

This Case Study is part of the Safe System Approach for Speed Management Report:

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Case Study A.1. Washington State Injury Minimization and Speed Management —State of Washington, USA

Key Successes

The Washington State Injury Minimization and Speed Management effort is a noteworthy practice that shows an example of a State DOT setting a framework for speed management in jurisdictions.

The Safe System Approach Highlights

- **Death/serious injury is unacceptable:** Washington adopted a Target Zero plan in 2019 with the goal to eliminate road fatalities and serious injuries by 2030.
- **Humans make mistakes/humans are vulnerable:** Injury minimization is a priority in the State's Target Zero efforts.
- **Responsibility is shared:** Interagency collaboration and collaboration with neighboring jurisdictions help to achieve speed management and injury minimization.
- **Redundancy is crucial:** Speed management and injury minimization are achieved through engineering, education, and enforcement measures.

Background

In 2019, Washington State adopted the Safe System Approach as part of its SHSP, which embraced the Zero Deaths vision.¹ Speed management is a priority in Washington's Zero Deaths vision, since one in every three fatal crashes in the State between 2015 and 2017 involved speeding as a contributing factor. The plan recognized that speed limit setting through the notion of injury minimization would result in a significant reduction in fatal and serious injuries for all road users, especially pedestrians and bicyclists.

As a result of Washington's Vision Zero efforts, the Washington State Department of Transportation (WSDOT) convened a workgroup including State, local, and Tribal partners to develop a speed management policy and guidelines focused on injury minimization. The policy elements and implementation recommendations were summarized in a document released in October 2020,² which emphasizes lower operating speeds based on context on State routes, city streets, county roads, and Tribal roads and that are compatible with the needs of all types of users. The WSDOT workgroup encourages all agencies in the State of Washington to adopt an injury minimization and speed management policy based on the elements outlined in the document.

¹ State of Washington. (2019). *Washington State Strategic Highway Safety Plan 2019: Zero Deaths and Zero Serious Injuries by 2030*. Olympia, WA: State of Washington. Retrieved from http://wtsc.wa.gov/wp-content/uploads/dlm_uploads/2019/10/TargetZero2019Lo-RES.pdf.

² Washington Department of Transportation. (2020). *Washington State Injury Minimization and Speed Management Policy Elements and Implementation Recommendations*. Olympia, WA: State of Washington. Retrieved from <https://wsdot.wa.gov/sites/default/files/2021-10/InjuryMinimization-SpeedManagement-PolicyElements-Recommendations.pdf>.

Implementation

The WSDOT Injury Minimization and Speed Management workgroup studied the findings of multiple reports, scientific papers, legislative statutes, manuals, and recommendation documents to understand and address speed and injury severity. Based on the findings, the workgroup recommended the following elements for an Injury Minimization and Speed Management Policy for all agencies in Washington:

- Adopt and implement an injury minimization speed limit setting approach.
- Adopt a broader Safe System Approach to proactively identify priority locations (locations with higher possibility of serious injury or fatal crashes).
- Consider injury minimization and speed management in all transportation investments and project phases regardless of funding source.
- Collaborate with neighboring jurisdictions.
- Require training on injury minimization and speed management techniques.
- Adopt access control, access management policies, and land use development policies, ordinances, and practices that consider target speeds.
- Adopt a Vision Zero goal.

The Injury Minimization and Speed Management workgroup also provided recommendations to achieve target speeds for practitioners who set speed limits, design engineers, and planners. The workgroup recommended that the process for setting target speeds be an innovative practice that considers the presence of older adults, transit users, youth, pedestrians, bicyclists, and land use. Special consideration is provided for road users who are reliant on transit and active transportation due to income disparities or physical disabilities. A summary of the recommended process to set target speed limits is shown below:

- Establish target speeds based on road and land use context, road user characteristics, potential for different crash types, the impact forces that result from a crash, and the human body's injury tolerance. This may require a phased, step-down approach.
- Use default/category target speed limits for all areas that have the same context, density, and/or road characteristics.
- Where the operating speed is within 5 mph of the target speed, adopt the target speed.
- Where the operating speed exceeds the target speed by 5 mph, use an engineering study to determine iterative speed limits and implement speed management approaches.
- Make incremental adjustments of 5 mph or more as motorists respond to speed management techniques until the target speed is achieved.

In addition to the overall recommendations for injury minimization and speed management in Washington, the workgroup also developed specific information regarding data analysis, education of the public and elected officials, changes to laws and regulations, and enforcement. The workgroup recommended that traffic safety professionals pursue training at all jurisdictional levels in engineering, education, and enforcement.

Outcomes

Although no evaluation of the speed and safety impacts of the injury minimization and speed management recommendations are available, this effort is a noteworthy practice for setting a framework for speed management in jurisdictions.

Additional Information

Setting target speed limits based on factors other than vehicular travel speeds is an emerging approach. On March 25, 2022, Washington State Governor Jay Inslee signed into law Senate Bill 5974.³ Section 418 of this law states that all State transportation projects starting the design phase on or after July 1, 2022, and that are valued at more than \$500,000 must

adjust the speed limit to a lower speed with appropriate modifications to roadway design and operations to achieve the desired operating speed in those locations where this speed management approach aligns with local plans or ordinances, particularly in those contexts that present a higher possibility of serious injury or fatal crashes occurring based on land use context, observed crash data, crash potential, roadway characteristics that are likely to increase exposure, or a combination thereof, in keeping with a Safe System Approach and with the intention of ultimately eliminating serious and fatal crashes.

The law also made several amendments to Washington State law regarding automated traffic safety cameras. For additional information regarding Injury Minimization and Speed Management in Washington, contact Charlotte Claybrooke, WSDOT Active Transportation Programs Manager, at claybrc@wsdot.wa.gov.

³ State of Washington. (2022). Engrossed Substitute Senate Bill 5974. 67th Legislature. Retrieved from <https://lawfilesexternal.wa.gov/biennium/2021-22/Pdf/Bills/Session%20Laws/Senate/5974-S.SL.pdf>.