



# VEHICLE MILES TRAVELED (VMT) TARGETS – FINAL REPORT

*June 2023*

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# WSDOT VMT Reduction Report

## Executive Summary

Reducing Vehicle Miles Traveled (VMT) on a per capita basis is necessary to make progress on many community and state goals related to climate, health, safety, and livability. It is also a practical solution to meeting the mobility needs of our growing population. We cannot build our way out of congestion, nor the climate or safety crises we face, by continuing to use the same vehicle-capacity strategies that contributed to our current challenges.

In recognition of this, the 2021 Washington State Legislature directed the Washington State Department of Transportation (WSDOT) to:

- Develop a process for establishing local VMT reduction targets,
- Recommend a suite of options for local jurisdictions to achieve the targets,
- Recommend changes to laws and rules to support reduction in VMT, and
- Identify funding requirements for state and local jurisdictions to establish local VMT reduction targets.

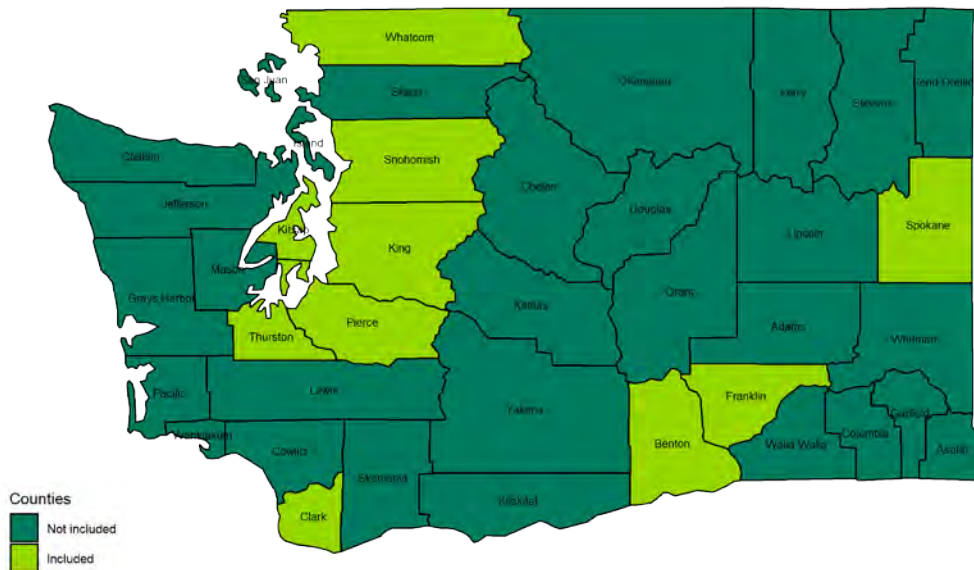
“\$500,000 of the multimodal transportation account-state appropriation is provided solely for the department to partner with the department of commerce in developing vehicle miles traveled targets for the counties in Washington state with (a) a population density of at least 100 people per square mile and a population of at least 200,000; or (b) a population density of at least 75 people per square mile and an annual growth rate of at least 1.75 percent as determined by the office of financial management. Given land use patterns are key factors in travel demand and should be taken into consideration when developing the targets, the department and the department of commerce shall partner with local jurisdictions, regional transportation planning organizations and other stakeholders to inventory existing laws and rules that promote transportation and land use, identify gaps and make recommendations for changes in laws, rules and agency guidance, and establish a framework for considering underserved and rural communities in the evaluation. The department and the department of commerce shall provide an initial technical report by December 31, 2021, an interim report by June 22, 2022, and a final report to the governor and appropriate committees of the legislature by June 30, 2023, that includes a process for establishing vehicle miles traveled reduction targets, a recommended suite of options for local jurisdictions to achieve the targets, and funding requirements for state and local jurisdictions.”<sup>1</sup>

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<sup>1</sup> Washington State Legislature. (2022). Supplemental Transportation Budget; Engrossed Substitute Senate Bill 5689 Sec. 219(3). Retrieved from <https://lawfilesexternal.wa.gov/biennium/2021-22/Pdf/Bills/Session%20Laws/Senate/5689-S.SL.pdf> on May 10, 2023.

Based on the proviso language, the ten counties included in this effort are Benton, Clark, Franklin, King, Kitsap, Pierce, Snohomish, Spokane, Thurston, and Whatcom. See Exhibit 1.

**Exhibit 1: Counties Included.**



Reducing VMT will require a combination of strategies that eliminate some trips, reduce the length of some trips, and improve transportation choices. Our daily vehicle travel can be reduced if we can access our jobs, education, goods, and services comfortably and efficiently using transit, walking, biking, rolling, or telework.<sup>2</sup> Increasing walkability and transit access can be achieved through changing how we plan our communities and accommodate growth, adding more housing in transportation-efficient communities across the state, addressing travel distances created by sprawl, and expanding options for getting around. In transportation-efficient communities trips are also shorter.

Washington’s communities vary in terms of population and job density, land use patterns, and travel options. However, a variety of VMT reduction strategies can be employed to fit the needs of different communities.

This report summarizes the work done on a local VMT target setting approach in accordance with the proviso requirements and includes the following sections:

- Introduction
- Recent VMT Trends
- What Works—A Menu of VMT Reduction Strategies
- What We Heard
- Considerations for Establishing a VMT Program and Financial Considerations
- Potential Law and Rule Changes
- Appendix A: Lessons Learned from Other States
- Appendix B: Potential Law and Rule Changes Detailed Review

<sup>2</sup> Rolling is used as a term inclusive of people using wheelchairs and other wheeled mobility assistance devices and using micromobility devices, as well as those cycling.

In 2008, Washington state established statewide per capita VMT reduction benchmarks, which are codified in RCW 47.01.440.<sup>3</sup> These benchmarks are established relative to a forecast 2020 VMT baseline for passenger vehicles (motorcycles, cars, SUVs, and pickup trucks) estimated at 75 billion minus the VMT from vehicles over 10,000 pounds. As of 2021, the most recent available data, the only time the state has met VMT reduction goals for light-duty vehicles was during the COVID-19 pandemic in 2020 and 2021.

However, nine counties met the state goals in 2019, the last year with pre COVID-19 travel patterns, (comparing per capita VMT by county to the state goal; the goal has not been allocated to the county level). Urban counties with robust multimodal transportation systems consistently have lower per capita VMT than other counties. Eight of the ten counties identified in this proviso met the state goal in 2021 and seven of them did so prior to the COVID-19 pandemic.

WSDOT is also working on the federal Carbon Reduction Strategy (CRS)<sup>4</sup>, to be completed in November 2023. The CRS will include discussion of how much VMT reduction is needed statewide to meet greenhouse gas emission goals and whether the current state VMT reduction goals are sufficient. It will also consider the feasibility of reductions on a county-by-county basis, and whether further reductions may be more in reach for counties that meet the existing goals, to compensate for counties that are not yet meeting the goal.

This report recommends that local per capita VMT targets be set at the regional scale by Regional Transportation Planning Organizations (RTPOs) based on what is feasible and likely to occur over the timeframe of long-range plans. Future work by WSDOT with RTPO partners will need to assess whether the potential reasonable targets set at a regional level are sufficient to meet the overall state goals.

Future work by WSDOT, other state agency partners, and RTPOs on VMT reduction should include an equity analysis and community-led planning and engagement. In some overburdened communities, it may even be prudent to plan for modest increases in VMT per capita to improve access to employment, education, healthcare, etc. In the next phase of work, WSDOT and RTPOs will investigate how to best perform the equity analysis.

The recommendations in this report build on the experience of California, Colorado, and Oregon in pursuing similar work, but are sensitive to the Washington state context. Lessons learned from other state efforts highlight the importance of sequencing changes, taking the time for capacity building steps, and nurturing a shared understanding among the many partners involved in reducing VMT.

The remainder of this executive summary lists recommendations for WSDOT, RTPOs, and the legislature. The full report details the rationale for these recommendations as well as recent VMT trends, VMT reduction strategies, who was engaged and their input, considerations for establishing a VMT reduction program, and potential law and rule changes.

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<sup>3</sup> RCW 40.01.440. (2008). Adoption of statewide goals to reduce annual per capita vehicle miles traveled by 2050—Department's duties—Reports to the legislature. Retrieved from <https://apps.leg.wa.gov/rcw/default.aspx?cite=47.01.440> on May 10, 2023.

<sup>4</sup> This effort supports a requirement of the Federal Highway Administration's (FHWA) Carbon Reduction Program to develop a State Carbon Reduction Strategy for transportation, due to the FHWA by November 15, 2023. The strategy will encompass state and local efforts.

## Summary of Recommendations

### For WSDOT

1. Ensure VMT goals are met:
  - 1.1. Perform an equity analysis prior to the finalization of regional VMT reduction targets.
  - 1.2. Coordinate on performing a VMT analysis on all statewide transportation plans and Regional Transportation Plans (RTPs). Compile the results to a statewide level.
  - 1.3. Require a VMT analysis for WSDOT projects that would substantially<sup>5</sup> expand roadway capacity and include mitigation measures equivalent to the project effect to reduce the amount of induced VMT as is the case in Minnesota.<sup>6</sup>
  - 1.4. If a plan or project is forecast to fail to meet the per capita VMT reduction targets, state funding related to that plan should be spent on transportation projects that would not increase roadway vehicle capacity (e.g., state of good repair, transit and paratransit, active mode infrastructure, safety, etc.) or retained until a revised plan that meets per capita VMT reduction targets is adopted.
2. Amend rules:
  - 2.1. Revise sections of the Washington Administrative Code (WAC) including the highway classification system to be responsive to context and be grounded in the Safe System approach. Change language related to public transportation facilities as “public streets and roads” to be more multimodal with respect to impact fees (both discussed in the potential rule change section).
3. Monitoring:
  - 3.1. Heavy-duty vehicle VMT should be monitored, estimated, and forecast alongside light-duty VMT. However, there should not be per capita VMT reduction targets for heavy-duty vehicles.
  - 3.2. VMT will be monitored on an annual basis as is now state law<sup>7</sup> and VMT evaluation should be carried out in accordance with regular update cycles for RTPs and comprehensive plans. VMT evaluation for WSDOT roadway expansion projects should be included as part of the SEPA/NEPA analysis.
4. Data:
  - 4.1. Partner with RTPOs to purchase an annual subscription to a big data VMT source to supplement the traditional manual count program. Make the VMT big data available to all RTPOs to validate travel demand forecasting (TDF) models and to provide a source of more granular VMT data between model updates.
5. Modeling:
  - 5.1. Work with the RTPOs to establish a set of basic VMT sensitivity tests and model performance expectations based on the current academic literature.

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<sup>5</sup> During implementation, “substantial expansion” and which projects should be considered will be defined.

<sup>6</sup> Minnesota Legislature. (2023). Minnesota Session Laws—2023, Regular Session—Chapter 68—HF No 2887. Retrieved from <https://www.revisor.mn.gov/laws/2023/0/Session+Law/Chapter/68/> on May 24, 2023.

<sup>7</sup> Washington State Legislature. (2023). Engrossed Second Substitute House Bill 1181. Sec 10. P.31. Retrieved from <https://lawfilesexternal.wa.gov/biennium/2023-24/Pdf/Bills/Session%20Laws/House/1181-S2.SL.pdf?q=20230510163422> on May 10, 2023.

- 5.2. Acknowledging that only RTPOs that overlap with Metropolitan Planning Organization have modeling requirements, work with the legislature to identify state funding to help RTPOs improve the VMT forecasting capabilities of their TDF models, develop post processors, expand the coverage of their TDF models to include rural areas, or develop separate VMT forecasting tools.
- 5.3. Develop a simple statewide VMT forecasting tool that could be used in areas that do not have a TDF model or in areas where the TDF models are not well-equipped to forecast VMT.
- 5.4. Provide a template for factoring in future anticipated mode shift.

### For RTPOs

1. When certifying local comprehensive transportation elements, the RTPO should confirm that the comprehensive plan includes goals, policies, and strategies to reduce per capita VMT consistent with the regional target.
2. Under current state law, RTPOs are required to certify the transportation elements of local comprehensive plans but local jurisdictions are not required to have their transportation elements certified. Advocate for an update to state law to require that all city and county comprehensive plan transportation elements be certified by the RTPO for consistency with the RTP, Growth Management Act (GMA) planning requirements, and Revised Code of Washington (RCW) related to regional transportation planning.<sup>8</sup>
3. Perform an equity analysis prior to the finalization of regional VMT reduction targets.
4. There should be no enforcement/punitive actions for cities, counties, or agencies where the actual VMT per capita is not decreasing proportional to the VMT reduction target. Instead, state resources should be directed to actions that can improve performance towards reaching the targets.
5. If an RTP is forecast to fail to meet the regional VMT reduction targets, the RTP project selection criteria should favor transportation projects that would not increase roadway capacity (e.g., state of good repair, cross section reallocation, transit, active mode infrastructure, safety, etc.) unless the plan is accompanied by a statement of overriding considerations.<sup>9</sup>
6. Provide technical assistance to member jurisdictions to support land use decisions under GMA processes because they are inputs to RTPs.

### For the legislature

This report offers 24 potential additions and changes to laws and rules that could help reduce VMT. The potential changes are meant to work in concert, though some will have greater effect than others. Actions related to land use have the biggest impact, (the potential changes are listed here by category in descending order of effectiveness to reduce VMT, which is discussed in greater detail beginning on page 21). Particular attention should focus on creating transportation-efficient communities, allowing

<sup>8</sup> Currently the RTPO is required to certify local comprehensive plans, but there is no requirement that city/county plans be certified (or meet the certification requirement of RTPOs).

<sup>9</sup> A Statement of Overriding Considerations is a written statement explaining the specific reasons why the social, economic, legal, technical, or other beneficial aspects of the proposed project outweigh the unavoidable adverse environmental impacts and why the Lead Agency is willing to accept such impacts. This term is based on the California Environmental Quality Act but has good potential to be used in Washington as part of VMT analysis.

more housing types and diversity of destinations, and utilizing a multimodal level of service to protect the integrity of the transportation system by addressing concurrency, subdivision exemptions, school siting, and leapfrog developments. Because land use change is often slow, it is urgent to make changes soon to expedite their benefits. Other topics—e.g., additional funding for transit and mobility partnership grants—were considered because of their ability to reduce VMT but are not listed here because there is no specific law or rule that would require changing (a brief discussion is available on page 43). Nonetheless, additional funding to support programs that reduce VMT is warranted and recommended. Specific potential changes organized by mitigation strategies (discussed on page 21) include:

#### Foundational VMT rules:

1. **Baseline VMT Value:** Amend RCW 47.01.440 to reflect a baseline VMT value based on observed 2019 data.
2. **Vehicles Considered in VMT Reductions:** Amend RCW 47.01.440 to include all vehicles. Heavy-duty (freight) vehicle VMT should be monitored, estimated, and forecast alongside light-duty VMT, but there should not be per capita VMT reduction targets for heavy-duty vehicles.

#### Land use:

3. **Concurrency and Highways of Statewide Significance:** Amend RCW 36.70A.070(6)(a)(iii)(C) to remove the highway of statewide significance exemption and require that concurrency requirements apply to transportation facilities and services of statewide significance along with a focus on multimodal capacity, not vehicular capacity.
4. **Leapfrog Developments Across Highways and Active Transportation Infrastructure:** Require local jurisdictions and developers to construct facilities for walking and bicycling that meet Active Transportation Plan guidance for level of traffic stress 1 if they construct greenfield development on the opposite side of a state highway from existing development.
5. **Restrictive Zoning:** Monitor the outcomes stimulated by legislation passed in 2023—e.g., Accessory Dwelling Units (ADUs) and middle housing. Consider further changes that support additional construction of housing and a mix of uses in transportation-efficient communities and beyond—e.g., Transit Oriented Developments (TODs).
6. **RTPOs Certification of Comprehensive Plans:** Amend RCW 36.70A.100 to require local jurisdictions to have the transportation elements of their comprehensive plans certified by RTPOs and provide additional funding to RTPOs to carry this out. Given the importance of land use action on transportation, add certification of land use elements to the requirements.
7. **School Siting:** Add a new section to Title 28A RCW —Common School Provision that makes proximity to students' homes and potential for safe walking, bicycling, and transit routes one of the primary factors in school site selection for both construction of new schools and districting decisions. In addition, amend WAC, section 392-342-020(2) to relax school building requirements to be less land intensive, so they can be better suited to infill development.
8. **Street Network Connectivity:** Use regulations and/or incentives to increase street network connectivity and reduce block sizes for new roads as well as add connections within existing road networks, particularly to shorten walking and bicycling distances. Consider statutorily setting the expectation that jurisdictions fill existing network gaps for all modes.
9. **Subdivision Exemption Process:** Change RCW 58.17.040, plats—subdivisions—dedications, to remove exemption from review for any subdivision of more than two parcels outside of urban growth areas.

10. Transportation-Efficient Communities: Require the comprehensive planning, zoning, and development regulation process to clearly identify the areas where additional development would be expected to bring people closer to their daily destinations and give them options for reaching those destinations by walking, bicycling, rolling, and using transit.

Parking reform:

11. Parking Regulations: At a minimum, it is recommended that RCW 36.70A.040 related to minimum parking requirements be amended to remove all parking requirements for transportation efficient communities, and to allow bicycle parking to count toward meeting minimum requirements.

Transportation options:

12. Access Control Classification: Revise the highway classification system to respond to context and be grounded in the Safe System Approach. (WAC action for WSDOT). In addition, Amend RCW 46.61.405 to permit establishment of lower speed limits on arterials as a matter of policy without requiring an engineering traffic study, as a context-based action that contributes to safety through injury minimization and that encourages use of active transportation and transit.
13. Biking Regulations: Revise definitions in RCW 47.04.010 (public highways) to include bicycles, and RCW 46.61.184 (Bicycle, moped, or street legal motorcycle at intersection with inoperative vehicle detection device) related to bicycle, signal length, users, costs, and planning. Adopt an explicit statute stating that active transportation facilities are deemed to serve highway, road, and street purposes and that the safety of all users of the transportation system must be considered in deciding uses of public right-of-way and amend Chapter 47.30 RCW (trails statute) to align with this. Modify provisions concerning private development connections to shared-use paths, trails, and sidewalks on state ROW to provide that such connections provided by the developer serve a public purpose when they serve to complete or expand the active transportation network and do not expand vehicular access.
14. Presumed Liability for Drivers who Hit People Not in a Motor Vehicle: Under Chapter 46.61 RCW, rules of the road, explore adding a section to include statutorily that when a motor vehicle collides with someone not in a car, they are presumed liable.
15. Regional Mobility Grants: Amend RCW 47.66.140(4) to make more types of agencies and organizations eligible for the program including tribes, non-profits, and regional and metropolitan planning organizations.
16. Sidewalk Infrastructure: Require the reconstruction and maintenance of sidewalks (not vegetation or snow removal) to be a jurisdiction's responsibility rather than the abutting property owner's responsibility and provide funding for this purpose.
17. State Agencies and Telework: Amend RCW 43.01.230 to overtly include telework. In addition, in the WAC under 468-63-010(2)(e), under state agency leadership, recommend telework.
18. Transit Fares: Expand RCW 47.66.140 to provide access to unlimited right-to-ride transit passes based on additional groups beyond people 18 and under—e.g., over 65, household need, and location.
19. Transportation Impact Fees—SEPA: Amend RCW 82.02.020(2) and (3), limitations on fees for development of land and buildings, to remove the requirement to expend funds within five years. This would allow WSDOT under the SEPA, Chapter 43.21C RCW, to collect mitigation fees directly from developers and not require a programmed project on a five-year timeline for the



purpose of creating equitable, multimodal connections (including pedestrian and bicycle facilities).

20. VMT Consideration in State Facility Siting: VMT should be a significant consideration when constructing new facilities.

Transportation demand management:

21. Car Free Lifestyle: Provide a financial incentive to low-to-moderate income workers and families who do not own a personal vehicle.

Transportation system management:

22. State Environmental Policy Act (SEPA): Continue to proactively examine and revise the SEPA checklist, WAC 197-11-960. One such revision would be a focus on daily per capita VMT instead of vehicle trips or vehicle delay.
23. Traffic Cameras for Investigation of Crashes with Vulnerable Users: Amend RCW 46.63.170(1)(a) to expand the use of all automated traffic safety cameras to be used in investigating crashes between drivers and active transportation users.
24. VMT Mitigation in Capacity Expansion: Evaluate highway capacity expansion projects based on VMT reduction goals and exhaust operational efficiency per RCW 47.06.050 before advancing the projects. Change planning, project development, programming, and project funding decisions to align with existing policy direction in RCW 47.06.050. Expand the requirement to enhance operational efficiency before capacity expansion beyond state-owned facilities. Additionally, monitor progress in California about VMT mitigation for development and transportation capital projects that would otherwise not meet regional VMT targets. Proposals under various stages of development and implementation include VMT banks, VMT exchanges, and VMT impact fees.

There are also concepts from the Kingsgate park and ride report<sup>10</sup> that are not novel to this report but would also contribute to VMT reduction:

- Amend RCWs 47.12.080, .063, and .120 by removing the requirements that WSDOT must declare the property unused, no longer required for transportation purposes, or held for highway purposes, but not presently needed, prior to allowing the disposal or leasing of such property.
- Amend RCW 47.04.295 and RCWs 47.12.080, .063, and .120 to grant WSDOT discretion in whether or not to charge fair market value for the lease or disposal of park and ride real property when the lease or disposal is for the purpose of providing affordable housing or multimodal transportation infrastructure.
- Amend Chapter 47.04 RCW to authorize WSDOT and transit agencies operating WSDOT owned park and ride lots to charge a fee for parking and enforce parking rules, including issuing citations, (within the bounds of Federal Law (Sec 111 or Title 23) prohibiting commercial use of interstates).
- Give WSDOT explicit discretion to enter into agreements that would enable use of park and ride stalls for other purposes at such times as there is excess capacity due to lack of demand for their primary purpose.

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<sup>10</sup> Washington State Department of Transportation. (2020). Kingsgate Park and Ride: Transit Oriented Development Pilot. Retrieved from <https://wsdot.wa.gov/sites/default/files/2021-11/Kingsgate-Transit-Oriented-Development-Report.pdf> on May 2, 2023.

- Establish a fund in which the revenues from the sale or lease of park and ride facilities would be deposited. Authorize WSDOT to spend those funds on park and ride facility improvements, including those supportive of Transit Oriented Development (TOD). Create a mechanism by which WSDOT could harness a portion of increased property values due to development in order to pay for improvements on the site or for future transportation investments.
- Amend RCW 47.12.270 and 47.04.295 to authorize conversion of motor vehicle parking stalls to other multimodal transportation purposes, including entering into agreements with third party mobility providers if the conversion would help move more people or will aid in the conservation of energy resources.
- Amend Chapter 47.46 RCW to model it on the successful public private partnership (P3) laws in other states.
- Dedicate more funding in the capital budget to support specific public benefits within TOD on public land, e.g., a new TOD set-aside in the State Housing Trust Fund that does not reduce or compete with other important set-asides.

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# Introduction

## Purpose and Legislative Guidance

In 2021, the Washington State Legislature directed the Washington State Department of Transportation (WSDOT) to:

- Develop a process for establishing local vehicle miles traveled (VMT) reduction targets,
- Recommend a suite of options for local jurisdictions to achieve the targets,
- Recommend changes to laws and rules to support reduction in VMT, and
- Identify funding requirements for state and local jurisdictions.

The proviso specifies counties with: “a population density of at least 100 people per square mile and a population of at least 200,000 people; or a population density of at least 75 people per square mile and an annual growth rate of at least 1.75%.”<sup>11</sup> The following counties meet these specifications: Benton, Clark, Franklin, King, Kitsap, Pierce, Snohomish, Spokane, Thurston, and Whatcom. All ten counties were engaged in this work through their Regional Transportation Planning Organizations (RTPO) (see sidebar).

### *Statewide Per Capita VMT Reduction Benchmarks*

In 2008, Washington state established statewide per capita VMT reduction benchmarks (RCW 47.01.4406). These benchmarks were established relative to a forecast 2020 baseline of 75 billion minus the VMT from vehicles over 10,000 pounds. The current focus of the state VMT reduction benchmarks is on reducing light duty travel, which corresponds with many of the current strategies around VMT reduction. As a metric, total per capita VMT is easier to track over time; it accounts for population growth and allows for comparison across different regions.

Over the past decade, there has been a greater appreciation of how other state policy goals intersect with and depend on reducing VMT. Fleet conversion to an all-electric fleet cannot happen quickly enough to reduce greenhouse gas emissions to meet climate targets and must be coupled with other interventions to support the health and safety of all Washington residents. More compact communities that combine housing, employment, goods and services will reduce trip length as well as eliminate trips by improving alternatives to driving. Mode change to walking, biking, rolling and using transit reduces car dependence, which can have positive impacts on the environment, safety, health, equity, and other policy goals.

<sup>11</sup> Washington State Legislature. (2022, June 13). Supplemental Transportation Budget: Engrossed Substitute Senate Bill 5689 Sec 219(3). Olympia, Washington. Retrieved from <https://lawfilesexternal.wa.gov/biennium/2021-22/Pdf/Bills/Session%20Laws/Senate/5689-S.SL.pdf?q=20230119073912> on June 8, 2023.

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### Affected RTPOs

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- Benton-Franklin Council of Governments (BFCOG)
- Puget Sound Regional Council (PSRC) - King, Kitsap, Pierce, and Snohomish
- Southwest Washington Regional Transportation Council (RTC) - Clark
- Spokane Regional Transportation Council (SRTC)
- Thurston Regional Planning Council (TRPC)
- Whatcom Council of Governments (WCOG)

Compact communities, available and affordable housing, and access to frequent transit vary considerably across the state, necessitating a variety of approaches to reduce VMT for communities of all sizes. This report summarizes the work done on a local VMT target-setting approach in accordance with the proviso requirements and includes the following sections:

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## Previous Reports

Since establishing the statewide per capita VMT reduction benchmarks in 2008, WSDOT has explored this issue through several studies.

*Impacts of VMT Reduction Strategies on Selected Areas and Groups* examined the effects of various strategies on five groups/areas: small businesses whose employees cross county lines to get to work, low-income residents, farmworkers (especially migrant workers), distressed counties, and counties with more than half the land under federal or tribal ownership.<sup>12</sup> Recommendations at that time included:

- Focus VMT reduction strategies on the state’s metropolitan regions.
- Concentrate mid- and long-term efforts on land use and infrastructure changes and pricing policies for single occupancy vehicle (SOV) use and affordable housing.
- Mitigate the impacts of VMT reduction strategies to low-income and vulnerable populations through subsidy or exemption.
- Concentrate near-term efforts on ridesharing and transit use in urbanized areas.
- Collect and track VMT data in different ways, as current counts and estimates are imprecise and inaccurate.

WSDOT released reports in 2021 and 2022 summarizing recent work.<sup>13</sup> The first report included information on VMT in Washington and outlined the land use and transportation connection. The more recent report included results of a survey of almost 100 counties, cities, RTPOs, transit agencies, state

<sup>12</sup> Carlson, D., Howard, Z., & Center, a. W. (2010). *Impacts of VMT Reduction Strategies on Selected Areas and Groups*. Seattle: University of Washington. Retrieved from <http://depts.washington.edu/trac/bulkdisk/pdf/751.1.pdf>

<sup>13</sup> WSDOT. (2021). *Vehicle Miles of Travel (VMT) Targets Technical Report*. Olympia: WSDOT. Retrieved from <https://wsdot.wa.gov/sites/default/files/2022-01/VMT-Targets-Technical-Report-December2021.pdf> and WSDOT. (2022). *Vehicle Miles of Travel (VMT) Targets - Interim Report*. Olympia: WSDOT. Retrieved from [https://wsdot.wa.gov/sites/default/files/2022-06/VMT-Targets-Interim-Report-June2022\\_0.pdf](https://wsdot.wa.gov/sites/default/files/2022-06/VMT-Targets-Interim-Report-June2022_0.pdf)

agencies, and policy and/or advocacy organizations related to their VMT efforts. All responding cities and counties noted that they address VMT reduction within the transportation element of the comprehensive plan, but several noted it is not explicitly called out. The primary VMT reduction strategies that respondents employ include improving transit and active transportation, followed by land use and telework. The primary challenges to successful implementation were lack of transit, followed by political will and existing land use patterns.

This report also made the following two recommendations.

*The recommendations carry forward recommendations from the 2021 State Energy Strategy and suggest moving to observed 2019 data with a value of 62.5 billion miles as a more accurate baseline than the 75-billion-mile benchmark currently used in RCW 47.01.440.*

*The second recommendation is to consider including all vehicles in the tracking of VMT, and not only light-duty vehicles. This would provide a simplification that would facilitate local target setting, recognize that light-duty and heavy-duty is not a consistent proxy for commercial travel, and open up consideration of solutions that would improve business operations by improving the optimization and efficiency in the goods movement system.<sup>14</sup>*

Both recommendations are carried forward in this report. An additional clarification to the recommendations is made that heavy-duty (freight) vehicle VMT should be monitored, estimated, and forecast alongside light-duty VMT, but there should not be per capita VMT reduction targets for heavy-duty vehicles because this travel is non-discretionary and closely associated with economic activities, (discussed in greater detail on pages 32 and 41).

## Recent VMT Trends

Nationally, Washington state has the fourth lowest per capita VMT, behind only New York, Rhode Island, and Hawaii.<sup>15</sup> For Washington state as a whole, significant population growth between 2010 and 2021 led to a decrease in VMT per capita over this period, even as the state saw a net increase in annual VMT (see Exhibit 2).<sup>16</sup> The COVID-19 pandemic impacted VMT per capita levels in 2020 and 2021, particularly in urban and fast-growing counties that also had somewhat higher levels of remote work during this period.

**Exhibit 2. Change in VMT per Capita 2010-2021**

Population		Annual VMT		VMT per Capita		Change in VMT per Capita
2010	2021	2010	2021	2010	2021	

<sup>14</sup> WSDOT. (2022). *Vehicle Miles of Travel (VMT) Targets - Interim Report*. Olympia: WSDOT. Retrieved from [https://wsdot.wa.gov/sites/default/files/2022-06/VMT-Targets-Interim-Report-June2022\\_0.pdf](https://wsdot.wa.gov/sites/default/files/2022-06/VMT-Targets-Interim-Report-June2022_0.pdf)

<sup>15</sup> Ridlington, Elizabeth. (2023). Less driving is possible—and these US communities are already doing it. StreetsblogUSA. Retrieved from <https://usa.streetsblog.org/2023/06/15/less-driving-is-possible-and-these-us-communities-are-already-doing-it> on June 22, 2023.

<sup>16</sup> Note that this per capita measure is link VMT over population, not household generation VMT over population.

Statewide	6,724,540	7,766,975	57.19 billion	57.80 billion	8,504.8	7,441.3	-1,063.5
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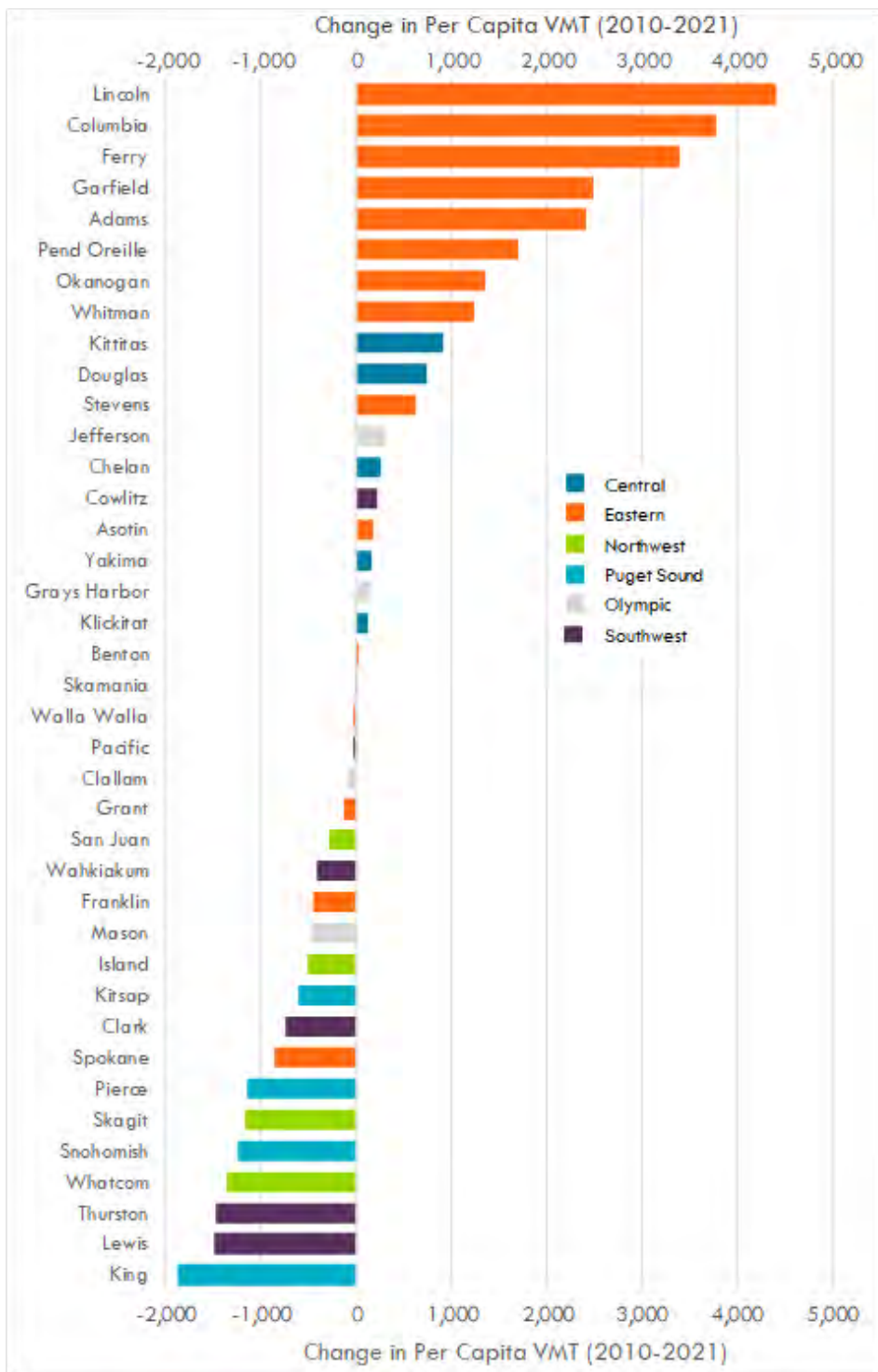
*Sources: WSDOT Highway Performance Monitoring System; WA Office of Financial Management Population Estimates; BERK 2023.*

Despite the pandemic, total annual VMT increased from 2010 to 2021 in 33 counties, including 15 counties in eastern Washington, seven counties around the Olympic Peninsula and northwest parts of the state, and five counties in both the central and southwest parts of the state. Only one of the four counties in the Puget Sound region saw a net increase over this period.

Exhibit 3 shows the changes in VMT per capita by each county, color coded by geographic area within the state. Counties in eastern Washington display the largest increase in VMT per capita between 2010 and 2021. In general, the counties with denser urban centers and transit that facilitate driving less have seen per capita VMT decline over the period. Counties in the Puget Sound, northwest, and southwest parts of the state had the largest decrease in VMT per capita. Once again, the COVID-19 pandemic played a role in the extent of the decrease and there may be longer-lasting impacts with the persistence of teleworking. Policies that continue to maintain and encourage high rates of telework would support VMT reduction.



Exhibit 3. Changes in VMT Per Capita by County (2010-2021)



Sources: WSDOT Highway Performance Monitoring System; WA Office of Financial Management Population Estimates; BERK 2023.

Exhibit 4 shows Washington counties' performance against state VMT goals in 2019 and 2021 (VMT goals have not been apportioned to the county level and the comparison here is of the state per capita VMT goal). Asotin, Clark, Island, King, Kitsap, Pierce, San Juan, Snohomish, Spokane, Whatcom, and Yakima met the statewide VMT goals both in 2019 and 2021. Clallam, Mason, Thurston, and Walla Walla counties met the VMT goal in 2021. The rest of the counties in Washington did not meet their VMT goal in 2019 or 2021. It is notable that eight of the ten counties identified in the proviso met the state goals with the remaining two missing the goal only slightly.

**Exhibit 4. County Performance Against State VMT Goals in 2019 and 2021**

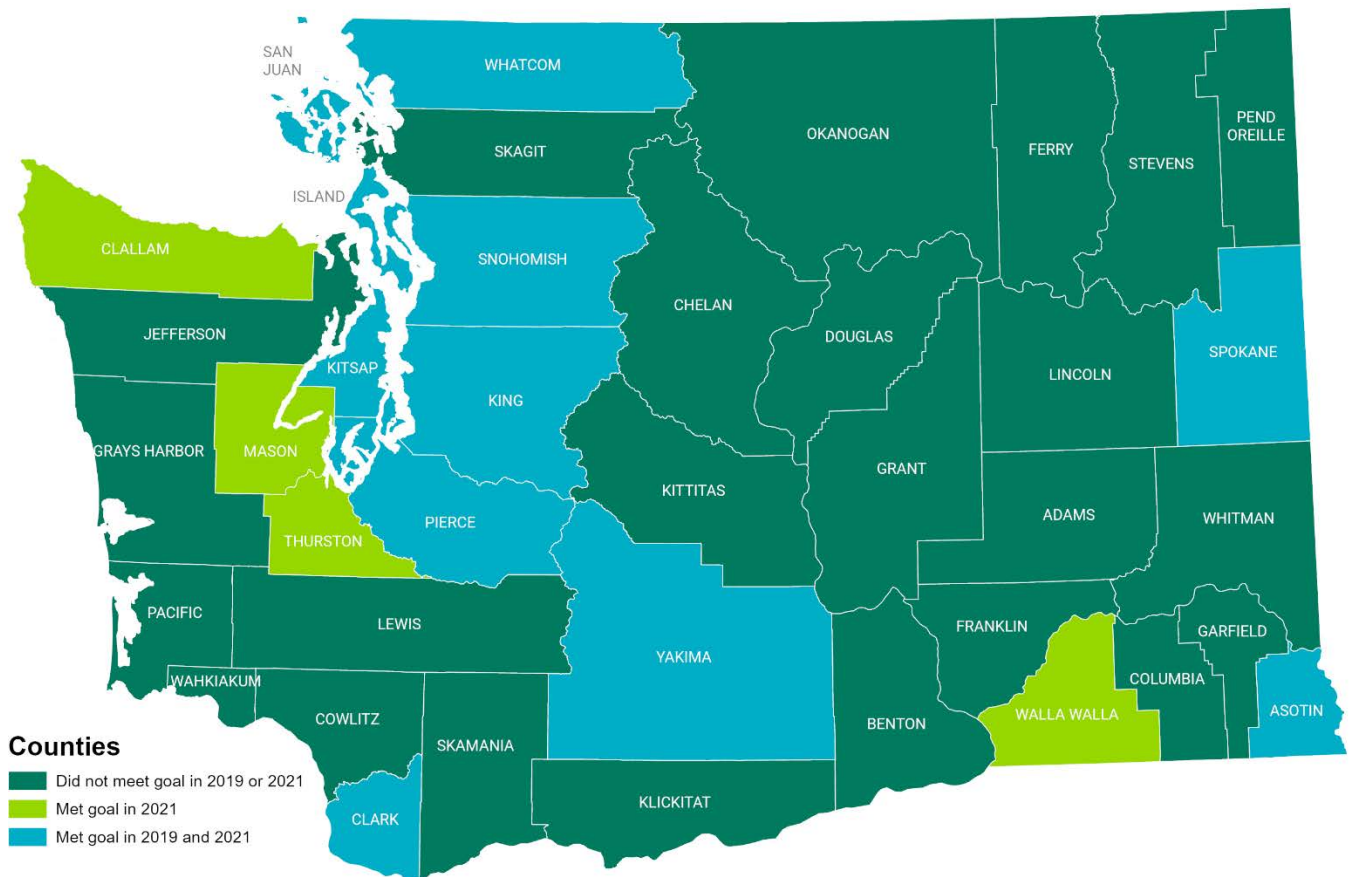
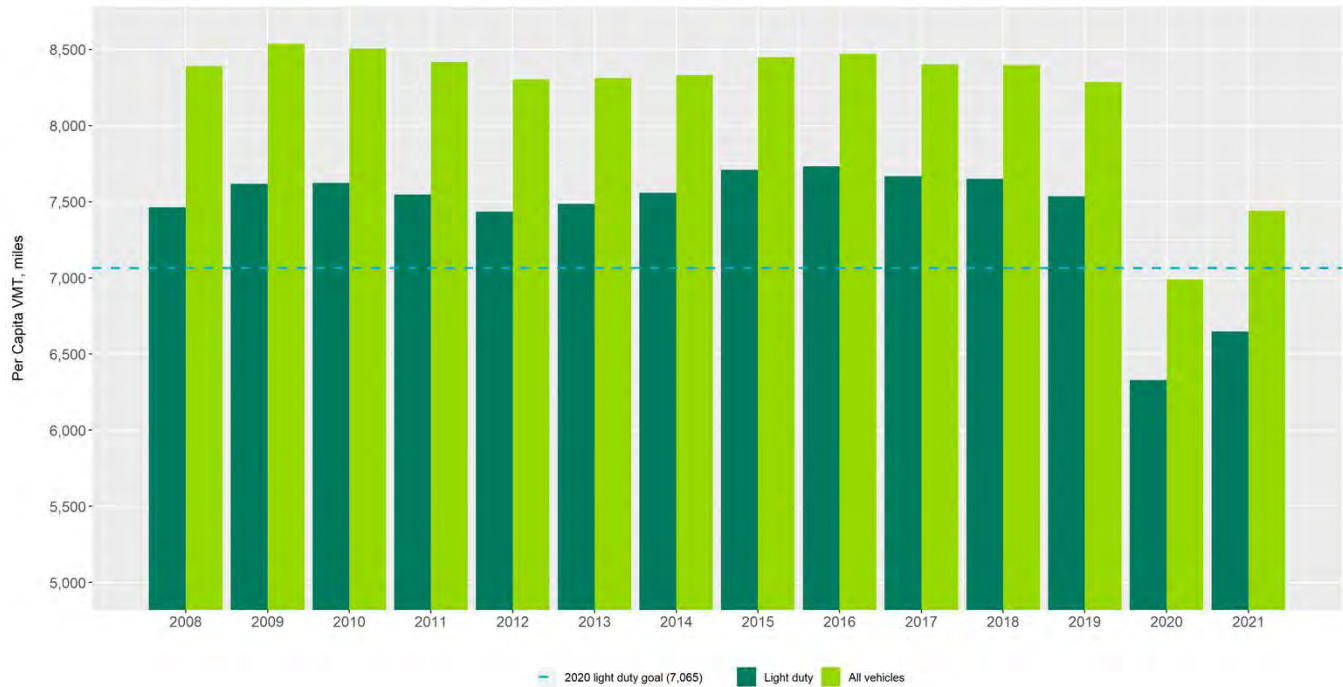


Exhibit 5 shows the dramatic drop off in VMT that occurred in 2020 with the start of the COVID-19 pandemic and the Governor’s Stay Home, Stay Healthy order. While this data is not yet available for 2022, we know that per capita VMT is back above the 2020 light-duty goal of 7,065 shown by the blue dotted line. Moreover, recent research has shown that VMT has returned to pre-pandemic levels in some areas, particularly metropolitan regions outside of the main urban core.<sup>17</sup>

<sup>17</sup> Streetlight Data (2022). *Downtown Congestion Post-COVID: Traffic Trends in the Top U.S. Cities*. Retrieved from <https://learn.streetlightdata.com/downtown-traffic-congestion-post-covid>

**Exhibit 5. Statewide Per Capita VMT Relative to 2020 Light Duty Goal**



Source: WSDOT, 2023.

## What Works – A Menu of VMT Strategies

### The Transportation-Land Use Connection

Addressing VMT should not be to the sole responsibility of transportation departments. Strategies to reduce VMT require interagency collaboration to align policies and implement complementary approaches. For example, VMT reduction cannot happen without land use policies and zoning that facilitate denser, more walkable communities and allow for a mix of services, employment, and housing. Data from the National Household Travel survey shows that suburban households drive 37% more than those residing in urban centers.<sup>18</sup>

For decades, transportation planning prioritized a network focused on vehicle through-put while land use planning facilitated residential suburbs, employment centers, and retail development that necessitated car travel. More recently, increased demand for housing close to employment, services, parks, and transit coupled with insufficient supply has increased the cost of housing in urban centers. Many households have found affordable housing in communities that are not well served by transit and require them to commute to work by car. The ever-growing costs of daily life, rising income inequality, and the climate crisis necessitate smart growth to conserve the natural environment and increase housing and travel options. VMT reduction is an integral metric for policy makers in supporting a resilient and sustainable future.

Transportation policy decisions must increase opportunities for social and economic activity and support increased options to connect between and within regional and local neighborhood centers.

<sup>18</sup> Smart Growth America and The State Smart Transportation Initiative. (2021). *Drivers of VMT and Priority Reduction Strategies: Washington State*. Washington, DC: Smart Growth America.

Investing in integrated networks with mobility options for efficient transportation systems, instead of roadway expansion projects that invite more driving (and induce further demand) and incorporating the urban planning concept of the 15-minute neighborhood can support this sort of community building.

Long-term planning, policy changes, and significant public infrastructure investment are needed to significantly reduce VMT as achieving this goal relies on giving people more choices and making the more sustainable options inviting to use<sup>19</sup>—for example, permitting higher-density neighborhoods and diverse housing typologies where residents have options for travel other than a personal vehicle. Greater urban density will allow cities to conserve natural open spaces, preserve rural land and agricultural uses, and accommodate future population growth close to transit and employment centers.

Results from a recent survey by the Department of Commerce and the Puget Sound Regional Council shown in Exhibit 6 confirm that across the state, residents support many of the strategies that would add housing around transit, increase travel options and walkability, and support improved quality of life.<sup>20</sup>

Exhibit 6 shows a table summarizing results to the question "what else do you want the Washington State Department of Commerce and Puget Sound Regional Council to consider when working on housing issues?" The graph is split into three geographical categories: Western Washington, Central Puget Sound, and Eastern Washington.

Western Washington housing considerations include TOD, bolstering infrastructure (school, roads, power, internet, water), low-income housing near jobs and transportation, walkability, safe outdoor spaces, and open spaces for quality of life.

Considerations for Central Puget Sound include addressing parking, understanding traffic and transportation needs, and quality of life. Considerations for Eastern Washington include infrastructure being able to sustain increased population, better and reliable mass transit options, focus on sustainability, walkability, and green spaces.

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<sup>19</sup> Moore, A. T. (2010). The role of VMT reduction in meeting climate change policy goals. *Transportation Research Part A: Policy and Practice*, 565-574.

<sup>20</sup> Puget Sound Regional Council and Washington State Department of Commerce. (2022). *Housing Survey*. Seattle: Washington State Department of Commerce. Retrieved from <https://deptofcommerce.app.box.com/s/gt9fmhltj1nark9faknslb3nd2glofi>

## Exhibit 6. Washington State Housing Survey Summary

### Many are interested in improving the infrastructure and neighborhoods around housing

What else do you want the Washington State Department of Commerce and Puget Sound Regional Council to consider when working on housing issues? (continued)

Western WA	Central Puget Sound	Eastern WA
<ul style="list-style-type: none"> <li>• Transit-oriented development</li> <li>• Bolster infrastructure (school, roads, power, internet, water)</li> <li>• Low-income housing near jobs and transportation</li> <li>• Walkability</li> <li>• Safe outdoor spaces</li> <li>• Open spaces for quality of life</li> </ul> <p><i>"People need safe, affordable housing near their work, schools, and community resources (shopping, schools, parks, medical care, libraries, government offices). Government's main role is to help promote the general welfare, to make citizen's lives more tenable. Business will not do this, they don't have a stake in our happiness or quality of life. Government must step up." - Clark County, Female, 55-64, White, \$75k-\$99k</i></p>	<ul style="list-style-type: none"> <li>• Address parking, people are unable to park in front of their homes</li> <li>• Understand traffic and transportation needs</li> <li>• Quality of life</li> </ul> <p><i>"Mixed business and residential areas. A walkable community is incredibly important to quality of life." - King County, Male, 18-24, White, \$50k-\$79k</i></p>	<ul style="list-style-type: none"> <li>• Infrastructure being able to sustain increased population</li> <li>• Better and reliable mass transit options</li> <li>• Focus on sustainability</li> <li>• Zoning should include rec areas for children</li> <li>• Walkability</li> <li>• Green spaces (community gardens) and picnic tables</li> </ul> <p><i>"Each community can be equipped with a good shopping environment. I hope to ensure the greening rate of a community, which is good for everyone" - Yakima County, Male, 45-54, Hispanic, \$100k-\$149k</i></p>



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Source: Washington State Department of Commerce, Puget Sound Regional Council. Washington State Housing Survey, 2022.

## Mitigation Framework and Strategies

This section explores precedents for effectively reducing VMT through three categories: land use patterns and growth management, multimodal transportation systems, and race and social equity.

**Land Use Patterns and Growth Management.** Transportation and land use strategies will differ based on urban, suburban, and rural growth patterns. Jurisdictions should seek to limit sprawl and growth should be concentrated in urban cores and villages, major employment centers, and infill development where public infrastructure is already in place. Adding more housing in these areas will provide access to opportunity through employment, education, and amenities. Concentrating uses where people gather can also preserve rural agricultural land and critical areas. Expanding allowed housing typologies, including attached or detached accessory dwelling units, increases options for present and future populations. All these approaches leverage existing infrastructure in ways that have been demonstrated to return more tax revenue rather than increasing the future burden of maintenance and preservation on extended infrastructure.

**Multimodal Transportation Systems.** Transportation investments should provide alternatives to driving alone, support a multimodal network with strong network connectivity, and add active transportation facilities consistent with Complete Streets and the state, regional, and local Active Transportation Plans. Transit planning and active transportation have been identified as a top priority for reducing VMT according to a survey conducted by WSDOT. Political will and support for transit capital, operations, and infrastructure is critical. Transit systems require connectivity and a universal design approach to support people with disabilities or other mobility challenges; improvements should include sidewalks and crosswalks, bike lanes and bike parking, along with other facilities to help riders access stations and final destinations. Employers must continue to provide commute trip incentives for

employees to avoid traveling by car solo. Large employer programs have demonstrated success at incentivizing multimodal travel and there are plans through WSDOT's Public Transportation Division to expand these programs to smaller employers and to expand beyond the commute to address the other 80% of trips people make. Community advocates are on the front lines for understanding travel patterns and can help local and regional municipalities design effective solutions.

**Race and Social Equity.** VMT reduction strategies must prioritize undoing decades of disinvestment and patterns of racial segregation and exclusion in policy making. Planners and policy makers must increase access to opportunity and promote economic development through transit investments and planning for and accommodating affordable housing, particularly in areas that already have robust multimodal networks and are close to employment centers. Equity and justice goals cannot be achieved without developing walkable, accessible, affordable neighborhoods that allow for a variety of housing types, economic uses, and incomes. Household travel costs must be reduced, and travel options increased. Equitable policy can only happen through the collective efforts of policy makers, planners, employers, advocates, service providers, and developers.

Reducing per capita VMT requires smart transportation investments aligned with strong land use planning. A study by Smart Growth America and the State Smart Transportation Initiative in 2021 for Washington State identified the potential VMT impact of land use and transportation strategies.<sup>21</sup>

Exhibit 7 shows VMT management strategies and their potential average impact on VMT. Strategies such as land use, road pricing, and parking policy offer the highest average effect on VMT with percentage reductions of 65, 25, and 20 percent respectively.

Transit enhancement and commuter benefits each account for 10 percent of the average impact on VMT reduction. Bike and pedestrian enhancements, broadband and remote access, and constrained highway spending each make up a 5 percent average impact on VMT reduction.

**Exhibit 7. VMT Management Strategies and Potential Average Impact\***

Strategy	Potential VMT impact
Land use	●●●●●●●●●●●●○○○○○○○○
Constrained highway spending	●○○○○○○○○○○○○○○○○○○
Transit enhancements	●●○○○○○○○○○○○○○○○○
Bike and pedestrian enhancements	●○○○○○○○○○○○○○○○○○○
Commuter benefits	●●○○○○○○○○○○○○○○○○
Parking policy	●●●●○○○○○○○○○○○○○○
Road pricing	●●●●●○○○○○○○○○○○○○○
Broadband and remote access	●○○○○○○○○○○○○○○○○○○

Note: \*each dot represents a 5% average impact on VMT reduction

<sup>21</sup> Smart Growth America and The State Smart Transportation Initiative. (2021). Drivers of VMT and Priority Reduction Strategies: Washington State.

Source: Smart Growth America and State Smart Transportation Initiative; 2021

Land use patterns are clearly one of the most effective changes a jurisdiction can make, but the resulting development (and therefore VMT reduction benefits) will take time. It is crucial to address land use changes as soon as possible to accelerate the realization of future benefits. Land use provides the foundation, then active transportation and transit facilities and services enable people to enjoy the benefits of shorter travel distances. Pricing is also effective as witnessed by behavior changes related to gas prices; however, it can be politically challenging to implement. For these reasons, a combination of all these strategies should be implemented in communities across the state.

### Land Use Planning

Land use has a strong relationship with VMT. Higher housing densities, a diverse mix of uses (e.g., residential, commercial, retail, etc.), high levels of street network connectivity, and street-facing buildings with limited setbacks – among many other things – help create communities that are not reliant on motor vehicle transportation. These land use features establish conditions that are supportive of frequent, extensive, and useful transit networks. They facilitate neighborhoods where residents can walk, bicycle, or roll a short distance for daily needs. In short, land use planning can reduce the typical distance residents must travel for a typical trip, while also making those trips more accessible and convenient by non-automobile modes.

- Rezoning and upzoning around transit corridors.
- Municipal code amendments to eliminate minimum parking requirements and change traffic impact assessments to focus on delivering complete streets instead of widening roads and intersections.
- State requirements to consider land use and travel impacts in transportation project approvals, for example investing in projects that support reduced VMT per capita over those that induce demand.
- Incentives for infill development and affordable housing, whether in the form of expedited permitting, property tax abatement, or other incentives.

### Parking Reform

Excessive parking infrastructure – often required by zoning codes or set as a precondition for development financing – can make driving attractive and convenient while exacerbating suboptimal land uses that discourage other modes. Free or low-cost parking also hides the true economic cost of parking infrastructure and results in a situation where non-drivers are forced to pay more to subsidize the parking through higher rents or higher prices for goods/services. Parking reform policies can help change transportation behavior by more equitably assigning the costs of parking to those who are using it and benefitting from it. They generally come in two forms: (1) policies that discourage excess parking supply (e.g., eliminating parking minimums, implementing parking maximums), and (2) policies that encourage a more efficient use of existing parking infrastructure (e.g., shared parking, performance-based parking, adding bicycle parking to put up to 10-12 bicycles in the space of one vehicle). Both approaches can lead to lower levels of VMT, but only in areas that have viable alternatives to driving and parking. A further strategy is to daylight the cost of parking by charging daily rather than monthly as done by Children’s Hospital in Seattle.<sup>22</sup>

- Reduce or eliminate parking minimums.
- Implement parking maximums.

<sup>22</sup> Commute Seattle. (2015). Case Study: Children’s Hospital. Retrieved from [https://www.commuteseattle.com/wp-content/uploads/2015/05/ParkingMgmt\\_handout.pdf](https://www.commuteseattle.com/wp-content/uploads/2015/05/ParkingMgmt_handout.pdf) on June 5, 2023.

- Allow substitution of bicycle parking for vehicle parking where minimums are still in effect.
- Reduce barriers to establishing shared parking agreements.

### User Fees

User fees generally refer to pricing that ties the amount paid to an individual's use of the service or good. Common examples across the country include highway tolls and parking meters. In recent years, some cities and states have been exploring other methods of pricing designed to better manage demand for driving and – like parking reform – make the true cost of driving more transparent before making the trip. For example, road usage charges – sometimes referred to as VMT fees and currently being studied by Washington state – would require drivers to pay for their use of a road on a per-mile basis. This pricing strategy doubles as a potential long-term replacement for the gas tax, as vehicle electrification reduces gasoline consumption, which reduces an important revenue source for transportation investments. However, it has significant potential to change transportation behavior as well and it represents a flexible tool that can be leveraged to support VMT reduction.

- Tolls and congestion pricing.
- VMT fee/road usage charge.
- Pay-as-you-drive insurance.
- Charging for parking (as described in the preceding section).
- Parking fees or taxes.

### Transportation Options

Improving the quality, convenience, affordability, and safety of non-motor vehicle transportation options makes those modes more attractive. It is important to consider them collectively. For example, expanded transit service with more frequency is more attractive if stations are accessible, transit vehicles are comfortable, and riders feel safe walking to and from and waiting at the stop. Improved sidewalk infrastructure will attract more pedestrians if there are frequent and marked crosswalks, sufficient pedestrian crossing intervals at signalized intersections, and ADA-compliant curb ramps and accessible pedestrian signals. New bike infrastructure will draw more riders if the network is protected and well-connected, reaches desirable corridors and destinations, and receives priority treatment at key intersections to avoid uncomfortable conflicts. Making these transportation options attractive and accessible to people of all ages and abilities is an important and necessary component of a VMT reduction strategy. While taken in isolation the near-term effect of these improvements may be relatively small, expanding transportation options is a prerequisite to achieving the most out of the land use, user fee, and transportation demand management strategies described in this chapter.

- Expand and improve the multimodal network to increase the use of non-SOV modes such as transit, walking, bicycling, and rolling.
- Reduce cost of transit ridership.
- Expand frequency and reliability of transit service.
- Discounts or subsidies for tolls and transit.
- Tax credit incentives (e.g., car-free initiatives).
- E-bike vouchers.
- Pricing policies that make sustainable options financially attractive.

### Transportation Demand Management



Transportation demand management (TDM) strategies typically focus on commute trips and encourage non-driving modes. Program examples include subsidized transit cards, parking cash-out programs, secure bike parking and office showers, monthly or annual events to cultivate a shared excitement for non-driving commutes (e.g., bike to work days, monthly competitions, etc.), and educational materials to raise awareness of the options and benefits. For decades, many employers have provided motor vehicle parking subsidies as an employee benefit, incentivizing single occupancy driving commutes even in areas with other options. TDM attempts to change the calculus by making non-driving modes more attractive and disincentivizing drive-alone commutes. Recently, more areas are expanding TDM to non-commute travel, for example including a free/subsidized transit pass as part of an apartment lease or hotel stay or including a bikeshare system within a multifamily development.

- Strategies to educate, incentivize non-SOV modes, or disincentivize SOV travel.
- Commute trip reduction programs.

### **Transportation System Management**

Transportation system management represents a suite of strategies to optimize existing transportation infrastructure for safer and more efficient mobility options without expanding roadway capacity. From the perspective of reducing per capita VMT, several transportation system management strategies fall under the umbrella of user fees or parking management, described above. Other strategies can be used to prioritize transit and non-vehicle modes such as transit signal priority, providing a leading pedestrian interval to increase visibility and therefore safety of pedestrians in crosswalks, or retiming traffic signals to favor progression of bicycles and reward drivers moving at slower, safer speeds. Altogether, these strategies can be used to prioritize non-driving modes, and dollars received from revenue-generating strategies can be re-invested in transit, walking, or cycling infrastructure.

- Manage system to improve transit and active modes.

### **Strategies to Shift Environmental Impact Evaluation Methodologies from LOS to VMT (state action needed)**

Motor vehicle level of service (LOS) is a common standard used by many jurisdictions to evaluate vehicle volumes relative to roadway capacity, and it is often used as a benchmark to justify expansion projects that add capacity for motor vehicles (or, alternatively, to prevent or limit multimodal projects that might reduce motor vehicle LOS). Common applications include estimating the impact of a new development on vehicle-to-capacity ratios at adjacent roadways or nearby signalized intersections or reviewing the congestion impacts of converting a general-purpose lane to a transit-only lane. Traditional LOS prioritizes motor vehicle travel and defines “mitigation” in terms of facilitating motor vehicle throughput. A VMT standard inverts this evaluation method; using the example above, it estimates a new development’s impact on overall VMT, and if VMT is projected to rise, “mitigation” entails implementing measures to prevent an increase in per capita VMT from the development in question. It de-prioritizes motor vehicle throughput and makes VMT the unit of analysis, which can help individual projects contribute to the overall goal of VMT reduction. California recently passed legislation to prohibit the use of LOS when evaluating the environmental impacts of land use and transportation projects. While not explicitly required in Washington state, similar legislation may be needed to eliminate the use of LOS to justify roadway expansions that lead to higher per capita VMT. The passage of House Bill 1181 (2023) with a move to multimodal level of service is an important shift. Future work should focus on:

- State support to plan for and model VMT impacts.
- Transportation project prioritization that puts people ahead of vehicles and focuses on reducing VMT while balancing other goals—e.g., preservation and safety.

## VMT Impact Fees

Cities often require the payment of impact fees by developers to offset the systemwide burden of new development on specific infrastructure. Traditionally impact fees are assessed using motor vehicle LOS, which can result in projects that add vehicle capacity and thus VMT. VMT impact fees represent a version of developer fees that would implement projects (and potentially programs/services) to offset the VMT generated by a project. In the context of potential regional VMT reduction targets, only land use or transportation projects that increase per capita VMT would be subject to VMT impact fees. Revenue from these fees can go to a dedicated capital improvement program for multimodal infrastructure, transit service, or other items that would improve the quality, convenience, affordability, or safety of non-driving modes. Implementing VMT impact fees would require a change to state law on transportation impact fees.

- Developer pays impact fees for increased per capita VMT associated with project.
- Pairs with regional VMT reduction targets that are adopted by a local agency.
- Results in funding for infrastructure to support modes that reduce VMT.

## VMT Banks and Exchanges

VMT mitigation banks and exchanges are mechanisms to facilitate VMT mitigation from transportation or land use projects. They can be used in conjunction with a VMT impact fee or on their own. A VMT bank places a dollar value on units of VMT reduction, and developers or lead agencies purchase VMT reduction credits as part of a required VMT mitigation program (like a fee-in-lieu approach). The VMT bank would then be responsible for funding/implementing projects or programs that provide ongoing per capita VMT reductions. Several MPOs in California are researching whether they should act as VMT mitigation banks to facilitate the regional VMT reduction targets.

- Developer purchases VMT reduction credits through a VMT bank (e.g., could be an RTPO, redevelopment authority, or a transit agency)
- Bank verifies mitigation and monitors VMT reduction over time.
- Continual refinement of value of VMT reduction based on available projects to reduce per capita VMT.

VMT exchanges are marketplaces where entities who have VMT reduction credits (e.g., transit agencies, cities who built infrastructure that would reduce VMT, developers who built transit-oriented development, etc.) could offer to trade their VMT credits to another party that needs to mitigate per capita increases in VMT. It is expected that the VMT credits would be verified by an independent party (e.g., a nonprofit established to rate VMT credits or an RTPO). VMT mitigation could be proven through a proof of transaction at a VMT exchange.

- Developer/agency funds VMT reducing project or helps finance a completed project.
- Exchange verifies mitigation and VMT reduction potential.

A further discussion of all these strategies and how they can be applied in the transportation element of a comprehensive plan is available through the Department of Commerce's guidebook.<sup>23</sup> The existing

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<sup>23</sup> Washington State Department of Commerce. (2012). Your Community's Transportation System: A Guide to Reviewing, Updating and Implementing Your Transportation Element. Retrieved from <https://www.commerce.wa.gov/serving-communities/growth-management/guidebooks-and-resources/> on May 3, 2023

Guidebook addresses VMT in statewide goals (p. 12), compact and mixed-use development (p. 28), combining multiple strategies (p. 33), and demand and system management (p. 34). The guide also includes many sections on existing tools including land use with a discussion on rural areas (p. 35), accessibility, active transportation, demand and system management, and transit. Additional resources are available through WSDOT’s land use and transportation site (including a document on the case for reducing VMT),<sup>24,25</sup> the Transportation Efficient Communities site,<sup>26</sup> and through the Municipal Research and Services Center.<sup>27</sup> For a rural focus, the Federal Highway Administration provides a guidebook on multimodal networks<sup>28</sup> and research on VMT reduction in California<sup>29</sup> and North Carolina<sup>30</sup> also includes rural considerations and effectiveness in addition to urban and suburban VMT reduction efficacy.

## What We Heard

The proviso presented an opportunity to engage state and local partners, including the Department of Commerce, the RTPOs, and community organizations to establish a comprehensive framework to coordinate land use, transportation, and housing policy recommendations to support a more equitable and resilient future. Approaching these conversations through the lens of reducing VMT allows the State to align with regional and local goals for smart growth and livable, resilient communities.

Most land use and transportation policy and implementation decisions that affect people’s choices of whether to use a car occur at the local level. While communities across Washington are updating their comprehensive plans, it is critical for WSDOT to take this opportunity to work with communities to encourage land use patterns and policies that support efforts to decrease VMT.

The first round of engagement for this target-setting approach phase of WSDOT’s work started with interviews with representatives from the following nine RTPOs to understand the opportunities and challenges in establishing a VMT reduction target.

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<sup>24</sup> Washington State Department of Transportation. (2023). Land use & transportation planning. Retrieved from <https://wsdot.wa.gov/engineering-standards/planning-guidance/land-use-transportation-planning> on May 3, 2023.

<sup>25</sup> Washington State Department of Transportation. (2023). The Case for Reducing Vehicle Miles of Travel. Retrieved from <https://wsdot.wa.gov/sites/default/files/2023-06/GMA-Reference-TheCaseForReducingVMT.pdf> on June 6, 2023.

<sup>26</sup> Transportation Efficient Communities. (2023). Transportation Efficient Communities. Retrieved from <https://www.transportationefficient.org/> on May 3, 2023.

<sup>27</sup> Municipal Research and Services Center. (2023). Municipal Research and Services Center. Retrieved from <https://mrsc.org/> on May 3, 2023.

<sup>28</sup> Federal Highway Administration. (2016). Small Town and Rural Multimodal Networks. Retrieved from [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/small\\_towns/fhwahep17024\\_lg.pdf](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf) on May 3, 2023.

<sup>29</sup> California Air Pollution Control Officers Association. (2022). Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Retrieved from <https://www.calemod.com/handbook/index.html> on May 17, 2023.

<sup>30</sup> North Carolina Department of Transportation. (2021). Vehicles Miles Traveled Reduction Study. Retrieved from <https://www.ncdot.gov/initiatives-policies/environmental/climate-change/Documents/vehicle-miles-traveled-reduction-study.pdf> on May 17, 2023.

- Benton-Franklin Council of Governments (BFCOG)\*
- Cowlitz-Wahkiakum Council of Governments (CWCOG)
- Island Regional Transportation Planning Organization
- Puget Sound Regional Council (PSRC)\*
- Southwest Washington Regional Transportation Council (RTC)\*
- Spokane Regional Transportation Council (SRTC)\*
- Thurston Regional Planning Council (TRPC)\*
- Whatcom Council of Governments (WCOG)\*
- Yakima Valley Council of Governments (YVCOG)

\* RTPOs included in the VMT Proviso.

Following the interviews, the project team convened a workshop in September 2022 at which WSDOT presented initial findings and research on the importance and effectiveness of VMT reduction strategies. The workshop included discussions on missing data needs, implementation challenges, and opportunities. Key takeaways from the workshop included:

- Different opinions on transportation GHG versus VMT as the metric to monitor and set targets around.
- GHG emission and VMT do not conform to geographic boundaries. Strategies should be at the regional or plan level and not project level. Similarly, there was support for plan-level evaluation (e.g., RTP), but not for project-level evaluation.
- Mixed opinions on certifying local comprehensive plans for alignment with state VMT goals.
- Overall support for use of existing RTPO models but with more guidance on performance expectations and data support.
- VMT reduction planning and strategy development schedules need to align with the Department of Commerce and existing comprehensive plan requirements. Participants noted the importance of land use planning as an integral part of VMT reduction.

A second workshop was held in February 2023 to solicit input on the proposed approach to VMT reduction targets. Feedback from that meeting and subsequent phone interviews with each of the six RTPOs informed the final recommended approach summarized in Considerations for Establishing a VMT Reduction Program.

## Engagement Process

Given the range of strategies needed to increase transportation options and create communities of opportunity, and the number of organizations involved in implementation, WSDOT conducted interviews with various groups related to the needs and context of underserved and rural communities. Exhibit 8 summarizes the organizations that were engaged and on which issues.

### Exhibit 8. Organizations Engaged

Organization Types	Discussion Topics	Contact
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Community Advocacy Groups	7. Equity framework objectives, strategies, and key considerations 8. Effective messaging related to the benefits of VMT reduction	9. Cascade Bicycle Club 10. Disability Rights Washington 11. Feet First 12. Front and Centered 13. Futurewise 14. Transportation Choices Coalition
Housing Authorities	15. Equity framework policy recommendations 16. Resident transportation needs	17. Housing Authority of Snohomish County 18. Spokane Housing Authority
Associations of Cities and Counties	19. Environmental considerations 20. Equity framework policy recommendations 21. Thoughts on proposed solutions, in particular potential changes in rules and laws to support VMT reduction	22. Association of Washington Cities 23. Washington State Association of Counties
Regional Planning Organizations (separate from the VMT target process)	24. Environmental considerations 25. Equity framework policy recommendations 26. Thoughts on proposed solutions and messaging	27. Thurston Regional Planning Council
Commute Trip Reduction Organizations	28. Equity framework policy recommendations 29. Thoughts on CTR solutions and the changes brought about by the COVID-19 pandemic	30. Commute Seattle 31. Move Redmond
Transit Agencies	32. Thoughts on other CTR solutions 33. Transit trends and needs	34. Intercity Transit

## Key Takeaways

- Transportation justice means creating policy recommendations rooted in uplifting the benefits of VMT reduction rather than the cost of reducing it. This includes creating walkable and accessible neighborhoods, access to affordable housing and employment, and smart growth patterns that promote improved public health.
- Financial, legal, accessibility, and cultural barriers around walking, biking, and transit must be addressed. This includes cost reduction strategies; effective service planning that makes transit a more viable option, especially for those that work outside standard work hours; and universal design standards that promote accessibility for the entire population.

- Community advocacy groups are leading the way to address systemic inequities within Washington state. They work locally, regionally, and statewide with transit and transportation agencies on multimodal system design and commute trip reduction (CTR) programs. VMT reduction strategies cannot happen without this partnership. Funding and continued collaboration opportunities should be prioritized to support collaboration between decision makers and stakeholders to inform policy solutions and investments.
- An equity framework around VMT target reduction requires preserving existing affordable housing and developing more as an integral solution to increasing access to opportunity.

# Considerations for Establishing a VMT Reduction Program

## Performance Metric Options

As described in RCW 47.01.440, WSDOT is obligated to adopt statewide goals to reduce VMT by 2050 to 37.5 billion miles less the VMT generated by trucks, buses, and other large vehicles. This focus on per capita VMT reductions was further affirmed with the recently passed HB 1181 which, among other things, requires cities and counties to identify actions to reduce VMT and for WSDOT to annually report on per capita VMT across all the cities and counties in the state.

While the state legislature has focused on per capita VMT reduction, it is worth understanding how other states and regions have approached management of the negative externalities of vehicle travel. The project team researched other North American agencies that are actively working on VMT or transportation GHG reduction (California, Colorado, Connecticut, Minnesota, Metro Vancouver BC) and identified a mix of performance metrics. These metrics along with benefits and tradeoffs are presented in Exhibit 9.

### Exhibit 9. Performance Metrics Used by Peer Agencies That Relate to Travel

Potential Performance Metric	Benefits	Tradeoffs
Gross VMT	<ul style="list-style-type: none"> <li>Direct measure of the amount of vehicle travel that is targeted for reduction</li> </ul>	<ul style="list-style-type: none"> <li>In growing areas, it can be difficult for the public to understand their share of the VMT reduction</li> </ul>
Per capita VMT	<ul style="list-style-type: none"> <li>Scales with population growth</li> <li>More understandable metric for the public</li> </ul>	<ul style="list-style-type: none"> <li>Per capita VMT reduction can be viewed as restricting personal driving, which can be politically polarizing</li> </ul>
Transportation GHG Emissions	<ul style="list-style-type: none"> <li>For areas focused on climate impacts of transportation, this is a more direct metric</li> <li>Generally understood by the public</li> </ul>	<ul style="list-style-type: none"> <li>Does not account for co-benefits of VMT reduction (less energy use, better safety outcomes, improved health, etc.)</li> </ul>
Mode Share	<ul style="list-style-type: none"> <li>Simple metric; widely used</li> <li>Generally understood by the public</li> </ul>	<ul style="list-style-type: none"> <li>Can be difficult to correlate to desired outcomes</li> <li>Challenging to forecast</li> </ul>

Source: Fehr & Peers, 2023.

The information above was shared with WSDOT staff and with the RTPOs covered by the proviso. In general, most staff supported the per capita VMT and the transportation GHG emissions metrics. All RTPOs noted that their travel demand forecasting models can estimate and forecast VMT, although the models do not always cover the entire RTPO jurisdiction.

Calculating transportation GHG emissions requires an additional round of post-processing of travel model data using vehicle emissions factors from the US EPA. However, the emissions calculations can be performed at the same time as other air pollutant calculations, using the same set of tools.

## Light-Duty and Heavy-Duty VMT

VMT comes in more than one variety. Transportation planners and engineers tend to separate VMT by the type and usage of vehicle. There are dozens of potential classification schemes that can separate privately owned from publicly owned vehicles or commercial fleets from individual owners. However, each time VMT is subdivided into smaller classifications, the ability to monitor, estimate, and forecast VMT becomes more challenging. Thus, there should be a compelling reason to track different types of VMT. Based on practices in other states and regions, there is justification for splitting light-duty and heavy-duty vehicles since heavy duty vehicles predominantly move large numbers of people (buses) or goods (large vans, trucks, and trailers).

Overall, VMT generated by heavy-duty vehicles tends to be more efficient from a GHG or energy perspective compared to light-duty vehicles. For example, buses are more efficient than cars per passenger and a delivery truck is more efficient than many individual shopping trips. Therefore, for the purposes of establishing VMT reduction targets, this report recommends **separately accounting for VMT generated by light- and heavy-duty vehicles**. Per WSDOT standard practice, light-duty vehicles are consistent with FHWA vehicle classes 1-3 and heavy-duty vehicles are consistent with FHWA vehicle classes 4-13.

Benefits of monitoring heavy-duty VMT range from ensuring there is adequate charging infrastructure for new electric trucks and buses, to accommodating truck parking, to making sure there is adequate curb space for freight loading.

While it requires an additional step, several RTPOs noted that transportation GHG emissions are a simpler metric to communicate to policy makers since most elected officials are cognizant of the benefits of GHG reduction. They also noted that it may be easier politically for elected officials to discuss GHG emissions reductions than VMT reductions, although many elected officials support expanded transportation choices (as opposed to a transportation system where driving is the only viable option). This challenge was also reflected in the project team's interview with the Colorado Department of Transportation, which ultimately promoted a GHG emissions metric after finding that VMT reduction was a controversial topic.

In favor of a per capita VMT metric, WSDOT and other RTPO staff highlighted the benefits of VMT reduction that go beyond GHG emissions, notably the co-benefits of reduced transportation costs (for both the public sector and individuals), increased options for those who cannot or prefer not to drive, improved safety benefits of less driving, lower energy use and resources devoted to moving and storing vehicles, and other environmental, health, and livability benefits. The goal of reducing VMT is also closely related to land use reforms increasing and housing affordability—priorities at the state level and for many regions.

Given the research performed and feedback received, the project team **recommends that WSDOT move forward with VMT per capita as the performance metric** for the VMT reduction program.



## Tools and Data to Monitor, Estimate, and Forecast VMT

The adage of “you can’t change what you don’t measure” applies to VMT. For Washington state to launch a successful VMT reduction program, the agencies charged with implementation must have adequate tools and data related to VMT monitoring, estimation, and forecasting. This section highlights available options and considerations.

### *VMT Estimation*

While VMT is a commonly discussed transportation metric, it is not currently observed or monitored directly at a statewide or regional scale.

Without the ability to directly measure VMT, it is important to have accurate and accessible estimates of VMT for the following applications:

- Establishing baseline levels of light-duty and heavy-duty VMT per capita.
- Tracking changes in per capita VMT over time.
- Ensuring that a region is on-track to meet its VMT reduction goals.
- Evaluating pre- and post-condition VMT that result from land use, transportation network, or policy changes.
- Calibrating and validating tools and models that forecast VMT changes.

Currently, WSDOT estimates VMT using annual traffic counts on about 2,500 roadway segments across the state which are compiled into a data set for the Federal Highway Administration’s (FHWA) Highway Performance Monitoring System (HPMS). HPMS data can be parsed in several different ways including by vehicle classification and by county.

Until recently there were few practical alternatives to HPMS-derived VMT estimates given the complexity of collecting data from millions of vehicles across the state. Complementary data sources like motor vehicle fuel sales, coupled with vehicle registration data, can provide another VMT estimate based on fuel purchases and overall fleet fuel economy, but these data sources have challenges (e.g., out-of-state travel, commercial vehicles that are not registered in Washington, use of vehicle fuels for non-vehicle applications (e.g., boats, generators, etc.), and increasingly the use of plug-in hybrid and electric vehicles.

The increasing prevalence of connected vehicles and location-based services (LBS, which are programs that anonymously track the location of internet-connected devices), provides viable “big data” sources for VMT estimation. Some of the benefits of VMT big data include:

- Higher sampling rates than traditional vehicle count stations (i.e., more observations of travel compared to HPMS).
- Continuous sampling at more locations (there are a limited number of permanent count recorders used for HPMS).
- Includes both light-duty and heavy-duty vehicles.

However, there are also notable limitations to VMT big data:

- Demographic and economic biases – specifically, connected vehicles and internet-connected devices tend to be owned and used by higher-income individuals, who have different travel patterns than the public at large, which must be considered.

- Vehicle age bias – specific to connected vehicles, these vehicles are newer than the fleet overall and newer vehicles are driven more, which requires further data adjustments to extrapolate the big data to overall VMT.
- Imprecise correlation between device data and VMT – specific to LBS, multiple devices traveling in the same vehicle (people in a bus or a family traveling together in a private vehicle) can be misinterpreted as multiple vehicles.
- Unstable licensing and data use terms – unlike traffic counts, both connected vehicle and LBS data are subject to user agreements, which can suddenly change, making comparison of year-over-year data challenging and potentially leading to major inaccuracies. A recent example is the change of terms for Apple’s iOS platform, which largely eliminated the value of LBS data generated by Apple devices and makes comparison of LBS data before and after Apple’s decision challenging.

Despite these limitations, the value and utility of these big data sources is hard to ignore. Connected vehicle data seems particularly relevant to VMT estimation and is likely to grow in availability and drop in price over the coming years. That said, the pricing for connected vehicle and LBS data is variable and somewhat opaque due to a limited number of data providers. At the time of writing this report, it is likely that obtaining a subscription to collect connected vehicle or LBS data for the State of Washington would range from \$200,000 to \$900,000 per year depending on the type of data purchased (simple VMT by census geography or full travel metrics through a dashboard).

Due to the importance of accurate VMT data and the challenge of direct observation, this report **recommends that WSDOT collaborate with RTPOs on a joint purchase agreement for annual VMT big data to supplement traditional manual count programs.** The two types of data report on different measures. HPMS data reports on link performance while LBS reports on individuals. Having two independent (but imperfect) data sources will add confidence in overall VMT data. Having two sources will also help address differences in VMT generated in an area versus VMT that travels through an area. These differences are particularly important in bi-state or bi-nation locations or anywhere with VMT exchange between different planning jurisdictions. Over time, it is likely that anonymized transportation big data will be more prevalent and less expensive to obtain and process and could ultimately replace manual counts for VMT estimation purposes. Staying in front of these trends and having institutional knowledge of new VMT data sources also has value to WSDOT and RTPOs.

Any VMT big data provider should be thoroughly and routinely vetted by WSDOT and RTPO partners to make sure the agencies know details about the type of data being provided, how the raw device/vehicle data are scaled to regions and the state as a whole and have an agreement to alert partners of any substantial changes to raw data sources and/or calculation methods. Knowing more of these details will allow partners more freedom to change big data providers and exclude big data providers who do not yet have robust data sources or calculation/scaling systems. This type of evaluation requires either internal expertise within WSDOT/RTPOs or consultant budget to ensure long-term viability of VMT data.

### *VMT Forecasting*

VMT estimation and monitoring is a key element of establishing regional VMT targets. However, there is also high value in being able to forecast changes in per capita VMT that result from changes in land use, the transportation network, transportation services, or local/regional/state/ national policies.

VMT forecasting relies on tools or models that are either expressly built to forecast VMT change or can forecast VMT as part of a more comprehensive set of outputs. The most common tools used in Washington state and across the country for VMT forecasting are travel demand forecasting (TDF)

models. TDF models have been used in transportation planning for more than 50 years to evaluate and plan for new transportation infrastructure and to quantify the air quality implications of different land use inputs and transportation network and service assumptions. Current TDF models are generally well suited to forecast VMT at a basic level, but there are limitations:

- Many TDF models are not validated to separate light-duty and heavy-duty vehicles. In particular, the trip generation, travel choices, and travel patterns of freight vehicles are not always explicitly included in TDF models. This is particularly true for smaller regions.
- Many TDF models are not sensitive to changes that can affect VMT. The long-standing practice of calibrating and validating TDF models focuses on the model's ability to replicate traffic counts, overall mode shares, and transit ridership, often at a relatively coarse geographic scale. This level of validation is completely adequate for typical model applications of determining whether demand on a highway is expected to increase over time, the air quality implications of a new subdivision, or the transit ridership changes that could result from major expansion of bus service. However, most TDF models are not calibrated and validated against VMT data or the latest research on how different land use, transportation, and policy changes affect per capita VMT. Further, a lack of active transportation data limits the value of the forecasts and models.

When discussing VMT forecasting and the current tools used by the RTPOs covered by the proviso, the project team found:

- All RTPOs who share borders with Metropolitan Planning Organization with federal modeling requirements (including the six RTPOs identified in this proviso) maintain a TDF model, although for some of the agencies, it only covers the urban areas of the region.
- Only PSRC's TDF model explicitly forecasts heavy-duty VMT, although all RTPOs can (and many do) use HPMS or traffic count data to split light-duty from heavy-duty VMT.
- Three of the RTPOs can calibrate their model to validate against regional VMT data. Two agencies use big data and HPMS, one uses HPMS alone. All RTPOs calibrate models to validate against traffic count data.
- Based on the interviews, it is likely that the different RTPO TDF models would not consistently return the same results when tested against a consistent set of land use, transportation network, or policy changes. This is due to differences in model structure and design, and calibration parameters that impact how TDF models estimate/respond to factors like induced demand, increased land use density, changes in generalized travel cost, and quality/availability of non-motorized networks, to name a few.

RTPOs also cited the typical cycle to develop new land use estimates (developing a new base year) and forecasts as a limitation of current VMT forecasting. Based on the interviews, most RTPOs develop new base and forecast land use data every four to five years (tied to the federally mandated update cycle for metropolitan/regional transportation plans). The recommendation for WSDOT to obtain additional VMT big data could mitigate the challenge of aging land use data, particularly if the granularity of VMT big data can account for new growth and localized changes in land use and travel patterns. However, VMT big data cannot entirely address the issue.

To refine the VMT forecasting tools and ensure that VMT can be forecasted for both urban and rural areas, the project team **recommends the following:**

- WSDOT should make the VMT big data referenced above available to all RTPOs as a resource to validate TDF models and provide a source of more granular VMT data between model updates.

- WSDOT should work with the RTPOs that already have models to define a set of basic VMT sensitivity tests and model performance expectations based on the current academic literature around VMT. VMT sensitivity could be achieved by refining the TDF model structure or through post processing of TDF model data. Sensitivity tests should include factors such as:
  - a. Induced demand for travel generated by new vehicle capacity.
  - b. Effects of pricing/tolling/fares on roads, ferries, parking, transit, etc.
  - c. Land use density and diversity of land uses within a traffic analysis zone.
  - d. Transit service (frequency, coverage, span of time served by transit; where feasible, also demand response, micro mobility, ridesharing, flag stops, paratransit, and route deviated service, especially in areas with less population density).
  - e. Active transportation network extent, connectivity, and route directness.
  - f. Presence of and type of transportation demand management programs.

RTPOs should self-certify models for VMT sensitivity with each new TDF model update.

- For those RTPOs that overlap with a Metropolitan Planning Organization and have TDF models, WSDOT should work with the legislature to identify state funding to help RTPOs improve the VMT forecasting capabilities of their TDF models, develop post processors, and potentially expand coverage of their TDF models to include rural areas. Colorado and California developed similar funding programs in response to VMT reduction requirements.
- WSDOT should explore the potential for a statewide VMT forecasting tool for use in areas without a TDF model or in areas where the TDF models are not well-equipped to forecast VMT. One potential example would be to employ VisionEval (<https://visioneval.org>), a land use-transportation scenario planning tool that can estimate VMT at a regional or statewide level. VisionEval is managed by FHWA with support from seven states (including Washington) and three Metropolitan Planning Organizations, including Corvallis, Oregon. In addition to VisionEval, several other commercially available sketch planning tools could also be applied or adapted across Washington state or WSDOT could build a simple spreadsheet tool that pivots from existing VMT estimates to forecast how different VMT management strategies and transportation projects could reduce/increase the VMT of a given area.

## Establishing VMT Targets

WSDOT, the Department of Commerce, and local/regional partners will collaboratively develop specific VMT reduction targets with the State’s GHG emissions reduction goals in mind. Before that work can commence, a few issues need to be addressed:

1. Whether the 2008 benchmark of 75 billion VMT should be adjusted (discussed on p. 52).
2. Identification of the amount of VMT reduction needed to meet GHG goals through the federal Carbon Reduction Strategy (p. 4)
3. An initial examination of RTPs, improvements to models, and forecasts to determine what VMT reduction levels are reasonably feasible.

The next phase of VMT reduction work by WSDOT and RTPO partners that will begin in July 2023 will begin to address the final issue through pilot projects. Regular status reports by WSDOT on VMT reduction will provide updates on development of VMT targets including an optimal range of per capita

VMT by region, and once in place, codify and update those targets in collaboration with the Department of Commerce and participating RTPOs.

While the specific VMT reduction targets are not the subject of this report, there are several important considerations to keep in mind when establishing the targets. Based on the research conducted for this report and the project team’s experience in other states, answering the following questions is critical to a successful VMT reduction strategy:

- What plans, projects, and decisions are subject to VMT evaluation?
- What are the consequences of failing to meet VMT reduction targets?
- What are the equity implications and benefits of a VMT reduction program?
- How should heavy-duty VMT be considered in a VMT reduction program?
- What VMT targets are needed for the state to meet its GHG reductions goals?

#### *What Plans, Projects, and Decisions are Subject to VMT Evaluation?*

Efforts to reduce per capita VMT aim to reduce the negative externalities of vehicle travel while acknowledging the social and economic benefits of vehicle use. The goal is not zero VMT but to reach a more efficient level than the current situation. There is a benefit to making a wider spectrum of plans, projects, and decisions subject to VMT evaluation. However, VMT evaluation is relatively complex, which can be costly and time consuming to carry out for agencies that do not have VMT evaluation tools or staff trained to perform the evaluation.

Based on these tradeoffs, the states with or considering VMT reduction targets (or similar laws) all evaluate regional and statewide long-range land use and transportation plans for consistency with the VMT reduction targets. Examples of these regional and statewide transportation plans include regional transportation plans (RTPs) and statewide transportation plans.

As noted in **Appendix A: Lessons Learned from Other States**, California began with a focus on regional and statewide transportation plans in 2009, and in 2013 expanded the scope of VMT evaluation to include all public and private land use and transportation plans and projects that are subject to the California Environmental Quality Act. California broadened the scope of VMT evaluation in part because the public and private sector land use and transportation projects being implemented were not consistent with the assumptions behind regional or state plans. Based on the project team’s experience, the biggest disconnect between the regional plans and local projects were around land use (actual land uses were less dense with less mixed use than planned) and overly optimistic assumptions around mode shift (potentially due to under-investment in transit and active modes and continued expansion of parking, roads, and highways).

While California’s reasons for evaluating public and private land use and transportation plans/projects are understandable, the project team acknowledges that there would likely be cost and staffing challenges if this level of evaluation was immediately implemented in Washington state. Even prior to 2013, the level of transportation analysis required for land use and transportation projects in California was extensive (and was often cited as one of the reasons it costs more to develop land in California). Therefore, VMT analysis for California projects was not necessarily more complex than the already-required transportation impact analysis.

When considering the factors above, the project team **recommends that the following plans, projects, and decisions be subject to VMT evaluation in Washington state:**

- Statewide transportation plans.

- RTPs.
- WSDOT transportation projects that would expand roadway capacity.

It is assumed that statewide transportation plans would undergo a VMT analysis at the times the plans are developed or updated. WSDOT would lead the VMT evaluation. RTPs would be evaluated as part of the regularly required RTP update cycle with the RTPO using the TDF or VMT evaluation model to confirm consistency with the regional VMT reduction target. In the project team's outreach with RTPO staff, it was suggested that other regional planning efforts should also have a VMT evaluation; transit plans were called out specifically. The project team agrees that VMT evaluation could help provide decisionmakers with more information about these plans, but at this time, the project team does not recommend that VMT analysis be required.

The team's **recommendation also includes a VMT analysis for any WSDOT project that would substantially expand roadway capacity**. This recommendation is an acknowledgement of the effects of induced demand caused by roadway expansion. While these types of roadway expansions are included in statewide and RTPs, an explicit evaluation of all new roadway or major widening projects will better highlight the VMT effects of projects and foster a community discussion about the tradeoffs of increasing VMT relative to the potential benefits of the new or larger road. This evaluation would also identify VMT mitigation measures to reduce or eliminate increases in per capita VMT because of the project.<sup>31</sup> The intent of the VMT analysis is focused on new vehicular capacity that could induce more VMT per capita. Projects that include minor widening for safety or add multimodal facilities would not be required to perform a VMT analysis.

The project team also **recommends that all city and county comprehensive plan updates be certified by the RTPO** to ensure the transportation element includes policies to reduce per capita VMT. The project team also **recommends that state law be updated to require that all city and county comprehensive plans be certified by the RTPO for transportation element consistency with the RTP, Growth Management Act planning requirements, and RCW guidelines and principles related to regional transportation planning**.<sup>32</sup> In making this recommendation, the project team is aware that the certification process may introduce additional time in the comprehensive plan development process. If this recommendation is adopted, cities and counties should be given adequate notice about the new requirements. Additional details related to certification timing and process may be included in revised guidance from the Department of Commerce.

#### *What Are the Consequences of Failing to Meet the VMT Reduction Targets?*

Based on the lessons learned from other jurisdictions, the project team **recommends the following**:

- If a statewide plan is forecast to fail to meet the per capita VMT reduction targets, the team recommends that that any future state funding (or federal funding passed through the state) related to that plan can only be spent on transportation projects that would not increase roadway capacity (e.g., state of good repair, transit, active mode infrastructure, safety, etc.) until a revised plan that meets per capita VMT reduction targets is adopted.

<sup>31</sup> In conjunction with this recommendation for VMT evaluation, WSDOT is also recommending changes to the RCW to include VMT mitigation as part of any vehicle capacity expanding project.

<sup>32</sup> Currently the RTPO is required to certify local comprehensive plans, but there is no requirement that city/county plans be certified (or meet the certification requirement of RTPOs). Clarifying the RCW would address this limitation.

- If an RTP is forecast to fail to meet the per capita VMT reduction targets, the project team recommends that the RTPO project selection criteria favor projects that would not increase roadway capacity (e.g., state of good repair, transit, active mode infrastructure, safety, etc.) unless accompanied by a statement of overriding considerations<sup>33</sup> that explains why a regional plan that is not likely to meet regional VMT targets serves the public interest.
- For a WSDOT transportation project that would substantially increase roadway capacity, the expectation is that the project would employ design and mitigation measures, as well as off-setting investments in other modes, to avoid increasing per capita VMT. The project must also be included as part of an RTP that meets the regional VMT reduction target. However, there could be instances where even with mitigation, the project is *forecast* to increase VMT per capita compared to the no project condition. In these instances, the project team **recommends that WSDOT work with the RTPO to gain concurrence on the project and document the decision to proceed with the project as part of a statement of overriding considerations.** This statement of overriding considerations would acknowledge that the project would increase per capita VMT and explain the benefits of the project relative to the increases in VMT.

Currently, the project team **recommends against any penalties for regions, cities, counties, or agencies where the actual VMT per capita is not decreasing proportional to the VMT reduction target.** VMT is subject to many factors, some of which are beyond the control of any agency and therefore punitive measures for failing to follow a projected trend are not recommended. Instead, resources should be directed to actions that can help improve performance towards reaching their targets. However, if VMT per capita trends do not move in the direction of the regional targets over the next few planning cycles, the State may want to employ additional strategies to stimulate changes that can reduce VMT per capita.

*What are the Equity Benefits and Implications of VMT Reduction?*

The potential benefits and impacts of VMT reduction on vulnerable populations and overburdened communities (as defined by the HEAL Act) should be considered when establishing a VMT reduction program. Key benefits and impacts from the literature are noted in Exhibit 10.

**Exhibit 10. Potential Benefits and Impacts of VMT Reduction on Equity Populations**

Potential Benefits	Potential Impacts
<ul style="list-style-type: none"> <li>▪ Lower VMT could translate into lower transportation costs due to less income spent on fuel, insurance, vehicle maintenance, etc.<sup>34</sup></li> </ul>	<ul style="list-style-type: none"> <li>▪ Land use strategies to reduce VMT through increased density in some areas could displace vulnerable populations without built-in programs to ensure affordability and relocation assistance and the new locations may have fewer transportation options.<sup>39</sup></li> </ul>

<sup>33</sup> A statement of Overriding Considerations is a written statement explaining the specific reasons why the social, economic, legal, technical, or other beneficial aspects of the proposed project outweigh the unavoidable adverse environmental impacts and why the Lead Agency is willing to accept such impacts. This term is based on the California Environmental Quality Act but has good potential to be used in Washington as part of VMT analysis.

<sup>34</sup> AAA. (2023). Your driving costs. Retrieved from: <https://exchange.aaa.com/automotive/aaas-your-driving-costs/>

<sup>39</sup> Butler, Steve. (2022). Using Affordable Housing Overlay Zones to Reduce the Risk of Displacement. Retrieved from: <https://mrsc.org/stay-informed/mrsc-insight/april-2022/using-affordable-housing-overlay-zones>

- Lower VMT translates to lower exposure to serious crashes; populations of color are disproportionately killed or severely injured in traffic crashes.<sup>35,36</sup>
- Overburdened communities are often more subject to air pollution and noise impacts from traffic; lower VMT could reduce these impacts.<sup>37</sup>
- Overburdened communities could benefit from some types of strategies to reduce VMT such as programs to reduce transit fares (to shift people from cars to transit), subsidies for low-income/affordable housing near transit hubs or employment centers, rural employment transportation programs, and active mode infrastructure investments in areas with vulnerable populations and higher proportions of non-drivers.
- Expanding affordable housing near employment centers and transit reduces the need to drive longer distances for work. Similarly, implementing anti-displacement measures in gentrifying areas can help to ensure vulnerable populations can continue to access jobs, schools, and social/family resources, with less need to drive long distances.<sup>38</sup>
- Strategies designed to make driving more expensive (e.g., congestion pricing, parking fees, pay-by-mile insurance, etc.) could disproportionately impact low-income populations if they do not have a viable alternative to driving and moving to a location that would require less driving is unaffordable or unattainable; these types of strategies must be complemented by other strategies to address the disproportionate impact.<sup>40</sup>
- Some commuter benefit programs are not well aligned with some industries (e.g., agricultural, warehouse workers, retail) that do not have traditional 8 a.m.-5 p.m. work hours. Commute trip reduction and transportation demand management programs should be expanded to provide equitable benefits.<sup>41</sup>

The project team **recommends that an equity analysis be performed prior to the finalization of regional VMT reduction targets**<sup>42</sup>. One of the key elements of this type of equity analysis would be to evaluate whether vulnerable populations or overburdened communities already have higher per capita VMT than the community as a whole. If this is the case, then a disproportionate responsibility for reducing per capita VMT could fall on groups that may be hard-pressed to drive less because of issues beyond their control (availability of affordable housing, location of jobs/schools, lack of safe and effective multimodal travel options, etc.).

In other words, setting even a modest VMT reduction target in an overburdened community with limited alternatives to driving could have disproportionate negative effects compared to setting an even larger VMT reduction target on a higher income community where a much larger proportion of overall VMT

<sup>35</sup> California Governor's Office of Planning and Research. (2017). Appendix B: Transportation Safety. Retrieved from [https://opr.ca.gov/docs/OPR\\_Appendix\\_B\\_final.pdf](https://opr.ca.gov/docs/OPR_Appendix_B_final.pdf)

<sup>36</sup> Washington State Department of Transportation (2021). Active Transportation Plan 2020 and Beyond. Retrieved from <https://wsdot.wa.gov/construction-planning/statewide-plans/active-transportation-plan> on June 6, 2023.

<sup>37</sup> US Environmental Protection Agency. (2022). EPA Research: Environmental Justice and Air Pollution. Retrieved from: <https://www.epa.gov/ej-research/epa-research-environmental-justice-and-air-pollution>

<sup>38</sup> US Department of Housing and Urban Development. (2018). Displacement of Lower-Income Families in Urban Areas Report. Retrieved from: <https://www.huduser.gov/portal/sites/default/files/pdf/DisplacementReport.pdf>

<sup>40</sup> Federal Highway Administration. (2017). Impacts of Congestion Pricing on Low-Income Population. Retrieved from: <https://ops.fhwa.dot.gov/publications/fhwahop17019/index.htm>

<sup>41</sup> Washington State Department of Transportation. (2021). Commute Trip Reduction Law Update 2021. Retrieved from: <https://wsdot.wa.gov/sites/default/files/2021-11/Commute-Trip-Reduction-Program-Report-Sept2021.pdf>

<sup>42</sup> It is acknowledged that travel models can generally address income but not other topics of interest for an equity analysis that would come from census data. Pilot projects with RTPOs that will begin in the fall of 2023 will include this topic as one of the issues that requires further consideration.



generation is discretionary or recreational in nature. In some overburdened communities, it may even be prudent to plan for modest increases in VMT per capita to improve access to employment, education, healthcare, etc. However, any increases in per capita VMT from overburdened communities should be evaluated to determine if there are reasonable actions that can make up for these VMT increases in parts of the region with more resources and transportation options.

A potential approach to an equity analysis would be to use GIS to overlay detailed VMT generation data from a big data provider against data from the US Census Bureau and the Washington Environmental Health Disparities Map.<sup>43</sup> By understanding the nature of VMT (e.g., proportion of total VMT related to commuting versus other trips from LBS or household survey data), along with economic and demographic factors about people making the trips, as well as the transportation network and services in the area, VMT reduction targets can be established in a more informed and realistic way. Any approach must include inclusive community engagement prior to setting regional targets. For example, it may not be reasonable or equitable to set substantially lower per capita VMT targets in a region where a substantial proportion of VMT is generated by lower income residents commuting to work where trips are long and there is no transit service. This additional information will support the community engagement process and technical evaluations necessary to establish VMT targets.

#### *How Should Heavy Duty VMT Be Considered in the VMT Reduction Program?*

As noted earlier, the project team **recommends that heavy-duty vehicle VMT be monitored, estimated, and forecast alongside light-duty VMT.** The benefits of evaluating heavy-duty VMT include better understanding how freight VMT changes over time, and informing state, RTPO, and local partners strategies for overall VMT reduction.

However, when it comes to setting VMT reduction targets, heavy-duty vehicles deserve special acknowledgement that this travel is non-discretionary and closely associated with economic activities. Examples include:

- Some heavy-duty vehicle VMT is “good” VMT that other light-duty VMT reduction strategies aim to increase (because it is more efficient) – examples include bus VMT and goods delivery VMT that replace retail trips by personal vehicle (one vehicle delivering packages to many homes as opposed to many individuals driving).
- Some heavy-duty VMT is driven by macroeconomic forces and would be unrealistic, and undesirable, to try and manage – examples include changes in what farmers grow, which affects where and how it is shipped.
- Reducing heavy-duty VMT may be difficult because, unlike personal vehicles, the private sector firms that are generating heavy-duty VMT (primarily companies hauling goods to market, freight forwarders, delivery companies, etc.) already have a strong financial incentive to move the greatest value of goods with the least possible VMT.

Other lower energy-use alternatives to heavy-duty trucks (trains or barges) are highly specialized in what they ship and face similar labor and infrastructure challenges as truck driving and cannot realistically pick up a much larger share of the market than they already have.

For these reasons, the project team does not recommend setting VMT per capita targets for heavy-duty vehicles.

<sup>43</sup> Care will need to be given to developing VMT generation by household as opposed to by transportation facility.

## Monitoring and Reporting

In summary, the project team recommends that VMT be monitored and forecast for both light- and heavy-duty vehicles and per capita VMT reduction targets be established for light-duty vehicles for the RTPO regions covered by the proviso. The recommended VMT data and analysis tools have the potential to be expanded to additional areas of the state, giving flexibility if such an expansion is desired. Additionally, the project team recommends that regional per capita VMT reduction targets be established while considering equity, rate of growth, and the urban form (rural, urban, suburban) of the region.

WSDOT currently provides annual VMT updates from the HPMS system. It is **recommended that regions subject to the VMT reduction targets also provide annual updates on total VMT, light-duty VMT, heavy-duty VMT, and light duty VMT per capita**. This information could augment WSDOT's annual HPMS reporting, be included in a new dashboard, or be included as part of the regular status report on VMT reduction efforts. It is anticipated that the VMT data could come from a blend of sources, including certified TDF models, HPMS data, and/or VMT big data sources. VMT analysis for all the other plans, projects, and decisions recommended in this report would occur on their typical update schedule (in the case of RTPs or comprehensive plan updates) or as highway capacity projects undergo environmental review.

## Financial Implications

Based on the feedback from RTPO staff, outside of the PSRC region, which is already executing the bulk of the recommendations in this report, the project team estimates that each RTPO would need ongoing staffing augmentation of 0.5-1.0 FTE (estimated at \$150,000 per FTE) to address plan certification and more rigorous modeling requirements and applications, along with one-time investments of \$1 million to \$1.5 million per region to refine, test, and certify regional TDF models to produce more reliable VMT estimates and forecasts. Additionally, between the RTPOs and WSDOT, it could cost between \$200,000-\$900,000 per year to procure VMT big data that can be shared across the state. Depending on the choices made through the pilot projects that will begin in fall 2023 and the choices of models and tools to be used, funding for ongoing maintenance or periodic update of models and software may also be necessary.

The costs to develop a statewide VMT evaluation tool could range from \$2 million-\$5 million (as a one-time cost) depending on the type of tool and level of granularity. Additional WSDOT staff (0.5-1.0 FTE) would also be required to apply and maintain the tool.

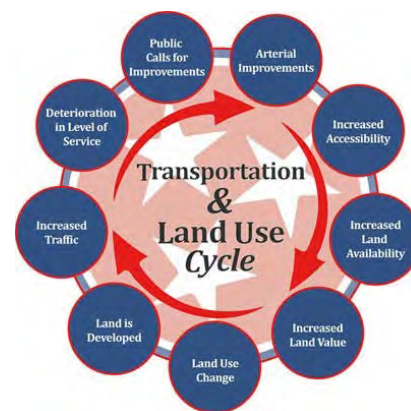
## Potential Law and Rule Changes:

Under the VMT reduction proviso, WSDOT was directed to “identify gaps and make recommendations for changes in laws, rules, and agency guidance”. An initial list of concepts was developed with input from staff representing multiple divisions and regions across WSDOT. The concepts were refined with support from other state agencies including Agriculture and Commerce, as well as the six RTPOs affected by the proviso, the Association of Washington Cities, the Washington State Association of Counties, the Municipal Research and Services Center, advocacy groups, and representatives of cities, counties, and other interested parties who have been engaged with WSDOT throughout the work on the proviso.

The proposed rules changes fall into four categories:

1. Foundational VMT rules: two proposed changes to RCW 47.01.440, the part of the code where VMT targets are established. These changes relate to the baseline value and which vehicles should be considered.
2. Improve the efficiency of land use: As discussed in this report and in the earlier VMT reports, land use changes can have the greatest value for VMT reduction. Suggestions in this category include allowing more types of housing to increase density, focusing development in transportation-efficient communities, refining the subdivision exemption process, and siting of public facilities.
3. Invite use of sustainable transportation: Modes other than driving alone reduce VMT. Options in this category range from statutory cleanup of existing bicycle and pedestrian rules, promoting transit and active transportation, and providing safe, complete network connectivity for active modes where it is currently lacking.
4. Reduce hidden subsidies for driving: Current approaches to transportation favor driving in many ways compared to other modes. Proposals in this area focus on updates to Level of Service standards, SEPA, parking, and liability in collisions.

In addition to these four categories, an overarching theme of preserving the integrity of the transportation system spans many of the recommendations. When poor land-use decisions are made—ones that create new demand on the road network and transportation without the potential for any other form of transportation—VMT increases, the level of service of the road network decreases from added demand, and this often sparks a call for new roadway facilities incorrectly assumed to ameliorate the new problem. Because land use changes occur over a long time span, there is an urgency to making policy changes to experience the benefits of transportation-efficient development.



Several additional concepts that were considered and potentially would contribute to the solution set are not included in this report:

- Funding for transit: Additional funding for any form of transit would be beneficial for VMT reduction and other purposes. The topic is not addressed further because no specific rule changes were identified as necessary to facilitate additional funding for transit.
- Funding for Growth and Transportation Efficiency Centers (GTEC): Funding GTECs as well as funding and directing the Commute Trip Reduction Board, which has a governing role, to add an equity component to grant selection criteria would help reduce VMT. Like funding for transit, no specific law or rule changes are necessary.
- Tolling and usage charges: Pricing strategies can reduce VMT. There is currently work underway by the Washington State Transportation Commission on road usage charges as an alternative to the gas tax.<sup>44</sup> Any potential rule changes related to pricing should follow and build upon the existing effort.
- Commute Trip Reduction (CTR) program: The existing CTR Program, which focuses on large worksites, has been effective at reducing VMT, measuring a 30% reduction in employee per

<sup>44</sup> Washington State Transportation Commission. (2023). Washington Road Usage Charge Pilot Project and Assessment. Retrieved from <https://waroadusagecharge.org/> on May 2, 2023.

capita VMT from 2007 to 2020.<sup>45</sup> The Transportation Demand Management Executive Board and Technical Committees propose a new state program, Mobility Partnerships Grants, to complement CTR. This new grant program would support locally led transportation demand management and mobility services focused on vulnerable populations in overburdened communities.<sup>46</sup> Legislative direction and funding for the proposed Mobility Partnership Grants would help reduce VMT, but there are no specific rule changes identified in this report.

- Traffic cameras: This report identifies an additional use of traffic cameras to include investigations of crashes related to active transportation users (discussed further in this section and in Appendix B). Broader use of traffic cameras beyond school zones, stop lights, and railroad crossings was enacted by the legislature in 2020<sup>47</sup> and piloted in the City of Seattle<sup>48</sup> in bus lanes and intersections. The legislature further expanded use of safety cameras in the 2022 session to include school walk areas, public parks, and hospitals, and a requirement that an equity analysis be conducted.<sup>49</sup> Future expansion for the purpose of improving mobility and safety should follow the outcomes of the Seattle pilot project and other lessons learned from new uses.

Other concepts developed for this report are no longer necessary because of legislation that was passed in the 2023 regular session. These include:

- E-Bike rebates<sup>50</sup>: Engrossed Substitute House Bill 1125
- Multimodal Level of Service<sup>51</sup>: Engrossed Second Substitute House Bill 1181
- Transportation Impact Fees—Bicycle and Pedestrian Facilities<sup>52</sup>: Senate Bill 5452

<sup>45</sup> Washington State Department of Transportation. (2021). 2021 Public Transportation Mobility Report. Retrieved from <https://tdmboard.com/wp-content/uploads/2023/02/2021-Public-Transportation-Mobility-Report.pdf> on May 2, 2023.

<sup>46</sup> Washington State Department of Transportation. (2022). Mobility Partnerships: State Grant Proposal. Retrieved from [https://tdmboard.com/wp-content/uploads/2023/03/WSDOT\\_Mobility\\_Partnerships\\_Flyer\\_Round-3-logos.pdf](https://tdmboard.com/wp-content/uploads/2023/03/WSDOT_Mobility_Partnerships_Flyer_Round-3-logos.pdf) on May 2, 2023.

<sup>47</sup> Washington State Legislature. (2020). Engrossed House Bill 1793—Automated Traffic Cameras—Additional Uses. Retrieved from <https://lawfilesexxt.leg.wa.gov/biennium/2019-20/Pdf/Bills/Session%20Laws/House/1793-S.SL.pdf?q=20230502093227> on May 2, 2023.

<sup>48</sup> City of Seattle. (2022). We have activated new traffic cameras which will automatically warn, then ticket drivers who illegally use transit lanes or block crosswalks and intersections. Retrieved from <https://sdotblog.seattle.gov/2022/02/16/dont-block-the-box-traffic-cameras/> on May 2, 2023.

<sup>49</sup> Revised Code of Washington. (2022). RCW 46.63.170—Automated traffic safety cameras—Definition (Effective until June 30, 2025). Retrieved from <https://apps.leg.wa.gov/rcw/default.aspx?cite=46.63.170> on June 7, 2023.

<sup>50</sup> Washington State Legislature. (2023). Engrossed Substitute House Bill 1125. Sec 310(16)(a)(i), p. 118. Retrieved from <https://lawfilesexxt.leg.wa.gov/biennium/2023-24/Pdf/Bills/House%20Passed%20Legislature/1125-S.PL.pdf?q=20230511110157> on May 11, 2023.

<sup>51</sup> Washington State Legislature. (2023). Engross Substitute House Bill 1181. Retrieved from <https://lawfilesexxt.leg.wa.gov/biennium/2023-24/Pdf/Bills/Session%20Laws/House/1181-S2.SL.pdf?q=20230511124501> on May 11, 2023.

<sup>52</sup> Washington State Legislature. (2023). SB 5452—Authorizing impact fee revenue to fund improvements to bicycle and pedestrian facilities. Retrieved from <https://app.leg.wa.gov/billsummary/?BillNumber=5452&Chamber=Senate&Year=2023> on May 11, 2023.

Additional concepts that are not novel to this report would further contribute to VMT reduction. A 2020 report to the legislature related to bringing Transit Oriented Development to the Kingsgate park and ride offered a number of rule changes<sup>53</sup>:

- Amend RCWs 47.12.080, .063, and .120 by removing the requirements that WSDOT must declare the property unused, no longer required for transportation purposes, or held for highway purposes, but not presently needed, prior to allowing the disposal or leasing of such property.
- Amend RCW 47.04.295 and RCWs 47.12.080, .063, and .120 to grant WSDOT discretion in whether or not to charge fair market value for the lease or disposal of park and ride real property when the lease or disposal is for the purpose of providing affordable housing or multimodal transportation infrastructure.
- Amend 47.04 RCW to authorize WSDOT and transit agencies operating WSDOT owned park and ride lots to charge a fee for parking and enforce parking rules, including issuing citations.
- Give WSDOT explicit discretion to enter into agreements that would enable use of park and ride stalls for other purposes at such times as there is excess capacity due to lack of demand for their primary purpose.
- Establish a fund in which the revenues from the sale or lease of park and ride facilities would be deposited. Authorize WSDOT to spend those funds on park and ride facility improvements, including those supportive of TOD. Create a mechanism by which WSDOT could harness a portion of increased property values due to development in order to pay for improvements on the site or for future transportation investments.
- Amend RCW 47.12.270 and 47.04.295 to authorize conversion of motor vehicle parking stalls to other multimodal transportation purposes, including entering into agreements with third party mobility providers if the conversion would help move more people or will aid in the conservation of energy resources.
- Amend Chapter 47.46 RCW to model it on the successful public private partnership (P3) laws in other states.
- Dedicate more funding in the capital budget to support specific public benefits within TOD on public land, e.g., a new TOD set-aside in the State Housing Trust Fund that does not reduce or compete with other important set-asides.

Appendix B provides comprehensive overviews of each of the potential rule changes, including the way the current rule or law contributes to VMT growth, examples of success, and potential changes. The topics include:

#### Foundational VMT rules:

- Baseline VMT Value: Amend RCW 47.01.440 to reflect a baseline VMT value based on observed 2019 data.
- Vehicles Considered in VMT Reductions: Amend RCW 47.01.440 to include all vehicles. Heavy-duty (freight) vehicle VMT should be monitored, estimated, and forecast alongside light-duty VMT, but there should not be per capita VMT reduction targets for heavy-duty vehicles.

#### Land use:

- Concurrency and Highways of Statewide Significance: Amend RCW 36.70A.070(6)(a)(iii)(C) to remove the highway of statewide significance exemption and require that concurrency

<sup>53</sup> Washington State Department of Transportation. (2020). Kingsgate Park and Ride: Transit Oriented Development Pilot. Retrieved from <https://wsdot.wa.gov/sites/default/files/2021-11/Kingsgate-Transit-Oriented-Development-Report.pdf> on May 2, 2023.

requirements apply to transportation facilities and services of statewide significance along with a focus on multimodal capacity, not vehicular capacity.

- Leapfrog Developments Across Highways and Active Transportation Infrastructure: Require local jurisdictions and developers to construct facilities for walking and bicycling that meet Active Transportation Plan guidance for level of traffic stress 1 if they construct greenfield development on the opposite side of a state highway from existing development.
- Restrictive Zoning: Monitor the outcomes stimulated by legislation passed in 2023—e.g., Accessory Dwelling Units (ADUs) and middle housing. Consider further changes that support additional construction of housing and a mix of uses in transportation-efficient communities and beyond—e.g., Transit Oriented Developments (TODs).
- RTPOs Certification of Comprehensive Plans: Amend RCW 36.70A.100 to require local jurisdictions to have the transportation elements of their comprehensive plans certified by RTPOs and provide additional funding to RTPOs to carry this out. Given the importance of land use action on transportation, add certification of land use elements to the requirements.
- School Siting: Add a new section to Title 28A RCW —Common School Provision that makes proximity to students’ homes and potential for safe walking, bicycling, and transit routes one of the primary factors in school site selection for both construction of new schools and districting decisions. In addition, amend WAC, section 392-342-020(2) to relax school building requirements to be less land intensive, so they can be better suited to infill development.
- Street Network Connectivity: Use regulations and/or incentives to increase street network connectivity and reduce block sizes for new roads as well as add connections within existing road networks, particularly to shorten walking and bicycling distances. Consider statutorily setting the expectation that jurisdictions fill existing network gaps for all modes.
- Subdivision Exemption Process: Change RCW 58.17.040, plats—subdivisions—dedications, to remove exemption from review for any subdivision of more than two parcels outside of urban growth areas.
- Transportation-Efficient Communities: Require the comprehensive planning, zoning, and development regulation process to clearly identify the areas where additional development would be expected to bring people closer to their daily destinations and give them options for reaching those destinations by walking, bicycling, rolling, and using transit.

Parking reform:

- Parking Regulations: At a minimum, it is recommended that RCW 36.70A.040 related to minimum parking requirements be amended to remove all parking requirements for transportation efficient communities, and to allow bicycle parking to count toward meeting minimum requirements.

Transportation options:

- Access Control Classification: Revise the highway classification system to respond to context and be grounded in the Safe System Approach. (WAC action for WSDOT). In addition, Amend RCW 46.61.405 to permit establishment of lower speed limits on arterials as a matter of policy without requiring an engineering traffic study, as a context-based action that contributes to safety through injury minimization and that encourages use of active transportation and transit.
- Biking Regulations: Revise definitions in RCW 47.04.010 (public highways) to include bicycles, and RCW 46.61.184 (Bicycle, moped, or street legal motorcycle at intersection with inoperative

vehicle detection device) related to bicycle, signal length, users, costs, and planning. Adopt an explicit statute stating that active transportation facilities are deemed to serve highway, road, and street purposes and that the safety of all users of the transportation system must be considered in deciding uses of public right-of-way and amend Chapter 47.30 RCW (trails statute) to align with this. Modify provisions concerning private development connections to shared-use paths, trails, and sidewalks on state ROW to provide that such connections provided by the developer serve a public purpose when they serve to complete or expand the active transportation network and do not expand vehicular access.

- Presumed Liability for Drivers who Hit People not in a Motor Vehicle: Under Chapter 46.61 RCW, rules of the road, explore adding a section to include statutorily that when a motor vehicle collides with someone not in a car, they are presumed liable.
- Regional Mobility Grants: Amend RCW 47.66.140(4) to make more types of agencies and organizations eligible for the program including tribes, non-profits, regional and metropolitan planning organizations.
- Sidewalk Infrastructure: Require the reconstruction and maintenance of sidewalks (not vegetation or snow removal) to be a jurisdiction’s responsibility rather than the abutting property owner’s responsibility and provide funding for this purpose.
- State Agencies and Telework: Amend RCW 43.01.230 to overtly include telework. In addition, in the WAC under 468-63-010(2)(e), under state agency leadership, recommend telework.
- Transit Fares: Expand RCW 47.66.140 to provide access to unlimited right-to-ride transit passes based on additional groups beyond people 18 and under—e.g., over 65, household need, and location.
- Transportation Impact Fees—SEPA: Amend RCW 82.02.020(2) and (3), limitations on fees for development of land and buildings, to remove the requirement to expend funds within five years. This would allow WSDOT under the SEPA, Chapter 43.21C RCW, to collect mitigation fees directly from developers and not require a programmed project on a five-year timeline for the purpose of creating equitable, multimodal connections (including pedestrian and bicycle facilities).
- VMT Consideration in State Facility Siting: VMT should be a significant consideration when constructing new facilities.

Transportation demand management:

- Car Free Lifestyle: Provide a financial incentive to low-to-moderate income workers and families who do not own a personal vehicle.

Transportation system management:

- State Environmental Policy Act (SEPA): Continue to proactively examine and revise the SEPA checklist, WAC 197-11-960. One such revision would be a focus on daily per capita VMT instead of vehicle trips or vehicle delay.
- Traffic Cameras for Investigation of Crashes with Vulnerable Users: Amend RCW 46.63.170(1)(a) to expand the use of all automated traffic safety cameras to be used in investigating crashes between drivers and active transportation users.
- VMT Mitigation in Capacity Expansion: Evaluate highway capacity expansion projects based on VMT reduction goals and exhaust operational efficiency per RCW 47.06.050 before advancing the projects. Change planning, project development, programming, and project funding

decisions to align with existing policy direction in RCW 47.06.050. Expand the requirement to enhance operational efficiency before capacity expansion beyond state-owned facilities. Additionally, monitor progress in California about VMT mitigation for development and transportation capital projects that would otherwise not meet regional VMT targets. Proposal under various stages of development and implementation includes VMT banks, VMT exchanges, and VMT impact fees.



# Appendix A: Lessons Learned from Other States

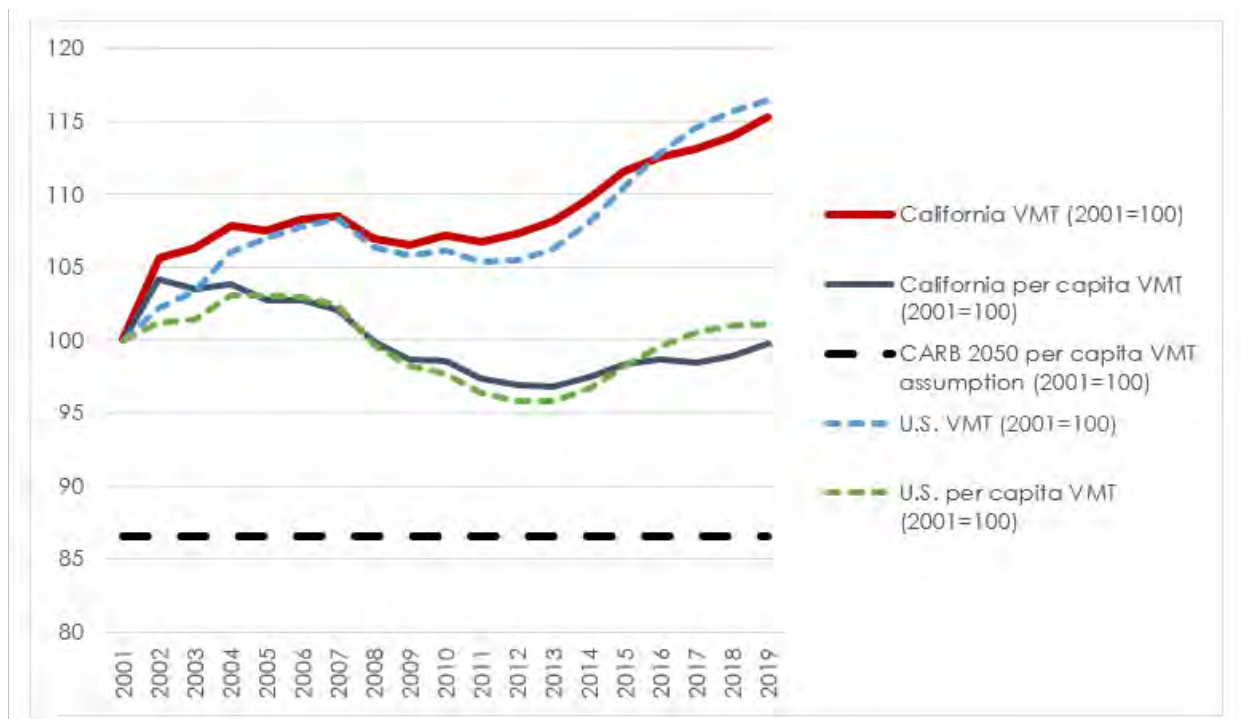
## California

California passed SB 375 in 2009 to reduce Greenhouse Gas (GHG) emission from cars and light trucks by 19% of 2005 levels by 2045. The bill was to implement a collaborative process between the California Air Resources Board (CARB) and the state’s 18 Metropolitan Planning Organizations (MPOs) to coordinate with regional housing and transportation planning.

MPOs were required to create a Sustainable Communities Strategy (SCS), which established land use, housing, transportation, and economic development goals to reduce VMT and GHG emissions as part of their Regional Transportation Plan (RTP). If an MPO cannot feasibly meet their GHG reduction target, an Alternative Planning Strategy (APS) is required to explore how key barriers can be addressed and identify other means of addressing climate change.

The CARB must report to the legislature every four years. However, a recent June 2022 report found that California has seen an increase of VMT and GHG emissions per capita (Exhibit 11).

**Exhibit 11. California Trends in VMT**



Source: Caltrans, 2023 <https://dot.ca.gov/programs/sustainability/sb-743/california-vmt-data>

In response to rising VMT and GHG per capita, the California Legislature passed SB 743 in 2013, which updated how transportation impacts are evaluated. Prior to the bill passing, under the California Environmental Quality Act (CEQA) review, projects were required to report out whether a new real estate or transportation project would affect traffic delays at intersections (Level of Service [LOS] analysis). SB 743 changed how transportation impacts are reviewed by pivoting projects to look at VMT instead. Through CEQA, lead review agencies can set VMT reduction strategies and performance

monitoring, if needed. Focusing on VMT reduction at a project level rather than LOS allows agencies to focus on prioritizing multi-modal transportation systems and more walkable neighborhoods. In comparison to SB 375, it allows for more direct VMT/GHG reduction programs and projects. However, it still lacks land use incentives.

## Colorado

In 2021, Colorado passed a Pollution Reduction Roadmap to reduce transportation emissions by 40% of 2005 levels by 2030. The intent of this bill is to prioritize projects and resources for regional transportation mobility options. The bill was also a collaborative process between Colorado Department of Transportation (CDOT) and the state's MPOs.

CDOT provides annual updates and a comprehensive report every three years on social, economic, transportation and VMT measures. MPOs are also required to provide additional updates as part of a Mitigation Action Plan (MAP) that they are required to develop. Like California's SB375 bill, it prioritizes VMT reduction through regional planning and policy.

## Oregon

In 2022, Oregon passed the Climate Friendly and Equitable Communities rules to facilitate more walkable, mixed-use neighborhoods within the state. The guidance applies to all eight of Oregon's MPOs in planning and implementing VMT reduction strategies through land use and transportation planning. MPOs are required to report annually on VMT.

## Comparison

There are some key distinctions among the four programs (California SB 375, California SB 743, Colorado, and Oregon):

- Two programs monitored GHG reduction as a key performance metric in comparison to VMT.
- Policies were applied variously at all levels, from an MPO all the way to a project basis.
- All programs required additional data and modelling and ongoing reporting.
- Only SB 743 had any consequences through the CEQA review process. Otherwise, MPOs/RTPOs in California, Oregon and Colorado have no loss of funding to regional planning organizations if they fall short of goals.

### Exhibit 12. Program Comparison

	CA SB375 / Colorado	CA SB 743	Oregon
<b>Primary performance metric</b>	% GHG reduction	VMT	VMT
<b>Jurisdiction Responsible</b>	MPO/DOT	Lead Agency	MPO
<b>How it's applied</b>	RTP/MPO level	Project Level (CEQA)	Plan and Project Level
<b>Data and Modeling</b>	Plan-based travel demand models	Detailed data and modelling	Detailed data and modelling
<b>Reporting</b>	Annual to periodic updates	Mitigation monitoring	Annual

<b>Consequence</b>	None to loss/reallocation of funding	Denial of project/action; full mitigation of VMT targets
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Source: Fehr and Peers, 2022.

# Appendix B: Potential Changes in Laws, Rules, and Agency Guidance

## Foundational VMT Rules

In the June 2022 interim VMT reduction report<sup>54</sup>, two recommendations were offered for consideration with respect to the baseline VMT value and the types of vehicles included in the tracking of VMT. These recommendations carry forward recommendations from the 2021 State Energy Strategy.<sup>55</sup> The first suggests moving to observed 2019 data with a value of 62.5 billion miles as a more accurate baseline than the 75-billion-mile benchmark currently used in RCW 47.01.440.<sup>56</sup> The second recommendation is to include all vehicles in the tracking of VMT, not only light-duty vehicles. This simplification would facilitate local target setting, recognize that light-duty and heavy-duty is not a consistent proxy for commercial travel, and open up consideration of solutions that would improve business operations by improving optimization and efficiency in the goods movement system.

Since the publication of the 2022 Interim Report, WSDOT conducted additional outreach with respect to these recommendations, especially with a broad group of freight partners. The recommendations remain virtually unchanged and are included in the narrative below. One notable clarification is that heavy-duty (freight) vehicle VMT should be monitored, estimated, and forecast alongside light-duty VMT, but there should not be per capita VMT reduction targets for heavy-duty vehicles. Future monitoring of heavy-duty VMT will help identify areas of potential improvement—e.g., the need for the provision of public truck parking areas as identified in the 2021 truck parking action plan,<sup>57</sup> and by extension, help removing inefficiencies in the way goods are delivered that can be influenced by public policies. However, targets for heavy-duty vehicles are not appropriate because freight vehicle travel is non-discretionary and closely associated with economic activities. The private sector generating heavy-duty VMTs have strong financial incentives to move goods in the most efficient ways they can, within the context of the public policy environment.

## Baseline VMT Value

The baseline total value for statewide annual VMT in RCW 47.01.440 is 75 billion miles. This value is based on 2008 data forecast to the year 2020. This value exceeds observed VMT for 2019 (the last year unaffected by the COVID-19 pandemic) by roughly 12.5 billion miles. This inflation of the baseline

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<sup>54</sup> Washington State Department of Transportation. (2022). Vehicle Miles of Travel (VMT) Targets—Interim Report. Retrieved from [https://wsdot.wa.gov/sites/default/files/2022-06/VMT-Targets-Interim-Report-June2022\\_0.pdf](https://wsdot.wa.gov/sites/default/files/2022-06/VMT-Targets-Interim-Report-June2022_0.pdf) on April 18, 2023.

<sup>55</sup> Washington State Department of Commerce. (2021). Washington State Energy Strategy. Retrieved from <https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/> on April 18, 2023.

<sup>56</sup> Revised Code of Washington. (2011). RCW 47.01.440—Adoption of statewide goals to reduce annual per capita vehicle miles traveled by 2050—Department's duties—Reports to the legislature. Retrieved from <https://apps.leg.wa.gov/rcw/default.aspx?cite=47.01.440> on April 18, 2023.

<sup>57</sup> Joint Transportation Commission. (2021). Truck Parking Action Plan. Retrieved from [https://leg.wa.gov/JTC/Documents/Studies/Truck%20Parking/Final\\_TruckParkingActionPlan\\_2021.pdf](https://leg.wa.gov/JTC/Documents/Studies/Truck%20Parking/Final_TruckParkingActionPlan_2021.pdf) on April 18, 2023.

obscures VMT trends since the passage of RCW 47.01.440 in 2008. Indeed, the 2021 Energy Strategy states that:<sup>58</sup>

*“In 2008, the state established long-term targets for reducing the VMT of light-duty vehicles statewide. These targets call for an 18% reduction in VMT per capita by 2020, a 30% reduction by 2030, and a 50% reduction by 2050. However, these targets are pegged to a statewide baseline of 75 billion VMT per year, which is substantially higher than Washington’s actual annual VMT. Although Washington is nominally close to achieving the 2020 target, growth in the state’s population has meant that VMT continues to grow in absolute terms even as VMT per capita has declined. In 2019 – the highest year yet – statewide VMT was 62.5 billion. The state should update the VMT baseline based on historical values and set targets that are achievable while contributing meaningfully to the state’s efforts to meet our greenhouse gas reduction limits.”*  
(Appendix C, P1)

#### *Potential change*

Change the baseline VMT value, as suggested in the State Energy Strategy, to be based on observed 2019 data because the value reflects an accurate and current figure, which is steady from year to year. This change would allow observed reductions to be based on behavior rather than an overly inflated starting figure.

## Vehicles Considered in VMT Reductions

Under RCW 47.01.440, WSDOT is directed to establish VMT reduction benchmarks “less the VMT attributable to vehicles under RCW 46.16A.455 and weighing ten thousand pounds or more.” In simple terms, this requirement excludes vehicles with more than six seats other than taxis, tractors, and pickup trucks.

WSDOT classifies vehicles based on the Federal Highway Administration’s 13 vehicle classifications. WSDOT’s reporting to date has focused on light-duty vehicles—i.e., motorcycles, cars, SUVs, and pickup trucks with no more than two axles and four tires. This classification mislabels commercial activity in personal vehicles—e.g., deliveries made from a passenger car, and personal activities in larger vehicles—e.g., an RV appears the same as a truck or bus. Light-duty and heavy-duty vehicles also have different characteristics with respect to VMT. During the pandemic, light-duty VMT went down while heavy-duty VMT stayed constant and in some instances rose, highlighting a need to focus on both.

The State Energy Strategy recommends measures to optimize freight VMT and plan and implement strategies to reduce freight VMT and GHG emissions. The Energy Strategy also recommends that state policies address freight congestion, bottlenecks, and optimize local connections to improve rail and shipping.

#### *Potential change*

Amend RCW 47.01.440 to include all vehicles to be consistent with the State Energy Strategy to provide an opportunity to improve efficiency in goods movement. Heavy-duty (freight) vehicle VMT

<sup>58</sup> Washington State Department of Commerce. (2021). Washington State Energy Strategy: Appendix C—Supplementary Material to Transportation Chapter. Retrieved from [https://www.commerce.wa.gov/wp-content/uploads/2021/01/Appendix-C\\_Supplementary-Materials-to-Transportation.pdf](https://www.commerce.wa.gov/wp-content/uploads/2021/01/Appendix-C_Supplementary-Materials-to-Transportation.pdf)

should be monitored, estimated, and forecast alongside light-duty VMT, but there should not be per capita VMT reduction targets for heavy-duty vehicles. A broader discussion of this topic is on page 41.

## Potential Changes Detailed Review

### Access Control Classification

#### *Current issue*

The current managed access control classification system and standards as defined under Chapter 468-52 WAC are not responsive to the context of state highways and are often at odds with providing a safe environment for users of all forms of transportation.<sup>59</sup> Most of the classes require revision to ensure consistency with best traffic safety practices. For example, class three facilities are meant to have “moderate travel speeds and moderate traffic volumes for medium and short travel distances” yet allow for travel speeds up to 40 miles per hour.

#### *Example*

WSDOT already informs engineering decisions with a Safe System Approach and aims to reduce crash forces to proactively address safety.<sup>60</sup> WSDOT is also working to implement Complete Streets under RCW 47.24.060.<sup>61</sup> Furthermore, the Transportation Research Board recently released a guidebook on Roadway Cross-Section Reallocation intended to assist decision makers in making streets successful for livability, health, safety, economic development, and other community purposes, and not just for vehicle movements.<sup>62</sup>

#### *Potential change*

Revise the highway classification system to respond to context and be grounded in the Safe System Approach and the Transportation Research Board guidebook on Roadway Cross-Section Reallocation. The classification should include fewer classes. In addition, the distinction of urban and rural areas is antiquated and should be replaced with “population centers” (cities, towns, census designated places, and locations within urban growth boundaries) as defined within the Active Transportation Plan and Move Ahead Washington.<sup>63</sup> The enabling statute, RCW 47.50.090, does not need additional change.<sup>64</sup>

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<sup>59</sup> Washington Administrative Code. (1999). WAC 468-52-040—Access Control Classification System and Standards. Retrieved from <https://app.leg.wa.gov/WAC/default.aspx?cite=468-52-040> on April 18, 2023.

<sup>60</sup> Federal Highway Administration. (2022). The Safe System Approach: How States and Cities Are Saving Lives. Retrieved from <https://highways.dot.gov/public-roads/winter-2022/06> on April 18, 2023.

<sup>61</sup> Revised Code of Washington. (2022). RCW 47.24.060—Street Access—Principles of complete streets—Requirements. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.24.060> on April 18, 2023.

<sup>62</sup> National Academies of Sciences, Engineering, and Medicine. (2022). Roadway Cross-Section Reallocation: A Guide. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26788>. Retrieved from <https://www.trb.org/Publications/Blurbs/182870.aspx> on April 18, 2023.

<sup>63</sup> Washington State Department of Transportation. (2020). Active Transportation Plan, 2020 and Beyond. Retrieved from <https://wsdot.wa.gov/sites/default/files/2021-12/ATP-2020-and-Beyond.pdf> on April 18, 2023.

<sup>64</sup> Revised Code of Washington. (1995). RCW 47.50.090—Access management standards. Retrieved from <https://app.leg.wa.gov/rcw/default.aspx?cite=47.50.090> on April 27, 2023.

## Biking Regulations

### *Current Issue*

The legal landscape for bicycling is disjointed and unclear, creating multiple barriers to the cohesive construction, operations, and maintenance of safe and inviting bicycling infrastructure. Consistent regulation on bicycling is needed to support cycling as a form of transportation.

### *Example*

In 2021, the Cooper Jones Active Transportation Safety Council (ATSC) highlighted that driver speed is directly linked to the severity of a crash. Speed is the primary variable in the energy transferred in a crash, and for those walking and rolling, even a small increase in speed significantly increases the risk of serious injury and death. Wide, fast, busy roads discourage shifts to active transportation for those who have multiple options and create the potential for increased injury and death of nondrivers who do not have all modes available. The ATSC made several recommendations to change existing law regarding speed and clarifying pedestrian use of public roadways. In 2022, Senate Bill 5687 acted on the recommendation and local authorities are now permitted to establish a 20-mph speed limit on nonarterial highways without first conducting an engineering and traffic investigation.<sup>65</sup>

### *Potential change*

Comprehensively revise all bicycling related statutes to provide clear and consistent regulation of bicycling, encouraging it as a form of transportation. In 2023, the legislature passed Engrossed Substitute House Bill 1853<sup>66</sup> and defines “Active Transportation” as:

Forms of pedestrian mobility including walking or running, the use of a mobility assistive device such as a wheelchair, bicycling and cycling irrespective of the number of wheels, and the use of small personal devices such as foot scooters or skateboards. Active transportation includes both traditional and electric assist bicycles and other devices. Planning for active transportation must consider and address accommodation pursuant to the Americans with Disabilities Act and the distinct needs of each form of active transportation.

The same legislation also defines and clarifies shared-use paths:

"Shared-use path," also known as a "multiuse path," means a facility designed for active transportation use and physically separated from motorized vehicular traffic within the highway right of-way or on an exclusive right-of-way with minimal crossflow by motor vehicles. Shared-use paths are primarily used by pedestrians and people using bicycles or micromobility devices, including those who use nonmotorized or motorized wheeled mobility or assistive devices. With appropriate design considerations, equestrians may also be accommodated by a shared-use path facility.

In addition to these recent changes, the following definitions should also be revised:

- Definitions

<sup>65</sup> Cooper Jones Active Transportation Safety Council. (2022). 2022 Annual Report for Cooper Jones Active Transportation Safety Council. Retrieved from [http://wtsc.wa.gov/wp-content/uploads/dlm\\_uploads/2022/12/Cooper-Jones-Active-Transportation-Safety-Council-Report-to-Legislature\\_Dec-2022.pdf](http://wtsc.wa.gov/wp-content/uploads/dlm_uploads/2022/12/Cooper-Jones-Active-Transportation-Safety-Council-Report-to-Legislature_Dec-2022.pdf) on June 25, 2023.

<sup>66</sup> Washington State Legislature. (2023). Engrossed Substitute House Bill 1853. Retrieved from <https://app.leg.wa.gov/billsummary?BillNumber=1853&Initiative=false&Year=2023> on April 27, 2023.

- Add to definitions in RCW 47.04.010 (Definitions within the Public Highways and Transportation chapter):<sup>67</sup>
  - Bicycle: Should be cross-referenced to existing code in 46.04.071 (Motor Vehicles title).<sup>68</sup>
    - "Bicycle" means every device propelled solely by human power, or an electric-assisted bicycle as defined in RCW 46.04.169, upon which a person or persons may ride, having two tandem wheels either of which is sixteen inches or more in diameter, or three wheels, any one of which is twenty inches or more in diameter.
  - Signal cycle length
    - Clarify “dead-red” rule (RCW 46.61.184) to define signal cycle length to address scenarios in which a person operating a bicycle would not be able to determine if a complete cycle has passed due to the absence of other vehicles in the intersection and to address a signal with multiple phases when some may not occur.<sup>69</sup>
- Trails Statute – Chapter 47.30 RCW<sup>70</sup>
  - Under RCW 47.30.030 remove the restriction to consider only “motor vehicle safety” and adopt “safety of all travelers.” Additionally, include a statement that active transportation traffic materially increases safety and efficiency for all modes.
  - Add an authorization for construction of a shared-use path or other active transportation facility if requested by a local agency or included in a local, regional, or tribal plan.
  - Under RCW 47.30.040, delete “(2) The cost of such paths and trails as compared to the need or probable use.”
  - Under RCW 47.30.040, remove (3), which has been interpreted as requiring a path or trail to be included in a “plan for a comprehensive trail system” before it can be considered.
  - Under RCW 46.04, define “intersection” to include the intersection of a trail or shared-use path and a street, road, or highway.
- Reconsider who has the right-of-way in the definition of an alley in RCW 46.04.020<sup>71</sup> and intersection area in RCW 46.04.220.<sup>72</sup>
- Allow context-based speed limit establishment as a matter of policy without requiring a study, following the recommendations in the injury minimization policy framework.

<sup>67</sup> Revised Code of Washington. (2023). RCW 47.04.010. Public Highways and Transportation, General Provisions, Definitions. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.04.010> on June 25, 2023.

<sup>68</sup> Revised Code of Washington. (2019). RCW 46.04.071. Bicycle. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=46.04.071> on June 25, 2023.

<sup>69</sup> Revised Code of Washington. (2015). RCW 46.61.184-- Bicycle, moped, or street legal motorcycle at intersection with inoperative vehicle detection device. Retrieved from <https://apps.leg.wa.gov/rcw/default.aspx?cite=46.61.184> on April 18, 2023.

<sup>70</sup> Revised Code of Washington. (1979). RCW 47.30. Trails and Paths. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.30> on June 25, 2023.

<sup>71</sup> Revised Code of Washington. (1961). RCW 46.04.020. Alley. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=46.04.020> on June 25, 2023.

<sup>72</sup> Revised Code of Washington. (1975). RCW 46.04.220. Intersection area. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=46.04.220> on June 25, 2023.



## Car Free Lifestyle

### *Current Issue*

Vehicles cost thousands of dollars to purchase, require ongoing maintenance expenditures, and can be costly to park, leaving many people unable to afford a car. Many users of the transportation network cannot drive due to various factors including disabilities and require other means to get to where they need and want to go. Transit fares and bicycle equipment can also be difficult for people with low incomes to afford.

### *Example*

California considered legislation in 2022 that would have created a \$1,000 refundable tax credit for low-income Californians who do not own vehicles.<sup>73</sup> Single filers making up to \$40,000 per year and joint filers making up to \$60,000 per year were eligible for the refundable tax credit.<sup>74</sup> The policy was aimed to help people use other forms of transportation on a network designed primarily for single-occupancy vehicles.<sup>75</sup>

### *Potential change*

Provide a tax credit / rebate to low-to-moderate income workers and families who do not own a personal vehicle. Under RCW 82.08.0206, allow people who are eligible for the working families' tax credit to declare the number of registered vehicles with the Department of Licensing.<sup>76</sup> Those that declare zero vehicles would be eligible for an additional \$1,000 tax credit / rebate to promote the use of other forms of transportation, alleviate financial challenges, and support multimodal travel for social and economic opportunity.

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<sup>73</sup> California Legislature. (2021). Senate Bill-457: Personal income taxes: credit: reduction in vehicles, 2021-2022. Retrieved from [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=202120220SB457](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB457) on June 25, 2023.

<sup>74</sup> Osaka, S. (2022). Why California Wants to Give Residents \$1,000 not to have a car. *Washington Post*. Retrieved from <https://www.washingtonpost.com/climate-environment/2022/09/01/why-california-wants-give-residents-1000-not-have-car/> on April 7, 2023.

<sup>75</sup> California State Senator Anthony Portantino. (2022). Portantino Bill Implementing Car Free Incentive Program Headed to Governor's Desk. Retrieved from <https://sd25.senate.ca.gov/news/2022-08-31/portantino-bill-implementing-car-free-incentive-program-headed-governor%E2%80%99s-desk> on April 7, 2023.

<sup>76</sup> Revised Code of Washington. (2022). RCW 82.08.0206. Credits—Working families—Eligible low-income persons—Penalties. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=82.08.0206> on June 25, 2023.

## Concurrency and Highways of Statewide Significance

### Current Issue

RCW 36.70A.070(6)(a)(iii)(C) states that, “...the concurrency requirements of (b) of this subsection do not apply to transportation facilities and services of statewide significance.”<sup>77</sup>

Section (b) provides that “After adoption of the comprehensive plan by jurisdictions required to plan or who choose to plan under RCW 36.70A.040, local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development.”<sup>78</sup>

By excluding highways of statewide significance from concurrency requirements, this provides a perverse incentive for approaches to development that generate a high number of vehicle trips and rely directly on the state highway system to absorb those trips without providing for local multimodal networks.

### Example

Bellevue<sup>79</sup> and Bellingham<sup>80</sup> are two cities that have implemented multimodal concurrency requirements. Bellingham “provides a unique but very transferable method of integrating land use context and densities with multimodal transportation facilities and services, both to comply with GMA Concurrency requirements and to implement Bellingham’s infill land use strategy and multimodal transportation policies in the comprehensive plan.”<sup>81</sup> In Bellevue the concurrency system uses mobility units (MU) to determine if the supply of transportation system improvements is sufficient to meet the demand of MUs from development projects. Mobility units consider all travel modes, not simply driving.<sup>82</sup>

Conversely, the City of Spokane annexed rural land in 1981 but did not install arterial streets. After development and more housing were proposed, nearly \$500 million in safety improvements on SR 195 were requested. Partnering with land use groups created a reasonable build-out plan. However, the problems—including multiple serious and fatal crashes—could have been avoided and the public cost

<sup>77</sup> Revised Code of Washington. (2022). RCW 36.70A.070(6)(a)(iii)(C). Comprehensive plans—Mandatory elements. Retrieved from <https://app.leg.wa.gov/rcw/default.aspx?cite=36.70a.070> on June 25, 2023.

<sup>78</sup> Revised Code of Washington. (2022). RCW 36.70A.070(6)(b). Comprehensive plans—Mandatory elements. Retrieved from <https://apps.leg.wa.gov/rcw/default.aspx?cite=36.70a.070> on June 25, 2023.

<sup>79</sup> City of Bellevue. (2022). Bellevue Municipal Code Ch. 14.10. Multimodal Concurrency Code. Retrieved from <https://bellevue.municipal.codes/BCC/14.10.005> on June 25, 2023.

<sup>80</sup> City of Bellingham. (2009). Bellingham Municipal Code Ch. 13.70. Multimodal Transportation Concurrency Management. Retrieved from <https://bellingham.municipal.codes/BMC/13.70> on June 25, 2023.

<sup>81</sup> Municipal Research and Services Center. (2023). Concurrency. Retrieved from <https://mrsc.org/explore-topics/planning/general-planning-and-growth-management/concurrency> on June 25, 2023.

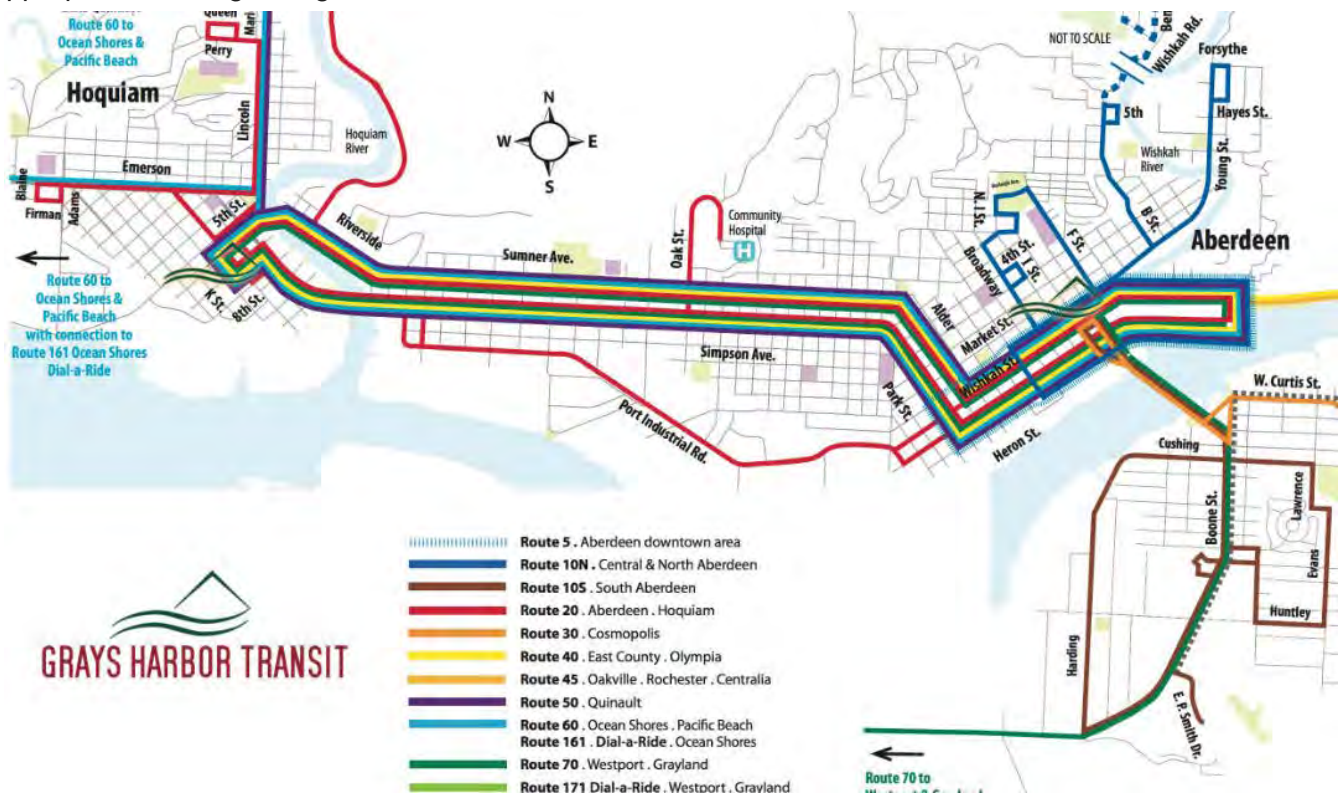
<sup>82</sup> City of Bellevue Development Services. (2023). Concurrency, Transportation Codes and Guidelines. Retrieved from <https://bellevuewa.gov/city-government/departments/development/codes-and-guidelines/transportation-codes-and-guidelines/concurrency> on April 7, 2023.

much lower if a local network had been constructed instead of triggering costly changes on the state highway with no path to fund them.<sup>83</sup>

*Potential change*

Remove the highway of statewide significance exemption and require that concurrency requirements apply to transportation facilities and services of statewide significance along with a focus on multimodal capacity, not solely vehicular capacity. Implementation should be carefully constructed to ensure continued promotion of infill development near transit.

As a visual example, if the law is amended, development along Highway 101 in Aberdeen would no longer be exempt from concurrency and would be required to ensure that all users of the road have adequate access to the transit routes along highway 101, and safe biking access, along with appropriate walking/rolling infrastructure.



<sup>83</sup> Millar, R. (2023). State of Transportation: Maintaining a resilient transportation system in a rapidly changing world. Retrieved from <https://wsdot.wa.gov/sites/default/files/2023-01/2023-state-of-transportation.pdf> on May 3, 2023.

## Leapfrog Developments Across Highways and Active Transportation Infrastructure

### *Current issue*

When land is developed across a highway and is isolated from existing developed areas, currently the development does not need to address the new demand for active transportation facilities necessary to connect communities on each side of the highway. This is a related issue to highways of statewide significance being exempt from concurrency requirements, (discussed on page 59). Below is an example of a town that has developed away from the highway. Adding development on the other side of the highway creates disconnected communities that are reliant on cars.



### *Example*

To avoid leapfrog development in the first place and comply with land use and other GMA goals directing growth to areas with existing infrastructure, Jefferson County designates development tiers in their comprehensive plan.<sup>84</sup> The tiers involve encouraging development in urban cores first, and then in areas with planned services during the lifecycle of the 20-year plan. Communities such as Sequim have championed the construction of highway by-passes to move high-speed traffic out of the core of their communities and create a more compact community that makes it easier to walk or bike for short local trips.

### *Potential change*

Require local jurisdictions and developers to fund and construct facilities for walking and bicycling that meet state standards for level of traffic stress 1 if they construct greenfield development on the opposite side of a state highway from existing development. Development changes the context of land. A high-speed highway that bypasses a community is an appropriate facility for its context. If development changes the context of that highway, it should also be responsible for changing the highway or providing a grade separated crossing. Options could include construction of a protected intersection or roundabout, reallocation of existing space to active transportation modes, expanding the cross section to accommodate active transportation modes, and measures to reduce driving speeds or increase separation to achieve the target level of traffic stress and consistency with the Safe System approach. Require local jurisdictions and developers to submit Traffic Impact Analysis to WSDOT if greenfield development on the opposite side of a state highway from existing development generates trips to or across state highways.

<sup>84</sup> Jefferson County. (2018). Jefferson County Comprehensive Plan. Retrieved from [https://test.co.jefferson.wa.us/WeblinkExternal/0/edoc/1924551/Jefferson%20CP%202018\\_12.pdf](https://test.co.jefferson.wa.us/WeblinkExternal/0/edoc/1924551/Jefferson%20CP%202018_12.pdf) on April 11, 2023.

## Parking Regulations

### Current issue

Free or cheap parking increases vehicle trips.<sup>85</sup> The seminal book on this topic, *The High Cost of Free Parking*, argues that when a person seeks to find a parking space, the appropriate number of spaces available should be exactly one.<sup>86</sup> If there is more than one spot available, the use of land for parking is inefficient. If there are no spaces available, the cost of parking should be increased.

Parking is rarely the highest and best use of land. Parking is costly to build and pushes other uses of land farther apart, making it more difficult to construct housing, businesses, and services, as well as making it more difficult for people to walk or bike to their daily destinations.

### Example

Washington state already recognizes that less parking is needed in locations that are well served by transit. There are caps on minimum parking for a variety of housing types and no parking requirements for Accessory Dwelling Units (ADUs) within a quarter mile of major transit stops.<sup>87,88</sup> Passed during the 2023 legislative session, House Bill 1110 authorized middle housing in previously single-family zoned areas near transit facilities and removed or lessened parking requirements for middle housing within a half mile of a major transit stop.<sup>89</sup>

### Potential changes

At a minimum, it is recommended that RCW 36.70A.040 related to minimum parking requirements be amended to remove all parking requirements for transportation efficient communities (discussion on page 81) or major transit stops with the exception for parking for persons with disabilities. However, going further and removing all parking requirements from all locations would be preferred. The removal of the requirements would not prohibit anyone from providing parking.<sup>90,91</sup> Rather, in places where the market warrants it, it would have the effect of reducing the cost of developing housing (and other uses) by removing unneeded parking and by extension, promoting other available modes. The City of Spokane recently passed an ordinance allowing bicycle parking to count toward parking minimums, which is another tool to encourage if minimums are not removed entirely.

<sup>85</sup> Millard-Ball, A., West, J., Rezaei, N., and Desai, G. (2021). What do residential lotteries show us about transportation choices? *Urban Studies*. 59(2)—434-452.

<sup>86</sup> Shoup, D. (2011). *The High Cost of Free Parking*. Routledge. London and New York.

<sup>87</sup> Revised Code of Washington. (2020). RCW 36.70A.620. Cities planning under RCW 36.70A.040—Minimum residential parking requirement. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=36.70A.620> on April 4, 2023.

<sup>88</sup> Revised Code of Washington. (2020). RCW 36.70A.698. Accessory dwelling units—Off-street parking—When prohibited. Retrieved from <https://app.leg.wa.gov/rcw/default.aspx?cite=36.70A.698> on April 4, 2023.

<sup>89</sup> Washington State Legislature. (2023). Engrossed Second Substitute House Bill 1110. Retrieved from <https://lawfilesexternal.wa.gov/biennium/2023-24/Pdf/Bills/House%20Passed%20Legislature/1110-S2.PL.pdf?q=20230511125716> on May 11, 2023.

<sup>90</sup> Pool, L. (2022). Parking reform advances climate action, housing affordability, and more: part 1. Retrieved from <https://mrsc.org/stay-informed/mrsc-insight/october-2022/parking-reform-advances-climate-action> on May 23, 2023.

<sup>91</sup> Pool, L. (2022). Parking reform: part 2. Retrieved from <https://mrsc.org/stay-informed/mrsc-insight/october-2022/parking-reform-part-2> on May 23, 2023.

## Presumed Liability for Drivers who Hit People Not in a Motor Vehicle

### Current Issue

People walking and bicycling are inherently more vulnerable in a crash with a motor vehicle. When drivers are not held responsible, vulnerable transportation users or their survivors are left with both physical and monetary impacts of a crash.

### Example

Washington state case law already has a presumed liability for rear-end collisions.<sup>92</sup> “While the following driver has the primary duty of avoiding an accident [they are] not necessarily guilty of negligence as a matter of law simply because [they] collide with the vehicle in front of [them]. A prima facie showing of negligence may be overcome by evidence that some emergency or unusual condition not caused or contributed to by the following driver caused the collision.”<sup>93,94</sup>

By way of comparison, users of the King County Parks and Recreation trail network adhere to a presumed liability if traveling over 15mph. “Travel at speeds in excess of 15 miles per hour shall constitute in evidence a prima facie presumption that the person violated this section.”<sup>95</sup> Cyclometers are not standard equipment on bicycles/tricycles so a rider may not even be able to know they are traveling over 15 mph, making this all but unenforceable. Bicycles and micromobility devices carry far less kinetic energy into a collision than a driver of a motor vehicle of any size, and motor vehicle size continues to expand and to contribute to the increased rates of serious injury and death.

### Potential change

Presume liability for drivers who collide with people not in motor vehicles. Under Chapter 46.61 RCW, rules of the road, explore adding a section to include statutorily that when a motor vehicle collides with someone not in a car, the driver is presumed liable.<sup>96</sup> Such a change would also be in concert with legislation passed in 2023 related to negligent driving and vulnerable users.<sup>97</sup> Actions that increase safety for active transportation modes promote use of those modes and by extension reduce VMT.

<sup>92</sup> [Vanderhoff v. Fitzgerald](#), 72 Wn.2d 103, 105–06, 431 P.2d 969 (1967).

<sup>93</sup> *Id.*

<sup>94</sup> *Rojas v Grant County Public Utility Dist.* 117 Wn. App 694, 698, 72 P.3d 1093 (2003)

<sup>95</sup> King County Council. (2022). 7.12.295(A). Parks and Recreation, Rules for Use of Facilities. Retrieved from [https://kingcounty.gov/council/legislation/kc\\_code/10\\_Title\\_7.aspx](https://kingcounty.gov/council/legislation/kc_code/10_Title_7.aspx) on June 25, 2023.

<sup>96</sup> Revised Code of Washington. (1997). RCW 46.61. Rules of the Road. Retrieved from <https://apps.leg.wa.gov/rcw/default.aspx?cite=46.61> on June 25, 2023.

<sup>97</sup> Washington State Legislature. (2023). House Bill 1112—Imposing criminal penalties for negligent driving involving the death of a vulnerable user victim. Retrieved from <https://app.leg.wa.gov/billsummary?BillNumber=1112&Initiative=false&Year=2023> on May 11, 2023.

## Regional Mobility Grants

### *Current issue*

The current limitation on eligible recipients excludes several potential service providers. The excluded providers include entities that currently deliver public transportation services, described in the Summary of Public Transportation.<sup>98</sup>

### *Example*

The Regional Mobility Grant program successfully delivers projects related to “vehicle and equipment purchases, capital construction, operations, and transportation demand management.”<sup>99</sup> The program provides funding to transit agencies and departments of transportation to construct and operate varied projects—e.g., station areas, connections to transit hubs, etc.

### *Potential change*

Amend RCW 47.66.140(4) to make more types of agencies and organizations eligible for the program including tribes, non-profits, regional and metropolitan planning organizations.<sup>100</sup> Nonprofits are currently eligible for operating and capital equipment projects exclusively. Directly connect the allowable agencies in this section with RCW 47.66.130 on Regional Mobility Grants.<sup>101</sup>

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<sup>98</sup> Washington State Department of Transportation. (2022). 2021 Summary of Public Transportation. Retrieved from <https://www.wsdot.wa.gov/publications/manuals/fulltext/m3079/spt.pdf> on April 12, 2023.

<sup>99</sup> Washington State Department of Transportation. (2023). Regional Mobility. Retrieved from <https://wsdot.wa.gov/business-wsdot/grants/public-transportation-grants/grant-programs-and-awards/regional-mobility> on April, 12 2023.

<sup>100</sup> Revised Code of Washington. (2022). Transit Support Grant Program. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.66.140> on April 12, 2023.

<sup>101</sup> Revised Code of Washington. (2015). Regional Mobility Grants. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.66.030> on April 12, 2023.

## Restrictive Zoning

### *Current issue*

Land use change has the potential to reduce vehicles miles of travel by up to 65% in urban areas.<sup>102</sup> In many cities across Washington, the majority of land has been historically zoned for single family housing—e.g., 53% in Olympia, 65% in Seattle, and 60% in Spokane.<sup>103</sup> With so much land reserved for low-density housing, the construction of housing at a variety of price points near destinations has not kept up with demand. Many people cannot afford to live near the activities they wish to participate in, and must live further away often with no choice but to drive as opposed to riding transit, walking, or bicycling.

It is urgent to address land use and zoning changes, especially because these changes take time. The decisions we make today will be felt in housing developments in decades to come and should be viewed as more critical than measures whose smaller impacts will be felt in the near term.

### *Example*

There are several ways exist to increase housing supply and improve affordability. Allowing Accessory Dwelling Units (ADUs) and middle housing—e.g., duplexes and triplexes, add to the supply of homes without the costs and complexities of high-rise development associated with urban cores.

As an example, the City of Olympia began a process to allow additional housing types in 2016. They relaxed parking and owner occupancy requirements for ADUs and allowed duplexes and triplexes to be built in low-density residential zones, especially close to transit service.<sup>104</sup> The Municipal Research and Services Center (MRSC) provides examples from several other Washington cities that include development code to specifically address ADUs and middle housing, including the cities of Issaquah, Port Orchard, Port Townsend, and Puyallup<sup>105</sup>.

This topic has been addressed at a statewide level through the passage of House Bill 1110 in the 2023 session related to middle housing.<sup>106</sup>

### *Potential change*

Monitor the outcomes stimulated by House Bill 1110 (middle housing) and House Bill 1337 (ADUs). Consider further changes that support additional construction of housing and a mix of uses in transportation-efficient communities (discussed on page 81), including TODs. Structure policies and incentives that consider equity, avoid displacement as density is increased, and create affordable housing where activities are close to each other.

<sup>102</sup> California Air Pollution Control Officers Association. (2010). Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. Retrieved from <http://www.aqmd.gov/docs/default-source/ceqa/handbook/capcoa-quantifying-greenhouse-gas-mitigation-measures.pdf> on April 3, 2023.

<sup>103</sup> Millar, R. (2023). Maintaining a Resilient Transportation System in a Rapidly Changing World. Presentation to the House Transportation Committee. Retrieved from <https://wsdot.wa.gov/sites/default/files/2023-01/2023-state-of-transportation.pdf> on April 3, 2023.

<sup>104</sup> Bauer, L. (2019). Finding 'Missing Middle' Housing. Retrieved from <https://mrsc.org/stay-informed/mrsc-insight/march-2019/finding-missing-middle-housing-part-1> on April 3, 2023.

<sup>105</sup> Municipal Research and Services Center. (2022). Missing Middle Housing. Retrieved from <https://mrsc.org/explore-topics/planning/housing/missing-middle-housing> on April 3, 2023.

<sup>106</sup> Washington State Legislature. (2023). Engrossed Second Substitute House Bill 1110. Retrieved from <https://lawfilesexternal.wa.gov/biennium/2023-24/Pdf/Bills/House%20Passed%20Legislature/1110-S2.PL.pdf?q=20230511125716> on May 11, 2023.



## RTPOs Certification of Comprehensive Plans

### *Current issue*

Under RCW 47.80.023(3),<sup>107</sup> RTPOs are required to certify that local jurisdiction comprehensive plans are consistent with the regional transportation plan and conform to the Growth Management Act. However, local jurisdictions are not currently required to have their plans certified. Under current law it is not clear when and how often plans need to be certified. Certification is uneven across the state due to lack of resources and no requirement for certification.

### *Example*

The Puget Sound Regional Council (PSRC) has had a plan review process formalized since 2003.<sup>108</sup> The review process details include elements within three types of reviews: local comprehensive plans, countywide and multicounty policies, and consistency with transit agency plans. The approach at PSRC is unique in that only jurisdictions with certified plans may apply for funding within the Regional Transportation Improvement Program.

### *Potential change*

Language should be added within the Growth Management Act (Chapter 36.70A RCW<sup>109</sup>) to create a reciprocal relationship where local jurisdictions are required to have the transportation elements of their comprehensive plans certified by RTPOs at every update cycle or amendment, (consistent with current law). A potential location for the addition is RCW 36.70A.100,<sup>110</sup> which specifies requirements for local comprehensive plans to be consistent and coordinated with neighboring jurisdictions. RTPOs will require financial support to comply with this additional focus on certification. In addition, given the importance of land use action on transportation, add certification of land use elements to the requirements.

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<sup>107</sup> Revised Code of Washington. (2009). RCW 47.80.023—Regional Transportation Planning Organizations—Duties. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.80.023> on May 11, 2023.

<sup>108</sup> Puget Sound Regional Council. (2023). Plan Review. Retrieved from <https://www.psrc.org/our-work/plan-review> on March 20, 2023.

<sup>109</sup> Revised Code of Washington. Chapter 36.70A RCW—Growth Management—Planning by selected counties and cities. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=36.70A> on May 11, 2023.

<sup>110</sup> Revised Code of Washington. (1990). RCW 36.70A.100—Comprehensive plans—Must be coordinated. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=36.70A.100> on May 11, 2023.

## School Siting

### *Current issue*

School location constrains daily travel patterns for families, forms children’s perception of normal travel, and often contributes significantly to local congestion, particularly during peak travel times. Depending on the school district, anywhere from 10 to 30 percent of traffic congestion during morning and afternoon peak periods comes from parents dropping off and picking up their children at school.<sup>111</sup> Current rules for land needed by schools make infill development unattractive and unfeasible pushing new construction to transportation inefficient locations that place a high travel burden on families and school districts—e.g., within proximity to highways or locations where land is cheaper. The state Active Transportation Plan reported results of the 2019 statewide student travel survey, which found fewer schoolchildren walking and bicycling to school than has been the case in the past; in 1969 50% of all children in the US walked or biked to school.

### *Example*

California law requires separation of schools from heavy traffic for safety and pollution exposure reasons. The law states that “The site shall not be adjacent to a road or freeway that any site-related traffic and sound level studies have determined will have safety problems” and that “The site shall not be on major arterial streets with a heavy traffic pattern as determined by site-related traffic studies.”<sup>112</sup>

### *Potential change*

Add a new section to Title 28A RCW —Common School Provision that makes proximity to students’ homes and potential for safe walking, bicycling, and transit routes one of the primary factors in school site selection for both construction of new schools and districting decisions.<sup>113</sup> In addition, amend the WAC, section 392-342-020(2) to relax school building requirements to be less land intensive, so they can be better suited to infill development.<sup>114</sup> Relax parking requirements for schools encouraging siting in infill areas. Explicitly require cities or counties to construct complete active transportation connections from housing to schools when schools are constructed.

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<sup>111</sup> Washington State Department of Transportation (2021). Active Transportation Plan 2020 and Beyond. Retrieved from <https://wsdot.wa.gov/construction-planning/statewide-plans/active-transportation-plan> on June 6, 2023.

<sup>112</sup> Title 5, California Code of Regulations. Division 1, Chapter 13, Subchapter 1—School Facilities Construction—Article 1. General Standards. Retrieved from <https://www.cde.ca.gov/ls/fa/sf/title5regs.asp> on April 12, 2023.

<sup>113</sup> Revised Code of Washington. Section 28A—Common School Provision. Retrieved from <https://apps.leg.wa.gov/rcw/default.aspx?Cite=28A> on April 12, 2023.

<sup>114</sup> Washington Administrative Code. (2010). Section 392-342-020—Public Instruction, Superintendent Of—State Assistance In Providing School Plant Facilities—Educational Specifications And Site Selection—Site Review and Evaluation. Retrieved from <https://app.leg.wa.gov/WAC/default.aspx?cite=392-342-020> on April 12, 2023.

## SEPA

### *Current Issue*

When vehicle-based Level of Service (LOS) is used to compel construction of additional vehicle capacity instead of multimodal facilities, additional driving is induced and other forms of transportation are less appealing due to exposure to crash risk, noise, and exhaust.

### *Example*

In January of 2023, the SEPA checklist under WAC 197-11-960 was modified, removing the inquiry about parking spaces.<sup>115</sup> Other improvements to the checklist compared to previous versions include adding consideration of active forms of transportation such as bicycling and pedestrian mobility.

### *Potential change*

Continue to proactively examine and change the SEPA checklist in WAC 197-11-960 to be more multimodal in focus.<sup>116</sup> One such change would be a focus on daily per capita VMT instead of vehicle trips or vehicle delay. Other changes should include adding to the lists of infrastructure in part 14 Transportation to include sidewalks and bicycling facilities and expanding mitigation strategies to include reducing automobile trips and increasing transit and active transportation.

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<sup>115</sup> Washington State Department of Ecology. (2022). Expedited rulemaking to amend state SEPA rules. Retrieved from <https://ecology.wa.gov/Blog/Posts/December-2022/Expedited-rulemaking-to-amend-state-SEPA-rules> on April 7, 2023.

<sup>116</sup> Washington Administrative Code. (2022). WAC 197-11-960. Environmental Checklist. Retrieved from <https://apps.leg.wa.gov/wac/default.aspx?cite=197-11-960> on June 25, 2023.

## Sidewalk Infrastructure

### Current Issue

Many people with disabilities, older adults, and parents with children struggle to get around when sidewalks are missing, too narrow, or in bad condition. Policies that force adjacent property owners to shoulder the full cost of sidewalk construction and repair can be a financial burden, especially in low-income neighborhoods.

Although jurisdictions are not responsible for maintaining the sidewalk, they cannot absolve themselves of liability. The court in *Rivett v. Tacoma* invalidated Tacoma's ordinance provisions that imposed liability upon abutting property owners for damages caused by defective sidewalks, regardless of fault.<sup>117</sup>

Abutting property owners are responsible for the physical maintenance of sidewalks. The Seattle Department of Transportation explains that “Streets and sidewalks are for everyone’s use.... What some property owners do not realize is that they are responsible for maintaining part of the right-of-way next to their property, including the sidewalk and planting strip, or the roadway shoulder if unimproved... Property owners are responsible for maintaining the sidewalks adjacent to their property. They must make sure snow and ice does not pose a hazard to pedestrians. They must also repair cracks and other damage.”<sup>118</sup> No other form of transportation depends on individual property owners for construction and maintenance.

RCW 35.68.010; sidewalks, gutters, curbs, and driveways—all cities and towns; allows any city to require the abutting property owner to construct the improvement at the owner's own cost or expense, or to assess all or any portion of the costs thereof against the abutting property owner.<sup>119</sup> RCW 35.69.020 confers the same responsibility to first and second class cities.<sup>120</sup> RCW 35A.47.020 confers the same provisions to code cities.<sup>121</sup>

MRSC explains that “city and town governments in Washington are classified according to their population at the time of organization (usually incorporation) or reorganization. There are four classification types: first class city, second class city, code city, and towns, all of which have different powers under state law.”<sup>122</sup>

<sup>117</sup> *Rivett v. City of Tacoma*, 123 Wn.2d 573, 870 P.2d 299 (1994), abrogated by *Yim v. City of Seattle*, 194 Wn. 2d 682, 451 P.3d 694 (2019).

<sup>118</sup> City of Seattle. (2023). Property Owners' Responsibilities. Retrieved from <https://www.seattle.gov/transportation/projects-and-programs/programs/maintenance-and-paving/property-owners-responsibilities> on April 7, 2023.

<sup>119</sup> Revised Code of Washington (1996). RCW 35.68.010. Sidewalks, gutters, curbs, and driveways—all cities and towns, Authority conferred. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=35.68.010> on June 25, 2023.

<sup>120</sup> Revised Code of Washington (1996). RCW 35.69.020. Sidewalks—construction, reconstruction in first and second-class cities, Resolution of necessity—Liability of abutting property—Reconstruction. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=35.69.020> on June 25, 2023.

<sup>121</sup> Revised Code of Washington (1983). RCW 35A.47.020. Streets—Acquisition, standards of design, use, vacation and abandonment—Funds. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=35A.47.020> on June 25, 2023.

<sup>122</sup> Municipal Research and Services Center. (2022). City and Town Classification. Retrieved from <https://mrsc.org/explore-topics/governance/classification-of-washington-cities/city-town-classification> on April 7, 2023.

*Example*

In 2022, Denver voters approved a ballot initiative to amend the city’s code shifting responsibility for sidewalk maintenance and repair from property owners to the city.<sup>123</sup> The program aims to: remove the responsibility for repairs from adjacent property owners and place this responsibility on the city, fund the construction and repair of sidewalks through an annual fee charged to property owners, enable the construction of the sidewalk network, and provide ongoing funding for sidewalk repairs.<sup>124</sup>

*Potential change*

Provide local public agencies the appropriate funding and support mechanisms to maintain sidewalks and address workforce needs. Once complete, under RCW 35.68.010 remove the ability for any city to require the abutting property owner to reconstruct or improve the sidewalk at the owner's own cost or expense. Under RCW 35.69.020 remove the same ability for first and second class cities.<sup>125</sup>

Additionally in RCW 35A.47.020 remove the same provisions for code cities. **This is for the reconstruction and maintenance of sidewalks, not vegetation and snow removal.**

Ensure that such responsibility is only for maintenance and replacement. New construction projects should still be required to build sidewalks.

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<sup>123</sup> Minor, D. (2022). Denver sidewalk initiative backers have declared victory. Here’s what may come next. *Denverite*. Retrieved from <https://denverite.com/2022/11/14/initiated-ordinance-307-results-denver-deserves-sidewalks/> on April 7, 2023.

<sup>124</sup> Denver Deserves Sidewalks Campaign Committee. (2023). Denver Deserves Sidewalks. Retrieved from <https://denverdeservessidewalks.wordpress.com/> on April 7, 2023.

<sup>125</sup> Revised Code of Washington. (1996). RCW 35.69.020. Sidewalks—construction, reconstruction in first and second-class cities, Resolution of necessity—Liability of abutting property—Reconstruction. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=35.69.020> on June 25, 2023.

## State Agencies and Telework

### *Current issue*

Currently, state agencies do not provide subsidies and incentives for telework. Telework is a known demand management strategy but does not receive the same treatment as other tools that remove single occupancy commute trips—e.g., subsidized transit passes or daily cash benefits for carpooling or bicycling. Telework requires expenditures by the worker to have adequate internet access and an appropriate workspace at home.

### *Example*

State agencies already lead the way in Commute Trip Reduction (CTR). While the CTR program applies to all employers in the state with more than 100 employees, it also applies to all state agencies, regardless of size.<sup>126</sup> Under current law, state agencies provide incentives for modes other than driving alone including “carpools, vanpools, purchase of transit and ferry passes, and guaranteed ride home programs.”<sup>127</sup>

### *Potential change*

Amend RCW 43.01.230 (Commute trip reduction—Use of public funds) to overtly include telework. In addition, in the WAC under 468-63-010(2)(e), under state agency leadership, recommend telework<sup>128</sup>.

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<sup>126</sup> Revised Code of Washington. (1991). RCW 70A.15.4040—Transportation Demand Management—Requirements for Employers. Retrieved from <https://app.leg.wa.gov/rcw/default.aspx?cite=70A.15.4040> on April 13, 2023.

<sup>127</sup> Revised Code of Washington. (1993). RCW 43.01.230—Commute Trip Reduction—Use of Public Funds. Retrieved from <https://apps.leg.wa.gov/RCW/default.aspx?cite=43.01.230> on April 13, 2023.

<sup>128</sup> Washington Administrative Code. (2007). 468-63-010—Commute Trip Reduction Program—Purpose. Retrieved from <https://app.leg.wa.gov/WAC/default.aspx?cite=468-63-010> on April 13, 2023.

## Street Network Connectivity

### *Current Issue*

Disconnected street networks increase distances traveled by car, prevent mobility independence for non-drivers, create delays for emergency response, and raise transportation expenses by making fewer trips feasible by transit, walking, and bicycling. A disconnected network can take the shape of long blocks, dead ends, and cul-de-sacs. The state Active Transportation Plan and a special report prepared for FHWA both noted the importance of route directness for pedestrians in particular; long out-of-direction trips impose costs in time and exertion, may be impossible for some people with disabilities to undertake, and affect the ability to use transit where service is infrequent and missing a bus adds a long wait.<sup>129</sup>

### *Example*

The City of Pasco is working to prevent further building of disconnected transportation networks. “A technical review of Pasco’s existing transportation system highlighted many arterial or collector corridors and areas without convenient access for pedestrians, drivers, transit riders, and bicyclists.”<sup>130</sup> The transportation master plan recognized, “Walking and biking and access to transit are significantly benefited by constructing neighborhoods with greater connectivity through better street and walkway spacing, and more direct routes to key destinations, such as schools, parks and transit stops.”<sup>131</sup> The City examined its current land use policies and “recommended to apply new guidelines for the maximum block length, block size, block perimeter and access spacing... Under this new guidance for most zoning designations, block lengths shall not exceed 660 feet and the block perimeter shall not exceed 1,760 feet.”<sup>132</sup>

The City of Olympia, in the transportation section of its comprehensive plan, states “Connect streets in a grid-like pattern of smaller blocks. Block sizes should range from 250 feet to 350 feet in residential areas and up to a maximum of 500 feet along arterials.”<sup>133</sup>

This aerial image from Battle Ground, Washington highlights how disconnected the road network can be with only a few throughfares with limited access to such roads. The satellite image is outdated, and as shown in the map view Rasmussen Blvd. now connects to SW 10<sup>th</sup> Ave, creating easier access for active transportation users.<sup>134</sup>

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<sup>129</sup> Washington State Department of Transportation. (2021). Multimodal Permeability Pilot. Retrieved from <https://wsdot.wa.gov/sites/default/files/2021-11/MultimodalPermeabilityPilotReport-Aug2021.pdf> on June 8, 2023.

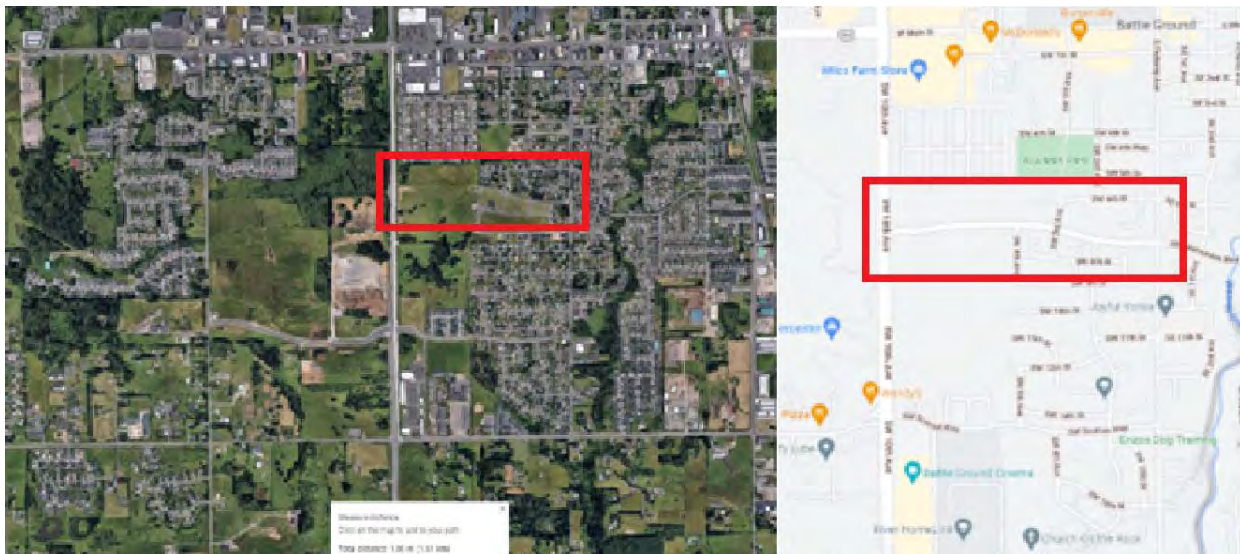
<sup>130</sup> City of Pasco. (2021). Transportation System Master Plan. Retrieved from [https://www.pasco-wa.gov/DocumentCenter/View/63139/Pasco\\_TSMP\\_Draft\\_10262021](https://www.pasco-wa.gov/DocumentCenter/View/63139/Pasco_TSMP_Draft_10262021) on 3/30/2023.

<sup>131</sup> Id. at 51.

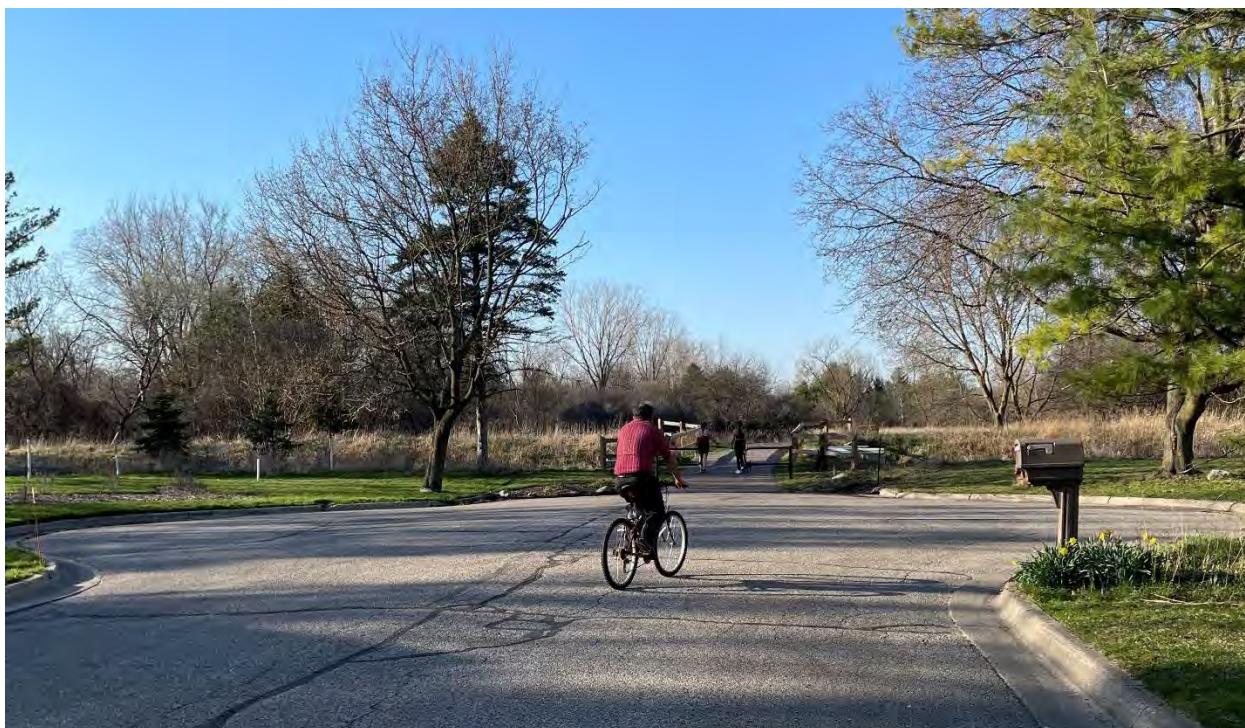
<sup>132</sup> Id. at 52.

<sup>133</sup> City of Olympia. (2021). Olympia Comprehensive Plan. Retrieved from <https://www.codepublishing.com/WA/Olympia/?compplan/OlympiaCPNT.html> on 3/30/2023.

<sup>134</sup> Google Maps satellite and map view images of Battle Ground, Washington centered on the intersection of SW 10<sup>th</sup> Ave and SW Rasmussen Boulevard. Retrieved from <https://www.google.com/maps/@45.777694,-122.5438806,1250m/data=!3m1!1e3> on April 10, 2023.



In addition to shorter block length, pedestrian and bicycle connections from dead-end cul-de-sacs to trail systems or other street connections shorten travel distances by those modes and create low-stress opportunities that promote active transportation. In the photo below, a cyclist in East Lansing, Michigan makes their way to a newly constructed bridge over a drain that connects to a trail system.<sup>135</sup>



*Potential change*

Use regulations and/or incentives to increase street network connectivity and reduce block sizes for new roads as well as add connections within existing road networks, particularly to shorten walking and

<sup>135</sup> City of East Lansing Michigan. (2019). Parks & Recreation Advisory Commission-- March 20, 2019-- Meeting Notice. Retrieved from <https://cityofeastlansing.com/AgendaCenter/ViewFile/Agenda/03202019-2155> on April 18, 2023. Photo credit of WSDOT staff.



bicycling distances. Consider statutorily setting the expectation that jurisdictions fill existing network gaps and provide associated additional funding.

For example, the Access Control Classification regulation, WAC 468-52-040(2)(b)(i), says, “It is the intent that the design of class two highways be generally capable of achieving a posted speed limit of thirty-five to fifty mph in *urbanized* areas and forty-five to fifty-five mph in rural areas. Spacing of intersecting streets, roads, and highways shall be planned with a minimum spacing of *one-half mile*,” (emphasis added).<sup>136</sup> Speeds of up to 50 mph and half mile intersections are not welcoming to pedestrians and bicyclists. Travel to the nearest crossing adds a mile to a trip just across the road if that intersection is a half-mile away. Access Control Classification is separately discussed on page 54.

Block lengths should be appropriate given the context of the land use. An urban setting would have a shorter block length while an industrial or agricultural setting would have a longer block length.

This topic could be addressed in multiple places in the RCW beyond the abovementioned WAC. Connectivity is already addressed in RCW 47.24.060, Street access—Principles of complete streets—Requirements. The topic could be made more explicit within that section. Additional areas to consider include RCW 47.04.280, Transportation system policy goals, and RCW 36.70A.020, Planning goals in the GMA.

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<sup>136</sup> Washington Administrative Code. (1999). WAC 468-52-040(2)(b)(i). Access Control Classification. Retrieved from <https://app.leg.wa.gov/WAC/default.aspx?cite=468-52-040> on June 25, 2023.

## Subdivision Exemption Process

### Current Issue

Agricultural and resource land above a certain size in parts of counties outside of urban growth areas can be exempt from subdivision review. The lack of review results in large parcels used for residential purposes in a dispersed, sprawling pattern with high VMT per capita.

### Example

In Spokane County subdividing land into lots of 10 acres and larger exempts a development from county review, creating bedroom communities that add traffic to the state highway system and increase VMT.<sup>137</sup> The issue is further exacerbated by the exemption of highways of statewide significance from concurrency, discussed separately on page 59. Contrasting Spokane County, Skagit County has an 80 acre minimum for subdivision exemptions.<sup>138</sup> The picture below is an example from Spokane County when 10 acre subdivisions has led to sprawling lots not large enough for use as resource land, leading to high VMT homes.



### Potential change

Change RCW 58.17.040, plats—subdivisions—dedications, to remove exemption from review for any subdivision of more than two parcels outside of urban growth areas.<sup>139</sup> The exemption of subdivision into two lots would accommodate reasonable use for an additional home on an existing property while subdivision of more than two lots suggests that there could be a change of use entirely or the potential for development with negative externalities. The statute currently exempts subdivisions of five acres or larger, while also including a provision to allow the governing authority to adopt a higher minimum.

<sup>137</sup> Spokane County. (2011). Subdivision Ordinance of Spokane County, Washington. 12.100.110 Exemptions. Retrieved from <https://www.spokanecounty.org/DocumentCenter/View/1218/Subdivision-Ordinance---Spokane-County-Code-Chapter-12-PDF> on June 25, 2023.

<sup>138</sup> Skagit County. Skagit County Code, Chapter 14.18 Land Divisions, 14.18.000(2). Retrieved from [https://www.skagitcounty.net/PlanningAndPermit/Documents/Code/title14/Ch14\\_18.pdf](https://www.skagitcounty.net/PlanningAndPermit/Documents/Code/title14/Ch14_18.pdf) on June 25, 2023.

<sup>139</sup> Revised Code of Washington. (2019). RCW 58.17.040. Plats—subdivisions—dedications. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=58.17.040> on June 25, 2023.

## Traffic Cameras for Investigation of Crashes with Vulnerable Users

### Current Issue

Until recently, automatic safety cameras could only be used for three types of violations: stoplight, railroad crossing, and school speed zone violations. The legislature further expanded use of safety cameras in the 2022 session to include school walk areas, public parks, and hospitals, and a requirement that an equity analysis be conducted.<sup>140</sup> Starting in 2024, cameras will also be used to monitor speed in work zones on highways. The expanded use of cameras for work zone safety passed the state house and senate unanimously and was signed into law.<sup>141</sup>

Cameras cannot be used to investigate crashes with active transportation users. This hampers the ability of investigators to identify drivers involved in hit-and-run crashes. RCW 46.63.170(1)(a), which focuses on automated traffic safety cameras states that, “[a]utomated traffic safety cameras may be used to detect one or more of the following: stoplight, railroad crossing, school speed zone violations...” meaning the cameras cannot be used for any other purpose.<sup>142</sup>

### Example

On July 15<sup>th</sup>, 2022, a driver struck and killed a bicyclist near the West Seattle Low-Level Bridge.<sup>143</sup> RCW 46.63.170, “...barred investigators from using footage from nearby cameras installed to help enforce traffic restrictions over the lower bridge to West Seattle.”<sup>144</sup> However, investigators were able to obtain video footage from private homes and a King County Metro bus.<sup>145</sup>

### Potential change

Expand the use of automated traffic safety cameras to investigate crashes between motorists and active transportation users, such as pedestrians and bicyclists. This would allow investigators to use such cameras to identify dangerous drivers who leave the scene of crashes with vulnerable transportation users. Such a change would also be in concert with legislation passed in 2023 related to negligent driving and vulnerable users.<sup>146</sup> An additional change could be to revoke the privilege to drive for someone who has a record of unsafe driving with a potential for permanent license revocation.

<sup>140</sup> Revised Code of Washington. (2022). RCW 46.63.170—Automated traffic safety cameras—Definition (Effective until June 30, 2025). Retrieved from <https://apps.leg.wa.gov/rcw/default.aspx?cite=46.63.170> on June 7, 2023.

<sup>141</sup> KING 5 News. (2023). Gov. Inslee signs law that will install speed cameras along Washington state highways. Retrieved from <https://www.king5.com/article/news/local/speed-cameras-washington-state-highways/281-968fb1ea-1940-4595-8d34-cc2986ecd626> on April 10, 2023.

<sup>142</sup> Revised Code of Washington. (2022). RCW 46.63.170 Automated traffic safety cameras—Definition. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=46.63.170> on June 25, 2023.

<sup>143</sup> Kroman, D. (2023). Charges filed in hit-and-run death of bicyclist near West Seattle, *Seattle Times*. Retrieved from <https://www.seattletimes.com/seattle-news/law-justice/charges-filed-in-hit-and-run-death-of-bicyclist-near-west-seattle/> on 3/29/23.

<sup>144</sup> Kroman, D. (2023). Charges filed in hit-and-run death of bicyclist near West Seattle, *Seattle Times*. Retrieved from <https://www.seattletimes.com/seattle-news/law-justice/charges-filed-in-hit-and-run-death-of-bicyclist-near-west-seattle/> on 3/29/23.

<sup>145</sup> Ibid

<sup>146</sup> Washington State Legislature. (2023). House Bill 1112—Imposing criminal penalties for negligent driving involving the death of a vulnerable user victim. Retrieved from <https://app.leg.wa.gov/billsummary?BillNumber=1112&Initiative=false&Year=2023> on May 11, 2023.

This expansion in use of automated traffic safety cameras needs to be limited to collisions with active transportation users because of the inequities that can rise from more expanded uses of such cameras. Even if their placement is determined based on speeding violations, past decisions around where to build wide, fast, busy roads and highways often placed these facilities in predominantly Black and poorer neighborhoods. For example, In Chicago households in majority Black and Hispanic ZIP codes received tickets at around twice the rate of those in white areas between 2015 and 2019.<sup>147</sup> Designing and converting facilities to be safer in the first place through complete streets, roadway reallocation, and a Safe Systems approach would ameliorate issues related to speeding because of facility design and could help reduce the inequities associated with automatic traffic enforcement. The equity analysis requirement included in the expansion of safety cameras in locations posted against road racing is a model to apply to other expanded authorization of their use. Actions that increase safety for active transportation modes promote use of those modes and by extension reduce VMT.

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<sup>147</sup> Hopkins, E., and Sanchez, M. (2022). Chicago’s “Race-Neutral” Traffic Cameras Ticket Black and Latino Drivers the Most. *ProPublica*. Retrieved from <https://www.propublica.org/article/chicagos-race-neutral-traffic-cameras-ticket-black-and-latino-drivers-the-most>, on April 7, 2023.

## Transit Fares

### *Current issue*

Unlimited right-to-ride transit passes can alleviate barriers to transit use associated with per-trip payments.

### *Example*

Under current law, transit agencies may receive operating funds from the state through the Transit Support Grant Program provided the transit agency maintains or increases their local sales tax authority. To be eligible, transit agencies must demonstrate that they have a “zero-fare policy that allows passengers 18 years of age and younger to ride free of charge on all modes provided by the agency.”<sup>148</sup>

Island Transit has been providing fare-free service in Island County since 1987 and Intercity Transit in Olympia has been fare-free since 2020.<sup>149,150</sup>

### *Potential change*

Expand RCW 47.66.140 to provide access to unlimited right-to-ride transit passes based on additional groups beyond people 18 and under—e.g., over 65, household need, and location. Prioritize expansion to priority populations and historically underserved and disproportionately disadvantaged communities. Care should be given to minimize administrative burden in developing fare policies with respect to what is needed by a customer to demonstrate their right for a zero-fare trip.

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<sup>148</sup> Revised Code of Washington. (2022). RCW 47.66.140—Transit Support Grant Program. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.66.140> on April 17, 2023.

<sup>149</sup> Island Transit. (2023). How to Ride the Bus. Retrieved from <https://www.islandtransit.org/How-to-Ride-the-Bus> on April 17, 2023.

<sup>150</sup> Intercity Transit. (2023). How to Ride the Bus. Retrieved from <https://www.intercitytransit.com/how-to-ride> on June 8, 2023.

## Transportation-Efficient Communities

### Current Issue

Currently there is no clear and consistent way to identify transportation-efficient communities and apply differential regulations and fees to encourage development in these locations. Transportation-efficient communities provide affordable housing near jobs and transportation options, and transportation choices for all residents and visitors. Transportation options are available because 1) activities are close, making active transportation and transit more attractive to a user and 2) because there is a higher population, it makes sense to invest in transportation infrastructure that yields higher return on investment—e.g., high-capacity transit, complete streets, etc. Transportation-efficient communities are places where population and jobs should be added.

### Example

WSDOT, in collaboration with the departments of Commerce, Ecology, and Health publishes the transportation-efficient communities website.<sup>151</sup> It provides best practice tools on healthy and safe communities, land use, and transportation.

Since 2007, WAC 468-63-060 has had a provision for Growth and Transportation Efficiency Centers (GTECs).<sup>152</sup> The purpose of GTECs is to establish demand management programs to connect employment and housing centers in support of existing commute trip reduction plans.

In the central Puget Sound, the Puget Sound Regional Council has a Regional Growth Center policy in place.<sup>153</sup> Centers can be designated based on a city’s intent to pursue dense transit development through their planning and criteria for minimum thresholds, which include development density, mix of uses, and high-capacity transit.

The City of Seattle includes an Urban Village element as part of its comprehensive plan.<sup>154</sup> There are four types of villages to account for different types of neighborhoods across the city, but all are intended to bring activities closer together to reduce reliance on driving trips. The City of Bellingham also has a nodes and corridors strategy with six urban villages.<sup>155</sup>

In 2011, San José, California adopted a new general plan that, “aims to transform San José from a city built around personal motorized vehicles to one that prioritizes people and the public spaces where they live, work, and connect.”<sup>156</sup> This plan provides a framework to move away from a scattered land use practice to where the things that people need are more integrated in the City’s Planned Growth

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<sup>152</sup> Washington Administrative Code. (2007). Growth and transportation efficiency centers. Retrieved from <https://app.leg.wa.gov/wac/default.aspx?cite=468-63-060> on April 10, 2023.

<sup>152</sup> Washington Administrative Code. (2007). Growth and transportation efficiency centers. Retrieved from <https://app.leg.wa.gov/wac/default.aspx?cite=468-63-060> on April 10, 2023.

<sup>153</sup> Puget Sound Regional Council. (2023). Centers. Retrieved from <https://www.psrc.org/our-work/centers> on April 11, 2023.

<sup>154</sup> City of Seattle. (2005). Urban Village Element. Retrieved from <https://www.seattle.gov/documents/departments/opcd/ongoinginitiatives/seattlescomprehensiveplan/urbanvillageelement.pdf> on April 11, 2023.

<sup>155</sup> City of Bellingham. (2023). Urban Villages. Retrieved from <https://cob.org/services/planning/urban-villages> on June 8, 2023.

<sup>156</sup> City of San Jose. (2020). Transportation Analysis Handbook. Retrieved from <https://www.sanjoseca.gov/home/showdocument?id=28461> on 3/31/2023

Areas (PGAs).<sup>157</sup> “PGAs include Downtown, Specific Plan Areas, Urban Villages, and Employment Priority Areas. PGAs are largely clustered around existing and planned transit.”<sup>158</sup> Ultimately the city aims for 60% of commute trips to be done by walking, biking, transit, or carpool.<sup>159</sup>

In Oregon, the Department of Land Conservation and Development is implementing a Climate Friendly and Equitable Community program. “A climate-friendly area is an area where residents, workers, and visitors can meet most of their daily needs without having to drive. They are urban mixed-use areas that contain, or are planned to contain, a greater mix and supply of housing, jobs, businesses, and services.”<sup>160</sup> The new rules require cities with a population greater than 5,000 in metropolitan areas to adopt regulations allowing walkable mixed-use development. Local governments will determine where these areas will be located, and associated requirements will ensure that high quality pedestrian, bicycle, and transit infrastructure is available within these areas to provide convenient transportation options.<sup>161</sup>

### *Potential change*

Require the comprehensive planning, zoning, and development regulation process to clearly identify the areas where additional development would be expected to help bring people closer to their daily destinations and give them options for reaching those destinations by walking, bicycling, and using transit. Incorporate anti-displacement policies in these requirements to ensure that these changes meet the needs of people most likely to rely on these modes.

Require comprehensive plans to include performance measures in the categories listed below ([from Oregon’s Transportation Planning Rules](#))<sup>162</sup> and/or develop new criteria based on processes already developed through GTECs, Regional Growth Centers, and Urban Villages.

- Compact Mixed-use Development
- Active Transportation
- Transportation Options
- Transit Option
- Parking Costs and Management
- State of the Transportation System

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<sup>157</sup> Id.

<sup>158</sup> Id.

<sup>159</sup> Id. at 3.

<sup>160</sup> Oregon Department of Land Conservation and Development. (2022). Designation of Climate-Friendly Areas. Retrieved from [https://www.oregon.gov/lcd/CL/Documents/Designation\\_of\\_Climate\\_Friendly\\_Areas\\_Overview.pdf](https://www.oregon.gov/lcd/CL/Documents/Designation_of_Climate_Friendly_Areas_Overview.pdf) on 3/31/2023.

<sup>161</sup> Oregon Department of Land Conservation and Development. (2022) Climate-Friendly Areas. Retrieved from <https://www.oregon.gov/lcd/CL/Documents/OnePagerCFAs.pdf> on 3/31/2023

<sup>162</sup> Oregon Administrative Rule (OAR) 660-012-0905: Transportation Planning, Land Use and Transportation Performance Measures, Retrieved from [https://www.oregon.gov/lcd/CL/Documents/TPR\\_2022.pdf](https://www.oregon.gov/lcd/CL/Documents/TPR_2022.pdf) on 3/31/2023.

## Transportation Impact Fees—SEPA

### *Current Issue*

Under certain circumstances, WSDOT can collect fees to mitigate impact of development. Money can be collected only if there is a programmed project in the area of the mitigation. The Development Services Guidance – Traffic Mitigation Payments guide highlights that “SEPA allows for the collection of a traffic mitigation payment if the payment goes toward a project that will mitigate the probable significant adverse impacts of the land use proposal.”<sup>163</sup> The project candidate must be:

- A mobility project that is included in the WSDOT Region’s Program Management project list,
  - o such as two-lane to four-lane highway widening projects, Roundabout or Signal construction, etc., or,
- Safety projects
- Preservation projects—maintenance and preservation of existing infrastructure.

The funds collected must be spent within five years or they must be returned to the developer. Impact fees rarely cover the full cost of an investment, and this timeline can be too short to fully fund and construct an improvement.

As a result, transportation related externalities of development are placed on the last developer to an area, if they are accounted for at all.

### *Example*

WSDOT has already examined policy concepts to improve the ability of the state to address the adverse impacts of local land use decisions on state transportation facilities.<sup>164</sup>

Specific recommendations from the previous report include:

- **Mandatory Local Enforcement of State-Requested Mitigation.** Require local governments to condition development approvals on WSDOT mitigation requests.
- **Mandatory Local Assessment of State Impact Fees.** Require local governments to assess impact fees for improvements to state owned highways and ferry routes.
- **State Assesses and Collects Mitigation.** Authorize WSDOT to independently assess and collect mitigation directly from the developer.
- **System Charges.** Allow the state or regions to establish and collect regional system charges directly from the developer.

In addition to the previous report, the issue of exemption of highways of statewide significance from concurrency is discussed on page 59.

### *Potential change*

Amend RCW 82.02.020(2) and (3), limitations on fees for development of land and buildings, to remove the five-year limitation on expending funds. This would allow WSDOT under the State Environmental

<sup>163</sup> Washington State Department of Transportation. (2021). Development Services Guidance – Traffic Mitigation Payments. Retrieved from <https://wsdot.wa.gov/sites/default/files/2021-10/DeveloperMitigationPaymentsGuidance.pdf> on April 7, 2023.

<sup>164</sup> Washington State Department of Transportation. (2006). The GMA Concurrency Goal and the State Transportation System. Retrieved from <https://wsdot.wa.gov/sites/default/files/2021-10/GMAConcurrencyGoalandtheState.pdf> on 4/2/2023



Policy Act, Chapter 43.21C RCW, to collect mitigation fees directly from developers and not require a programmed project on a five-year timeline for the purpose of creating equitable, multimodal connections (including pedestrian and bicycle facilities) from developments to the transportation network. In addition, consider nimble responses with low administrative burden for new development in transportation-efficient communities (discussion on page 81) to avoid delay of infill projects.

## VMT Consideration in State Facility Siting

### *Current issue*

State agencies and institutions currently do not have to consider VMT when constructing new state facilities. This omission can lead to buildings constructed in locations that necessitate more driving than other options. These car-dependent locations are also burdensome to reach for non-drivers who need to access services. Instead, state facilities should be built in locations that are accessible by shorter trips or that can be served by other modes.

### *Example*

State agencies already lead the way in Commute Trip Reduction (CTR). While the CTR program applies to all employers in the state with more than 100 employees, it also applies to all state agencies, regardless of size.<sup>165</sup> Similar leadership could be demonstrated in facility siting.

### *Potential change*

State agencies should be a leader in VMT reduction, and VMT should be a consideration when constructing new facilities. Under each state agency's regularity authority section in the revised code, add this new requirement for buildings—e.g., Chapter 47.01 RCW covers the Department of Transportation.<sup>166</sup>

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<sup>165</sup> Revised Code of Washington. (1991). RCW 70A.15.4040—Transportation Demand Management—Requirements for Employers. Retrieved from <https://app.leg.wa.gov/rcw/default.aspx?cite=70A.15.4040> on April 13, 2023.

<sup>166</sup> Revised Code of Washington 47.01. Department of Transportation. Retrieved from <https://app.leg.wa.gov/rcw/default.aspx?cite=47.01> on April 18, 2023.

## VMT Mitigation in Capacity Expansion

### Current issue

Capacity expansion projects induce demand. Additional capacity makes transportation facilities more attractive to potential users who would have previously made the trip by another mode, another route, or not at all. Induced demand can be a positive—e.g., when a new bicycle facility completes a missing link in a system and more cyclists use the facilities. Conversely, induced demand can be a negative—e.g., when so many drivers use the expanded facility that the delay on the facility is worse than before it was implemented. Expanded capacity that attracts new vehicle trips can also cause people to change where they live based on the improved access, which in turn creates longer trips and increases VMT.

### Example

The science and tools related to induced demand are well established. The Rocky Mountain Institute publishes the Shift calculator that estimates that a single additional mile of interstate in the central Puget Sound would add 5-8 million VMT annually.<sup>167</sup> This calculator builds off work completed at the University of California Davis on an induced demand calculator for California.<sup>168</sup> In addition to this type of calculator, there are rigorous instructions for how to conduct analysis related to induced demand—e.g., Fehr & Peers,<sup>169</sup> or Federal Highway Administration.<sup>170</sup> In California, “[e]ach public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves.”<sup>171</sup> Examples of VMT mitigation programs in California include VMT banks, VMT exchanges, and VMT impact fees.<sup>172, 173</sup>

Within the RCW, there are requirements for statewide transportation planning specifically related to improvements on state-owned facilities:

“In developing capacity and operational improvement plans the department shall first assess strategies to enhance the operational efficiency of the existing system before recommending system expansion. Strategies to enhance the operational efficiencies

<sup>167</sup> Rocky Mountain Institute. (2023). SHIFT Calculator—State Highway Induced Frequency of Travel. Retrieved from <https://shift.rmi.org/> on April 18, 2023.

<sup>168</sup> National Center for Sustainable Transportation. (2019). California Induced Travel Calculator. Retrieved from <https://travelcalculator.ncst.ucdavis.edu/about.html> on April 18, 2023.

<sup>169</sup> Fehr & Peers. (2022). Induced Vehicle Travel Impact Analysis. Retrieved from <https://www.fehrandpeers.com/wp-content/uploads/2022/09/FP-Induced-Vehicle-Travel-Analysis-Technical-Guidance-August-2022.pdf> on April 18, 2023.

<sup>170</sup> Federal Highway Administration. (2018). Instruction for Reviewing Travel and Land Use Forecasting Analysis in NEPA Documents. Retrieved from [https://www.environment.fhwa.dot.gov/nepa/Travel\\_LandUse/forecasting\\_reviewer\\_guidance.aspx](https://www.environment.fhwa.dot.gov/nepa/Travel_LandUse/forecasting_reviewer_guidance.aspx) on April 18, 2023.

<sup>171</sup> Victoria Transport Policy Institute. (2023). Generated Traffic and Induced Travel. Retrieved from <https://www.vtpi.org/gentraf.pdf> on April 18, 2023.

<sup>172</sup> Elkind, E., Iamm, T., & Prather, E. (2018). Implementing SB 743: An Analysis of Vehicle Miles Traveled Banking and Exchange Frameworks (Final Report (April 2018 – August 2018) UC-ITS-2018-40). Institute of Transportation Studies, Berkeley, University of California. Retrieved from <https://escholarship.org/uc/item/2s09c9mk> on May 24, 2023.

<sup>173</sup> Fehr & Peers. (2021a). LADOT Vehicle Miles Traveled Mitigation Program Factsheet. Retrieved from <https://scag.ca.gov/sites/main/files/file-attachments/ladot-vmt-mitigation-program-factsheet.pdf?1643075436> on May 24, 2023.

include but are not limited to access management, transportation system management, demand management, and high occupancy vehicle facilities. The capacity and operational improvement element must conform to the state implementation plan for air quality and be consistent with regional transportation plans”.<sup>174</sup>

The State of Minnesota recently passed legislation that all highway expansion projects and plans within Metropolitan Transportation Plans must be measured against a 20% per capita VMT decrease by 2050 and be paired with projects that reduce VMT for the expansion project to move forward.<sup>175</sup>

#### *Potential change*

Evaluate highway capacity expansion projects based on VMT reduction goals and exhaust operational efficiency per RCW 47.06.050 before advancing the projects. Change planning, project development, programming, and project funding decisions to align with existing policy direction in RCW 47.06.050. Expand the requirement to enhance operational efficiency before capacity expansion beyond state-owned facilities. Beyond RCW 47.06.050, this type of requirement could be added to Washington’s Clean Air Act (Chapter 70A.15 RCW) to the sections related to demand management (4000-4110)<sup>176</sup> and further expanded upon under WSDOT’s responsibilities under section 290 on environmental review of transportation projects.<sup>177</sup> Those projects that expand vehicle capacity should take steps to mitigate any increase in VMT. As part of a project development and mitigation process, travel modeling or a sketch planning tool / calculator should account for induced demand and multimodal network improvements, transit service expansions, and TDM programs should be funded by the project to mitigate for the potential increase in VMT.

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<sup>174</sup> Revised Code of Washington. (2007). RCW 47.06.050—State-owned facilities component. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.06.050> on May 23, 2023.

<sup>175</sup> Minnesota Legislature. (2023). Minnesota Session Laws—2023, Regular Session—Chapter 68—HF No 2887. Retrieved from <https://www.revisor.mn.gov/laws/2023/0/Session+Law/Chapter/68/> on May 24, 2023.

<sup>176</sup> Revised Code of Washington. (1997). RCW 70A.15—Washington Clean Air Act. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15> on April 18, 2023.

<sup>177</sup> Revised Code of Washington. (2007). RCW 47.01—Department of Transportation. Retrieved from <https://app.leg.wa.gov/RCW/default.aspx?cite=47.01> on April 18, 2023.