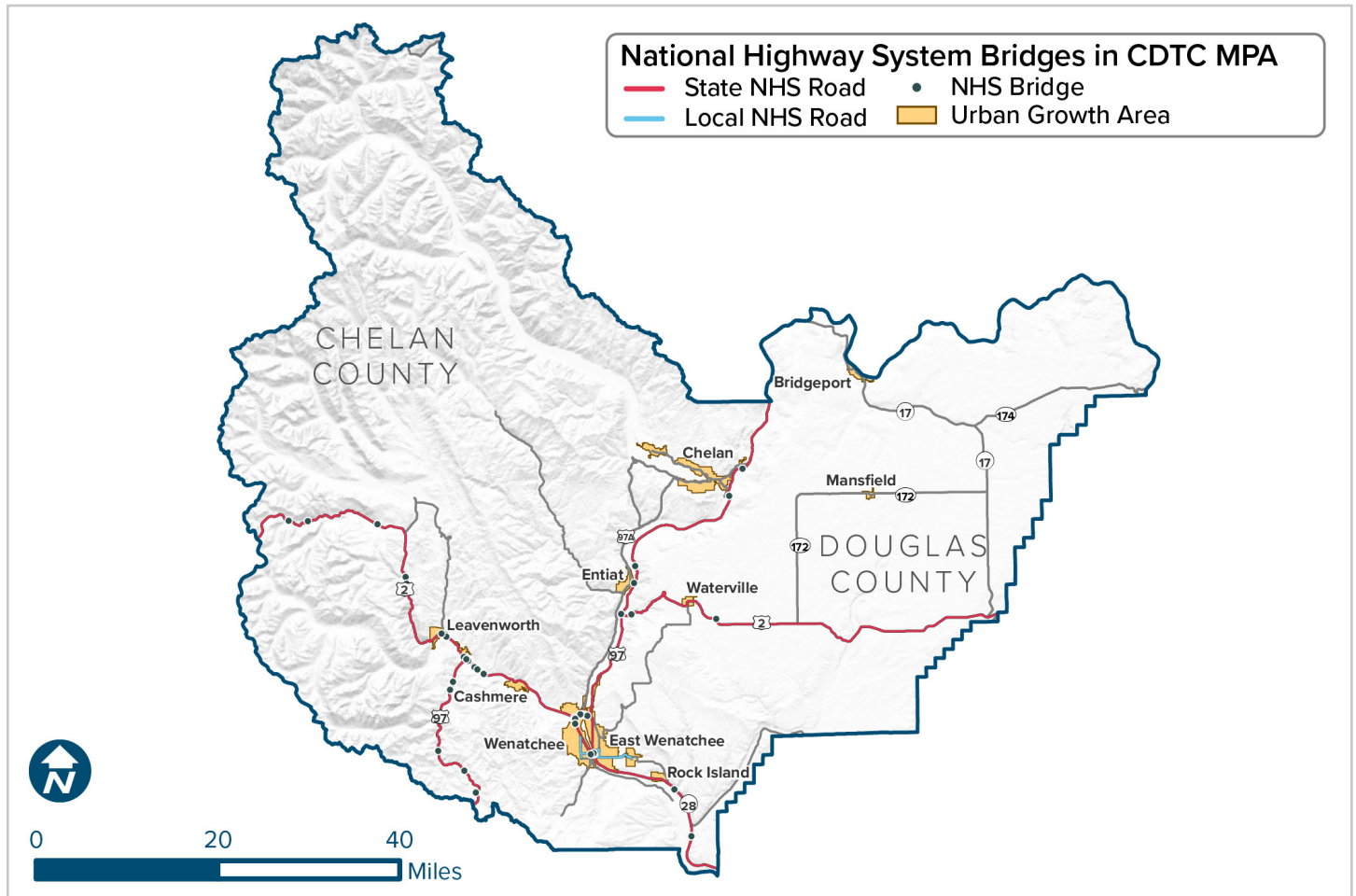
1.5 Total Non-motorist fatalities and serious injuries



Highway Infrastructure Condition

MAP-21 requires the state to measure the condition of both pavement and bridges on routes that make up the NHS. The NHS routes and bridges in the CDTC MPA are shown in Figure 2. Pavement performance is measured by assessing the percentage of pavement in both good and poor condition, while bridge performance is measured by assessing the percentage of bridge deck square footage in both good and poor condition. As described above, targets for infrastructure condition on the NHS are set by WSDOT for the entirety of the state. The Transportation Policy Goals found in RCW 47.04.285 and the Highway System Plan guide WSDOT decision making and investment prioritization for meeting the state’s infrastructure condition targets.

Figure 2: National Highway System in CDTC MPA



Pavement Condition

Pavement condition refers to the percentage of pavement in good and poor condition on the NHS. There are roughly 247 miles of NHS in Chelan and Douglas County—237 miles are under the jurisdiction of WSDOT, 4 miles are under the jurisdiction of the City of Wenatchee, 4 miles are under the jurisdiction of the City of East Wenatchee, and 2 miles are under the jurisdiction of Douglas County.

In December 2022, WSDOT submitted the first four-year performance report to FHWA and set new 4 and 2-year targets. WSDOT chose targets that are achievable based on current conditions and funding levels. The existing pavement condition and target for the state-wide NHS are provided in Tables 1 and 2. The existing pavement condition and target for the CDTC region are provided for informational purposes only as CDTC establishes its regional performance targets consistent with the state.

Table 1: Percent of Non-Interstate Pavements Rated in **Good Condition**

Facility	2022 Performance	2023 Performance	2025 Target
Statewide NHS Roads	20.3%	46.8%	45% or more
State NHS Roads in CDTC MPA	59.0%	53.8%	45% or more
Local NHS Roads ¹ in CDTC MPA	74.0%	83.6%	45% or more

1: Represents only 0.3% of local roads region-wide and does not accurately reflect the ongoing challenges of keeping pavement in good condition.

Table 2: Percent of Non-Interstate Pavements Rated in **Poor Condition**

Facility	2022 Performance	2023 Performance	2025 Target
Statewide NHS Roads	4.2%	4.2%	5% or less
State NHS Roads in CDTC MPA	9.0%	8.8%	5% or less
Local NHS Roads ¹ in CDTC MPA	4.0%	6.4%	5% or less

1: Represents only 0.3% of local roads region-wide and does not accurately reflect the ongoing challenges of keeping pavement in good condition.

WSDOT is the lead agency for planning, programming, and tracking progress towards meeting pavement performance targets on the state owned NHS. WSDOT allocates funding for pavement preservation on the NHS and distributes funding through the National Highway Performance Program (NHPP) grant program. CDTC regularly funds preservation projects through its Surface Transportation Block Grant Program (STBG) with an estimated \$13.5 million allocated to preservation projects since 2008. Local jurisdictions fund their preservation programs using a combination of state managed gas tax revenue allocations and grants and local taxes and fees.

There is approximately \$125 million in federal funds programmed for preservation and maintenance projects in CDTC’s RTIP through 2029, demonstrating a continuing commitment to keeping the transportation system in a state of good repair.

Bridge Condition

Bridge performance measures are related to bridge deck condition on the NHS; these measures apply state-wide and are not specific to the CDTC region. WSDOT provides bridge condition data for this performance measure (Table 3). There are 49 bridges on the NHS in the CDTC region, none of which are locally owned. Approximately \$86.5 million is programmed for bridge improvement through 2029 in the RTIP.

Table 3: Percent NHS Bridges Rated in **Good and **Poor** Condition**

Facility	2022 Performance	2023 Performance	2025 Target
NHS Bridges Statewide in good condition	33.4%	32.8%	30% or more
NHS Bridges Statewide in poor condition	7.0%	8.8%	10% or less
NHS Bridges in CDTC region in good condition	37.6%	34.9%	30% or more
NHS Bridges in CDTC region in poor condition	30.9%	34.0%	10% or less

Highway System Reliability

The highway system reliability performance measure describes how reliable a road segment is in terms of the time it takes to traverse a corridor during peak and off-peak traffic flow. The level of travel time reliability (LOTTR) metric ranks segments as reliable or not reliable using a ratio of the of the time it takes 80% (80th percentile) of drivers to traverse a segment, and the time it takes 50% of drivers (50th percentile) to traverse a segment. The ratio of the 80th percentile to the 50th percentile must fall below 1.5 to be considered reliable. Figure 3 shows the travel time reliability for the NHS network, where available, across the entire region. Figure 4 shows the travel time reliability for the NHS network in detail for the Wenatchee, East Wenatchee, and Rock Island urban growth areas. These areas see the highest traffic flows due to the concentration of jobs and housing. Additionally, table 4 summarizes the percentage of person miles traveled on the NHS that are reliable. Targets for these measures apply to the NHS statewide; there is no CDTC specific target for highway system reliability.

90.6% of person-miles traveled in the CDTC region are reliable, as table 5 shows. The segments rated unreliable are at choke points where traffic from multiple sub-areas converge on single facilities such as the George Seller Bridge, SR 285 from Miller Street to the Wenatchee River bridge. Additionally, some rural highway segments are rated as reliable, like US 2 through Leavenworth. The NHS within the region performed slightly worse than 2022, but is performing better than the state as a whole.

Figure 3: Level of Travel Time Reliability - CDTC MPA

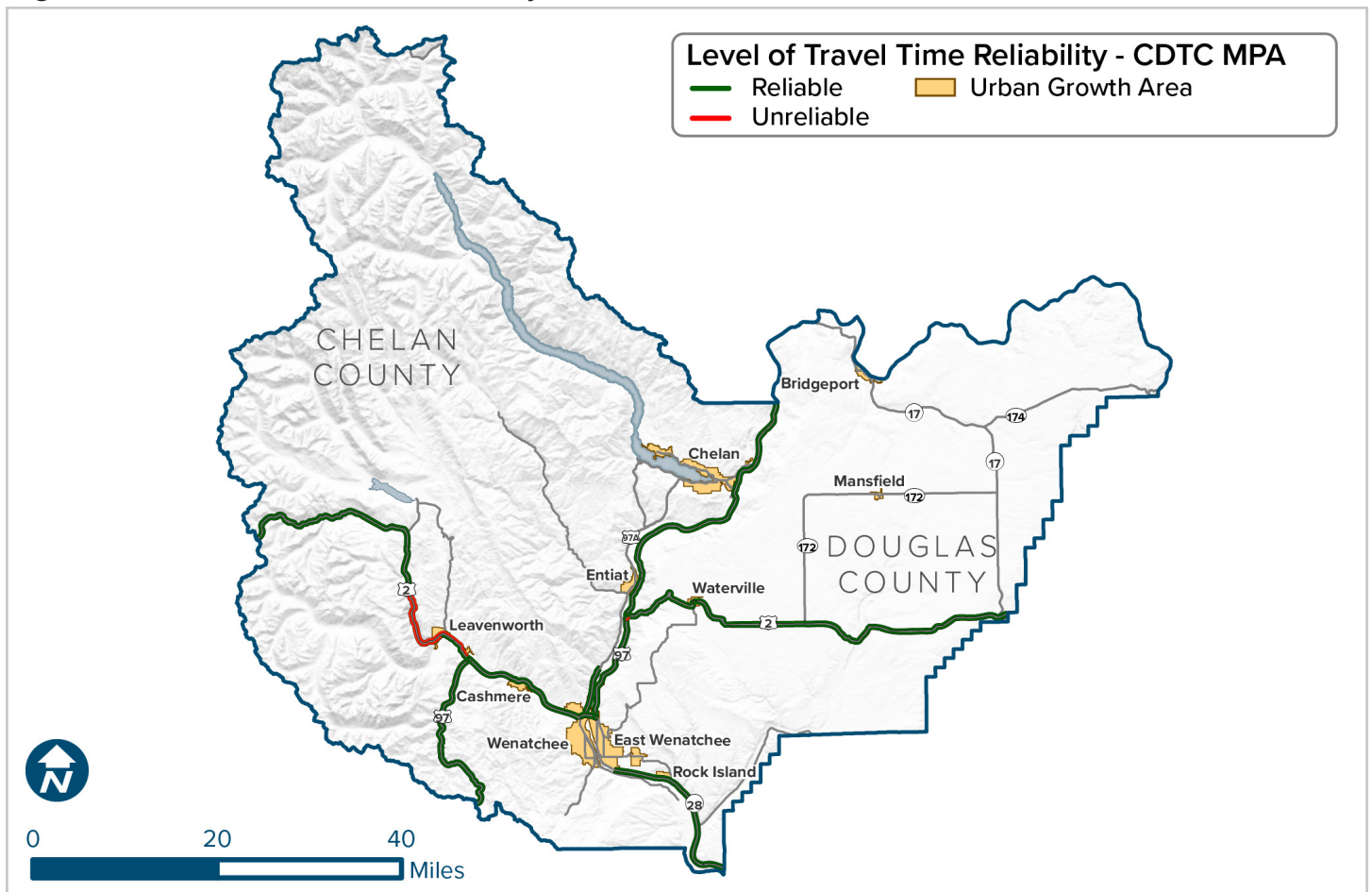


Figure 4: Level of Travel Time Reliability - UGA Detail

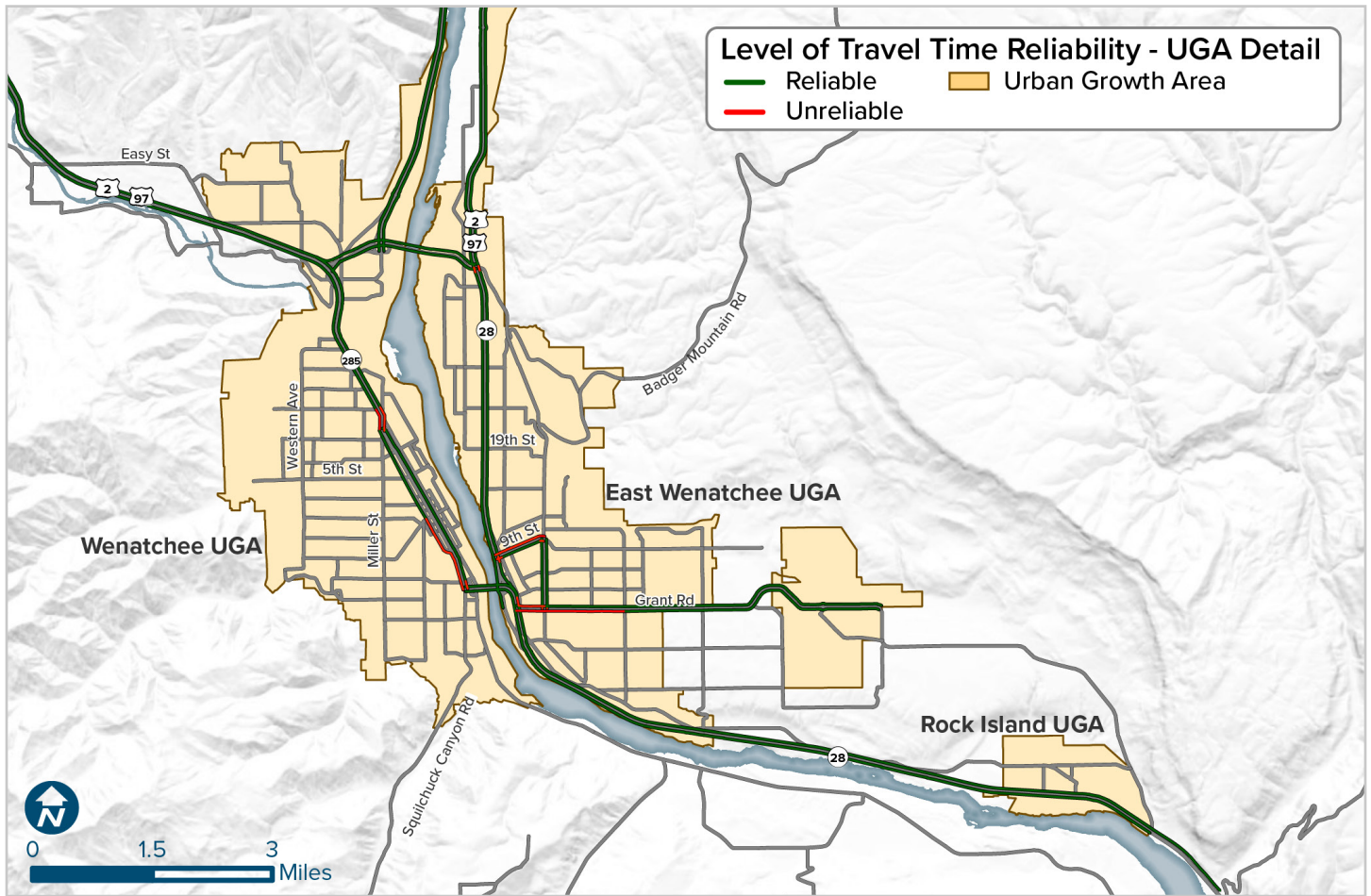


Table 4: Level of Travel Time Reliability

Facility	2022 Performance	2023 Performance	2025 Target
Percent Person Miles on Statewide NHS roads rated as reliable	77%	88.1%	88.4%
Percent Person Miles on NHS roads in CDTC region rated as reliable	93.7%	90.6%	n/a

In Washington State, many of the projects selected to address mobility on the NHS are prioritized through the legislative process. For this reason, it is essential that WSDOT, CDTC, and local agencies coordinate their transportation planning efforts to develop transportation priorities that contribute towards performance targets and can be shared with lawmakers. CDTC has also taken an approach with its local agencies and WSDOT to proactively plan and identify mobility projects on the NHS. In 2017 CDTC awarded nearly \$1.1 million for a project addressing mobility issues at the intersection of 9th St and Valley Mall Parkway. Additionally, there is a \$185 million dollar project programmed in CDTC's RTIP that is designed to relieve congestion at the on SR 285 from Miller St to the Wenatchee River bridge. Significant congestion caused by weekend traffic in Leavenworth is well documented, though some of the reliability issues could be related to the construction of a new roundabout at US 2 and Icicle Road.

Transit Asset Management

MPOs are required to adopt transit asset management targets based on targets set by transit agencies within their boundaries. LINK Transit is the only transit agency within the MPO boundary.

The Transit Asset Management (TAM) performance measures are set for equipment (non-revenue service vehicles), rolling stock, and facilities. Performance measures are linked to either the useful life benchmark (ULB) or the Transit Economic Requirements Model (TERM) condition rating.

- **Useful Life Benchmark (ULB)** is the expected lifecycle of a capital asset for a transit provider’s operating environment, or the acceptable period of use in service for a transit provider’s operating environment.
- **Transit Economic Requirements Model (TERM)** is a tool for estimating transit capital expenditure needs over a 20-year period. The TERM condition rating is separated into five levels ranging from “excellent” to “poor.” The higher the rating, the better the condition rating.

Buses, cutaways, vans, non-revenue automobiles, and non-revenue service vehicles are assessed using the ULB; passenger/parking facilities and administrative/maintenance facilities are assessed on the TERM condition scale. The existing conditions and targets for LINK transit are shown in Tables 5 and 6.

Table 5: Percent of Vehicles that Have Met or Exceed their Useful Life Benefit

Asset	2022 Target	2023 Target
Buses	14.29%	5.41%
Cutaways	0%	0%
Non-revenue automobiles	0%	0%
Non-revenue service vehicles	5.26%	21.05%

Table 6: Percent of Facilities Rated Below 3 on the TERM Condition Scale

Asset	Current Performance	2023 Target
Passenger/parking facilities	0%	0%
Administrative/maintenance facilities	0%	0%

Transit Safety

In addition to Transit Asset Management Targets, MPOs are required to adopt transit safety targets found in the Public Transportation Agency Safety Plan (PTASP) of the transit agencies within their boundaries, as required by 49 CFR Part 673. Transit providers must establish seven safety performance targets (SPT) for each type of service provided. LINK Transit provides both fixed-route and demand-response service, requiring target setting for both (Table 7). Existing performance is not explicitly reported in the PTASP and is not provided here.

Table 7: LINK Transit Safety Measures

Mode	Fatalities	Fatalities (100K VRM) ¹	Injuries	Injuries (100K VRM)	Events (Accident/Incidents)	Events (100K VRM)	SR Failure/VRM	OJI ²
Fixed-Route	0	0	3	.15	15	.6	20,000	7
Demand-Response	0	0	2	.4	5	1.66	N/A	N/A

1: Calculation for Vehicle Revenue Miles (VRM): (# expected*100,000)/Revenue miles estimation. Estimated miles: 2,500,000
 2: On the Job Injury

The steps for improving safety for LINK Transit's guests and employees are described in the PTASP, starting with the Safety Policy Statement:

Providing a safe working environment for our employees and safe reliable transportation to our guests is our primary objective, which is why the management of safety is our top priority. We will work towards this objective by: making sure the right resources are available to implement and continually improve our Safety Management System and leveraging front line employees' knowledge through the safety reporting program. Supporting and improving safety in the workplace is an organization wide commitment starting with the General Manager.

Additionally, LINK is committed to:

- Supporting an organizational culture that fosters safe operational practices and encourages safety reporting and communication.
- Allocating the necessary resources to implement the safety management plan and to continually improve our safety performance.
- Focusing on proactive approaches to recognize and mitigate hazards.
- Ensuring that no action will be taken against any employee who discloses safety concerns through the safety reporting program, unless the disclosure indicates beyond any reasonable doubt, an illegal act, gross negligence, or deliberate or willful disregard of regulations and procedures.
- Training all employees adequately on our safety management system to identify, analyze, and mitigate hazards for a safer workplace.
- Effective communication with all levels of the organization to ensure information is flowing up to executive management and down to field employees.
- Ensuring hazards are mitigated to as low as reasonably practical.

Greenhouse Gas Emissions

Signed into law in 2021, the IIJA created multiple new federal funding programs with eligibilities that will help state departments of transportation and MPOs address greenhouse gas (GHG) emissions with environmental benefits being central to the administration of these programs. Thus, FHWA developed a new GHG measure to help states and MPOs effectively use these new transportation dollars. The establishment of the GHG measure does not force investments in specific projects or strategies to reduce emissions, nor does it require the achievement of an absolute reduction target. However, FHWA has determined that the targets for the GHG measure should show a reduction in CO₂ emissions.

In 2020 the Washington State Legislature set new GHG emissions limits for the state with a goal for net zero emissions by 2050, requiring each state agency to monitor and report GHG emissions. WSDOT has developed a methodology that identifies 4-year GHG reduction targets that show an ongoing decline in GHG emissions, satisfying federal and state requirements. CDTC establishes regional transportation system performance targets consistent with WSDOT statewide targets, therefore, CDTC adopts a GHG emissions target that shows an ongoing decline consistent with the limits set by the legislature. Current performance and 4-year targets are not available as of December 2023, but will be finalized and made available on WSDOT's website by February 2024 and provided in the 2024 System Performance Report.

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Additional copies of this document may be obtained by contacting:

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