# Regional Safety Action Plan

## *Supplemental Tribal Safety Analysis*

DECEMBER 2025

Puget Sound Regional Council

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Prepared for

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# Purpose

The Puget Sound Regional (the region) Council (PSRC) adopted a Regional Safety Action Plan[1] (RSAP) for the central Puget Sound region in May 2025. The analysis of regional crash data in the plan highlights the disproportionately higher traffic safety impacts on Tribal lands in the region compared to the region overall, a trend that is seen on Tribal lands across the United States. In response to this disparity, Tribal areas are identified as one of the five Emphasis Areas in the RSAP, and PSRC has committed to partnering with Tribal Nations in the region to assess their unique safety concerns, including identifying tools and strategies that will help Tribal Nations achieve the Washington State goal of zero deaths and no serious injuries by 2030 (as outlined in the State's Strategic Highway Safety Plan, Target Zero).

This PSRC Supplemental Tribal Safety Analysis as part of the overarching work of the PSRC Regional Safety Action Plan, employs historic crash data, geographic and demographic data, research, and engagement with communities to gain a comprehensive understanding of safety issues and challenges specific to the Tribal areas within the region. It provides a data-driven analysis that identifies safety conditions, trends and findings within these areas, cumulatively and for each Tribe. Based on this analysis, the most pertinent strategies and countermeasures from the Strategies Toolbox chapter of the 2025 adopted RSAP are also provided.

1 The May 2025 Adopted RSAP and its appendices are available at https://www.psrc.org/our-work/regional-safety-action-plan.

# Regionwide Safety Context

Appendix A of the 2025 adopted RSAP, State of Safety in the Region Report, provides critical insights into transportation safety trends and conditions within the central Puget Sound region that are relevant to Tribal areas:

1. **Native American and Alaskan Native Communities:** In 2022, according to national data,[2] individuals identifying as American Indian and Alaska Native were seven times more likely to die in a traffic collision than white residents in the region, based on deaths per 100,000 population. Looking at Washington State between 2014 and 2022, American Indian and Alaska Native residents experienced traffic fatality rates four times higher than white residents. (See State of Safety in the Region Report, Tribal Lands, pages 33-34.)
2. **People Walking and Biking:** People walking and biking represent nearly half of the increase in deaths, with people walking making up the majority. (See State of Safety in the Region Report, Regionwide Crash Trends for People Walking and Biking, pages 14-16.)
3. **Geographic Distribution:** Crashes occur everywhere in the region, with rural areas having as many deaths as the biggest cities when adjusted for population. (See State of Safety in the Region Report, Urban and Rural Areas, pages 24-28.)
4. **Crash Locations:** Deaths and serious injuries occur more frequently on major arterials with higher posted speeds. (See State of Safety in the Region Report, High-Crash Locations and High-Injury Network, pages 50-61.)
5. **Contributing Factors:** Speeding, impairment, distraction, and failure to yield are the most frequent factors resulting in deaths and serious injuries. (See State of Safety in the Region Report, Contributing Factor / Crash Type Analysis, pages 38-42.)


Additionally, it is important to note that facilities within Tribal areas fall under multiple jurisdictions. This can influence how safety improvements are prioritized and implemented within Tribal areas, as policies differ across agencies. Coordination among Tribal and non-Tribal authorities is therefore critical to ensure consistent and equitable attention to road safety needs.

2 Source: U.S. Department of Transportation, National Highway Traffic Safety Administration Bureau of Transportation Statistics, 2020; Fatality Analysis Reporting System, 2023.

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# Acronyms and Abbreviations

| Abbreviation | Definition |
|---|---|
| ACS | American Community Survey |
| BIA | Bureau of Indian Affairs |
| DOE | Washington Department of Ecology |
| DUI | Driving under the influence |
| FHWA | Federal Highway Administration |
| HIN | High Injury Network |
| LRTP | Long-Range Transportation Plan |
| PSRC | Puget Sound Region Council |
| RSAP | Regional Safety Action Plan |
| SHSP | Strategic Highway Safety Plan (Washington Target Zero) |
| SR | State Route |
| TIP | Transportation Improvement Plan |
| WSDOT | Washington State Department of Transportation |
| **Crash Data Abbreviations** | **Definition** |
| K | Fatal Crash |
| A (or SI) | Suspected Serious Injury (SI) |
| B | Suspected Minor Injury |
| C | Possible Minor Injury |
| KABC | Fatalities, Serious Injuries, and Minor Injuries |
| KABCO | Fatalities, Serious Injuries, Minor Injuries or No Injuries (Or All Crashes) |
| KABC | Fatalities, Serious Injuries, and Minor Injuries |
| KSI (KA) | Serious Injuries and Fatalities (Fatal and Serious Injury Crashes) |
| PDO (or O) | No Injury; Property Damage Only |

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

CHAPTER 1

# Background

# Background

This Puget Sound Regional Council (PSRC) Regional Safety Action Plan (RSAP) integrates historic crash data, geographic and demographic information, relevant research, and community engagement within Tribal areas in the central Puget Sound region to identify roadway safety conditions, trends, and key findings across these areas, both cumulatively and for each Tribe. In addition, strategies and countermeasures most relevant to Tribal contexts were drawn from the 2025 adopted Regional Safety Action Plan (RSAP) Strategies Toolbox.

## Tribal Areas

Tribes are sovereign nations, and each Tribe has its own government with its own governing charter or constitution and set of general laws. Within the central Puget Sound region, the federal government currently recognizes nine Tribal nations: Muckleshoot, Nisqually, Port Gamble S'Klallam, Puyallup, Sauk-Suiattle, Snoqualmie, Stillaguamish, Suquamish, and Tulalip. The Nisqually Tribe area spans both Thurston and Pierce counties, and the Sauk-Suiattle Tribe area spans Skagit and Snohomish counties.

Based on the state-of-the-practice review conducted for each Tribe, no reportable crashes were identified within the central Puget Sound region portions of the Nisqually Indian Tribe and Sauk-Suiattle Indian Tribe boundaries between 2017 and 2024. Accordingly, these two Tribes are not included in the present analysis but will be addressed in the Skagit Council of Governments (SCOG) and Thurston Regional Planning Council (TRPC) Safety Action Plans (per discussions with SCOG and TRPC agency staff during the summer of 2025).

Roadways within reservation boundaries can fall under multiple jurisdictions, creating a complex authoritative system for transportation safety. For example, on the Tulalip Reservation, roads are maintained by either Tulalip Roads and Transportation or Snohomish County. These overlapping responsibilities can influence how safety improvements are prioritized and implemented within the Tribal areas. Differences in policy objectives, funding streams, and enforcement practices between agencies may lead to gaps or delays in addressing critical safety needs. Recognizing this multi-jurisdictional structure is essential for interpreting the crash results and guiding safety improvements that reflect jurisdictional responsibilities and roadway conditions.

## Outreach and Engagement

Beginning in early 2024, PSRC initiated outreach to tribes to determine their interest in participating in the safety analysis. Most Tribes expressed interest, and PSRC prepared and distributed maps and crash data (including 2024 data) for their review.

PSRC contacted interested Tribes to arrange one-on-one meetings to discuss the findings. A meeting was held with the Port Gamble S'Klallam Tribe on August 26, 2025. The project team presented draft maps and images for review and discussion. Tribal staff suggested expanding the analysis area boundary to include roadways often used by tribal members. As a result of the conversation, the study area was expanded to include the area north of State Route (SR) 104.

In addition, a draft version of this Supplemental Tribal Safety Analysis was released in October 2025 for Tribal review, and feedback received is incorporated into this final report. Training in use of a safety dashboard will also be provided in October.

CHAPTER 2

# State of the Practice

# State of the Practice Review

This section presents an inventory of recent and current transportation and roadway safety plans, policies, and related documents developed by Tribal nations within the central Puget Sound region. The objective is to assess the current state of planning and identify opportunities for enhancement through alignment with the Safe System Approach. This review and overview of publicly available documents also includes a summary of findings. These plans, policies and programs are further described for each Tribe within the individual tribal area findings section of this supplement.

## High-Level Summary

The practices of seven Tribes were reviewed as part of this inventory. Several Tribes have recently adopted or are in the process of updating long-range transportation plans (LRTPs), comprehensive plans, or strategic safety plans. In some cases, planning efforts are informal or embedded within other documents (e.g., environmental, hazard mitigation, or land use plans). The inventory also includes Tribal codes and enforcement frameworks where available.

Table 2-1 summarizes the availability of major planning documents across the Tribes.

*Table 2-1 Availability of Documents by Tribe*

| Tribe | Safety Plan | Safety Plan Location | Comprehensive Plan | Comprehensive Plan has Safety Policies (yes/no) | Location | Long Range Transportation Plan (LRTP) | LRTP Location | Transportation Improvement Plan (TIP) | TIP Location | Speed Limit Policy | Speed Limit Policy Location |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Muckleshoot Indian Tribe | 2016 Strategic Transportation Safety Plan | Received directly | In progress (2025 expected) | No | | 2018 Transportation Plan | https://irp-cdn.multiscreensite.com/c86a044e/files/uploaded/Muckleshoot%20Tribal%20Transportation_FINAL.pdf | City of Auburn Transportation Improvement Plan (2024-2029) | https://cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_11470554/File/City%20Hall/Public%20Works/Publications%20and%20Forms/Adopted%20TIP%202024-2029.pdf | Ch. 5.11 Traffic Offenses | https://muckleshoot.tribal.codes/Code/5.11.030 |
| Port Gamble S'Klallam Tribe | 2016 Strategic Safety Plan | Received directly | None located | No | | | | | | Ch. 9.01 Civil Traffic Violations | https://pgst.nsn.us/wp-content/uploads/2024/01/Title-09-01.01.2024.pdf |
| Puyallup Tribe of Indians | 2016 Road Safety Audit | Received directly | 2023 Comprehensive Land Use Plan (includes safety) | Yes | https://www.puyalluptribe-nsn.gov/wp-content/uploads/PTOI-Comp-Plan_Adopted-Version.pdf | Audit + Trail Study | https://wsdot.wa.gov/sites/default/files/2021-08/T2P-Route-Analysis-Study-Report.pdf | 2015 Tribal Transportation Safety Program | https://drive.google.com/file/d/1KG2HZO3N1cvbABf462-RG2PCzNDUfhfz/view | Ch. 5.04 Civil Traffic Code | https://www.codepublishing.com/WA/PuyallupTribe/html/PuyallupTribe05/PuyallupTribe0504.html?form=MG0AV3#5.04.620 |
| Snoqualmie Indian Tribe | 2020 Strategic Transportation Safety Plan | Received directly | None located | No | | RFP issued for LRTP | | | | | |
| Stillaguamish Tribe of Indians | 2015 Strategic Safety Plan; 2024 Stillaguamish Tribe of Indians Strategic Transportation Safety Plan | https://irp-cdn.multiscreensite.com/7e0c8ed5/files/uploaded/P10139%20Stillaguamish%202015%20Safety%20Plan%20Gibson.pdf | None located | No | | 2023 Stillaguamish Tribe LRTP | https://www.stillaguamish.com/wp-content/uploads/2023/03/Final-2023-Stillaguamish-Tribe-Long-Range-Transportation-Plan.pdf | 2023 Stillaguamish Tribal TIP | https://www.stillaguamish.com/wp-content/uploads/2023/11/Final-2023-Stillaguamish-Tribal-Transportation-Improvement-Program-TTIP.pdf | 2019 Law & Order Code | https://www.stillaguamish.com/wp-content/uploads/2021/04/Law-and-Order-Code-of-the-Stillaguamish-Tribe-Revised-12-12-2019.pdf?form=MG0AV3 |
| Suquamish Tribe | None located | Received directly | Kitsap County Comprehensive Plan 2024 – Suquamish Subarea Plan | Yes | https://www.kitsap.gov/dcd/PEP%20Documents/121523_SUQUAMISH_SubAreaPlan.pdf | 2024 Suquamish Tribe Tribal LRTP | Received directly | | | Ch. 10.1 Traffic Control | https://suquamish.nsn.us/wp-content/uploads/2020/12/Chapter-10.1.pdf |
| Tulalip Tribes | 2025 Strategic Transportation Safety Plan | Received directly | 2009 Plan (update underway) | Yes | https://www.tulaliptribes-nsn.gov/Base/File/2009%20Tulalip%20Tribes%20Comprehensive%20Land%20Use%20Plan_28 | 2022 Tulalip Tribes Strategic Transportation Plan | https://www.tulaliptribes-nsn.gov/Base/File/Tulalip%20LRTP%20-%202022-1017%20(002) | The Tulalip Tribes Transportation Improvement Plan (TIP) - 2022 Through 2026 | https://www.tulaliptribes-nsn.gov/Base/File/TTT-Transp-Improvement-Prog-2022-2026-Summary | Ch. 3.6 Traffic Violations | https://www.codepublishing.com/WA/Tulalip/html/Tulalip03/Tulalip0360.html?form=MG0AV3#3.60.030 |

LRTP = Long-Range Transportation Plan; RFP = Request for Proposal; TIP = Transportation Improvement Plan

# Key Themes

This section summarizes the recurring safety priorities, strategies, and policy directions identified in Tribal plans, codes, and improvement programs within the central Puget Sound region. These themes are drawn directly from existing documents developed by the Tribes, including LRTPs, safety plans, Tribal codes, and transportation improvement plans (TIPs).

## Speed Management

Excessive speed is a leading factor in crashes, and all seven Tribes in the central Puget Sound region prioritize measures to slow down traffic in critical areas, specifically where there are expected to be more active transportation modes. Transportation safety plans promote a combination of engineering and enforcement solutions to manage speeds. Physical traffic-calming features such as speed bumps, speed tables, streetlights, traffic circles, and chicanes, along with clearer speed limit signage, speed "feedback" signs, and roadway markings are commonly recommended to encourage drivers to obey speed limits. Some Tribes designate "safety corridors" on highways known for speeding, with enhanced signage and higher enforcement presence to deter dangerous driving.

## Pedestrian and Bicycle Safety

Protecting people walking and biking is a shared safety priority across the Tribal plans. Each Tribe stresses the need for sidewalks, crosswalks, trails, and other facilities to separate pedestrians and cyclists from vehicle traffic, especially along busy highways and Tribal centers. Plans often cite data showing a disproportionate number of serious crashes involving pedestrians or bicyclists, and they set goals to reduce those incidents. Common strategies include building new pedestrian and bicycle pathways separated from roadways, improving crosswalk visibility, and filling sidewalk gaps between Tribal housing, schools, and community services. Several plans also highlight safety in school zones and safe routes for children.

## Roadway Infrastructure

All seven Tribes emphasize upgrading transportation infrastructure to reduce crash risks. Their plans call for improved road design and maintenance, including widening narrow roadways, adding or enhancing shoulders and guardrails, improving pavement conditions, and installing better traffic control devices (signage, striping, lighting). Many reservation roads were not built for current traffic volumes, so bringing them up to modern safety standards is a top priority in the plans. Tribes also collaborate with state and county agencies on safety improvements for highways that run through their lands.


## Enforcement

Strengthening traffic law enforcement is another common theme in the Tribes' safety initiatives. The plans recognize that engineering alone is not enough and that consistent enforcement against speeding, impaired driving, distracted driving, and other violations is critical to changing driver behavior. Many Tribes are enhancing their Tribal police traffic units or coordinating with county and state law enforcement to increase patrols on reservation roads and highways. Several plans call for data-driven enforcement, meaning officers concentrate efforts at the times and places where serious crashes are most frequent.

## Education and Outreach

All seven Tribes emphasize the importance of public education in building a culture of safety. Education and outreach efforts are geared toward informing and engaging the community about safe travel behaviors. Common actions include driver education programs (e.g., promoting seat belt use, sober driving, and distraction-free driving), child passenger safety workshops, and pedestrian/bicycle safety awareness campaigns. Many Tribes also work with local schools, businesses, and Tribal events to spread safety messages and encourage community ownership of road safety.

## Transit Access

The Tribes recognize that providing reliable alternatives to driving, such as transit shuttles and ridesharing, can reduce the number of vehicles on the road and thus lower crashes. Several plans discuss developing or expanding Tribal transit services and coordinating with regional transit agencies to fill transportation gaps for Tribal communities. There is also a focus on "complete streets" design, ensuring roadways can safely accommodate pedestrians, cyclists, and transit users.

CHAPTER 3

# Safety Analysis Methodology

# Safety Analysis Methodology

## Geographic Boundaries

To support this analysis of crashes near or within Tribal boundaries, four primary boundary sources were examined: the PSRC-defined Tribal area (referred to as "PSRC"), the Washington State Department of Ecology (DOE) Tribal boundary (referred to as "DOE"), the Bureau of Indian Affairs (BIA) boundary (referred to as "BIA"), and U.S. Census Tribal Tracts from the American Community Survey (ACS; referred to as "Tribal"). An additional boundary is outlined that reflects where the top 20 percent of census blocks with the highest Native American population in the central Puget Sound region that are adjacent to all Tribal areas. This area and the primary four boundaries were used to create a more inclusive ***combined boundary*** for the safety analysis, as shown in Figure 3-1.

The combined boundary integrates the highest-Tribal-population census blocks across all four source boundaries and is clipped to PSRC's four-county region (King, Kitsap, Pierce, and Snohomish counties). However, because the combined boundary was fragmented after merging census blocks with high tribal populations, light smoothing was applied to improve area cohesion and map legibility. This included removing small gaps, merging nearby pieces, simplifying irregular edges, and applying judgment to create a more continuous boundary for each Tribe. The result is the final combined boundary used for the safety analysis.

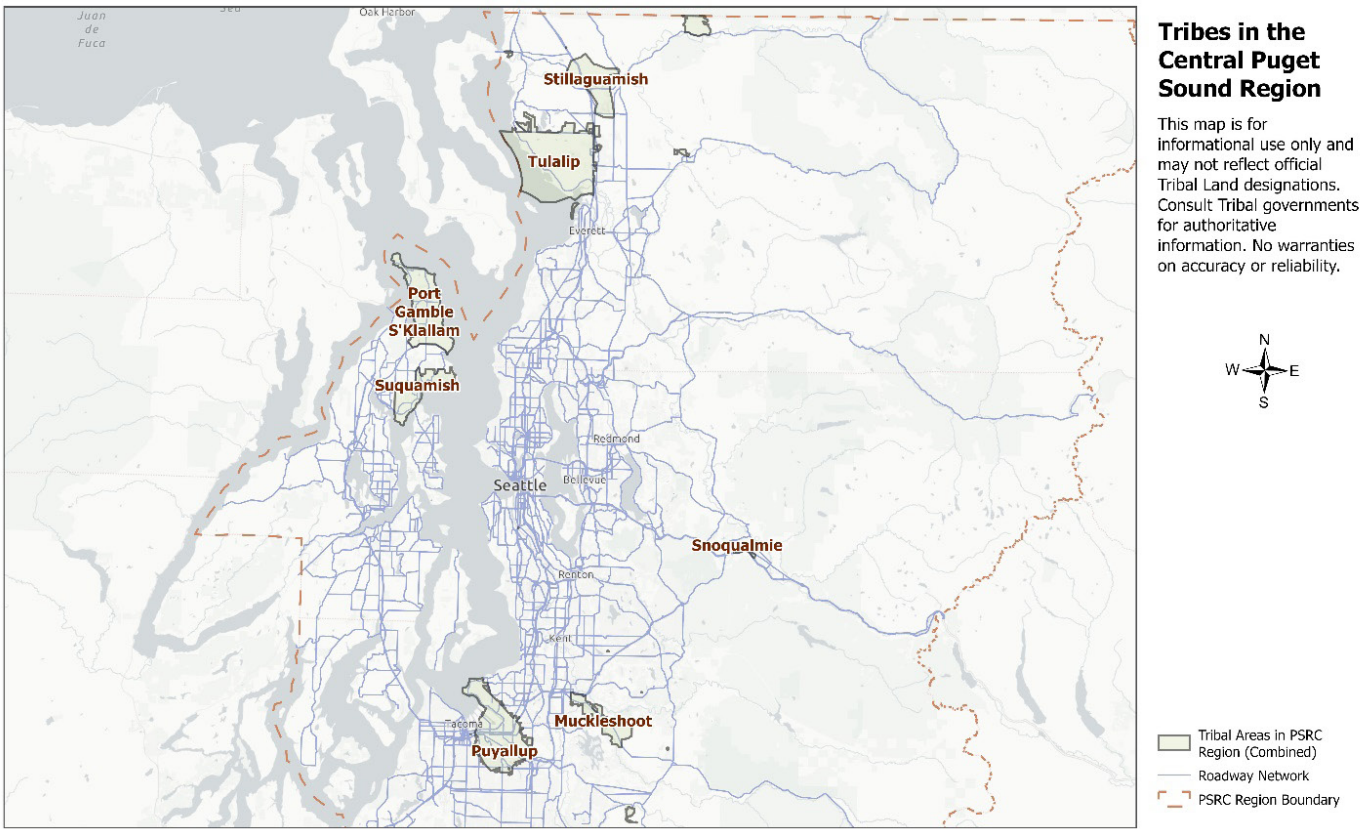


*Figure 3-1 Combined Boundary for Tribes in Central Puget Sound Region*

# Collision Data

The Washington State Department of Transportation (WSDOT) collects and maintains crash-related data for the state of Washington. PSRC acquired this crash information for the period from 2017 through 2024. This dataset includes information for each person involved in reported injury crashes (including all injuries and deaths) and non-injury crashes. Other pertinent information is provided for motor vehicle drivers, motor vehicle passengers, and people walking and biking. Other types of information such as location, date and time, roadway conditions, quantities of vehicles, people walking and biking involved, injuries, as well as driver actions and impairment information help in analyzing trends. For safety planning purposes, all crashes involving injuries or deaths and within 100 meters (approximately 328 feet) of the combined boundary were reviewed. Aligned with the Safe System Approach,[3] the analysis excludes crashes that resulted only in property damage. The 100-meter buffer around the combined boundary was applied because many Tribal areas are relatively small and have limited incident records.

# Supplemental Analysis Parameters

In the analysis conducted for this Supplemental Tribal Safety Analysis, different parameters were used for the 2025 adopted RSAP:

- As discussed above, a more inclusive combined boundary has been applied to the Tribal areas.
- 2024 WSDOT Crash Data has been added to the dataset.
- A 100-meter (approximately 328-foot) buffer has been applied to the combined boundary to spatially filter for KABC crashes.
- For high crash locations, unlike the 30-meter (approximately 100-foot) clustering method to group KSI crashes used for the 2025 adopted RSAP, this analysis uses a 45-meter (approximately 148-foot) clustering radius to group KABC crashes within the defined distance. The broader radius reflects the fact that many Tribal areas have relatively sparse road networks, where crashes are more spatially dispersed compared to denser urban environments. By using a slightly larger radius and including KABC crashes rather than only KSI crashes, the analysis provides a more inclusive representation of safety concerns in these areas, where limited incident records and smaller geographies could otherwise lead to under-identification of high crash locations.

3 U.S. Department of Transportation Safe System Approach, https://www.transportation.gov/safe-system-approach.

CHAPTER 4

# Central Puget Sound Region Tribal Areas Crash Trends (2010-2024)

# Central Puget Sound Region Tribal Areas Crash Trends (2010-2024)

Analyses of trends are useful for safety professionals and policymakers to understand the history and trajectory of crashes within the region. Regional crash trend analyses reveal information about crash types and crash severity across geographies and time in the central Puget Sound region. The data analyzed ranges from the years 2010 to 2024, providing a recent yet comprehensive timeframe for assessing traffic crash trends. Long-term crash data (2010-2024) was used to examine trends in injury and fatal crashes for the different Tribes. An 8-year existing conditions analysis period (2017-2024) was used to establish a current snapshot of roadway safety in the region.

## Injury and Fatality Rates in Tribal Areas

According to the State of Safety in the Region Report, crash severity is disproportionately higher in Tribal areas compared to the region overall. This analysis includes injuries and deaths that occurred on or within 50 feet of Tribal areas, provided as outcomes per 100,000 population to allow comparison across geographies.

As shown in Figure 4-1, Tribal nations consistently experience higher injury, serious injury, and fatality rates per 100,000 people than the broader region. As crash severity increases, the disparity widens, which highlights a significant public health concern for people living in Tribal areas. Most notably, the fatality rate in Tribal areas has nearly tripled since 2010, despite the small population size, underscoring the elevated risk faced by Tribal communities.

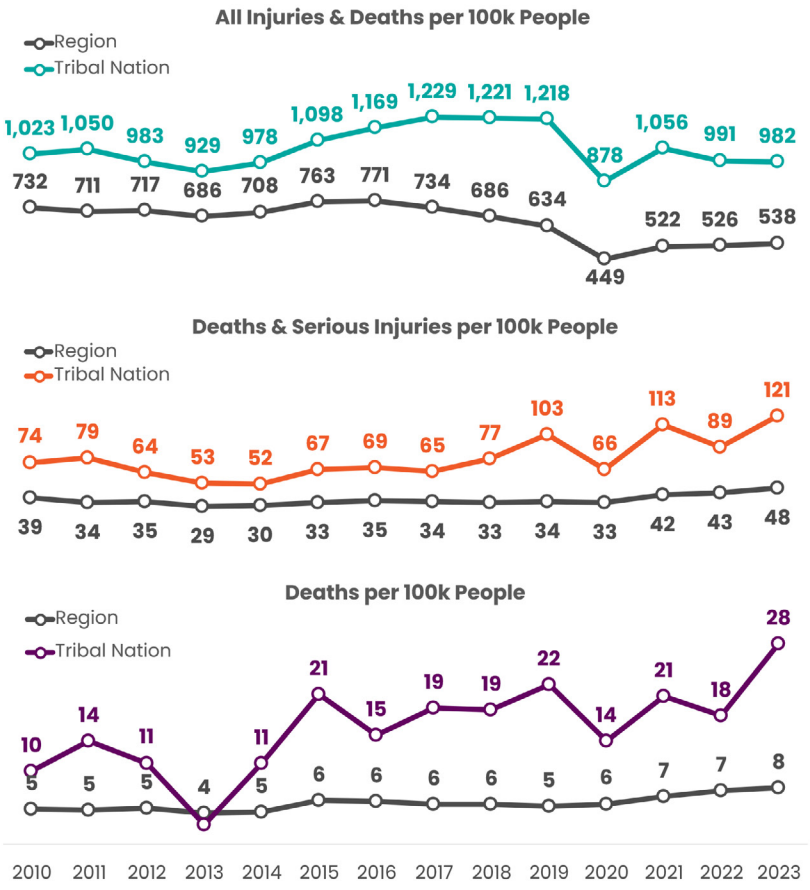


*Figure 4-1 Traffic Related Injuries and Deaths per 100,000 People, Tribal Nations and Region (2010-2023)*

As shown in Figure 4-2, all injury and fatality outcomes declined in 2024, with a notable drop in the most severe outcomes (KSI). Deaths (K) and combined deaths and serious injuries (KSI) fell by nearly half compared to 2023. One year of data is not enough to indicate a trend reversal, but the data will continue to be monitored in the coming years.

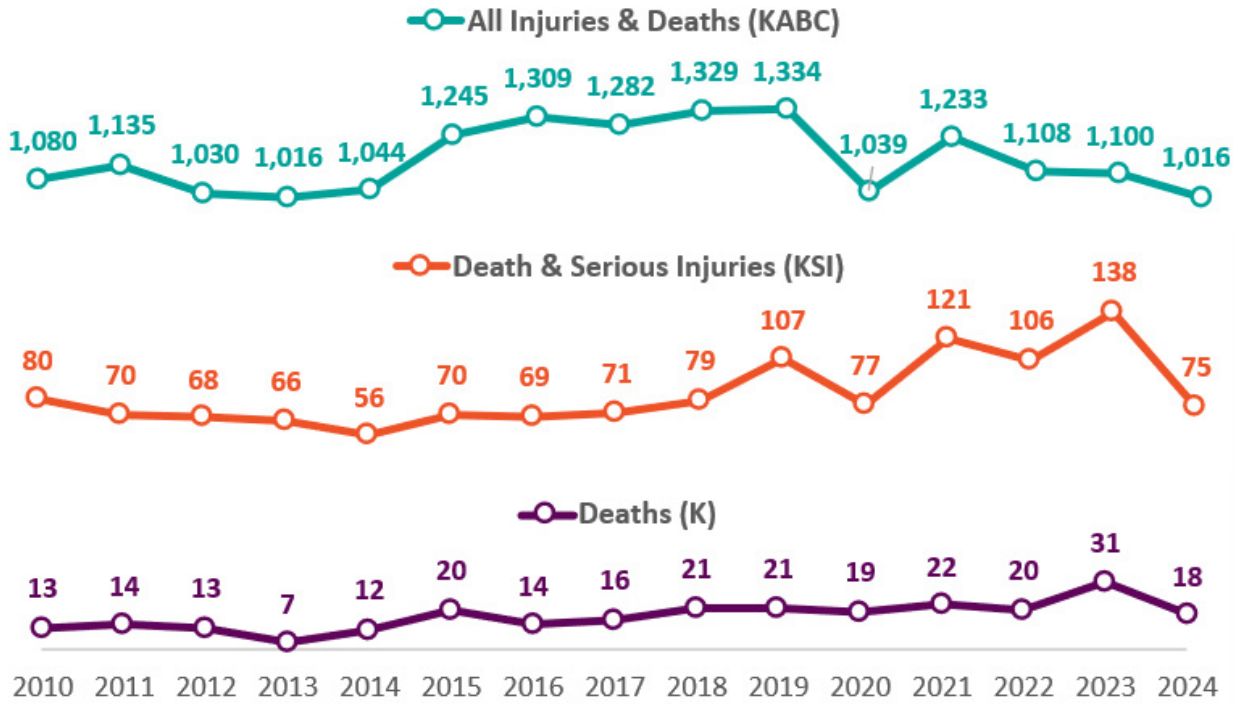


*Figure 4-2 Annual Injuries and Deaths for All Crash Victims in the Central Puget Sound Region Tribal Areas (2010-2024)*

# Pedestrian/Bike Trends: Injury and Fatality Rates in Tribal Areas

People walking and riding bikes are the most vulnerable road users from a safety perspective. Figure 4-3 shows that while all injuries and deaths (KABC) of the vulnerable road user group have declined since 2018 and stabilized at around 50 per year, KSI have fluctuated over the past 5 years, with elevated peaks observed in 2021 and 2023. In 2024, however, the number of deaths remained steady at approximately three, indicating no severe increase in fatal outcomes.

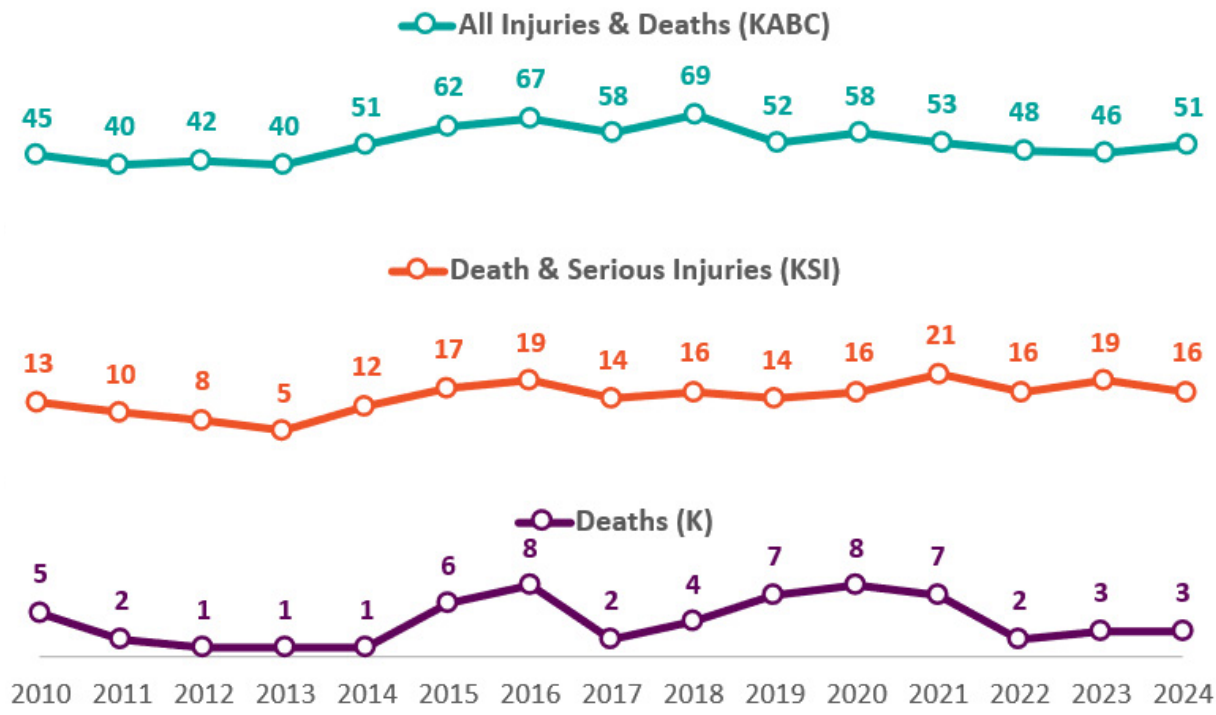


*Figure 4-3 Annual Injuries and Deaths for Pedestrian and Bicyclist Victims in the Central Puget Sound Region Tribal Areas (2010-2024)*

CHAPTER 5

# Central Puget Sound Region Tribal Areas Crash Analysis (2017-2024)

# Central Puget Sound Region Tribal Areas Crash Analysis (2017–2024)

The Tribal areas crash analysis is a snapshot in time of the current traffic-related safety context in the central Puget Sound region within the Tribal areas defined in Figure 3-1. The regional crash analysis considered an 8-year period between 2017 and 2024. This shorter timeframe was considered to determine a baseline for central Puget Sound region Tribal areas regarding traffic safety. The crash analysis compares crash outcomes between contributing factors and crash types to determine attributes contributing to particularly severe outcome crashes. This analysis provides a better understanding of where and why serious injury and fatal crashes occur and provides insight that can be used to develop appropriate and effective strategies to improve safety in the Tribal areas.

The U.S. Department of Transportation's National Roadway Safety Strategy considers that humans are vulnerable and that they make mistakes. Crash records, while imperfect, offer valuable information about how people interact with the transportation system. Examining patterns in the reported contributing factors allows better understanding of the types of crashes that occur and how they lead to deaths and serious injuries. These records, however, are only as accurate as the reporting officer's account and may not capture all behaviors, particularly inattention or distracted driving. Moreover, crashes often involve multiple contributing factors, making it difficult to determine the specific role each factor played in the severity of the outcome.

## Contributing Factors

In all central Puget Sound region Tribal areas, as shown in Table 5-1, the top five contributing factors associated with all injury crashes from 2017 to 2024 are: distracted driving, speeding, following too closely, failure to yield to a vehicle, and impaired driving. Among these, speeding is the leading factor in fatal and serious injury crashes, accounting for 29 percent of such outcomes. Distracted driving and impaired driving are next, each contributing to 21 percent of serious injuries and death. Regionwide, the central Puget Sound region's top five factors differ slightly, with reckless driving not appearing among the top five factors in Tribal areas.

While distracted driving is the most common factor across all injury crashes (26 percent), its severity impact is less pronounced than that of speeding or impairment. Impaired driving, though accounting for only 10 percent of all injuries, contributes disproportionately to severe outcomes, representing 21 percent of fatalities and serious injuries, and 21 percent of fatalities alone. These top five contributing factors are similar to those identified regionwide with the exception of reckless driving, which is not among the top five identified for Tribes. However, following too closely is a top factor in the combined Tribes list.

*Table 5-1 Top Five Contributing Factors for All Injuries or Fatalities in the Central Puget Sound Region Tribal Areas (2017-2024)*

| Contributing Factor | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Distracted | 2,451 | 26% | 159 | 21% | 27 | 16% | 1 : 15 | 1 : 91 | 1 : 6 |
| Speeding | 1,882 | 20% | 223 | 29% | 52 | 31% | 1 : 8 | 1 : 36 | 1 : 4 |
| Follow Too Closely | 1,649 | 17% | 13 | 2% | 2 | 1% | 1 : 127 | 1 : 825 | 1 : 7 |
| Failure to Yield to Vehicle | 1,570 | 17% | 99 | 13% | 14 | 8% | 1 : 16 | 1 : 112 | 1 : 7 |
| Impaired | 901 | 10% | 165 | 21% | 36 | 21% | 1 : 5 | 1 : 25 | 1 : 5 |

# Crash Types

As shown in Table 5-2, the top five crash types that resulted in deaths and serious injuries are consistent with those observed throughout in the central Puget Sound region. Across all Tribal areas, the leading crash types resulting in deaths and serious injuries are fixed-object, angle, pedestrian/bike, rollover, and rear-end collisions. Notably, fixed-object crashes account for 45 percent of all fatalities, the highest among all crash types, followed by angle crashes at 22 percent.

While rear-end collisions represent the largest share of all injury crashes (35 percent), they contribute relatively little to severe outcomes (7 percent of fatalities). In contrast, fixed-object crashes, pedestrian/bike crashes and head-on crashes, though less frequent overall, have a much higher severity outcomes.

*Table 5-2 Top Crash Types for All Injuries or Fatalities in the Central Puget Sound Region Tribal Areas (2017-2024)*

| Crash Type | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Rear End | 3,345 | 35% | 67 | 9% | 11 | 7% | 1 : 50 | 1 : 304 | 1 : 6 |
| Angle | 2,862 | 30% | 202 | 26% | 37 | 22% | 1 : 14 | 1 : 77 | 1 : 5 |
| Fixed Object | 1,965 | 21% | 286 | 37% | 76 | 45% | 1 : 7 | 1 : 26 | 1 : 4 |
| Sideswipe | 685 | 7% | 53 | 7% | 8 | 5% | 1 : 13 | 1 : 86 | 1 : 7 |
| Same Direction – Other | 529 | 6% | 42 | 5% | 5 | 3% | 1 : 13 | 1 : 106 | 1 : 8 |
| Rollover | 538 | 6% | 91 | 12% | 24 | 14% | 1 : 6 | 1 : 22 | 1 : 4 |
| Pedestrian/Bike | 448 | 5% | 134 | 17% | 36 | 21% | 1 : 3 | 1 : 12 | 1 : 4 |
| Head-on | 259 | 3% | 72 | 9% | 11 | 7% | 1 : 4 | 1 : 24 | 1 : 7 |

# Target Zero Areas

The Target Zero areas highlighted here represent a mix of high-risk behaviors, crash types, and road user characteristics, consistent with the Target Zero 2019 Emphasis Areas[4] identified in the Washington State Strategic Highway Safety Plan (SHSP).

Table 5-3 summarizes the top Target Zero areas for all injury and fatal crashes from 2017 to 2024 in central Puget Sound region Tribal areas. Speeding-related crashes account for the largest share of fatalities in Tribal areas (31 percent), followed by impaired-involved person crashes (25 percent) and single-vehicle crashes on surface streets (24 percent). The fatality-to-all-injury ratio for impaired-involved person crashes is 1:23, indicating these crashes are over 2.3 times more likely to result in a death compared to the average crash (1:53).

*Table 5-3 Top Target Zero Areas for All Injuries or Fatalities in the Central Puget Sound Region Tribal Areas (2017-2024)*

| Emphasis Area | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Driver Age 16-25 | 2,984 | 32% | 229 | 30% | 34 | 20% | 1 : 13 | 1 : 88 | 1 : 7 |
| Distracted Involved Person | 2,492 | 26% | 176 | 23% | 34 | 20% | 1 : 14 | 1 : 73 | 1 : 5 |
| Speeding Driver | 1,882 | 20% | 223 | 29% | 52 | 31% | 1 : 8 | 1 : 36 | 1 : 4 |
| Driver Age 65+ | 1,638 | 17% | 139 | 18% | 28 | 17% | 1 : 12 | 1 : 59 | 1 : 5 |
| Hit and Run | 938 | 10% | 66 | 9% | 15 | 9% | 1 : 14 | 1 : 63 | 1 : 4 |
| Single Vehicle on Surface Streets | 967 | 10% | 162 | 21% | 41 | 24% | 1 : 6 | 1 : 24 | 1 : 4 |
| Impaired Involved Person | 954 | 10% | 185 | 24% | 42 | 25% | 1 : 5 | 1 : 23 | 1 : 4 |

4 WSDOT's Highway Safety Improvement Program Implementation Plan 2024, page 17.

CHAPTER 6

# High-Injury Network Summary (2016-2023)

# High-Injury Network Summary (2016-2023)

A high-injury network (HIN) map was developed for the Puget Sound region (See RSAP Chapter 2, pages 19–22). Within the HIN, a corridor is considered high-priority if it experiences more than two deaths or serious injuries per mile on surface streets, or more than three per mile on limited-access highways during the study period between 2016 and 2023. These thresholds differ for surface streets and limited-access highways due to differences in roadway type and traffic volume. The identified corridors are continuous segments of the road network, excluding shorter sections, which are less than half a mile for surface streets and less than a mile for limited-access highways.

Within each Tribe's combined boundary, the extent of the HIN varies considerably. As shown in Table 6-1, the Muckleshoot Tribal area has the highest HIN coverage, with HIN corridors representing 47 percent of its roadway network, followed by Puyallup Tribe of Indians (15 percent), Tulalip Tribes (12 percent), and Stillaguamish Tribe of Indians (8 percent). The Muckleshoot Tribal area also records the highest HIN miles per 100,000 population and HIN miles per square mile, which further indicates both a higher density and greater per capita exposure to high priority corridors. Notably, the Puyallup Tribal of Indians has the most HIN segments within its combined boundary, with 32 corridors identified.

*Table 6-1 HIN Summary in Tribal Areas (2016-2023)*

| Tribe | Population | Area (Sq. Mile) | HIN Mile | HIN Corridors Count | HIN Mile Average | HIN miles per Square Mile | HIN Miles per 100k Pop. | Percent of Network Covered by HIN |
|---|---|---|---|---|---|---|---|---|
| Muckleshoot Tribal Areas | 9,226 | 9.8 | 10.6 | 9 | 1.2 | 1.1 | 115.2 | 47% |
| Port Gamble S'Klallam Tribal Areas | 8745 | 25.5 | 0 | 0 | 0 | 0 | 0 | 0% |
| Puyallup Tribal Areas | 6,1716 | 33.5 | 34.8 | 32 | 1.1 | 1.0 | 56.4 | 15% |
| Snoqualmie Tribal Areas | 253 | 1.2 | 0 | 0 | 0 | 0 | 0 | 0% |
| Stillaguamish Tribal Areas | 6,341 | 21.2 | 3.5 | 5 | 0.7 | 0.2 | 54.9 | 8% |
| Suquamish Tribal Areas | 8,687 | 14.5 | 0.3 | 1 | 0.3 | 0 | 3.5 | 1% |
| Tulalip Tribal Areas | 14,218 | 57.1 | 8.4 | 12 | 0.7 | 0.2 | 59.1 | 12% |

HIN = high-injury network

CHAPTER 7

# Recommended Strategies for Central Puget Sound Region Tribal Areas

# Recommended Strategies for Central Puget Sound Region Tribal Areas

Based on the RSAP Strategies Toolbox, which provides a comprehensive framework for improving transportation safety, this section outlines a combination of design / engineering strategies and planning, policy, and program strategies tailored to address the identified issues in the central Puget Sound region Tribal areas. Recognizing that many facilities in the Tribal areas fall under multiple jurisdictions helps ensure that crash analyses and safety measurements are appropriately coordinated and aligned with agency responsibilities.

To develop the strategies and countermeasures (design and engineering strategies only) for the central Puget Sound region Tribal areas, crash analysis findings were integrated with the RSAP Strategies Toolbox. Crash records from 2017 to 2024 were analyzed by contributing factor and collision type to identify the most common and most severe patterns. The findings were then cross-referenced with the toolbox to match high-priority crash issues, such as speeding, impairment, distraction, or failure to yield, with appropriate countermeasures. The resulting summaries provide tailored recommendations for each Tribe that address infrastructure needs, ensuring a comprehensive, data-driven framework for reducing deaths and serious injuries.

## Design and Engineering Strategies

- Speed Management: Automated speed enforcement, speed feedback signs, lane reductions, and targeted speed limit reductions to address speeding-related crashes. (See RSAP Chapter 4, Pages 48, 55, and 60.)
- Road Departure and Fixed-Object Crash Mitigation: Shoulder/edge line rumble strips, crash cushions, high-friction surface treatments, widening edge lines, guardrails. (See RSAP Chapter 4, Page 60.)
- Intersection and Angle Crash Reduction: Roundabouts, protected intersection designs, hardened centerlines/turn hardening, and traffic signal backplates with retroreflective borders. (See RSAP Chapter 4, Page 66.)
- Pedestrian and Bicycle Safety: High-visibility crosswalks, pedestrian hybrid beacons, refuge islands, separated bike lanes, improved lighting. (See RSAP Chapter 4, Pages 48.)

## Planning, Policy, and Program Strategies

- Targeted Enforcement: Emphasis patrols and automated enforcement in Tribal corridors with high rates of speeding, impaired driving, and single-vehicle crashes.
- Education and Outreach: Youth driver safety programs, older driver awareness campaigns, with particular emphasis on speeding, impairment, and roadway departure risks.
- Public Awareness Campaigns: Focus on speeding, impairment, and distraction, and promote safe yielding behavior for pedestrian and bike safety.
- Policy and Planning Integration: Use High Crash Location and High-Injury Network toolkits and findings to guide safety project priorities in the Tribal transportation plan.
- Funding Alignment: Pursue Target Zero, Federal Highway Administration (FHWA), and Tribal Transportation Program Safety Funds for infrastructure and education initiatives.

Appendix C: Comprehensive List of Strategies, in the 2025 adopted RSAP, provides a complete list of strategies mentioned in the RSAP Toolbox that can be considered to address safety issues. Attachment D-1 of the appendix provides detailed design and engineering strategies, and Attachment D-2 provides planning, policy, and program strategies.

CHAPTER 8

# Crash Profile Summary

# Crash Profile Summary

In summary, KSI trends for all crash victims and for pedestrian and bicyclist victims have fluctuated over the past 5 years, with a notable decline most recently in 2024. Within the central Puget Sound region Tribal areas, speeding is the leading factor in fatal and serious injury crashes, while fixed-object, angle, and pedestrian/bike collisions account for the largest share of fatalities. Speeding-related, impaired-involved, and single-vehicle crashes on surface streets represent the primary Target Zero areas. Among all Tribes in the central Puget Sound region, the Muckleshoot Indian Tribe has the highest share of HIN corridors, followed by the Puyallup Tribe of Indians, Tulalip Tribes, and Stillaguamish Tribe of Indians.

The following section builds on the central Puget Sound region Tribal areas analysis and further informs the Tribal Safety Action Plan for each Tribe. It provides a summary of publicly available transportation safety plans and policies, an assessment of geographic boundaries and boundary methodology, associated crash data and HIN summaries, and recommended strategies and countermeasures.

CHAPTER 9

# Individual Tribal Area Findings

*Photo Credit: Jenn Squally Photography. Puyallup Tribe*

# Individual Tribal Area Findings

This chapter applies the regional findings to each individual Tribe in central Puget Sound region, providing crash profiles, High-Injury Network coverage, and recommended strategies tailored to the specific context of each Tribal area.

# Muckleshoot Indian Tribe

# Muckleshoot Indian Tribe


## Findings in Safety Plans, Policies, and Programs

Planning and Policy Overview:

- **Transportation Safety in the Comprehensive Plan:** The Muckleshoot Indian Tribe's comprehensive plan is currently undergoing an update, with a projected completion date in late 2025. While the current version is not publicly available, it is expected to include a transportation element. References suggest alignment with Target Zero and Vision Zero principles.
- **Tribal Transportation Safety Program:** The Muckleshoot Indian Tribe completed a draft Strategic Transportation Safety Plan in 2016. This plan identified a Tribal Safety Commission (MITTS) and emphasized transit as an alternative to driving. It also identified 10 focus areas. The Muckleshoot Traffic Safety Program is mentioned in the Washington State SHSP (2019), which describes its alignment with state-level safety goals (Page 22). Limited public information is available directly from the Tribe's website.

- **Muckleshoot Tribal Transportation Plan (2018):** This document discusses road safety priorities and mentions speed-reduction strategies.
- **Tribal Code – Chapter 5.11:** Traffic Offenses and Chapter 5.19.050: Arrest for Traffic Violation: These sections outline traffic enforcement measures and authority on Tribal lands.
- **Coordination with Regional Plans:** The Muckleshoot Indian Tribe's transportation safety priorities are referenced in the City of Auburn's transportation plans, highlighting collaboration on shared corridors and safety considerations.

Programs and Regional Engagement:

- The Muckleshoot Indian Tribe is recognized in the Washington State SHSP (2019) and the Target Zero Action Plan, both of which identify the Tribe's alignment with broader Vision Zero goals.
- In the 2024 Washington State SHSP, child passenger safety technician training courses were noted to be offered to Tribal nations. In 2023-24, child passenger safety technician courses were offered to the Muckleshoot Indian Tribe, Spokane Tribe of Indians, and the Confederated Tribes and Bands of the Yakama Nation.
- The FHWA case study "Engaging Native American Tribes in the SHSP – Washington" includes Muckleshoot Indian Tribe as a partner in coordinated tribal safety planning.
- The Target Zero Plan and Driving Under the Influence (DUI) Provisions Update mentions of tribal coordination and safety goal alignment.

# Geographic Boundaries

To assess how safety outcomes vary based on geographic definitions, crash data was analyzed using the boundaries described in Chapter 1, Safety Analysis Methodology: the PSRC, DOE, BIA, and Tribal boundaries, as well as a boundary reflecting the top 20 percent of census blocks with the highest Native American population in the central Puget Sound region adjacent to Muckleshoot Tribal areas. Figure 9-1 shows these boundaries.

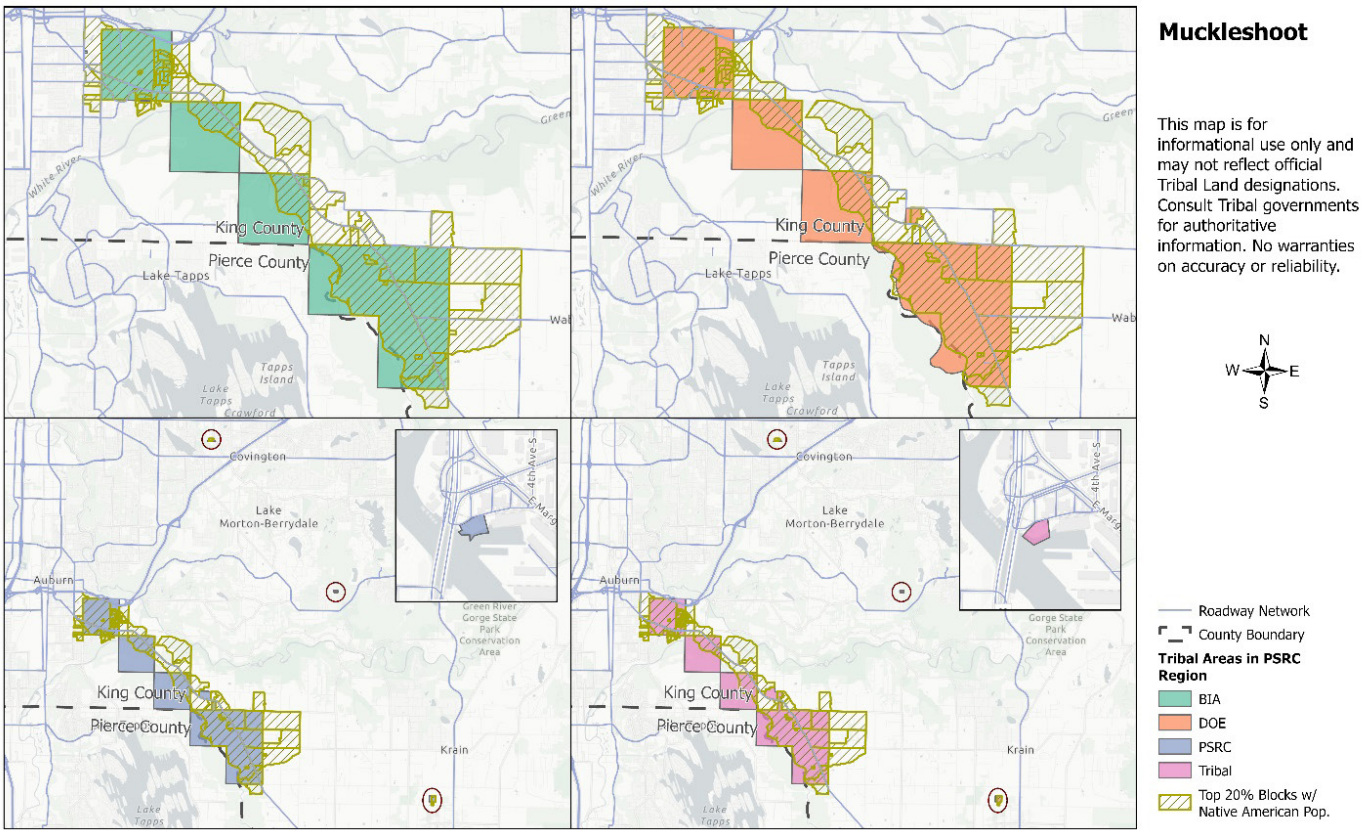


*Figure 9-1 Comparison of Boundary Sources Used in Crash Analysis for Muckleshoot Tribal Areas*

While each boundary shown in Figure 9-1 provides valuable context, the crash data was ultimately aggregated using a combined boundary to create a more inclusive safety analysis and support consistency across datasets. This combined boundary integrates the highest-Tribal-population census blocks across all four source boundaries and is clipped to the PSRC's four-county region (King, Kitsap, Pierce, and Snohomish counties). Figure 9-2 illustrates the combined boundary, representing the area analyzed for the Muckleshoot Indian Tribe.

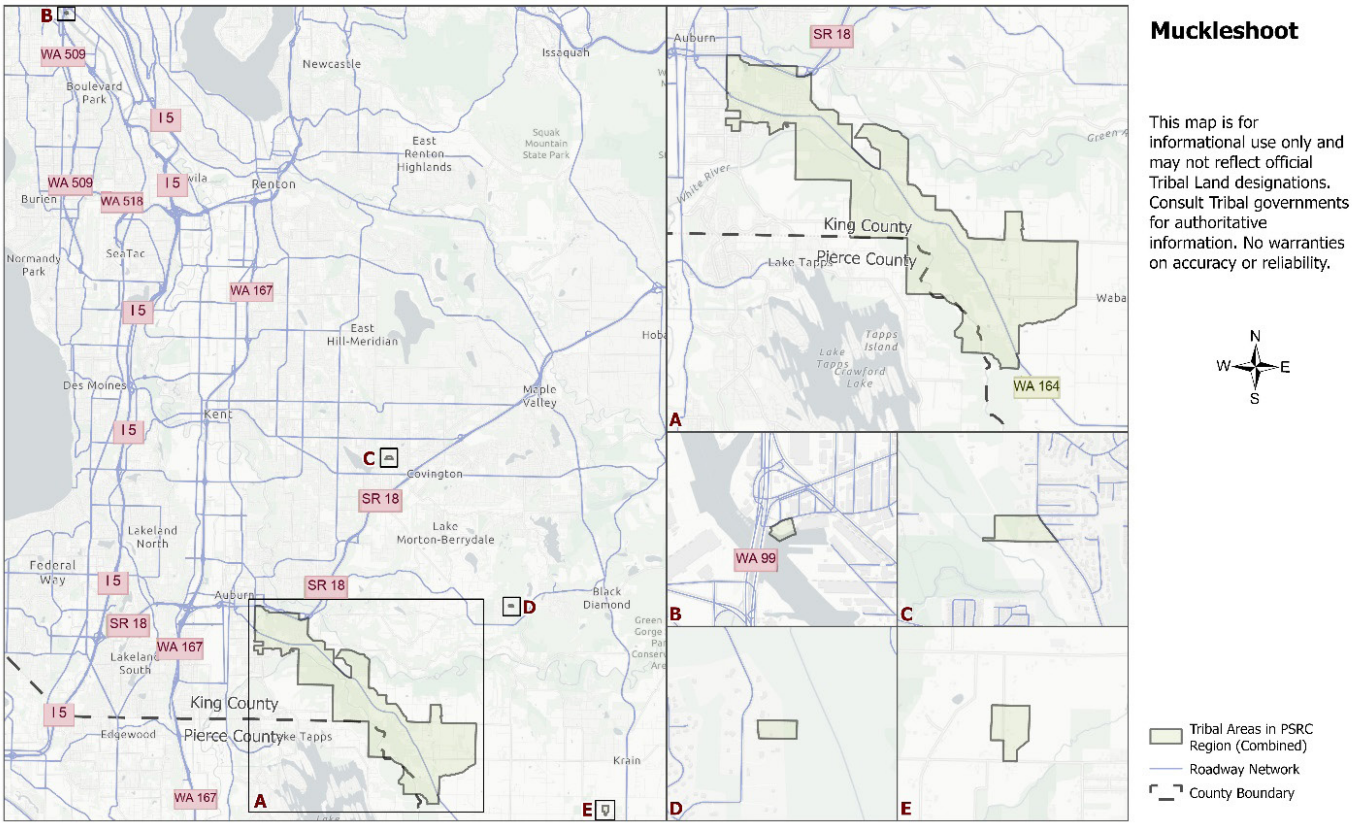


*Figure 9-2 Combined Boundary for Consideration of Crash Locations Resulting in Deaths or Serious Injuries in Muckleshoot Tribal Areas*

# Crash Trends (2010-2024)

Figure 9-3 shows crash victim trends from 2010 through 2024 across three collision severity categories. Consistent with the overall Tribal area trend, 2018 and 2023 stand out as peak years for all injuries levels in the Muckleshoot Indian Tribe combined boundary. In contrast, 2024 shows a notable decline in victims across all categories.

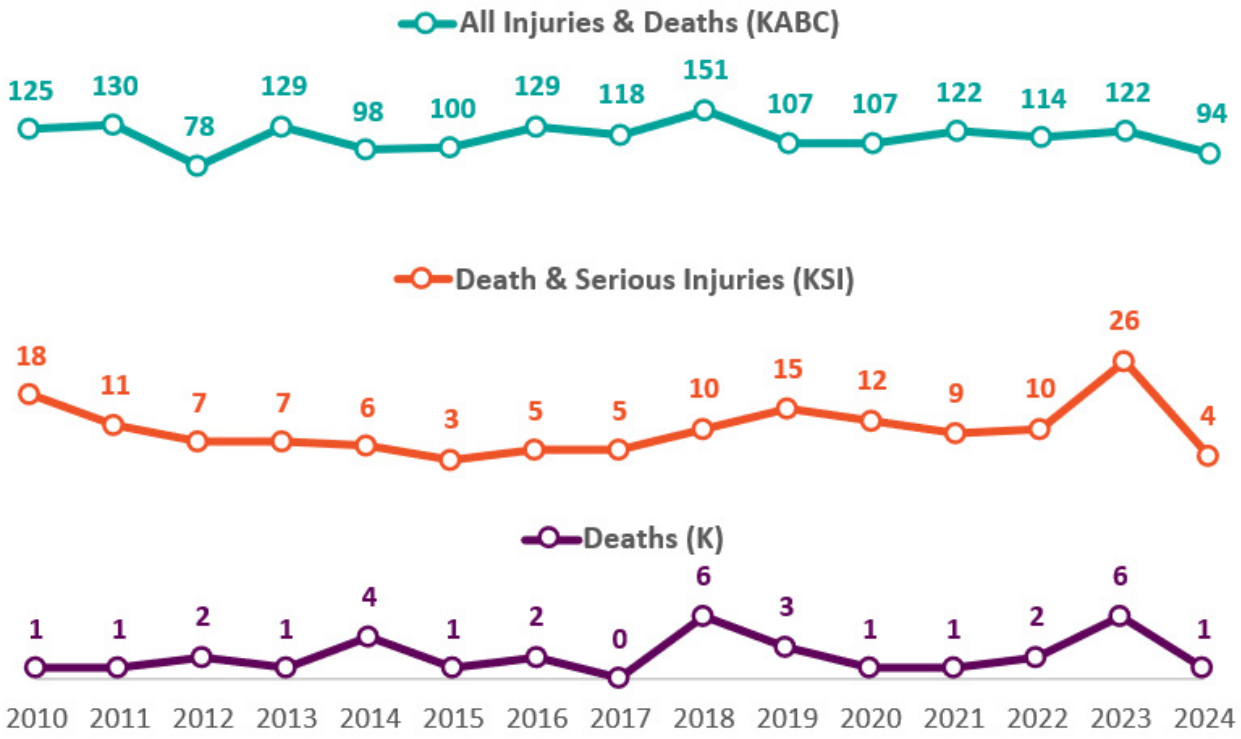


*Figure 9-3 Annual Injuries and Deaths for All Crash Victims in Muckleshoot Tribal Areas (2010-2024)*

# Crash Data Summary (2017-2024)

For safety planning purposes, all crashes involving injuries or deaths were reviewed. Aligned with the Safe System Approach, the analysis excludes crashes that resulted only in property damage. The dataset was further disaggregated to identify crashes involving serious injuries and deaths, as well as those resulting in deaths alone.

## Contributing Factors

In the Muckleshoot Tribal areas, as shown in Table 9-1, the top contributing factors in fatal crashes are speeding, impaired driving, and reckless driving. For all injury crashes, distracted driving is the most common factor, associated with nearly 32 percent of cases. Notably, speeding and impaired driving is highly severe: approximately one in five injury crashes involving speeding results in a serious injury or death, and one in four injury crashes involving impairment results in a serious injury or death.

*Table 9-1 Top Contributing Factors for All Injuries or Fatalities in Muckleshoot Tribal Areas (2017-2024)*

| Contributing Factor | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Distracted | 297 | 32% | 21 | 23% | 1 | 5% | 1 : 14 | 1 : 297 | 1 : 21 |
| Speeding | 219 | 23% | 40 | 44% | 12 | 60% | 1 : 5 | 1 : 18 | 1 : 3 |
| Failure to Yield to Vehicle | 185 | 20% | 11 | 12% | 1 | 5% | 1 : 17 | 1 : 185 | 1 : 11 |
| Impaired | 91 | 10% | 21 | 23% | 6 | 30% | 1 : 4 | 1 : 15 | 1 : 4 |
| Failure to Use Due Care / Reckless | 36 | 4% | 13 | 14% | 4 | 20% | 1 : 3 | 1 : 9 | 1 : 3 |

## Crash Types

The top five crash types in the Muckleshoot Tribal areas, as shown in Table 9-2, are fixed object and pedestrian/bicycle crashes, followed by angle, head-on, and rear-end crashes for deaths and serious injuries. Fixed-object crashes are particularly severe, accounting for 53 percent of all fatal crashes.

*Table 9-2 Top Crash Types for All Injuries or Fatalities in Muckleshoot Tribal Areas (2017-2024)*

| Crash Type | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Angle | 279 | 40% | 14 | 22% | 3 | 20% | 1 : 20 | 1 : 93 | 1 : 5 |
| Rear End | 210 | 30% | 7 | 11% | 0 | 0% | 1 : 30 | N/A | N/A |
| Fixed Object | 131 | 19% | 22 | 34% | 8 | 53% | 1 : 6 | 1 : 16 | 1 : 3 |
| Pedestrian/ Bike | 51 | 7% | 17 | 26% | 4 | 27% | 1 : 3 | 1 : 13 | 1 : 4 |
| Head-on | 21 | 3% | 9 | 14% | 1 | 7% | 1 : 2 | 1 : 21 | 1 : 9 |

N/A = not applicable because there were no fatalities due to this crash type.

## Target Zero Areas

Shown in Table 9-3, speeding accounts for the largest share of fatalities (60 percent) despite representing only 23 percent of all injuries. Single-vehicle crashes on surface streets and impaired-involved person crashes also stand out as high-severity Target Zero areas, each showing a disproportionate share of fatalities relative to their share of total injuries.

*Table 9-3 Top Target Zero Areas for All Injuries or Fatalities in Muckleshoot Tribal Areas (2017-2024)*

| Target Zero Area | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Distracted Involved Person | 304 | 33% | 24 | 26% | 2 | 10% | 1 : 13 | 1 : 152 | 1 : 12 |
| Driver Age 16-25 | 293 | 31% | 26 | 29% | 3 | 15% | 1 : 11 | 1 : 98 | 1 : 9 |
| Speeding Driver | 219 | 23% | 40 | 44% | 12 | 60% | 1 : 5 | 1 : 18 | 1 : 3 |
| Driver Age 65+ | 168 | 18% | 14 | 15% | 1 | 5% | 1 : 12 | 1 : 168 | 1 : 14 |
| Single Vehicle on Surface Streets | 103 | 11% | 21 | 23% | 8 | 40% | 1 : 5 | 1 : 13 | 1 : 3 |
| Impaired Involved Person | 97 | 10% | 25 | 27% | 7 | 35% | 1 : 4 | 1 : 14 | 1 : 4 |

# High-Injury Network Summary (2016-2023)

As shown in Table 9-4 and Figure 9-4, within the Muckleshoot Tribal Areas, 47 percent of the roadway network is identified as part of the HIN. Of this, 45 percent (10.1 miles) consists of surface roads along SR 164, while 2 percent (0.5 miles) is located on freeway segments along the north portion of the Muckleshoot Tribal Areas, specifically SR 18. The most critical corridor is Auburn Way S along SR 164, which experienced a high concentration of deaths and serious injuries between 2016 and 2023. When normalized to HIN mileage per 100,000 population, this corridor exhibits a significantly higher crash rate than other tribes in the central Puget Sound region.

*Table 9-4 HIN Summary in Muckleshoot Tribal Areas (2016-2023)*

| Tribe | Population | Area (Sq. Mile) | Roadway Type | HIN Mile | HIN Corridors Count | HIN Mile Average | HIN miles per Square Mile | HIN Miles per 100k Pop. | Percent of Network Covered by HIN |
|---|---|---|---|---|---|---|---|---|---|
| Muckleshoot Tribal Areas | 9226 | 9.8 | Freeway | 0.5 | 1 | 0.5 | 0.1 | 5.8 | 2.4% |
| | | | Surface | 10.1 | 8 | 1.3 | 1.0 | 109.4 | 44.7% |

HIN = high-injury network

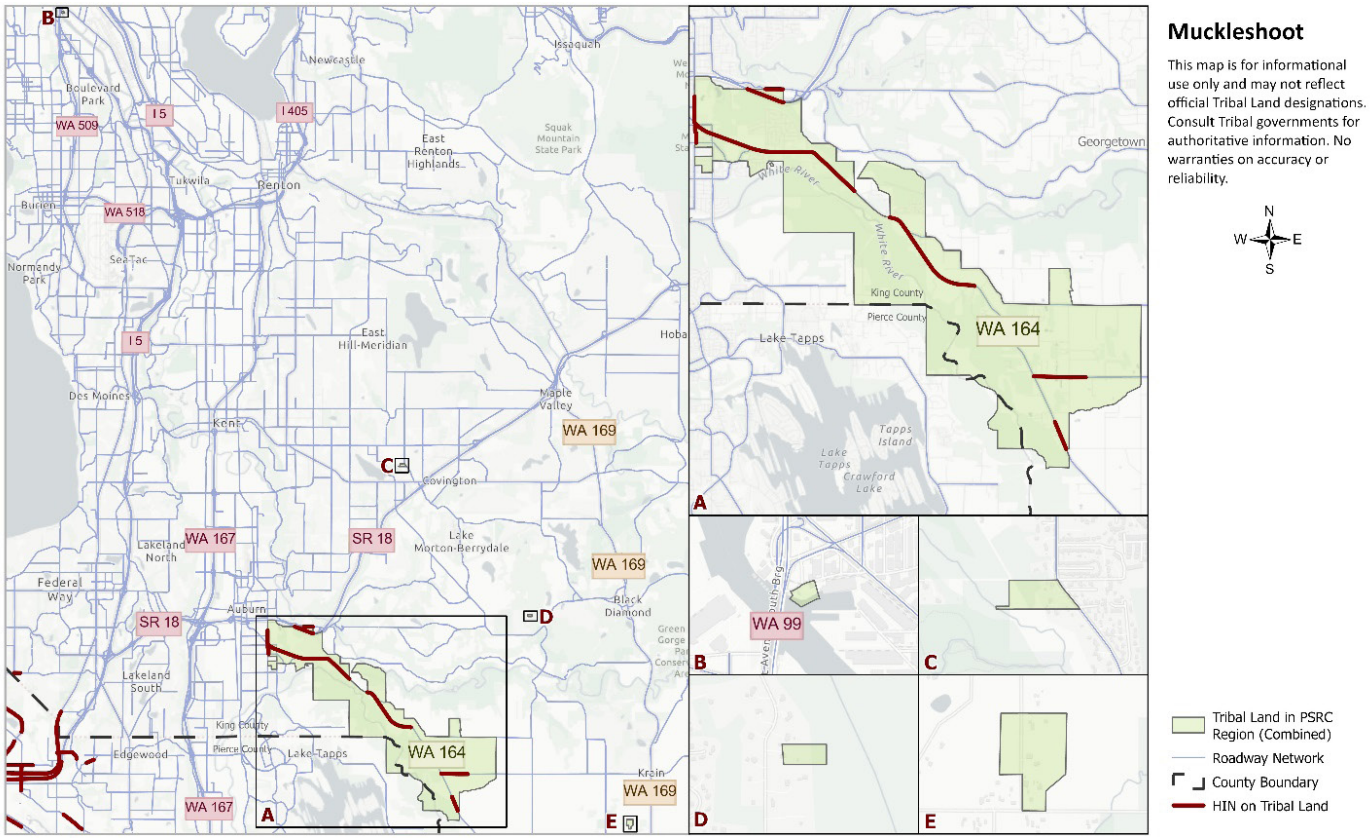


*Figure 9-4 High-Injury Network in Muckleshoot Tribal Areas*

# Strategies and Crash Countermeasures

The Muckleshoot Tribal areas have the highest HIN coverage among central Puget Sound region Tribal areas, with 47 percent of its roadway network designated as a HIN, according to Table 6-1. It also leads in HIN miles per 100,000 population. Fatal crashes are primarily linked to speeding, impaired driving, and reckless driving, while distracted driving is the most common factor in all injury crashes. Fixed-object and pedestrian/bicycle crashes are the most severe, with fixed-object crashes alone causing over half of all fatalities. Speeding accounts for 60 percent of fatalities despite less than a quarter of all injuries, with single-vehicle surface street and impaired-involved crashes also showing high death rates. Recognizing that many facilities in the Tribal areas fall under multiple jurisdictions helps ensure that crash analyses and safety measurements are appropriately coordinated and aligned with agency responsibilities.

Based on the RSAP Strategies Toolbox, which provides a comprehensive framework for improving transportation safety, this section outlines a combination of design and engineering strategies and planning, policy, and program strategies tailored to address the identified issues in the Muckleshoot Tribal areas.

## Design and Engineering Strategies

- Speed Management: Automated red light running enforcement cameras, automated speed enforcement cameras, hardened centerline/turn hardening, lane reduction or reconfiguration, protected crossing islands, raised crossings, roundabouts, shoulder or edge line rumble strips, speed feedback sign, warning signs at horizontal curves. (See RSAP Chapter 4, Pages 48, 55, 60, and 66.)
- Pedestrian and Bicycle Safety: Advance stop lines, high-visibility crosswalks, leading pedestrian intervals, no right on red, pedestrian hybrid beacons, pedestrian walkways, protected signal phasing, bike boxes/two-stage turn box, bike lane – conventional, conflict striping/bicycle crossing. (See RSAP Chapter 4, Pages 48 and 55.)
- Road Departure (Fixed-Object and Rollover) Prevention: Centerline rumble strips, crash cushions at fixed features, widen edge lines. (See RSAP Chapter 4, Page 60.)
- Intersection (Angle) Safety: Systemic low-cost countermeasures at stop-controlled intersections, traffic signal backplates with retroreflective borders, yellow change intervals. (See RSAP Chapter 4, Page 66.)
- Lane Departure (Head-On) Prevention: Median barriers, pavement friction management (HFST). (See RSAP Chapter 4, Page 70.)

## Planning, Policy, and Program Strategies

- Targeted Enforcement: Consider automated speed enforcement in persistent speeding zones, increased patrols for speeding and DUI along high-mileage HIN corridors.
- Speed Management Policies: Apply targeted speed-limit reductions in high-crash corridors, especially where pedestrian and bicycle activity are concentrated.
- Driver Safety Outreach: Implement education and awareness programs for young drivers, with emphasis on speeding, impairment, and distraction risks.
- Public Awareness Campaigns: Launch campaigns on impaired and distracted driving and promote safe following distances; ensure messages are culturally relevant to the Muckleshoot Indian Tribe community.
- Data-Driven Policy Updates: Integrate crash analysis into Tribal transportation planning and safety plans.
- Funding and Resource Alignment: Leverage Target Zero, FHWA Tribal Transportation Safety Program, and other federal/state safety grant programs to fund both infrastructure and behavioral safety initiatives.

Appendix C: Comprehensive List of Strategies, in the 2025 adopted RSAP, provides a complete list of strategies mentioned in the RSAP Toolbox that can be considered to address safety issues. Attachment D-1 of the appendix provides detailed design and engineering strategies and Attachment D-2 provides planning, policy, and program strategies.

# Port Gamble S'Klallam Tribe


# Port Gamble S'Klallam Tribe

## Findings in Safety Plans, Policies, and Programs

Planning and Policy Overview:

- **Strategic Transportation Safety Plan:** The Port Gamble S'Klallam Tribe adopted a Strategic Transportation Safety Plan in 2016. The plan identifies relevant Target Zero areas, including pedestrian pathways, student safety, safety behaviors, and target collision areas. Strategies include road safety audits, pedestrian facility upgrades, and safety programs for drivers and youth.
- **Comprehensive Plan:** Not publicly available. No formal comprehensive plan with a transportation element was identified through initial research.
- **Long-Range Transportation Plan:** Referenced in an article about a multi-use trail project and infrastructure expansion for alternative modes of travel.
- **Target Zero Program:** Although no Tribal Target Zero plan was found, documentation indicates the Tribe has received Target Zero grant funding.

Speed Limit Policies and Enforcement:

- Chapter 9.01 Civil Traffic Violations of the Tribal Code references speed limit reductions, determined by the council when necessary.

## Geographic Boundaries

To assess how safety outcomes vary based on geographic definitions, crash data was analyzed using the boundaries described in Chapter 1, Safety Analysis Methodology: the PSRC, DOE, BIA, and Tribal boundaries, as well as a boundary reflecting the top 20 percent of census blocks with the highest Native American population in the central Puget Sound region adjacent to the Port Gambel S'Klallam Tribal areas. Figure 9-5 shows these boundaries.

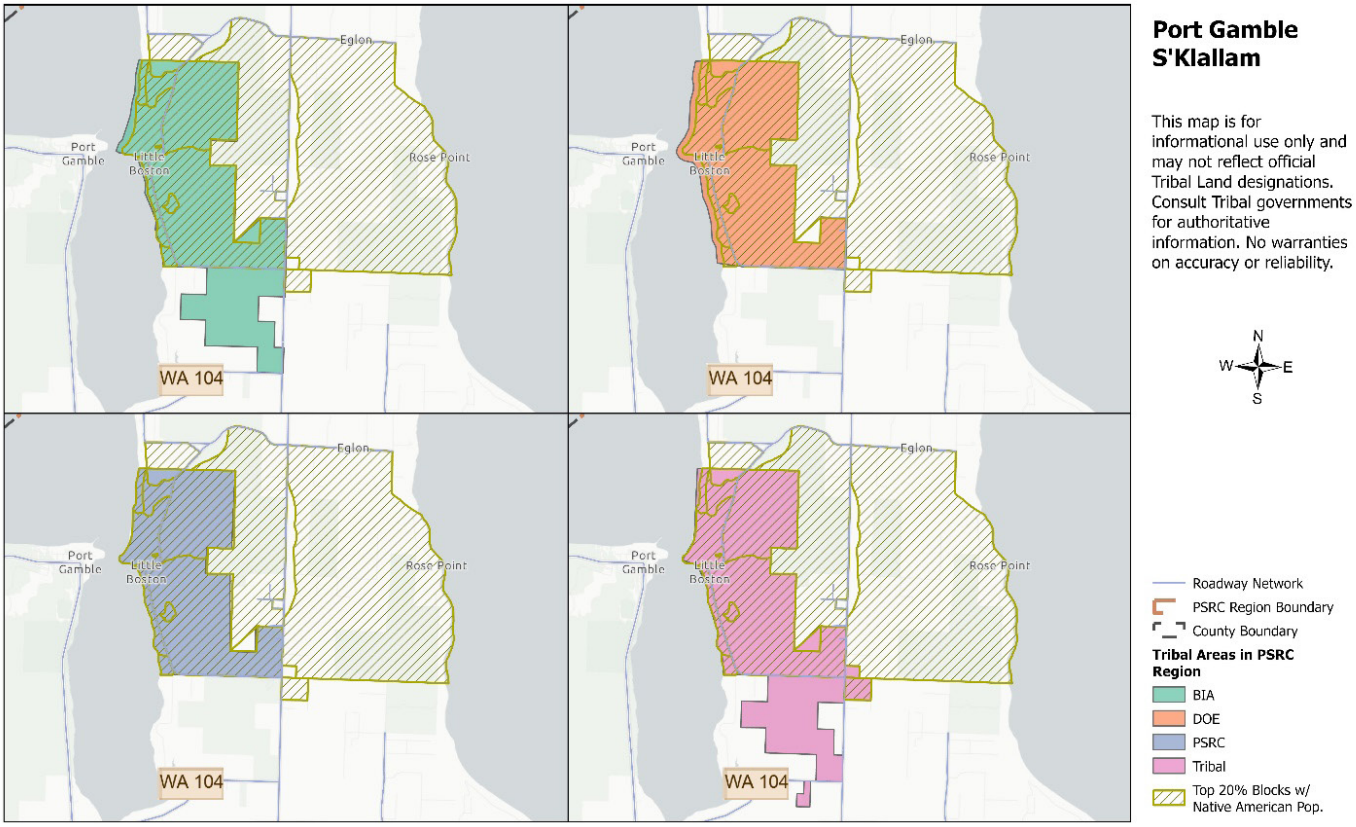


*Figure 9-5 Comparison of Boundary Sources Used in Crash Analysis for Port Gamble S'Klallam Tribal Areas*

While each boundary shown in Figure 9-5 provides valuable context, the crash data was ultimately aggregated using a combined boundary to create a more inclusive safety analysis and support consistency across datasets. This combined boundary integrates the highest-Tribal-population census blocks across all four source boundaries and is clipped to the PSRC's four-county region (King, Kitsap, Pierce, and Snohomish counties). Figure 9-6 illustrates the combined boundary, representing the area analyzed for the Port Gamble S'Klallam Tribe.

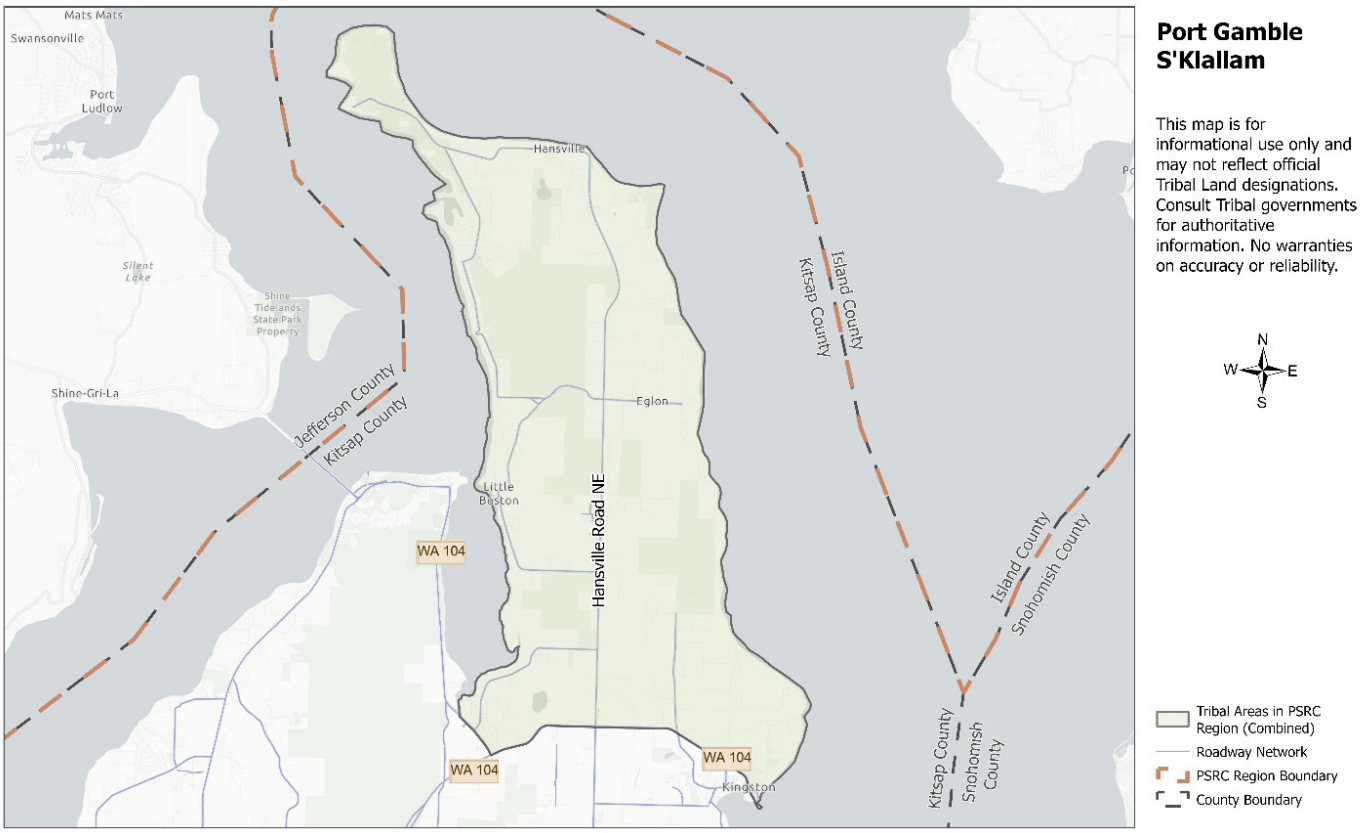


*Figure 9-6 Combined Boundary for Consideration of Crash Locations Resulting in Deaths or Serious Injuries in Port Gamble S'Klallam Tribal Areas*

# Crash Trends (2010-2024)

Figure 9-7 shows crash victim trends from 2010 through 2024 across three severity categories. All injuries and deaths ranged from 23 to 62 over the period, with the highest levels observed in 2011 and a decline to 32 in 2024. Deaths and serious injuries peaked at eight in 2012 before trending downward, with only one recorded in 2024. Fatalities remained very low throughout the period, with three in 2011 and 2012, two in 2018, and one in 2015. There were no fatalities reported in 11 of the reporting years, including in the last six years of the time period.

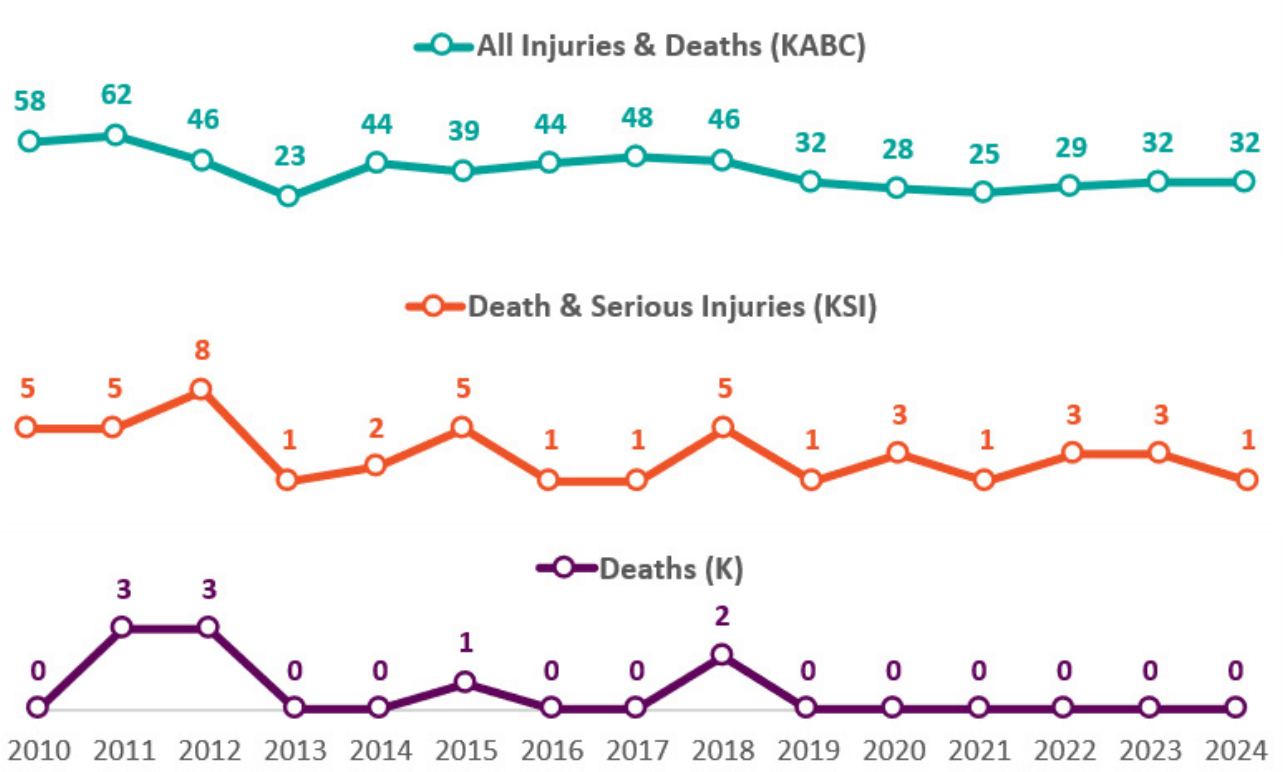


*Figure 9-7 Annual Injuries and Deaths for All Crash Victims in Port Gamble S'Klallam Tribal Areas (2010-2024)*

# Crash Data Summary (2017-2024)

For safety planning purposes, all crashes involving injuries or deaths were reviewed. Aligned with the Safe System Approach, the analysis excludes crashes that resulted only in property damage. The dataset was further disaggregated to identify crashes involving serious injuries and deaths, as well as those resulting in deaths alone for statistical and spatial analysis.

## Contributing Factors

In the Port Gamble S'Klallam Tribal areas, as shown in Table 9-5, speeding and impaired driving are the two major contributing factors to fatalities and serious injuries. Notable contributing factors for non-fatal injury crashes include distracted driving, following too closely, and failure to yield to a vehicle, which are also common factors in other Tribal areas.

*Table 9-5 Top Contributing Factors for All Injuries or Fatalities in Port Gamble S'Klallam Tribal Areas (2017-2024)*

| Contributing Factor | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Distracted | 71 | 26% | 1 | 6% | 0 | 0% | 1:71 | N/A | N/A |
| Speeding | 69 | 25% | 5 | 28% | 1 | 50% | 1 : 14 | 1 : 69 | 1 : 5 |
| Follow Too Closely | 58 | 21% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |
| Impaired | 38 | 14% | 5 | 28% | 0 | 0% | 1 : 8 | N/A | N/A |
| Failure to Yield to Vehicle | 35 | 13% | 3 | 17% | 0 | 0% | 1:12 | N/A | N/A |
| Drowsy | 12 | 4% | 2 | 11% | 0 | 0% | 1:6 | N/A | N/A |

N/A = not applicable because there were no serious injuries and/or fatalities due to this contributing factor.

## Crash Types

Table 9-6 shows the top five crash types in Port Gamble S'Klallam Tribal areas, with angle and fixed-object crashes being the most prominent, followed by angle and rollover crashes for deaths and serious injuries. This pattern is consistent with trends observed across all central Puget Sound region Tribal areas.

*Table 9-6 Top Crash Types for All Injuries or Fatalities in Port Gamble S'Klallam Tribal Areas (2017-2024)*

| Crash Type | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Rear End | 129 | 47% | 1 | 6% | 0 | 0% | 1 : 129 | N/A | N/A |
| Fixed Object | 71 | 26% | 9 | 50% | 2 | 100% | 1 : 8 | 1 : 36 | 1 : 5 |
| Angle | 49 | 18% | 7 | 39% | 1 | 50% | 1 : 7 | 1 : 49 | 1 : 7 |
| Rollover | 25 | 9% | 3 | 17% | 0 | 0% | 1: 8 | N/A | N/A |
| Pedestrian/ Bike | 14 | 5% | 2 | 11% | 0 | 0% | 1 : 7 | N/A | N/A |

N/A = not applicable because there were no fatalities due to this crash type.

## Target Zero Areas

As shown in Table 9-7, within the Port Gamble S'Klallam Tribe's combined boundary, the top Target Zero areas for deaths and serious injuries are younger drivers, speeding drivers, impaired drivers and single-vehicle crashes on surface streets, each accounting for 28 percent of KSI.

*Table 9-7 Top Target Zero Areas for All Injuries or Fatalities in Port Gamble S'Klallam Tribal Areas (2017-2024)*

| Target Zero Area | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Driver Age 65+ | 89 | 33% | 4 | 22% | 1 | 50% | 1 : 22 | 1 : 89 | 1 : 4 |
| Driver Age 16-25 | 83 | 31% | 5 | 28% | 1 | 50% | 1 : 17 | 1 : 83 | 1 : 5 |
| Distracted Involved Person | 71 | 26% | 1 | 6% | 0 | 0% | 1 : 11 | N/A | N/A |
| Speeding Driver | 69 | 25% | 5 | 28% | 1 | 50% | 1 : 14 | 1 : 69 | 1 : 5 |
| Single Vehicle on Surface Streets | 55 | 20% | 5 | 28% | 1 | 50% | 1 : 11 | 1 : 55 | 1 : 5 |
| Impaired Involved Person | 39 | 14% | 5 | 28% | 0 | 0% | 1 : 8 | N/A | N/A |

N/A = not applicable because there were no fatalities due to this Target Zero area.

# High-Injury Network Summary (2016-2023)

As shown in Figure 9-8, no HIN segments are identified within Port Gamble S'Klallam Tribal areas. This means there are no continuous corridors that experienced more than two deaths or serious injuries per mile on surface streets, or more than three per mile on limited-access highways, during the period 2016–2023. While no priority safety corridors were identified, it remains important to highlight the primary contributing factors and injury crash types described in the previous sections in order to better address underlying safety issues.

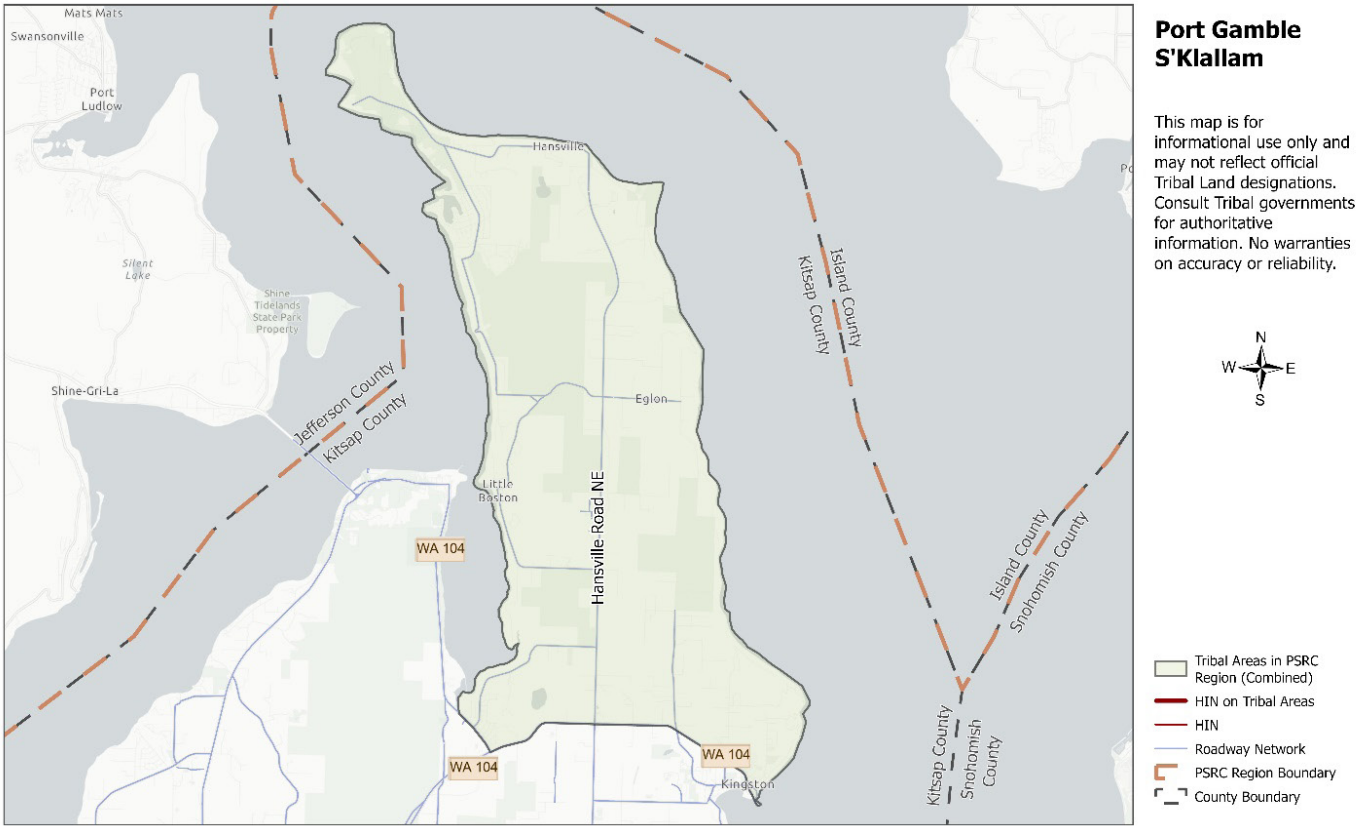


*Figure 9-8 High-Injury Network in or near Port Gamble S'Klallam Tribal Areas*

# Strategies and Crash Countermeasures

While no HIN segments are identified within Port Gamble S'Klallam Tribal areas, speeding and impaired driving remain the primary contributors to deaths and serious injuries. Other factors, such as failure to yield, distracted driving, and following too closely, are more common in non-fatal injury crashes. The leading crash types are angle and fixed object, followed by rear-end and pedestrian/bicycle crashes, consistent with trends across central Puget Sound region Tribal areas. In Target Zero areas, younger drivers and speeding each account for 60 percent of KSI.

Based on the RSAP Strategies Toolbox, which provides a comprehensive framework for improving transportation safety, this section outlines a combination of design and engineering strategies and planning, policy, and program strategies tailored to address the identified issues in the Port Gamble S'Klallam Tribal areas. Recognizing that many facilities in the Tribal areas fall under multiple jurisdictions helps ensure that crash analyses and safety measurements are appropriately coordinated and aligned with agency responsibilities.

## Design and Engineering Strategies

- Speed Management: Automated red light running enforcement cameras, automated speed enforcement cameras, hardened centerline/turn hardening, lane reduction or reconfiguration, roundabouts, speed feedback sign. (See RSAP Chapter 4, Pages 60 and 66.)
- Pedestrian and Bicycle Safety: Pedestrian walkways. (See RSAP Chapter 4, Pages 48 and 55.)
- Road Departure (Fixed-Object) Prevention: Centerline rumble strips, widen edge lines. (See RSAP Chapter 4, Page 60.)
- Intersection (Angle Crashes) Safety: Systemic low-cost countermeasures at stop-controlled intersections, traffic signal backplates with retroreflective borders, yellow change intervals. (See RSAP Chapter 4, Page 66.)

## Planning, Policy, and Program Strategies

- Targeted Enforcement: Targeted speed-limit reductions, increased patrols for speeding and DUI, consider automated speed enforcement.
- Youth Driver Safety Programs: Education and outreach for younger drivers.
- Public Awareness Campaigns: Campaigns on impaired driving, distracted driving, and safe following distances.
- Data-Driven Policy Updates: Integrate crash analysis into Tribal transportation planning and safety plans.
- Funding Alignment: Leverage Target Zero and federal grants for infrastructure and education initiatives.

Appendix C: Comprehensive List of Strategies, in the 2025 adopted RSAP, provides a complete list of strategies mentioned in the RSAP Toolbox that can be considered to address safety issues. Attachment D-1 of the appendix provides detailed design and engineering strategies and Attachment D-2 provides planning, policy, and program strategies.

# Puyallup Tribe of Indians


*Photo Credit: WSDOT Flickr Page. Public Art Concept by Chris Duenas. Conceptual Art for the spuyaləpabš Trail*

# Puyallup Tribe of Indians

## Findings in Safety Plans, Policies, and Programs

Planning and Policy Overview:

- **The Puyallup Tribe Comprehensive Land Use Plan (2023):** Publicly available and includes a transportation chapter. It discusses infrastructure investment, climate resilience, and the need for multimodal connectivity. Safety is referenced indirectly, especially in the context of future planning priorities.
- **The Tribe's 2016 Road Safety Audit and T2P Regional Trail Study:** Reflects recent planning efforts with safety and infrastructure analysis for key corridors. Additionally, the spuyaləpabš Trail (formerly T2P) is part of the SR 167 Completion Project and illustrates planning integration with regional partners.
- **Tribal Transportation Safety Program 2015:** Establishes the STOPIT (Safety Transportation Organization of the Puyallup Tribe of Indians) campaign and a safety management structure to coordinate across jurisdictions, using reservation-wide crash data (2010–2013) to target speeding, DUI, and distracted driving.
- **Inclusion in State Traffic Documentation:** The Puyallup Tribe of Indians is referenced in statewide traffic safety documentation and has received Target Zero support and funding. However, no standalone Tribal Target Zero or Vision Zero plan was found.

Speed Limit Policies and Enforcement:

- The Puyallup Tribe's Civil Traffic Code (Chapter 5.04) outlines speed limits, due care, enforcement authority, and citation procedures. It grants the Tribal Council authority to regulate roadway behavior and includes provisions for traffic control, pedestrian right-of-way, and equipment requirements.
- The 2016 Road Safety Audit found limited speed limit signage and inconsistent enforcement infrastructure. It recommended additional signage, lighting, and enforcement strategies at high-crash locations.

Safety Design, Active Transportation, and Education:

- The Road Safety Audit highlights extensive design and visibility concerns, recommending solutions such as Americans with Disabilities Act (ADA) upgrades, crosswalk restriping, and vegetation management.
- No standalone Complete Streets or Active Transportation policy was identified, but the spuyaləpabš Trail (formerly T2P) provides pedestrian and bicycle infrastructure within and near the Reservation.

# Geographic Boundaries

To assess how safety outcomes vary based on geographic definitions, crash data was analyzed using the boundaries described in Chapter 1, Safety Analysis Methodology: the PSRC, DOE, BIA, and Tribal boundaries, as well as a boundary reflecting the top 20 percent of census blocks with the highest Native American population in the central Puget Sound region adjacent to the Puyallup Tribal areas. Figure 9-9 shows these boundaries.

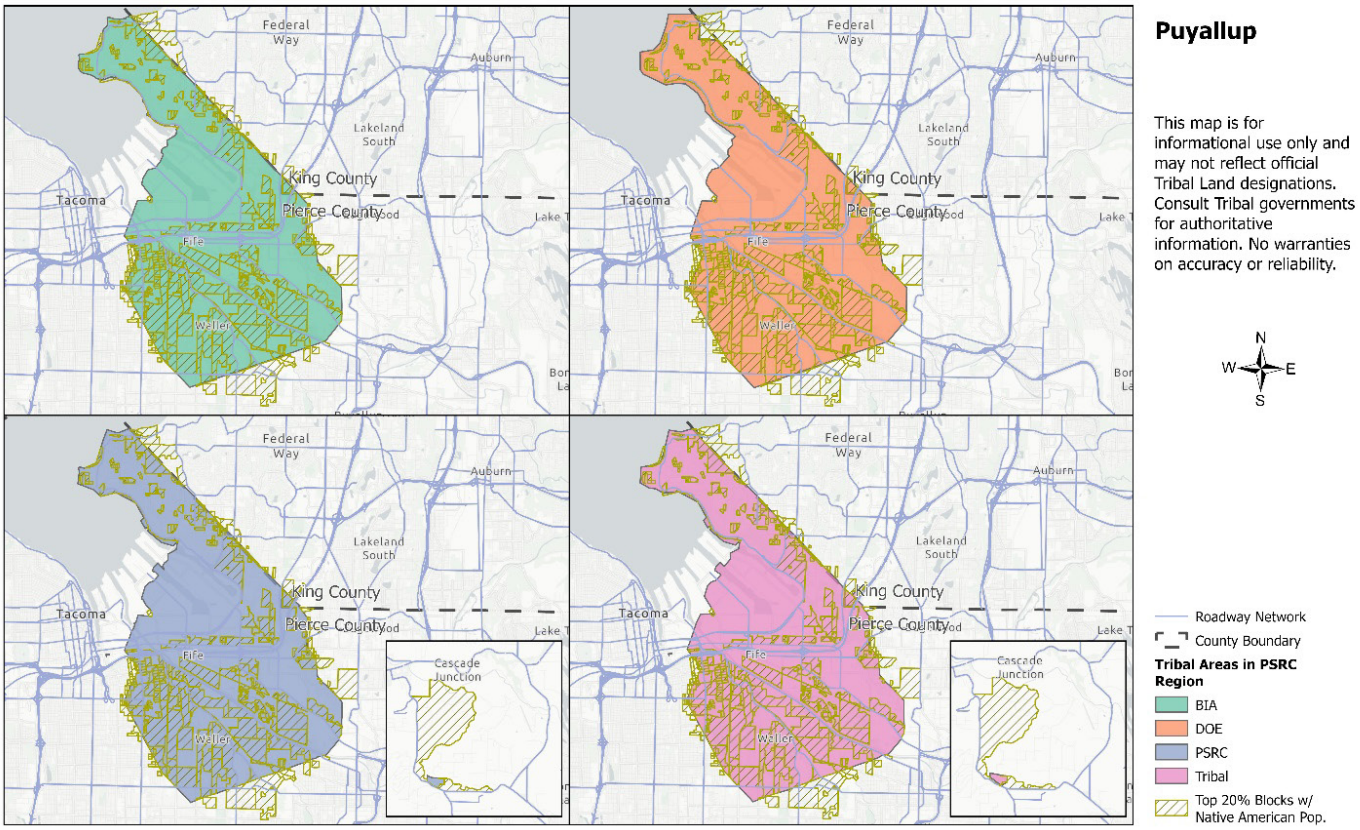


*Figure 9-9 Comparison of Boundary Sources Used in Crash Analysis in Puyallup Tribal Areas*

While each boundary shown in Figure 9-9 provides valuable context, the crash data was ultimately aggregated using a combined boundary to create a more inclusive safety analysis and support consistency across datasets. This combined boundary integrates the highest-Tribal-population census blocks across all four source boundaries and is clipped to the PSRC's four-county region (King, Kitsap, Pierce, and Snohomish counties). Figure 9-10 illustrates the combined boundary, representing the area analyzed for the Puyallup Tribe of Indians. The Puyallup Tribe of Indians concurred that the combined boundary was an adequate boundary for this safety analysis.

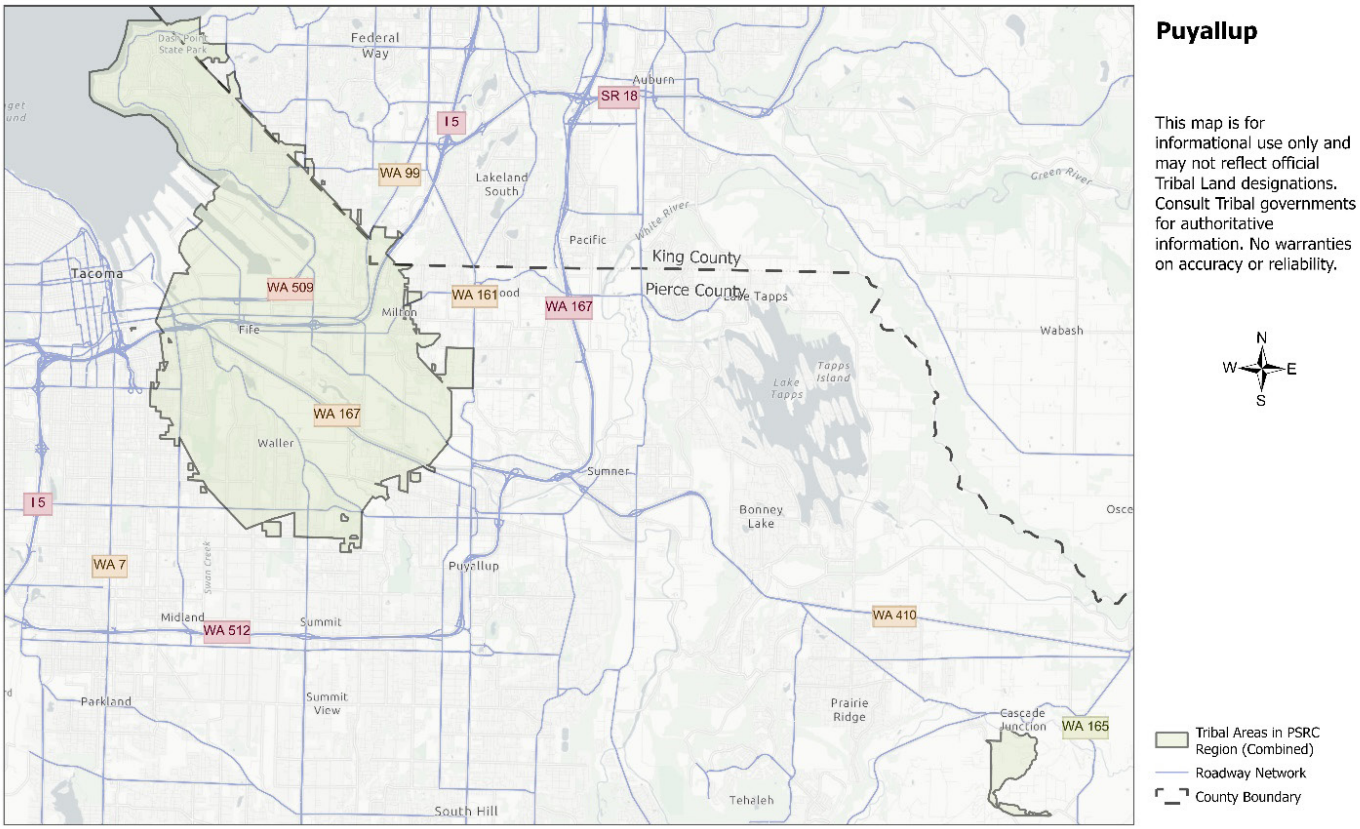


*Figure 9-10 Combined Boundary for Consideration of Crash Locations Resulting in Deaths or Serious Injuries in Puyallup Tribal Areas*


*Photo Credit: WSDOT Flickr Page.*

# Crash Trends (2010-2024)

Figure 9-11 shows crash victim trends from 2010 through 2024 across three severity categories, with 2021 and 2023 emerging as peak years. All injuries and deaths rose to 776 in 2021 before declining to 576 in 2024. Deaths and serious injuries rose sharply to 91 in 2021 and 86 in 2023, while fatalities peaked at 20 in 2021 and 21 in 2023. By 2024, all categories registered substantial declines from earlier peaks.

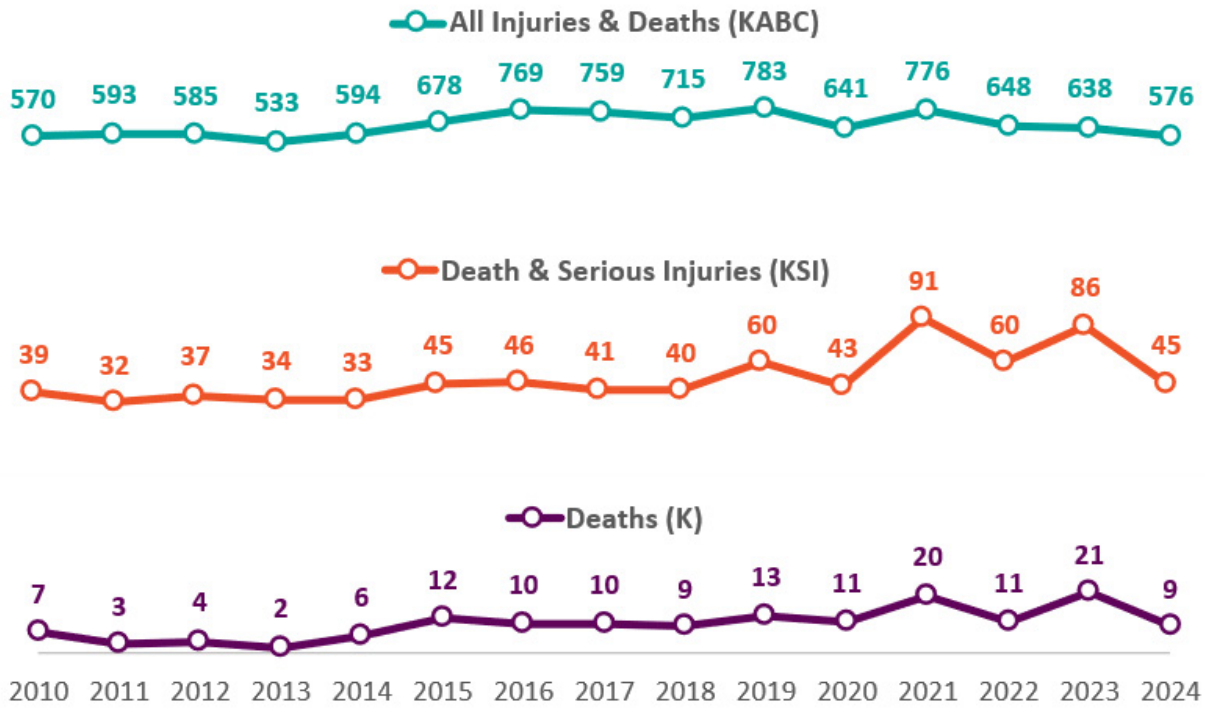


*Figure 9-11 Annual Injuries and Deaths for All Crash Victims in Puyallup Tribal Areas (2010-2024)*

# Crash Data Summary (2017-2024)

For safety planning purposes, all crashes involving injuries or deaths were reviewed. Aligned with the Safe System Approach, the analysis excludes crashes that result only in property damage. The dataset was further disaggregated to identify crashes involving serious injuries and deaths, as well as those resulting in deaths alone for statistical and spatial analysis.

## Contributing Factors

As shown in Table 9-8, between 2017 and 2024, the most common contributing factors in injury crashes in Puyallup Tribal areas are distracted driving (25 percent), speeding (18 percent), failure to yield (17 percent), and following too closely (17 percent). When looking at crashes involving deaths and serious injuries, speeding emerges as the top factor (27 percent), followed by distraction (22 percent) and impairment (21 percent).

While speeding and impairment occur less often than distraction, they are more likely to result in fatal outcomes. Impaired driving was linked to 19 percent of all fatalities, with a severe injury or death occurring in about one in five cases. Speeding, though carrying a slightly lower risk of severe injury or death (1 in 8), had the highest share of fatalities among all factors at 29 percent. Distraction also ranked high in fatalities, nearly tied with impairment at 18 percent.

*Table 9-8 Top Contributing Factors for All Injuries or Fatalities on Puyallup Tribal Land (2017-2024)*

| Contributing Factor | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Distracted | 1,397 | 25% | 102 | 22% | 19 | 18% | 1 : 14 | 1 : 74 | 1 : 5 |
| Speeding | 978 | 18% | 125 | 27% | 30 | 29% | 1 : 8 | 1 : 33 | 1 : 4 |
| Failure to Yield to Vehicle | 935 | 17% | 52 | 11% | 11 | 11% | 1 : 18 | 1 : 85 | 1 : 5 |
| Follow Too Closely | 923 | 17% | 5 | 1% | 1 | 1% | 1 : 185 | 1 : 923 | 1 : 5 |
| Impaired | 517 | 9% | 99 | 21% | 20 | 19% | 1 : 5 | 1 : 26 | 1 : 5 |
| Disobey Signal or Stop Sign | 348 | 6% | 28 | 6% | 7 | 7% | 1 : 12 | 1 : 50 | 1 : 4 |
| Improper Turn/Merge | 258 | 5% | 14 | 3% | 2 | 2% | 1 : 18 | 1 : 129 | 1 : 7 |

## Crash Types

As shown in Table 9-9, the most common types of injury crashes in Puyallup Tribal areas are angle crashes (33 percent), rear-end crashes (32 percent), and fixed-object crashes (19 percent). The crash types most often linked to traffic-related deaths are slightly different. Fixed-object crashes accounted for 47 percent of all fatalities, despite being less frequent overall, and are involved in 35 percent of KSI (serious injury and fatality) outcomes.

Collisions involving pedestrians or bicyclists have the highest chance of severe injured or fatality out of all factors, with a ratio of one in three victims. Head-on, opposite-direction, and rollover crashes, though less common, also have high serious injury or fatality risks, with the rates ranging from one in four to one in six victims.

*Table 9-9 Top Crash Type for All Injuries or Fatalities in Puyallup Tribal Areas (2017-2024)*

| Crash Type | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Angle | 1,661 | 33% | 118 | 28% | 24 | 25% | 1 : 14 | 1 : 69 | 1 : 5 |
| Rear End | 1,609 | 32% | 42 | 10% | 7 | 7% | 1 : 38 | 1 : 230 | 1 : 6 |
| Fixed Object | 974 | 19% | 149 | 35% | 45 | 47% | 1 : 7 | 1 : 22 | 1 : 3 |
| Sideswipe | 421 | 8% | 31 | 7% | 6 | 6% | 1 : 14 | 1 : 70 | 1 : 5 |
| Same Direction – Other | 309 | 6% | 26 | 6% | 4 | 4% | 1 : 12 | 1 : 77 | 1 : 7 |
| Opposite Direction – Other | 246 | 5% | 39 | 9% | 9 | 9% | 1 : 6 | 1 : 27 | 1 : 4 |
| Rollover | 242 | 5% | 38 | 9% | 9 | 9% | 1 : 6 | 1 : 27 | 1 : 4 |
| Pedestrian/ Bike | 233 | 5% | 71 | 17% | 19 | 20% | 1 : 3 | 1 : 12 | 1 : 4 |
| Head-on | 151 | 3% | 38 | 9% | 4 | 4% | 1 : 4 | 1 : 38 | 1 : 10 |

## Target Zero Areas

Table 9-10 shows that younger drivers are involved in more crashes than any other group in Puyallup Tribal Areas, accounting for 31 percent of all-level injury outcomes and the same share of deaths and serious injuries. Distracted driving is also common, contributing to 26 percent of all injury crashes and 24 percent of severe crashes, with fatalities occurring in about one in five KSI (serious injury and fatality) cases.

Speeding drivers were linked to 27 percent of KSI outcomes and accounted for the largest share of fatalities among Target Zero areas (29 percent). Impaired driving was involved in 23 percent of KSI outcomes and 21 percent of fatalities. Older drivers accounted for 16 percent of all injury crashes and 18 percent of fatalities. Single-vehicle crashes on surface streets, while only making up 8 percent of all injuries, make up 20 percent of deaths and carried a fatality risk of about one in five in KSI cases.

*Table 9-10 Top Target Zero Areas for All Injuries or Fatalities in Puyallup Tribal Areas (2017-2024)*

| Target Zero Area | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Driver Age 16-25 | 1,743 | 31% | 143 | 31% | 26 | 25% | 1 : 12 | 1 : 67 | 1 : 6 |
| Distracted Involved Person | 1,421 | 26% | 110 | 24% | 24 | 23% | 1 : 13 | 1 : 59 | 1 : 5 |
| Speeding Driver | 978 | 18% | 125 | 27% | 30 | 29% | 1 : 8 | 1 : 33 | 1 : 4 |
| Driver Age 65+ | 873 | 16% | 75 | 16% | 19 | 18% | 1 : 12 | 1 : 46 | 1 : 4 |
| Hit and Run | 635 | 11% | 45 | 10% | 11 | 11% | 1 : 14 | 1 : 58 | 1 : 4 |
| Impaired Involved Person | 541 | 10% | 108 | 23% | 22 | 21% | 1 : 5 | 1 : 25 | 1 : 5 |
| Single Vehicle on Surface Streets | 466 | 8% | 92 | 20% | 21 | 20% | 1 : 5 | 1 : 22 | 1 : 4 |

# High-Injury Network Summary (2016-2023)

As shown in Table 9-11 and Figure 9-12, within the Puyallup Tribal areas, 14.8 percent of the roadway network is identified as part of the HIN. Of this, 12.3 percent consists of surface streets, concentrated along Pacific Highway E and River Road, while 2.5 percent is located on freeway segments, primarily SR 509 and I-5. Notably, although freeway HIN mileage represents only 2.5 percent of the network within the Puyallup Tribal areas, nearly the entire stretch of I-5 within Puyallup Tribal Areas is classified as high priority, raising concerns about vehicle movements entering and exiting the Tribal areas.

*Table 9-11 HIN Summary in Puyallup Tribal Areas, 2016-2023*

| Tribe | Population | Area (Sq. Mile) | Roadway Type | HIN Mile | HIN Corridors Count | HIN Mile Average | HIN miles per Square Mile | HIN Miles per 100k Pop. | Percent of Network Covered by HIN |
|---|---|---|---|---|---|---|---|---|---|
| Puyallup Tribal Areas | 61716 | 33.5 | Freeway | 5.9 | 2 | 2.9 | 0.2 | 9.5 | 2.5% |
| | | | Surface | 29.0 | 30 | 1.0 | 0.9 | 47.0 | 12.3% |

HIN = high-injury network

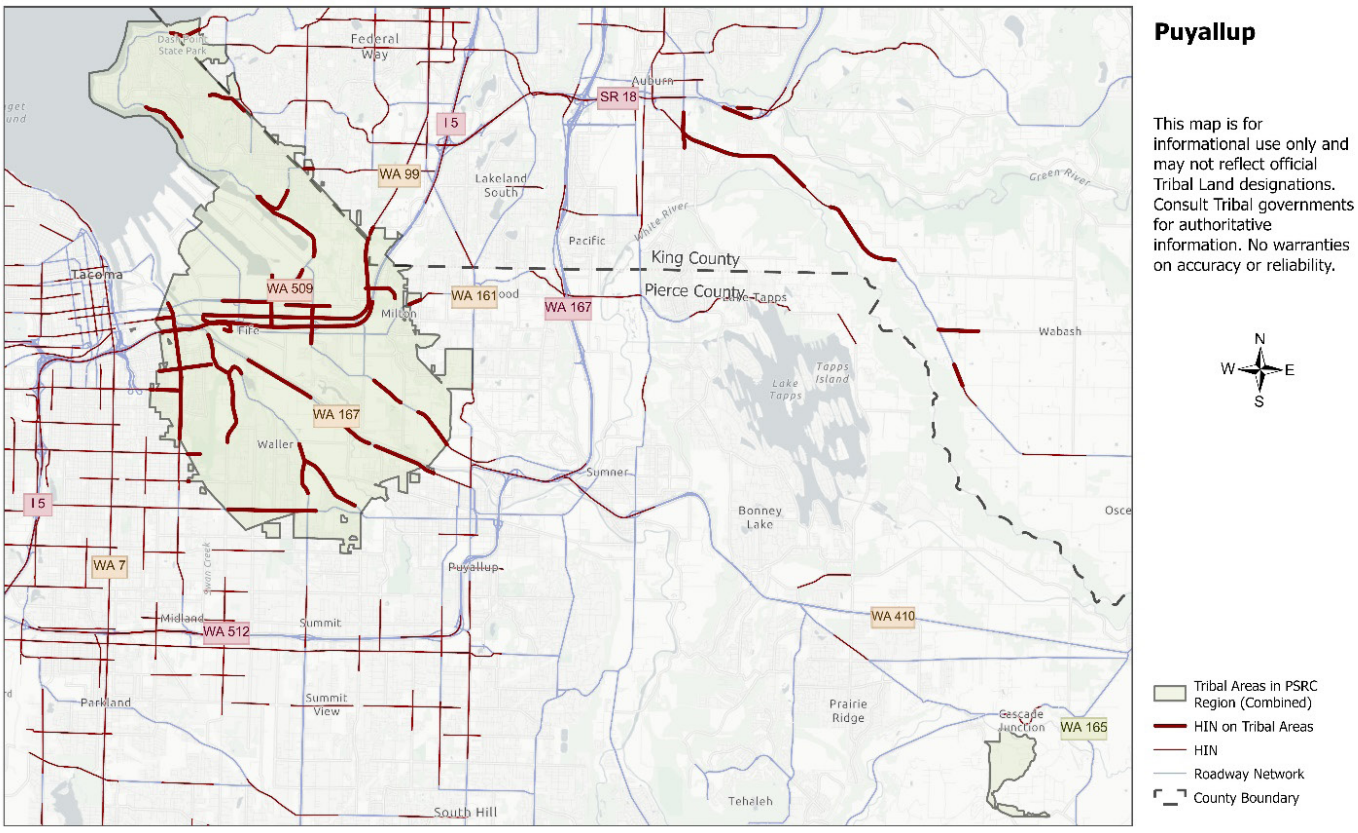


*Figure 9-12 High-Injury Network in or near Puyallup Tribal Areas*

# Strategies and Crash Countermeasures

Between 2017 and 2024, speeding (27 percent of KSI crashes, 29 percent of fatalities), impairment (21 percent of KSI, 21 percent of fatalities), and distraction (22 percent of KSI, 18 percent of fatalities) were the leading contributors to severe outcomes in Puyallup Tribal areas. Angle, rear-end, and fixed-object crashes dominated overall injury crash types, but fixed-object crashes (47 percent of fatalities) and pedestrian/bicyclist collisions (one in three victims killed or seriously injured) carried the highest severity risks. Younger drivers (31 percent of all KSI crashes) are a primary Target Zero area, along with older drivers, speeding, and impairment-involved crashes.

Based on the RSAP Strategies Toolbox, which provides a comprehensive framework for improving transportation safety, this section outlines a combination of design and engineering strategies and planning, policy, and program strategies tailored to address the identified issues in the Puyallup Tribal areas. Recognizing that many facilities in the Tribal areas fall under multiple jurisdictions helps ensure that crash analyses and safety measurements are appropriately coordinated and aligned with agency responsibilities.

## Design and Engineering Strategies

- Speed Management: Automated red light running enforcement cameras, automated speed enforcement cameras, centerline buffer area, centerline rumble strips, hardened centerline/turn hardening, lane reduction or reconfiguration, pedestrian walkways, protected crossing islands, raised crossings, roundabouts, shoulder or edge line rumble strips, speed feedback sign, warning signs at horizontal curves. (See RSAP Chapter 4, Pages 48, 55, 60, 66, and 70.)
- Pedestrian and Bicycle Safety: Advance stop lines, bike boxes/two-stage turn box, bike lane – conventional, conflict striping/bicycle crossing, high-visibility crosswalks, leading pedestrian intervals, no right on red, pedestrian hybrid beacons, pedestrian walkways, protected signal phasing. (See RSAP Chapter 4, Pages 48 and 55.)
- Road Departure (Fixed-Object and Rollover) Prevention: Centerline rumble strips, crash cushions at fixed features, widen edge lines. (See RSAP Chapter 4, Page 60.)
- Intersection (Angle) Safety: Systemic low-cost countermeasures at stop-controlled intersections, traffic signal backplates with retroreflective borders, yellow change intervals. (See RSAP Chapter 4, Page 66.)
- Lane Departure (Head-On Crashes) Prevention: Median barriers, pavement friction management (HFST). (See RSAP Chapter 4, Pages 70.)

## Planning, Policy, and Program Strategies

- Targeted Enforcement: Emphasis patrols for DUI and speeding, automated enforcement in high-risk corridors.
- Education and Outreach: Youth driver safety programs, older driver awareness campaigns.
- Public Awareness Campaigns: Focus on speeding, impairment, distraction, and yielding behavior.
- Policy and Planning Integration: Use crash data trends to guide safety project priorities in the tribal transportation plan.
- Funding Alignment: Pursue Target Zero, FHWA, and Tribal Transportation Program Safety Funds for infrastructure and education initiatives.

Appendix C: Comprehensive List of Strategies, in the 2025 adopted RSAP, provides a complete list of strategies mentioned in the RSAP Toolbox that can be considered to address safety issues. Attachment D-1 of the appendix provides detailed design and engineering and Attachment D-2 provides planning, policy, and program strategies.

# Snoqualmie Indian Tribe

# Snoqualmie Indian Tribe

## Findings in Safety Plans, Policies, and Programs

Planning and Policy Overview:

- **Comprehensive Plan:** Not publicly available. No formal comprehensive plan with a transportation element was identified for the Snoqualmie Indian Tribe through initial research.
- **Strategic Transportation Safety Plan (2020):** Sets a Path to Zero vision and a data-driven program. Analyzes crash trends, identifies priority risk factors for vulnerable users, speed, and visibility, and sequences engineering, education, and enforcement actions with annual review and coordination with WSDOT and local partners.
- **Long Range Transportation Plan:** The Snoqualmie Indian Tribe issued an RFP for a Long-Range Transportation Plan in 2024, demonstrating an intention to formalize Tribal transportation goals including safety, multimodal access, and long-term planning.
- **Tribal Transportation Safety Program:** The Snoqualmie Indian Tribe is cited in statewide efforts to engage Tribes in the Washington State SHSP Target Zero framework, including the Tribal Traffic Safety Summit and Centennial Accord processes.
- **Target Zero Plan update:** Tribal traffic safety needs were specifically identified, highlighting barriers to Tribal access to safety funding and calling for culturally appropriate safety solutions.

Speed Limit Policies and Enforcement:

- No Tribe-specific speed-limit policy was identified; however, the Snoqualmie Indian Tribe supports the recent reduction of the SR 202 speed limit to 40 miles per hour between North Bend and Snoqualmie to improve wildlife and driver safety.
- No formal comprehensive “speed management plan” was located. However, speed adjustment authority and specific reductions have been implemented.

# Geographic Boundaries

To assess how safety outcomes vary based on geographic definitions, crash data was analyzed using the boundaries described in Chapter 1, Safety Analysis Methodology: the PSRC, DOE, BIA, and Tribal boundaries, as well as a boundary reflecting the top 20 percent of census blocks with the highest Native American population in the central Puget Sound regionadjacent to the Snoqualmie Tribal areas. Figure 9-13 shows these boundaries.


*Figure 9-13 Comparison of Boundary Sources Used in Crash Analysis in Snoqualmie Tribal Areas*

While each boundary shown in Figure 9-13 provides valuable context, the crash data was ultimately aggregated using a combined boundary to create a more inclusive safety analysis and support consistency across datasets. This combined boundary integrates the highest-Tribal-population census blocks across all four source boundaries and is clipped to the PSRC's four-county region (King, Kitsap, Pierce, and Snohomish counties). Figure 9-14 illustrates the combined boundary, representing the area analyzed for the Snoqualmie Indian Tribe.

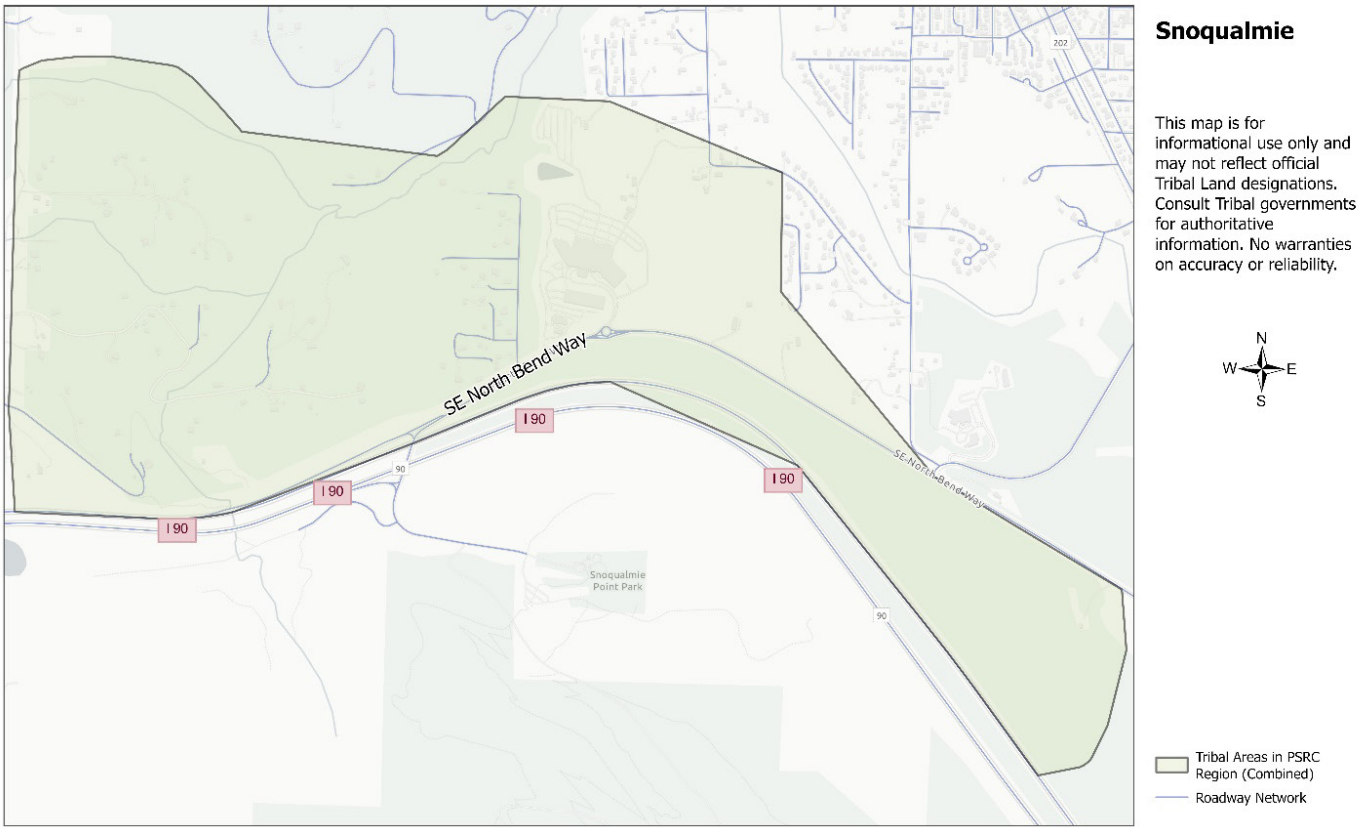


*Figure 9-14 Combined for Consideration of Crash Locations Resulting in Deaths or Serious Injuries in Snoqualmie Tribal Areas*

# Crash Trends (2010-2024)

Figure 9-15 shows crash victim trends from 2010 through 2024 across three severity categories. All injuries and deaths peaked at 26 in 2010 and 25 in 2022, while deaths and serious injuries were most severe in 2010, 2015, and 2021. Fatalities remain rare, with only isolated cases across the period.

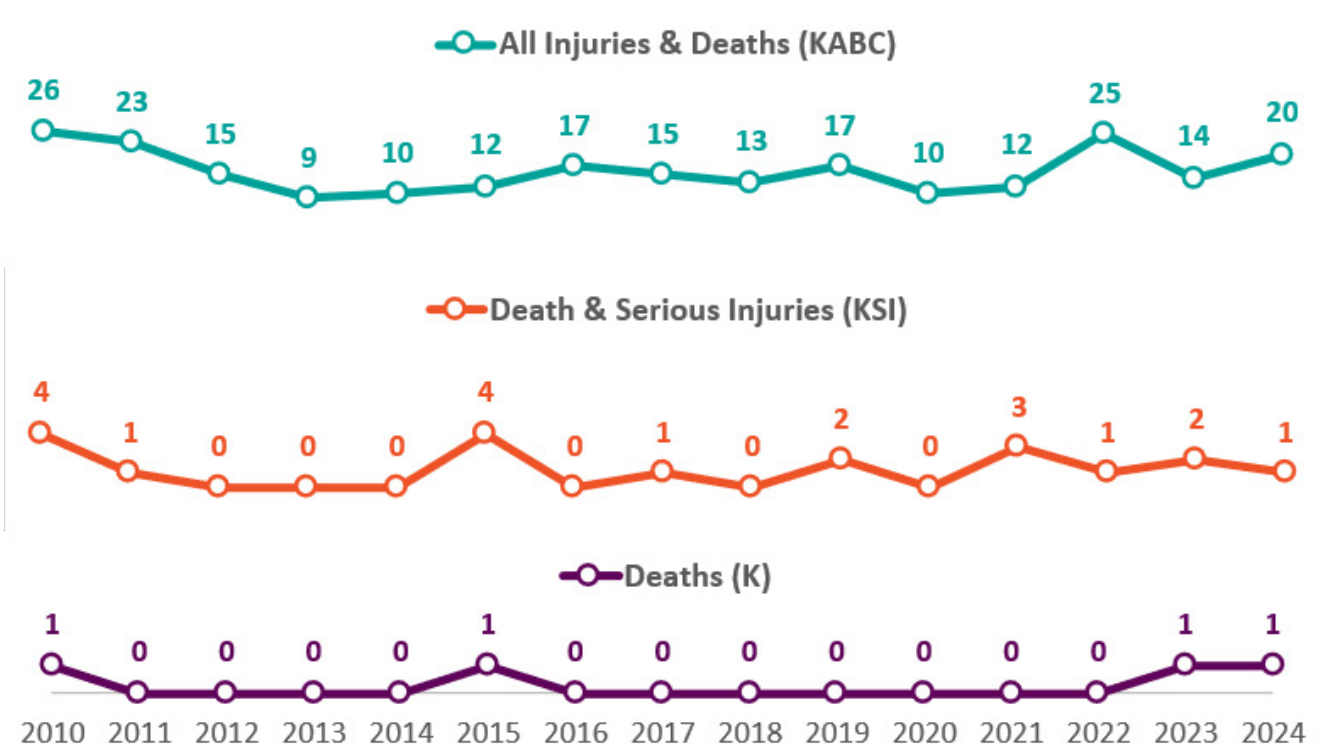


*Figure 9-15 Annual Injuries and Deaths for All Crash Victims in Snoqualmie Tribal Areas (2010-2024)*

# Crash Data Summary (2017-2024)

For safety planning purposes, all crashes involving injuries or deaths were reviewed. Aligned with the Safe System Approach, the analysis excludes crashes that result only in property damage. The dataset was further disaggregated to identify crashes involving serious injuries and deaths, as well as those resulting in deaths alone for statistical and spatial analysis.

## Contributing Factors

In the Snoqualmie Tribal areas, as shown in Table 9-12, no fatal crash was observed. For all injury crashes, speeding and distracted driving is the most common factor, associated with nearly 27 percent and 26 percent of cases, respectively. Drowsy and failure to yield to vehicle are highly severe; approximately one in seven injury crashes involving drowsy resulted in a serious injury or death, and one in four injury crashes involving failure to yield to vehicle resulted in a serious injury or death.

*Table 9-12 Top Contributing Factors for All Injuries or Fatalities in Snoqualmie Tribal Areas (2017-2024)*

| Contributing Factor | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Speeding | 34 | 27% | 1 | 10% | 0 | 0% | 1 : 34 | N/A | N/A |
| Distracted | 33 | 26% | 2 | 20% | 0 | 0% | 1 : 17 | N/A | N/A |
| Impaired | 16 | 13% | 1 | 10% | 0 | 0% | 1 : 16 | N/A | N/A |
| Drowsy | 13 | 10% | 2 | 20% | 0 | 0% | 1 : 7 | N/A | N/A |
| Follow Too Closely | 12 | 10% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |
| Failure to Yield to Vehicle | 7 | 6% | 2 | 20% | 0 | 0% | 1 : 4 | N/A | N/A |

N/A = not applicable because there were no serious injuries and/or fatalities due to this contributing factor.

## Crash Types

As shown in Table 9-13, the top five crash types in the Snoqualmie Tribal area are fixed-object crashes, followed by rear end, angle, rollover and pedestrian/bicycle crashes for all injuries. Pedestrian/bike crashes are particularly severe; one in two injury crashes resulted in a serious injury or death.

*Table 9-13 Top Crash Type for All Injuries or Fatalities in Snoqualmie (2017-2024)*

| Crash Types | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Fixed Object | 32 | 48% | 1 | 25% | 1 | 50% | 1 : 32 | 1 : 32 | 1 : 1 |
| Rear End | 17 | 26% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |
| Angle | 10 | 15% | 1 | 25% | 0 | 0% | 1 : 10 | N/A | N/A |
| Rollover | 7 | 11% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |
| Pedestrian/ Bike | 3 | 5% | 2 | 50% | 1 | 50% | 1 : 2 | 1 : 3 | 1 : 2 |
| Other | 2 | 3% | 1 | 25% | 1 | 50% | 1 : 2 | 1 : 2 | 1 : 1 |
| Head-on | 1 | 2% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |
| Parked car | 1 | 2% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |

N/A = not applicable because there were no fatalities and/or serious injuries due to this crash type.

## Target Zero Areas

As shown in Table 9-14 both distraction-involved person and speeding driver accounts for the largest share of all injuries, and distracted-involved person resulted in the largest share of severe crashes. Among different age groups, young drivers were involved in more crashes than other age groups, making up 21 percent of all crashes and one in nine injury crashes resulted in a serious injury or death.

*Table 9-14 Top Target Zero Areas for All Injuries or Fatalities in Snoqualmie Tribal Areas (2017-2024)*

| Target Zero Area | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Distracted Involved Person | 34 | 27% | 3 | 30% | 0 | 0% | 1 : 11 | N/A | N/A |
| Speeding Driver | 34 | 27% | 1 | 10% | 0 | 0% | 1 : 34 | N/A | N/A |
| Single Vehicle on Highway | 29 | 23% | 3 | 30% | 0 | 0% | 1 : 10 | N/A | N/A |
| Driver Age 16-25 | 27 | 21% | 3 | 30% | 0 | 0% | 1 : 9 | N/A | N/A |
| Single Vehicle on Surface Streets | 27 | 21% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |
| Driver Age 65+ | 24 | 19% | 1 | 10% | 0 | 0% | 1 : 24 | N/A | N/A |
| Impaired Involved Person | 16 | 13% | 1 | 10% | 0 | 0% | 1 : 16 | N/A | N/A |
| Drowsy Driver | 11 | 9% | 2 | 20% | 0 | 0% | 1 : 6 | N/A | N/A |
| Vehicle Travel in Wrong Way | 1 | 1% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |

N/A = not applicable because there were no fatalities and/or serious injuries due to this Target Zero area.

# High-Injury Network Summary (2016-2023)

As shown in Figure 9-16, no HIN segments are identified within Snoqualmie Tribal areas. This means there are no continuous corridors that experienced more than two deaths or serious injuries per mile on surface streets, or more than three per mile on limited-access highways, during the period 2016–2023. While no priority safety corridors were identified, it remains important to highlight the HIN segment on eastbound I-90, as it includes an off-ramp that provides access to Tribal areas.

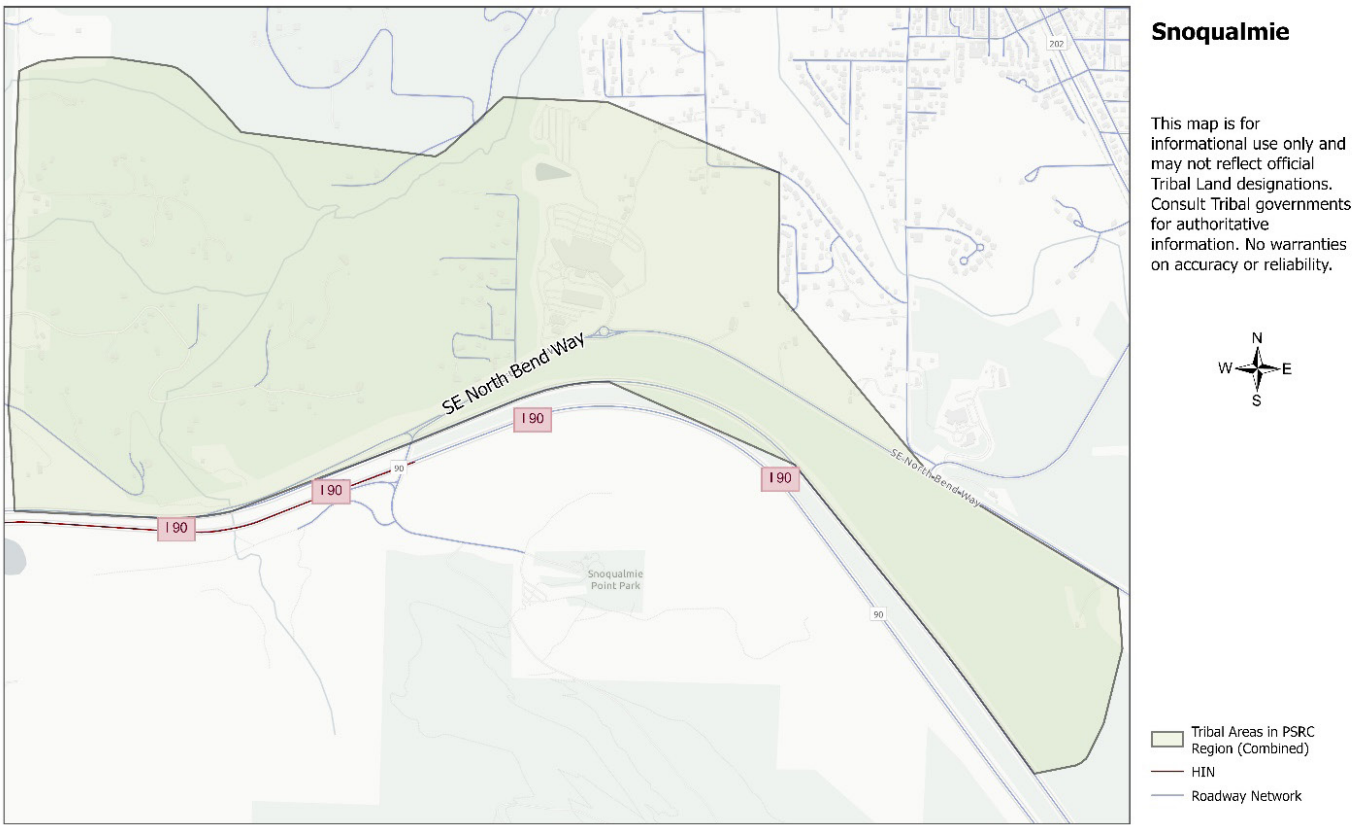


*Figure 9-16 High-Injury Network in or near Snoqualmie Tribal Areas*

# Strategies and Crash Countermeasures

While no HIN segments are identified within Snoqualmie Tribal areas, distracted, drowsy, and failure to yield driving remain the primary contributors to deaths and serious injuries. Other factors, such as speeding and impaired, and following too closely, are more common in non-fatal injury crashes. The leading crash type is pedestrian/bike, which has a 50 percent share of fatalities. In Target Zero areas, younger drivers, distracted involved person, and single vehicle on highway each account for 30 percent of KSI.

Based on the RSAP Strategies Toolbox, which provides a comprehensive framework for improving transportation safety, this section outlines a combination of design and engineering strategies and planning, policy, and program strategies tailored to address the identified issues in the Snoqualmie Tribal areas. Recognizing that many facilities in the Tribal areas fall under multiple jurisdictions helps ensure that crash analyses and safety measurements are appropriately coordinated and aligned with agency responsibilities.

## Design and Engineering Strategies

- Speed Management: Automated speed enforcement cameras, centerline rumble strips, hardened centerline/turn hardening, lane reduction or reconfiguration, protected crossing islands, raised crossings, shoulder or edge line rumble strips, speed feedback sign, warning signs at horizontal curves. (See RSAP Chapter 4, Pages 48, 55, 60, and 66.)
- Pedestrian and Bicycle Safety: Pedestrian walkways. (See RSAP Chapter 4, Pages 48 and 55.)
- Road Departures (Fixed-Objects and Rollover) Prevention: Centerline rumble strips, widen edge lines, crash cushions at fixed features. (See RSAP Chapter 4, Page 60.)
- Intersection (Angle) Safety: Systemic low-cost countermeasures at stop-controlled intersections, traffic signal backplates with retroreflective borders, yellow change intervals. (See RSAP Chapter 4, Page 66.)

## Planning, Policy, and Program Strategies

- Targeted Enforcement: Increased patrols for speeding and DUI, consider automated speed enforcement.
- Youth Driver Safety Programs: Education and outreach for younger drivers.
- Public Awareness Campaigns: Campaigns on impaired driving, distracted driving, and safe following distances.
- Data-Driven Policy Updates: Integrate crash analysis into Tribal transportation planning and safety plans.
- Funding Alignment: Leverage Target Zero and federal grants for infrastructure and education initiatives.

Appendix C: Comprehensive List of Strategies, in the 2025 adopted RSAP, provides a complete list of strategies mentioned in the RSAP Toolbox that can be considered to address safety issues. Attachment D-1 of the appendix provides detailed design and engineering and Attachment D-2 provides planning, policy, and program strategies.

# Stillaguamish Tribe of Indians

# Stillaguamish Tribe of Indians

## Findings in Safety Plans, Policies, and Programs

Planning and Policy Overview:

- **Long-Range Transportation Plan:** The Stillaguamish Tribe of Indians has a current LRTP, finalized in 2023, with prior plans covering 2007–2017 and a Draft 2023 version completed earlier.
- **Transportation Safety Goals:** The Tribe's planning documents incorporate transportation safety goals aligned with Washington State's Target Zero initiative, aiming to eliminate traffic deaths and serious injuries.
- **Strategic Transportation Safety Plan:** In addition to the LRTPs, the Stillaguamish Tribe of Indians has completed a Strategic Transportation Safety Plan (2015) to identify and prioritize transportation safety improvements across Tribal areas and surrounding jurisdictions.

Speed Limit Policies and Enforcement:

- Speed management is addressed in the Tribe's transportation planning efforts, including safety assessments along key corridors such as SR 9 and SR 530, where speeding was identified as a significant safety concern.
- The Tribe's Law and Order Code (2019 revision) establishes enforcement authority for Tribal Police, enabling enforcement of traffic regulations on Tribal lands.
- Safety improvements related to speeding concerns have been implemented, including projects at Harvey Creek Road and the 236th Street corridor, where road design changes and traffic calming measures were incorporated.

Other Programs and Practices:

- The Stillaguamish Tribe of Indians is active in regional transportation coordination initiatives:
  - Participant in SNOTRAC (Snohomish County Transportation Coalition)
  - Contributions to regional SHSP efforts through the Tribal Traffic Safety Summit and Target Zero updates
- The Tribe has implemented innovative environmental programs such as the Fish Creek Wetland Mitigation Site to support transportation projects while meeting ecological goals.
- Transit services are provided through the Stillaguamish Tribe Transit Services, with plans for future expansion depending on funding availability.

# Geographic Boundaries

To assess how safety outcomes vary based on geographic definitions, crash data was analyzed using the boundaries described in Chapter 1, Safety Analysis Methodology: the PSRC, DOE, BIA, and Tribal boundaries, as well as a boundary reflecting the top 20 percent of census blocks with the highest Native American population in the central Puget Sound region adjacent to the Stillaguamish Tribal areas. Figure 9-17 shows these boundaries.

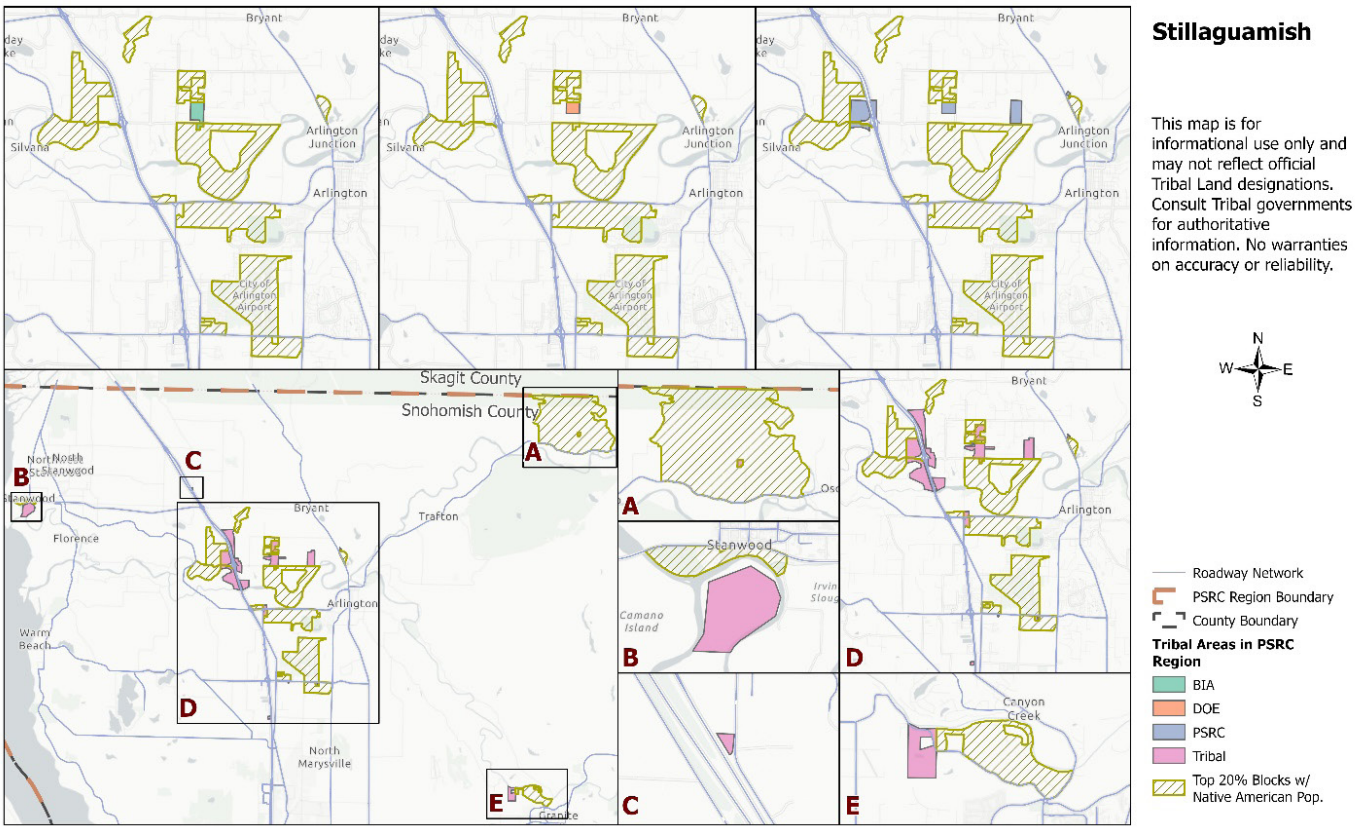


*Figure 9-17 Comparison of Boundary Sources Used in Crash Analysis in Stillaguamish Tribal Areas*

While each boundary shown in Figure 9-17 provides valuable context, the crash data was ultimately aggregated using a combined boundary to create a more inclusive safety analysis and to support consistency across datasets. This combined boundary integrates the highest-tribal-population census blocks across all four source boundaries and is clipped to the PSRC's four-county region (King, Kitsap, Pierce, and Snohomish counties). Figure 9-18 illustrates the combined boundary, representing the area analyzed for the Stillaguamish Tribe of Indians.

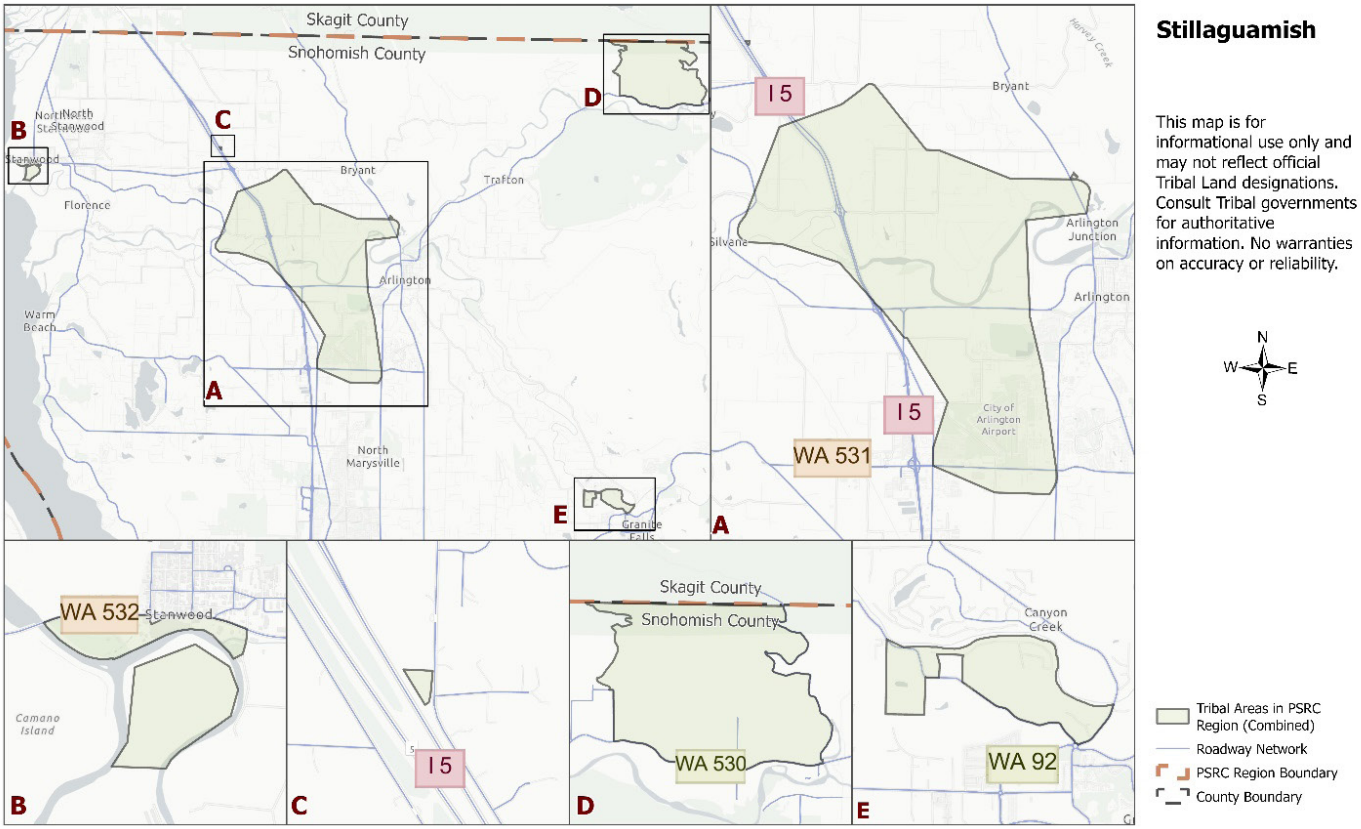


*Figure 9-18 Combined Boundary for Consideration of Crash Locations Resulting in Deaths or Serious Injuries in Stillaguamish Tribal Areas*

# Crash Trends (2010-2024)

Figure 9-19 shows crash victim trends from 2010 through 2024 across three severity categories. Deaths and serious injuries reached higher levels in 2013 and 2022 compared with surrounding years, while fatalities increased notably in 2024. Overall injuries and deaths fluctuated between 90 and 165, without a clear long-term decline.

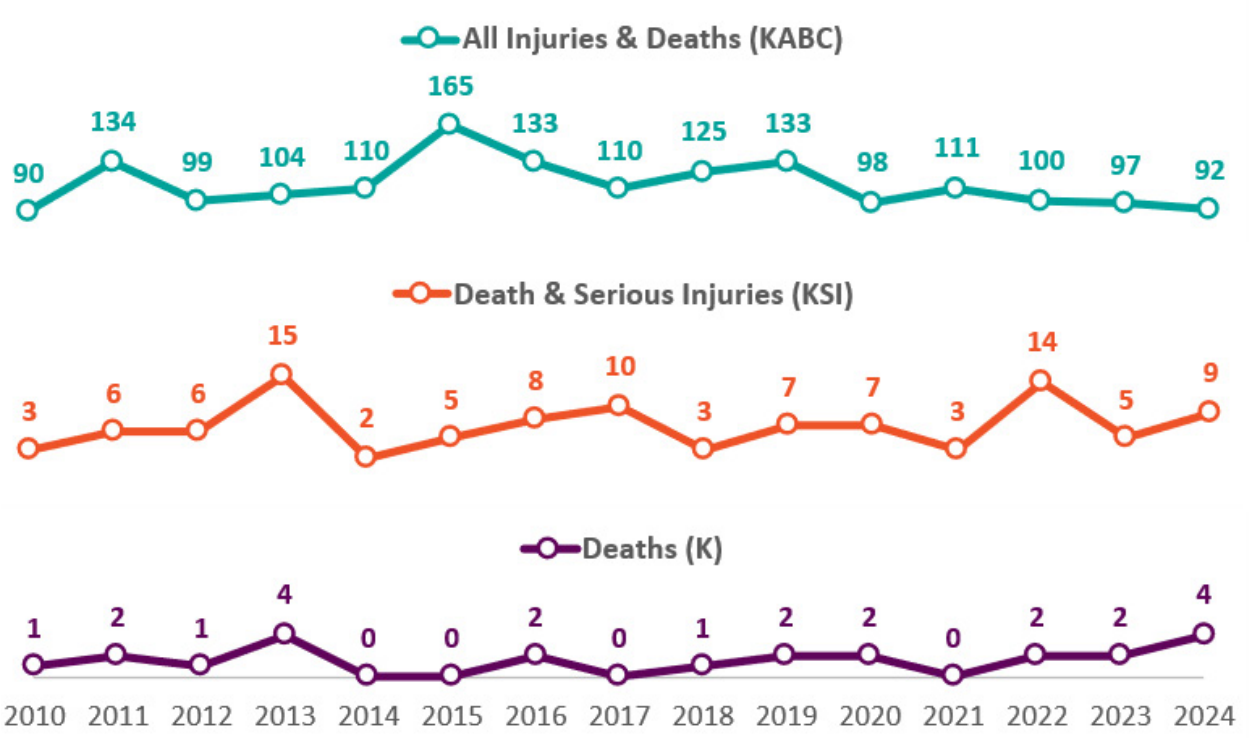


*Figure 9-19 Annual Injuries and Deaths for All Crash Victims in Stillaguamish Tribal Areas (2010-2024)*

# Crash Data Summary (2017-2024)

For safety planning purposes, all crashes involving injuries or deaths were reviewed. Aligned with the Safe System Approach, the analysis excludes crashes that result only in property damage. The dataset was further disaggregated to identify crashes involving serious injuries and deaths, as well as those resulting in deaths alone for statistical and spatial analysis.

## Contributing Factors

As shown in Table 9-15, the most common contributing factors in injury crashes within Stillaguamish Tribal areas are distracted driving (31 percent), speeding (21 percent), following too closely (19 percent), and failure to yield (17 percent). For crashes resulting in serious injuries or fatalities, speeding (28 percent), impairment (21 percent), and distraction (19 percent) are the leading contributors.

While distraction is the most frequent factor overall, its severity ratio when there is a death in a KABC crash is relatively low compared to other factors (1 in 53). In contrast, impaired driving stands out for its severity ratio: about 1 in 18 victims in such crashes were killed. Reckless driving, though relatively rare with only 2 percent of all-level injuries and 15 percent share of fatalities, also has a high fatality rate, with one in seven victims killed.

*Table 9-15 Top Contributing Factors for All Injuries or Fatalities in Stillaguamish Tribal Areas (2017-2024)*

| Contributing Factor | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Distracted | 267 | 31% | 11 | 19% | 5 | 38% | 1 : 24 | 1 : 53 | 1 : 2 |
| Speeding | 185 | 21% | 16 | 28% | 1 | 8% | 1 : 12 | 1 : 185 | 1 : 16 |
| Follow Too Closely | 164 | 19% | 1 | 2% | 0 | 0% | 1 : 164 | N/A | N/A |
| Failure to Yield to Vehicle | 150 | 17% | 7 | 12% | 0 | 0% | 1 : 21 | N/A | N/A |
| Impaired | 70 | 8% | 12 | 21% | 4 | 31% | 1 : 6 | 1 : 18 | 1 : 3 |
| Improper Turn/Merge | 41 | 5% | 1 | 2% | 0 | 0% | 1 : 41 | N/A | N/A |
| Failure to Use Due Care / Reckless | 13 | 2% | 5 | 9% | 2 | 15% | 1 : 3 | 1 : 7 | 1 : 3 |

N/A = not applicable because there were no fatalities due to this contributing factor.

## Crash Types

Rear-end crashes (35 percent), angle crashes (27 percent), and fixed-object crashes (25 percent) are the most common types of injury crashes in Stillaguamish Tribal areas, as shown in Table 9-16. However, the deadliest types of crashes are different: rollover crashes account for more than half of all fatalities, and fixed-object crashes make up nearly 40 percent of deaths. Head-on crashes, though rare, have an extremely high fatality rate, with one in five victims killed. Crashes involving pedestrians or bicyclists also have a high risk, with roughly one in five victims killed or seriously injured.

*Table 9-16 Top Crash Type for All Injuries or Fatalities in Stillaguamish Tribal Areas (2017-2024)*

| Crash Types | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Rear End | 231 | 35% | 5 | 10% | 1 | 8% | 1 : 46 | 1 : 231 | 1 : 5 |
| Angle | 179 | 27% | 13 | 27% | 0 | 0% | 1 : 14 | N/A | N/A |
| Fixed Object | 166 | 25% | 22 | 45% | 5 | 38% | 1 : 8 | 1 : 33 | 1 : 4 |
| Rollover | 59 | 9% | 12 | 24% | 7 | 54% | 1 : 5 | 1 : 8 | 1 : 2 |
| Sideswipe | 42 | 6% | 3 | 6% | 1 | 8% | 1 : 14 | 1 : 42 | 1 : 3 |
| Pedestrian/ Bike | 27 | 4% | 5 | 10% | 2 | 15% | 1 : 5 | 1 : 14 | 1 : 3 |
| Opposite Direction – Other | 23 | 3% | 3 | 6% | 1 | 8% | 1 : 8 | 1 : 23 | 1 : 3 |
| Head-on | 15 | 2% | 4 | 8% | 3 | 23% | 1 : 4 | 1 : 5 | 1 : 1 |

N/A = not applicable because there were no fatalities due to this crash type.

## Target Zero Areas

As shown in Table 9-17, within the Stillaguamish Tribal areas, younger drivers are involved in more crashes than any other group, making up 37 percent of all injuries and fatal crashes and 38 percent of crashes resulting in deaths and serious injuries. Distraction is also common, contributing to 31 percent of all injury crashes and linked to 21 percent of KSI outcomes. Among severe crashes, distraction has the highest proportion of fatalities, tied with impairment-involved crashes (38 percent). Impairment, while less frequent (9 percent of all injuries), is among the most lethal factors, with a one in five chance of a victim being seriously injured or killed.

Accidents involving speeding drivers (21 percent) also often have severe outcomes, contributing to more than a quarter (28 percent) of all KSI outcomes. Older drivers are involved in 20 percent of all injury crashes and 19 percent of severe crashes. Certain rare scenarios, such as wrong-way travel and single-vehicle crashes on highways, have extremely high fatality rates, with a one in one chance of death if involved in a KSI-level crash during the time period studied.

*Table 9-17 Top Target Zero Areas for All Injuries or Fatalities in Stillaguamish Tribal Areas (2017-2024)*

| Target Zero Area | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Driver Age 16-25 | 324 | 37% | 22 | 38% | 2 | 15% | 1 : 15 | 1 : 162 | 1 : 11 |
| Distracted Involved Person | 270 | 31% | 12 | 21% | 5 | 38% | 1 : 23 | 1 : 54 | 1 : 2 |
| Speeding Driver | 185 | 21% | 16 | 28% | 1 | 8% | 1 : 12 | 1 : 185 | 1 : 16 |
| Driver Age 65+ | 176 | 20% | 11 | 19% | 3 | 23% | 1 : 16 | 1 : 59 | 1 : 4 |
| Single Vehicle on Surface Streets | 96 | 11% | 17 | 29% | 4 | 31% | 1 : 6 | 1 : 24 | 1 : 4 |
| Impaired Involved Person | 75 | 9% | 14 | 24% | 5 | 38% | 1 : 5 | 1 : 15 | 1 : 3 |
| Hit and Run | 53 | 6% | 3 | 5% | 1 | 8% | 1 : 18 | 1 : 53 | 1 : 3 |
| Single Vehicle on Highway | 53 | 6% | 2 | 3% | 2 | 15% | 1 : 27 | 1 : 27 | 1 : 1 |
| Vehicle Travel in Wrong Way | 4 | 0% | 2 | 3% | 2 | 15% | 1 : 2 | 1 : 2 | 1 : 1 |

# High-Injury Network Summary (2016-2023)

As shown in Figure 9-20 and Table 9-18, approximately 8 percent of the roadways within Stillaguamish Tribal areas are identified as HIN corridors. All HIN segments in the Tribal areas are located on surface roadways. The corridor includes 252nd Street, 188th Street, Edgecomb Road, and Smokey Point Boulevard. The Stillaguamish Tribal areas have the second-highest HIN miles per 100,000 of population among all Tribes in central Puget Sound region.

*Table 9-18 HIN Summary in Stillaguamish Tribal Areas (2016-2023)*

| Tribe | Population | Area (Sq. Mile) | Roadway Type | HIN Mile | HIN Corridors Count | HIN Mile Average | HIN miles per Square Mile | HIN Miles per 100k Pop. | Percent of Network Covered by HIN |
|---|---|---|---|---|---|---|---|---|---|
| Stillaguamish Tribal Areas | 6314 | 21.1 | Surface | 3.5 | 5 | 0.7 | 0.2 | 54.9 | 8.1% |

HIN = high-injury network

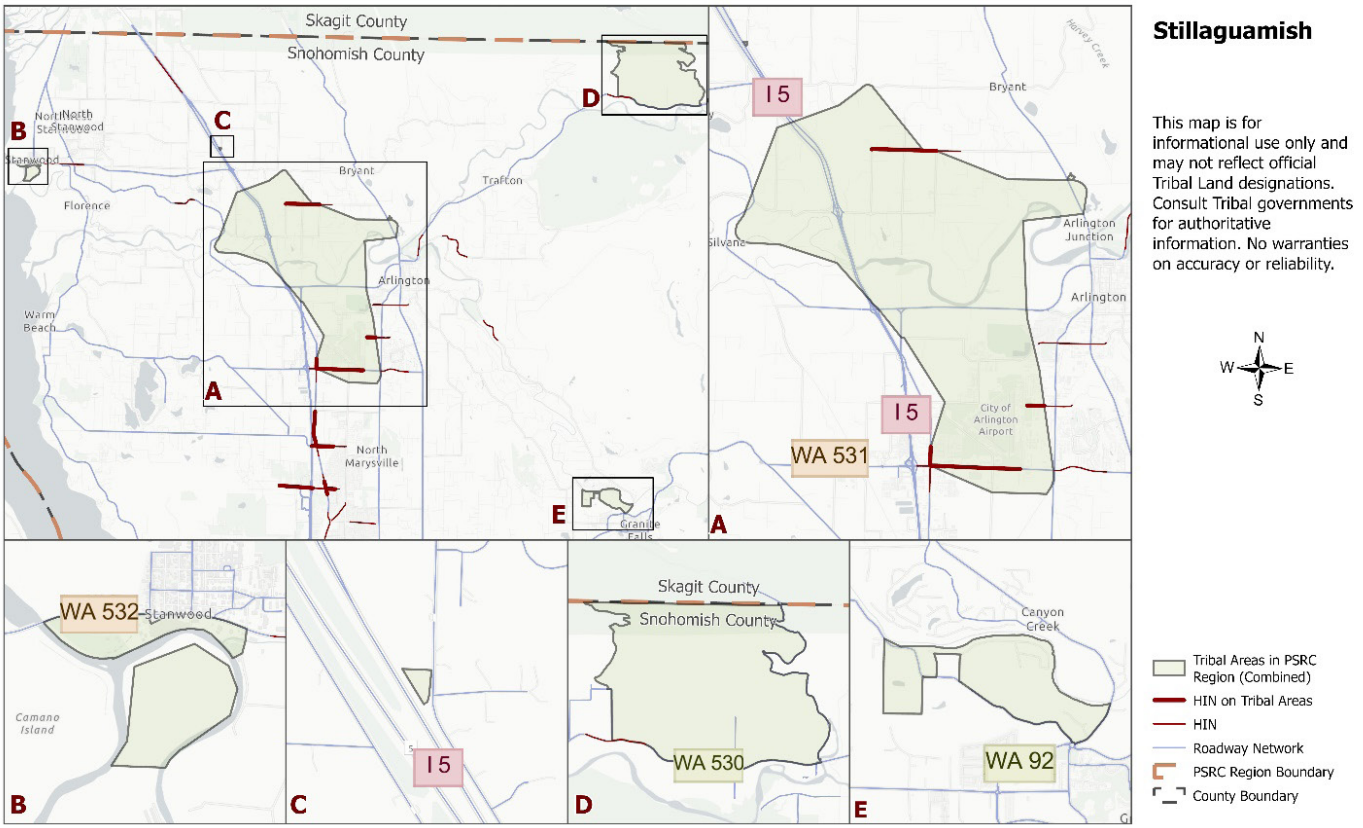


*Figure 9-20 High-Injury Network in or near Stillaguamish Tribal Areas*

# Strategies and Crash Countermeasures

Between 2017 and 2024, speeding (28 percent of KSI crashes), impairment (21 percent), and distraction (19 percent) were the leading contributors to fatal and serious injury outcomes in the Stillaguamish Tribal areas. Rear-end, angle, and fixed-object crashes were most common, while rollover, head-on, and pedestrian/bicyclist crashes carried the highest severity rates. Younger drivers (37 percent of all crashes) and older drivers (20 percent) are priority Target Zero areas, along with impairment-involved and speeding-related crashes, with each accounting for over one-fifth of KSI outcomes.

Based on the RSAP Strategies Toolbox, which provides a comprehensive framework for improving transportation safety, this section outlines a combination of design and engineering strategies and planning, policy, and program strategies tailored to address the identified issues in the Stillaguamish Tribal areas. Recognizing that many facilities in the Tribal areas fall under multiple jurisdictions helps ensure that crash analyses and safety measurements are appropriately coordinated and aligned with agency responsibilities.

## Design and Engineering Strategies

- Speed Management: Automated red light running enforcement cameras, automated speed enforcement cameras, centerline rumble strips, floating transit island, hardened centerline/ turn hardening, lane reduction or reconfiguration, protected crossing islands, raised crossings, roundabouts, shoulder or edge line rumble strips, speed feedback sign, warning signs at horizontal curves. (See RSAP Chapter 4, Pages 48, 55, 66, 60, and 70.)
- Pedestrian and Bicycle Safety: Advance stop lines, bike boxes/two-stage turn box, bike lane: conventional, conflict striping/bicycle crossing, high-visibility crosswalks, leading pedestrian intervals, no right on red, pedestrian hybrid beacons, pedestrian walkways, protected signal phasing. (See RSAP Chapter 4, Pages 48 and 55.)
- Road Departure (Rollover and Fixed-Object) Prevention: Centerline rumble strips, widen edge lines. (See RSAP Chapter 4, Pages 60.)
- Intersection (Angle) Crash Reduction: Systemic low-cost countermeasures at stop-controlled intersections, traffic signal backplates with retroreflective borders, yellow change intervals. (See RSAP Chapter 4, Pages 66.)
- Lane Departure (Head-On and Wrong-Way) Prevention: Centerline buffer area, barriers, pavement friction management (HFST). (See RSAP Chapter 4, Page 70.)

## Planning, Policy, and Program Strategies

- Targeted Enforcement: DUI emphasis patrols, automated enforcement in high-risk corridors, targeted speed enforcement near younger driver clusters, reduce vehicle speeds and speed limits on arterials.
- Education and Outreach: Youth driver safety programs, older driver awareness campaigns, impaired driving prevention campaigns.
- Public Awareness: Messaging on speeding, distraction, and high-risk crash types (rollover, wrong-way travel).
- Data-Driven Planning: Integrate crash type and factor analysis into Tribal transportation plans to prioritize infrastructure upgrades.
- Funding Alignment: Pursue Target Zero, FHWA, and Tribal transportation safety grants for both infrastructure and education programs.

Appendix C: Comprehensive List of Strategies, in the 2025 adopted RSAP, provides a complete list of strategies mentioned in the RSAP Toolbox that can be considered to address safety issues. Attachment D-1 of the appendix provides detailed design and engineering and Attachment D-2 provides planning, policy, and program strategies.

# Suquamish Tribe

# Suquamish Tribe

## Findings in Safety Plans, Policies, and Programs

Planning and Policy Overview:

- **Kitsap County Comprehensive Plan 2024 –** Suquamish Subarea Plan: Sets transportation safety around context-appropriate street design, speed management, safer crossings/lighting, and closing walk/bike gaps. It emphasizes multimodal connectivity and coordination with county, transit, and state partners to deliver safety improvements.
- **2024 Suquamish Tribe Long -** Range Transportation Plan: Sets a 20-year framework with explicit safety goals focused on walking/biking comfort, lighting and shoulder needs, and a maintained Suquamish Tribal road network. It prioritizes projects through TIP and Statewide Transportation Improvement Plan alignment and calls for ongoing interagency coordination to advance safety outcomes.

Speed Limit Policies and Enforcement:

- Speed limit regulations and enforcement authority are established under the Suquamish Tribal Code, Chapter 10.1 (Traffic Control). However, there is no broader speed management framework (e.g., systematic speed reviews, Vision Zero-style policies) identified.

## Geographic Boundaries

To assess how safety outcomes vary based on geographic definitions, crash data was analyzed using the boundaries described in Chapter 1, Safety Analysis Methodology: the PSRC, DOE, BIA, and Tribal boundaries, as well as a boundary reflecting the top 20 percent of census blocks with the highest Native American population in the central Puget Sound region adjacent to the Suquamish Tribal areas. Figure 9-21 shows these boundaries.

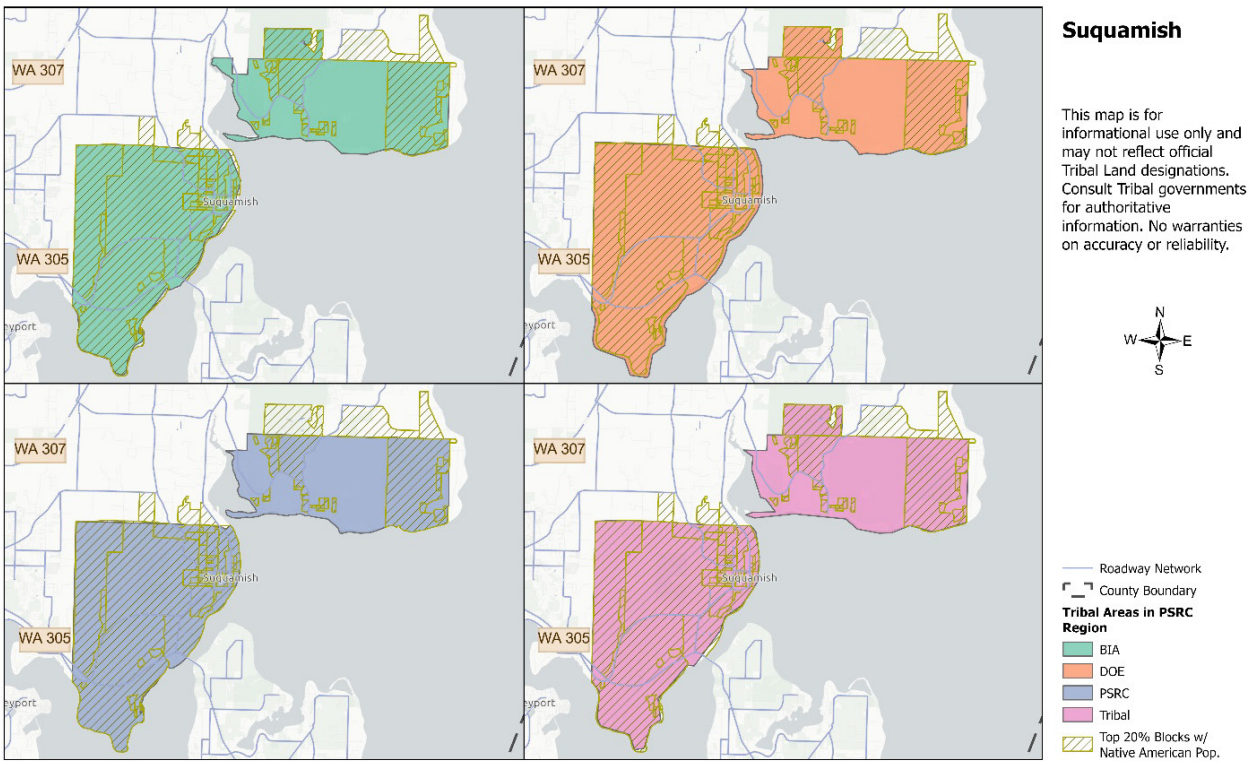


*Figure 9-21 Comparison of Boundary Sources Used in Crash Analysis in Suquamish Tribal Areas*

While each boundary shown in Figure 9-21 provides valuable context, the crash data was ultimately aggregated using a combined boundary to create a more inclusive safety analysis and to support consistency across datasets. This combined boundary integrates the highest-Tribal-population census blocks across all four source boundaries and is clipped to the PSRC's four-county region (King, Kitsap, Pierce, and Snohomish counties). Figure 9-22 illustrates the combined boundary, representing the area analyzed for the Suquamish Tribe.

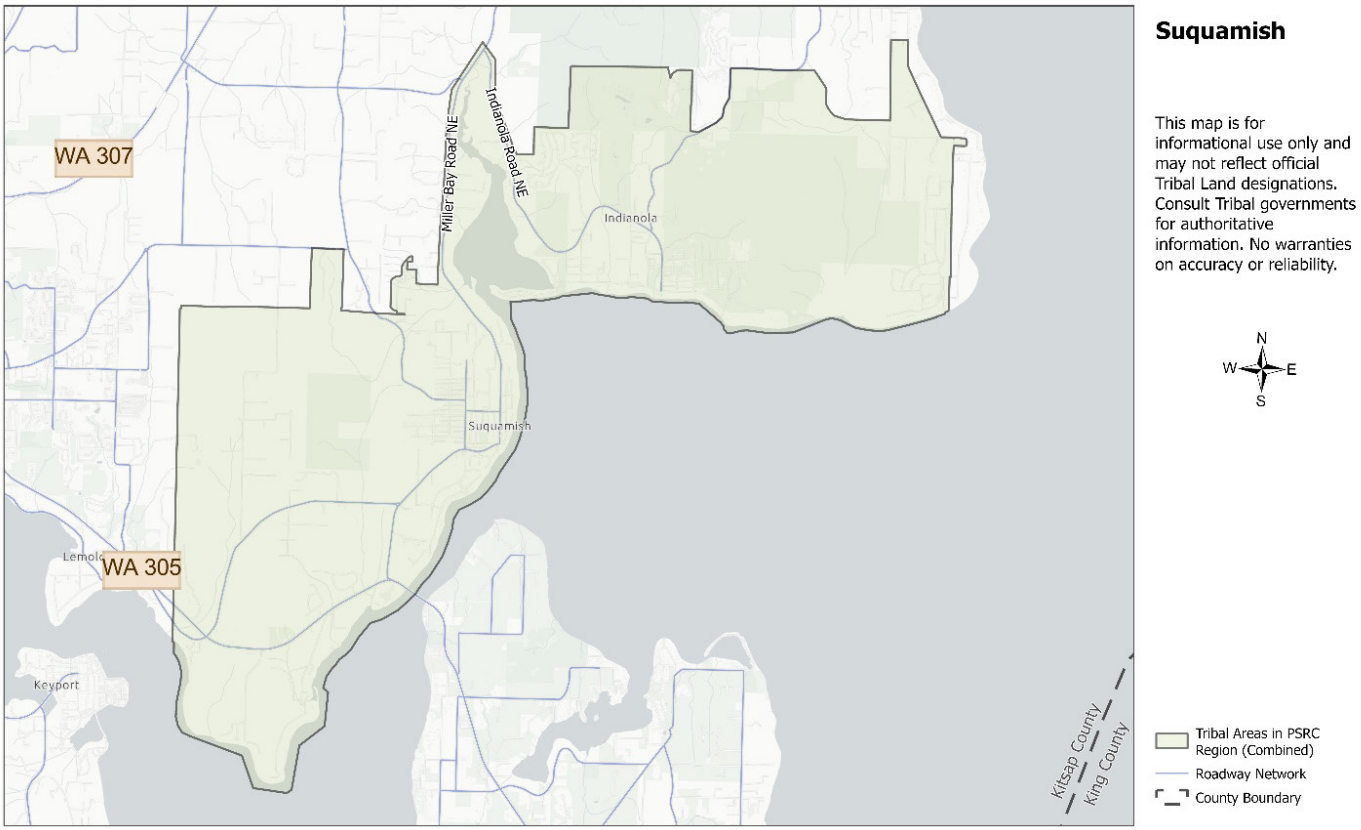


*Figure 9-22 Combined Boundary for Consideration of Crash Locations Resulting in Deaths or Serious Injuries in Suquamish Tribal Areas*

## Crash Trends (2010-2024)

Figure 9-23 shows crash victim trends from 2010 through 2024 across three severity categories. Deaths and serious injuries were relatively higher in 2011, 2018, 2019, and 2021 compared with other years. Overall injuries and deaths ranged between 18 and 58, while fatalities remain consistently low with only isolated cases.

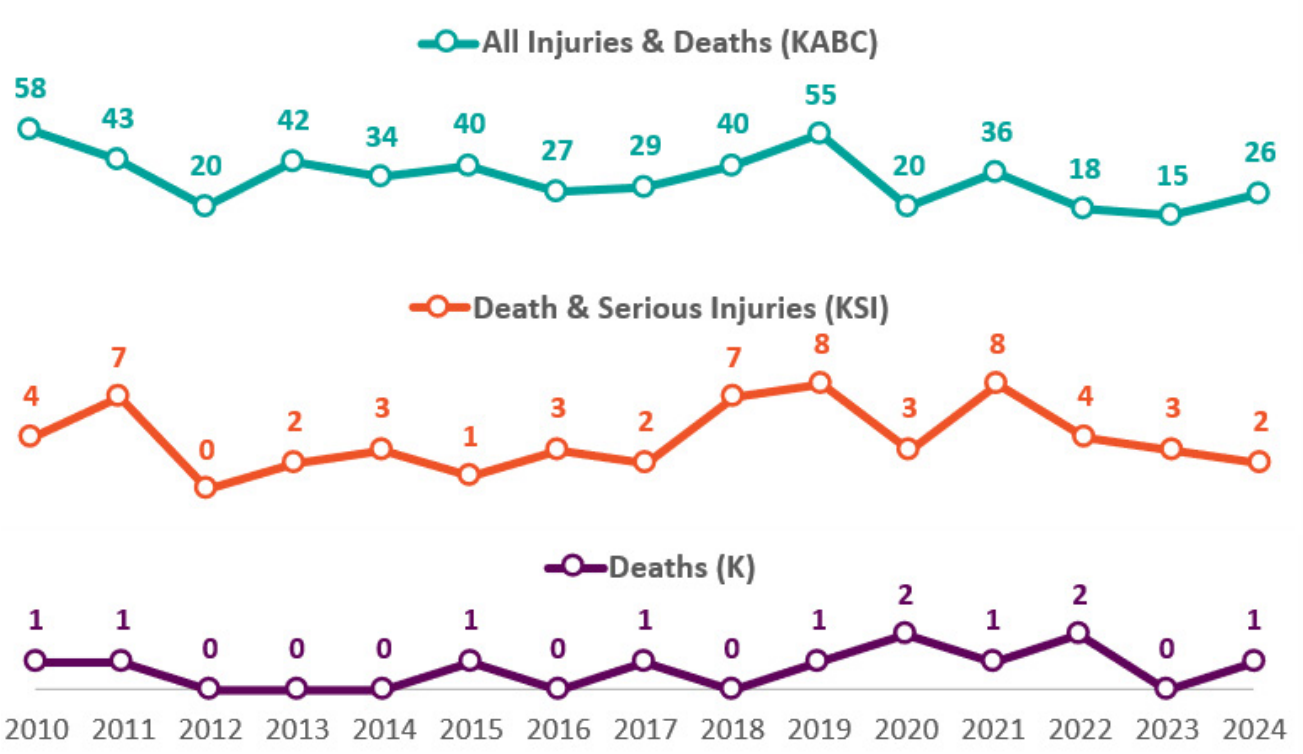


*Figure 9-23 Annual Injuries and Deaths for All Crash Victims in Suquamish Tribal Areas (2010-2024)*

# Crash Data Summary (2017-2024)

For safety planning purposes, all crashes involving injuries or deaths were reviewed. Aligned with the Safe System Approach the analysis excludes crashes that result only in property damage. The dataset was further disaggregated to identify crashes involving serious injuries and deaths, as well as those resulting in deaths alone for statistical and spatial analysis.

## Contributing Factors

As shown in Table 9-19, the leading contributing factors to injury crashes within the Suquamish Tribal areas are distracted driving, impaired driving, failure to yield, speeding, and following too closely. For crashes resulting in serious injuries or fatalities, failure to yield (27 percent) and speeding (24 percent) are the top factors, followed closely by impairment (16 percent).

Distraction, failure to yield, and speeding are generally considered high-risk behaviors that often leads to deaths or serious injuries. However, in Suquamish Tribal areas during the analysis period, distracted driving, while the most common factor overall, is linked to no fatalities and to relatively fewer severe injuries compared to the failure to yield and speeding. In contrast, some less common factors, such as lane violations, have a much higher risk, with about one in seven victims killed and one in four either seriously injured or killed. Speeding also remains a significant concern along long, straight downhill segments that transition from 45 mph to 25 mph in densely populated areas of Suquamish, particularly on Augusta Avenue NE and Suquamish Way NE.

*Table 9-19 Top Contributing Factors for All Injuries or Fatalities on Suquamish Tribal Land (2017-2024)*

| Contributing Factor | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Distracted | 52 | 22% | 5 | 14% | 0 | 0% | 1 : 10 | N/A | N/A |
| Impaired | 44 | 18% | 6 | 16% | 1 | 13% | 1 : 7 | 1 : 44 | 1 : 6 |
| Failure to Yield to Vehicle | 39 | 16% | 10 | 27% | 1 | 13% | 1 : 4 | 1 : 39 | 1 : 10 |
| Speeding | 34 | 14% | 9 | 24% | 1 | 13% | 1 : 4 | 1 : 34 | 1 : 9 |
| Follow Too Closely | 34 | 14% | 2 | 5% | 0 | 0% | 1 : 17 | N/A | N/A |
| Drowsy | 19 | 8% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |
| Equipment | 6 | 3% | 4 | 11% | 0 | 0% | 1 : 2 | N/A | N/A |
| Lane Violation | 7 | 3% | 2 | 5% | 1 | 13% | 1 : 4 | 1 : 7 | 1 : 2 |
| Failure to Use Due Care / Reckless | 5 | 2% | 1 | 3% | 0 | 0% | 1 : 5 | N/A | N/A |

N/A = not applicable because there were no fatalities due to this contributing factor.

## Crash Types

As shown in Table 9-20, the most common crash types in Suquamish Tribal areas are fixed-object crashes (34 percent), angle crashes (25 percent), and rear-end crashes (23 percent). Fixed-object crashes are also the most common type among severe crashes, making up 34 percent of fatal and serious injury cases and 38 percent of all fatalities.

Pedestrian and bicyclist crashes, while accounting for only 7 percent of all injury crashes, are among the deadliest. Nearly one in three of these crashes resulted in a serious injury or death, and about one in five resulted in a death. Opposite-direction crashes also carried a high severity rate, with about one in seven victims killed or severely injured in these crashes. In contrast, rear-end crashes, despite being one of the most frequent crash types, were not linked to any deaths during the analysis period in Suquamish Tribal areas.

*Table 9-20 Top Crash Types for All Injuries or Fatalities in Suquamish Tribal Areas (2017-2024)*

| Crash Type | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Fixed Object | 75 | 34% | 12 | 34% | 3 | 38% | 1 : 6 | 1 : 25 | 1 : 4 |
| Angle | 55 | 25% | 11 | 31% | 1 | 13% | 1 : 5 | 1 : 55 | 1 : 11 |
| Rear End | 51 | 23% | 0 | 0% | 0 | 0% | N/A | N/A | N/A |
| Rollover | 25 | 11% | 2 | 6% | 0 | 0% | 1 : 13 | N/A | N/A |
| Opposite Direction – Other | 17 | 8% | 7 | 20% | 1 | 13% | 1 : 2 | 1 : 17 | 1 : 7 |
| Pedestrian/ Bike | 15 | 7% | 9 | 26% | 3 | 38% | 1 : 2 | 1 : 5 | 1 : 3 |

N/A = not applicable because there were no fatalities and/or serious injuries due to this crash type.

## Target Zero Areas

As shown in Table 9-21, the most common Target Zero areas in Suquamish Tribe's combined boundary are single-vehicle crashes on surface streets (33 percent of all injury crashes), crashes involving younger drivers ages 16 to 25 (31 percent), and crashes involving drivers ages 65 and older (26 percent). Impaired driving (19 percent), distracted driving (23 percent), and speeding (14 percent) also contributed to a substantial share of crashes.

Among the most severe crashes, those causing deaths and serious injuries, single-vehicle crashes on surface streets, crashes involving older drivers, and crashes involving younger drivers each made up 27 percent of all victims. Speeding, while less frequent overall, accounted for nearly a quarter (24 percent) of these severe outcomes. Impaired and distracted person involved also remained major contributors, each linked to nearly one in five severe crashes.

Some Target Zero areas have a higher fatality risk than others in the Suquamish Tribe's combined boundary. Single-vehicle crashes on surface streets and impaired person involved each accounted for over a third and a quarter of deaths, respectively. While younger drivers were linked to no deaths in this period, they were involved in 27 percent of severe injury crashes, making them a significant focus for injury prevention efforts.

*Table 9-21 Top Target Zero Areas for All Injuries or Fatalities in Suquamish Tribal Areas (2017-2024)*

| Target Zero Area | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Single Vehicle on Surface Streets | 79 | 33% | 10 | 27% | 3 | 38% | 1 : 8 | 1 : 26 | 1 : 3 |
| Driver Age 16-25 | 75 | 31% | 10 | 27% | 0 | 0% | 1 : 8 | N/A | N/A |
| Driver Age 65+ | 61 | 26% | 10 | 27% | 2 | 25% | 1 : 6 | 1 : 31 | 1 : 5 |
| Distracted Involved Person | 55 | 23% | 7 | 19% | 1 | 13% | 1 : 8 | 1 : 55 | 1 : 7 |
| Impaired Involved Person | 45 | 19% | 7 | 19% | 2 | 25% | 1 : 6 | 1 : 23 | 1 : 4 |
| Speeding Driver | 34 | 14% | 9 | 24% | 1 | 13% | 1 : 4 | 1 : 34 | 1 : 9 |
| Hit and Run | 7 | 3% | 1 | 3% | 1 | 13% | 1 : 7 | 1 : 7 | 1 : 1 |

N/A = not applicable because there were no fatalities due to this Target Zero area.

# High-Injury Network Summary (2016-2023)

As shown in Figure 9-24 and Table 9-22, the north end of NE Columbia Street is the only HIN segment in the Suquamish Tribal areas, indicating that 1 percent of the network mileage in Suquamish Tribal areas is identified as part of the HIN.

*Table 9-22 HIN Summary in Suquamish Tribal Areas (2016-2023)*

| Tribe | Population | Area (Sq. Mile) | Roadway Type | HIN Mile | HIN Corridors Count | HIN Mile Average | HIN miles per Square Mile | HIN Miles per 100k Pop. | Percent of Network Covered by HIN |
|---|---|---|---|---|---|---|---|---|---|
| Suquamish Tribal Areas | 8687 | 14.5 | Surface | 0.3 | 1 | 0.3 | 0.0 | 3.5 | 1.1% |

HIN = high-injury network

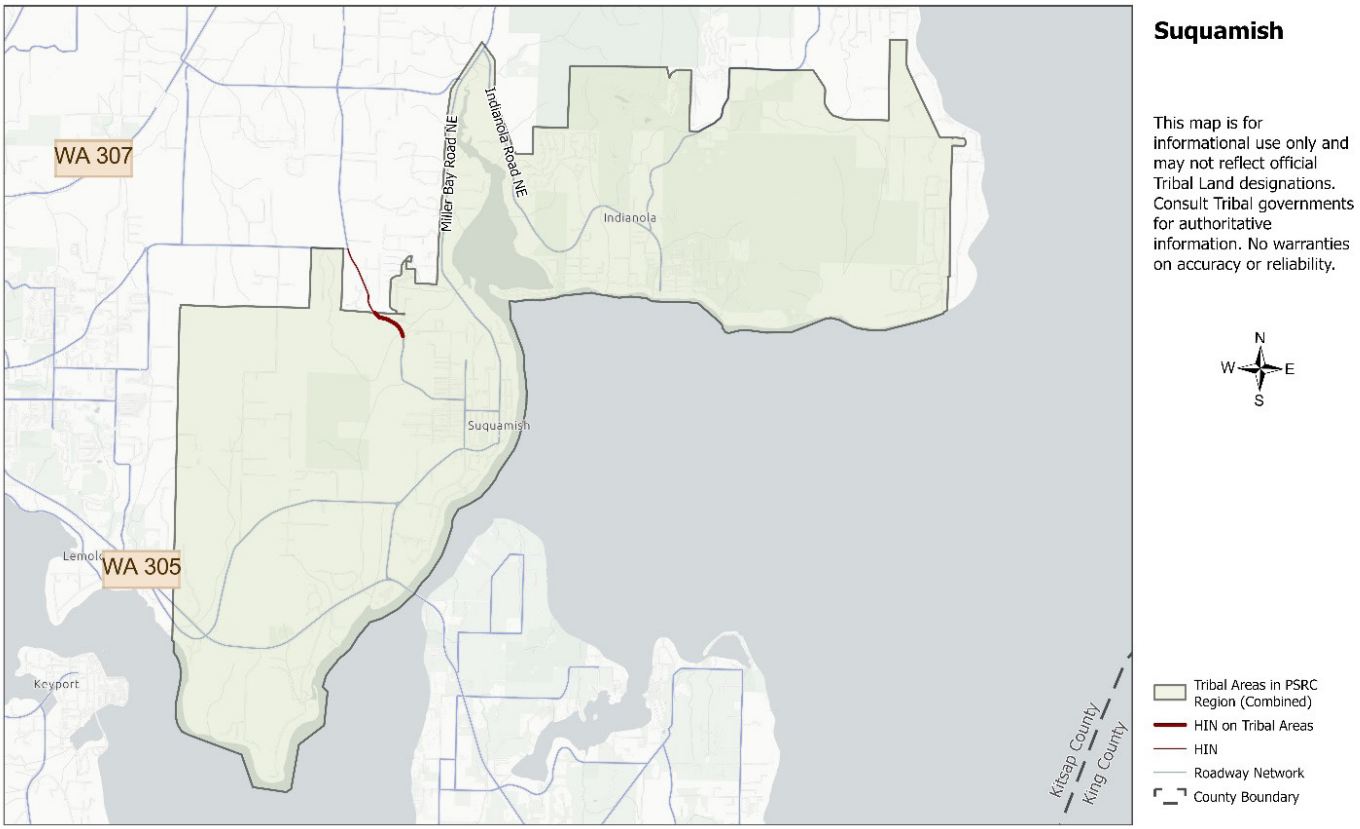


*Figure 9-24 High-Injury Network in or near Suquamish Tribal Areas*

# Strategies and Crash Countermeasures

Failure to yield (27 percent) and speeding (24 percent) are the leading contributors to fatal and serious injury crashes in Suquamish Tribal areas, followed by impairment (16 percent). Fixed-object crashes (34 percent) and angle crashes (25 percent) are the most frequent severe crash types, with pedestrian/bicyclist crashes, though less common, among the deadliest. Target Zero areas include single-vehicle crashes on surface streets, older drivers, and younger drivers.

Based on the RSAP Strategies Toolbox, which provides a comprehensive framework for improving transportation safety, this section outlines a combination of design and engineering strategies and planning, policy, and program strategies tailored to address the identified issues in the Suquamish Tribal areas.

Recognizing that many facilities in the Tribal areas fall under multiple jurisdictions helps ensure that crash analyses and safety measurements are appropriately coordinated and aligned with agency responsibilities.

## Design and Engineering Strategies

- Speed Management: Automated red light running enforcement cameras, automated speed enforcement cameras, centerline rumble strips, hardened centerline/turn hardening, lane reduction or reconfiguration, speed tables (or raised intersections) for physical traffic calming, narrowing treatments such as striping, curb extensions, or bulb-outs, roundabouts, shoulder or edge line rumble strips, speed feedback sign, warning signs at horizontal curves. (See RSAP Chapter 4, Page 48, 55, 60, and 66.)
- Pedestrian and Bicycle Safety: Advance stop lines, bike boxes/two-stage turn box, bike lane: conventional, conflict striping/bicycle crossing, raised crosswalks, high-visibility crosswalks, leading pedestrian intervals, no right on red, pedestrian hybrid beacons, pedestrian walkways, protected signal phasing. (See RSAP Chapter 4, Pages 48 and 55.)
- Road Departure (Fixed-Object) Prevention: Centerline rumble strips, crash cushions at fixed features, widen edge lines. (See RSAP Chapter 4, Page 60.)
- Intersection (Angle) Safety: Systemic low-cost countermeasures at stop-controlled intersections, traffic signal backplates with retroreflective borders, yellow change intervals. (See RSAP Chapter 4, Page 66.)

## Planning, Policy, and Program Strategies

- Targeted Enforcement: Increased patrols and automated enforcement for speeding and DUI.
- Education Programs: Youth driver safety outreach, older driver awareness campaigns.
- Public Awareness: Campaigns on impaired driving, distraction, and yielding behavior.
- Policy Updates: Integrate crash trends into Tribal transportation planning and safety plans.
- Funding Alignment: Leverage Target Zero and federal grants for infrastructure and education initiatives.

Appendix C: Comprehensive List of Strategies, in the 2025 adopted RSAP, provides a complete list of strategies mentioned in the RSAP Toolbox that can be considered to address safety issues. Attachment D-1 of the appendix provides detailed design and engineering and Attachment D-2 provides planning, policy, and program strategies.

Tulalip Tribes

# Tulalip Tribes

## Findings in Safety Plans, Policies, and Programs

Planning and Policy Overview:

- **Comprehensive Land Use Plan:** The Tulalip Comprehensive Land Use Plan (2009) includes a Transportation Chapter that references Target Zero goals and identifies general transportation objectives; however, detailed safety frameworks are limited. An update to the plan (2024–2025 Comprehensive Plan) is under way.
- **Long Range Transportation Plan:** The Tulalip LRTP (2022) provides more current direction, including specific attention to roadway safety, preliminary safety treatments, and integration of transportation planning with land use.
- **Strategic Transportation Safety Plan:** The Tulalip Tribes Strategic Transportation Safety Plan (2025) highlights the transportation safety needs and safety issues in the Tulalip Tribes reservation and recommends how to address them. The document summarizes crashes between 2020 and 2024 and recommends improvements strategies.
- **Coordination with Statewide Plans:** The Tulalip Tribes participates in statewide safety initiatives such as Target Zero and has engaged with the Tribal Traffic Safety Summit process to elevate Tribal safety priorities.

Speed Limit Policies and Enforcement:

- Speed-related enforcement is addressed under Chapter 3.6: Traffic Violations in the Tulalip Tribal Code.
- The use of speed detection trailers and other mobile radar enforcement tools is suggested by resources like the TPD-Media-Traffic-Speed-Detection-Trailer-System-20240419, but no comprehensive speed management framework or broader enforcement strategy was identified.

Safety Design, Active Transportation, and Education:

- The Tulalip Tribes participates in regional programs like the Washington State Safe Routes to School initiative.
- The 2022 LRTP includes descriptions of safety treatments and improvements like illumination upgrades, traffic calming (e.g., speed tables), and intersection enhancements.
- The 2024–2025 Comprehensive Plan Transportation Chapter outlines multimodal goals and a Complete Streets approach, promoting safe travel for pedestrians, bicyclists, and transit users.

## Geographic Boundaries

To assess how safety outcomes vary based on geographic definitions, crash data was analyzed using the boundaries described in Chapter 1, Safety Analysis Methodology: the PSRC, DOE, BIA, and Tribal boundaries, as well as a boundary reflecting the top 20 percent of census blocks with the highest Native American population in the central Puget Sound region adjacent to the Tulalip Tribal areas. Figure 9-25 shows these boundaries.

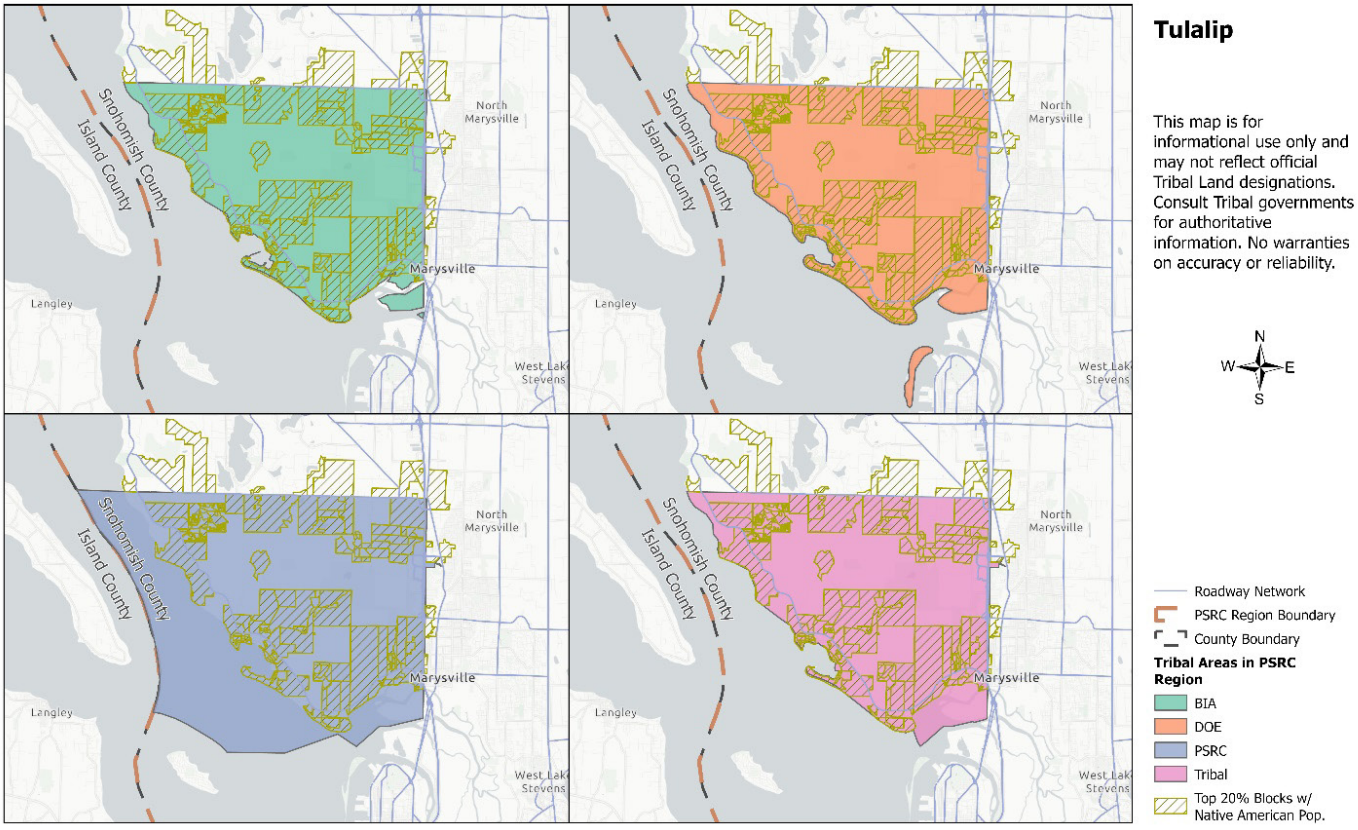


*Figure 9-25 Comparison of Boundary Sources Used in Crash Analysis in Tulalip Tribal Areas*

While each boundary shown in Figure 9-25 provides valuable context, the crash data was ultimately aggregated using a combined boundary to create a more inclusive safety analysis and support consistency across datasets. This combined boundary integrates the highest-Tribal-population census blocks across all four source boundaries and is clipped to the PSRC's four-county region (King, Kitsap, Pierce, and Snohomish counties). Figure 9-26 illustrates the combined boundary, representing the area analyzed for the Tulalip Tribes.

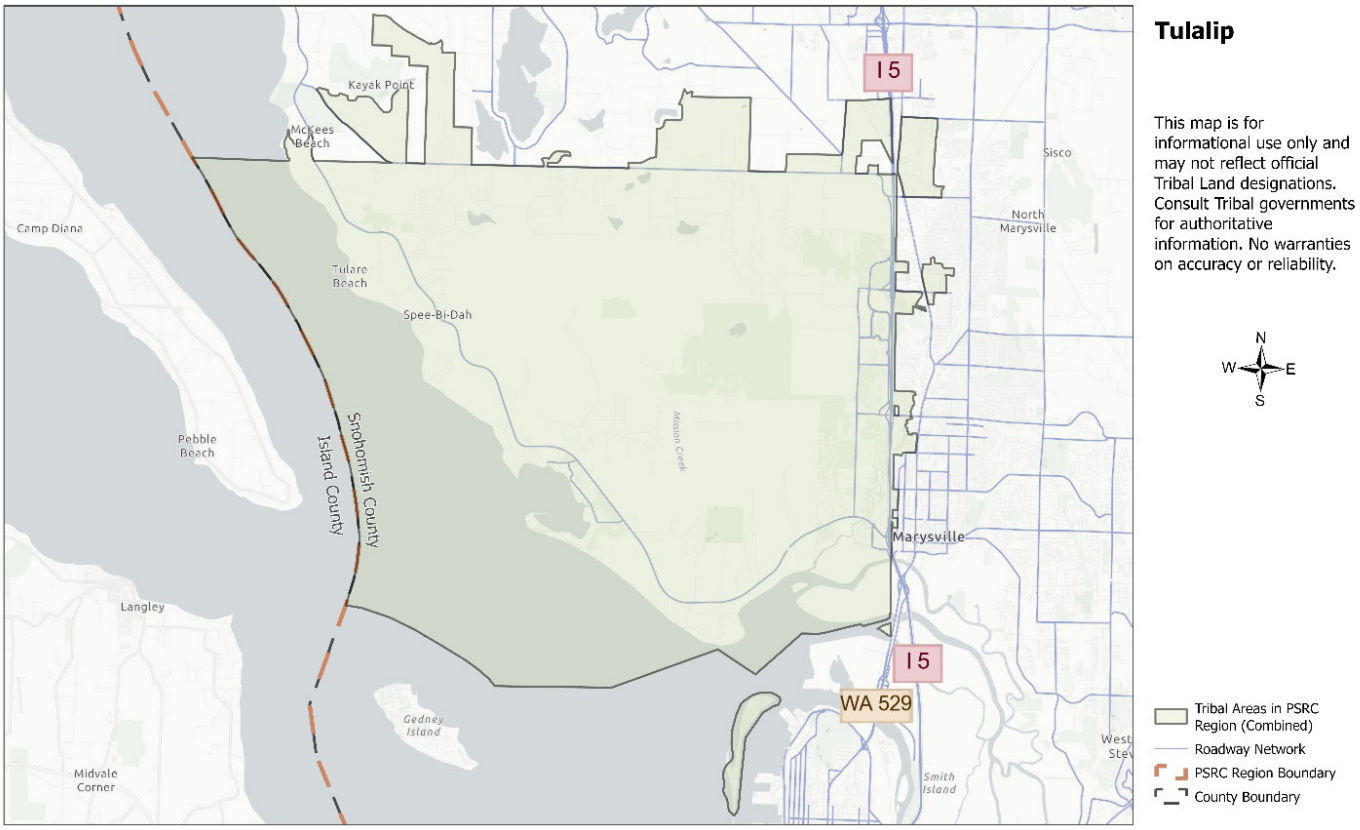


*Figure 9-26 Combined Boundary for Consideration of Crash Locations Resulting in Deaths or Serious Injuries in Tulalip Tribal Areas*

# Crash Trends (2010-2024)

Figure 9-27 shows crash victim trends from 2010 through 2024 across three severity categories. All injuries and deaths peaked in 2018 before declining in 2020 and stabilizing at moderate levels. Deaths and serious injuries were highest in 2018, 2019, and 2022, and remained elevated through 2024. Deaths ranged from zero to five (in 2017).

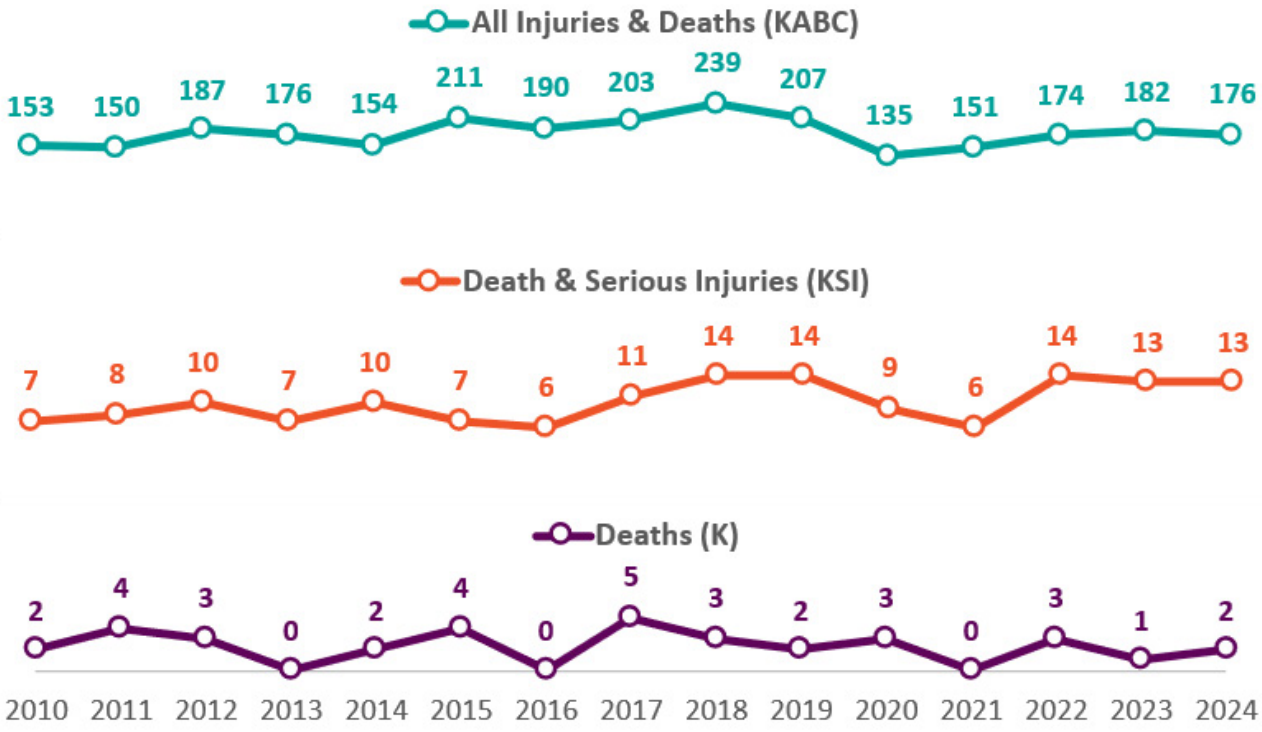


*Figure 9-27 Annual Injuries and Deaths for All Crash Victims in Tulalip Tribal Areas (2010-2024)*

# Crash Data Summary (2017-2024)

For safety planning purposes, all crashes involving injuries or deaths were reviewed. Aligned with the Safe System Approach, the analysis excludes crashes that result only in property damage. The dataset was further disaggregated to identify crashes involving serious injuries and deaths, as well as those resulting in deaths alone for statistical and spatial analysis.

## Contributing Factors

As shown in Table 9-23, speeding and impaired driving were two major contributing factors to deaths and serious injuries in Tulalip Tribal areas. Other notable contributing factors for non-fatal injury crashes include distracted driving and failure to yield, which are also common in Tulalip Tribal areas.

*Table 9-23 Top Contributing Factors for All Injuries or Fatalities in Tulalip Tribal Areas (2017-2024)*

| Contributing Factor | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Speeding | 363 | 25% | 27 | 29% | 7 | 37% | 1 : 13 | 1 : 52 | 1 : 4 |
| Distracted | 334 | 23% | 17 | 18% | 2 | 11% | 1 : 20 | 1 : 167 | 1 : 9 |
| Failure to Yield to Vehicle | 219 | 15% | 14 | 15% | 1 | 5% | 1 : 16 | 1 : 219 | 1 : 14 |
| Impaired | 125 | 9% | 21 | 22% | 5 | 26% | 1 : 6 | 1 : 25 | 1 : 4 |
| Failure to Use Due Care / Reckless | 37 | 3% | 7 | 7% | 2 | 11% | 1 : 5 | 1 : 19 | 1 : 4 |

## Crash Types

The most serious crashes in Tulalip Tribal areas are often very different from the most common ones. As shown in Table 9-24, almost half (49 percent) of victims from crashes that cause death or serious injury involve a vehicle hitting a fixed object, such as a tree, utility pole, or guardrail. Angle crashes, where two vehicles collide at an intersection or from the side, and rollovers each make up 18 percent of victims from these severe cases. Crashes involving people walking or biking account for 13 percent while rear-end crashes make up 12 percent of the victims.

While rear-end (50 percent) and angle (22 percent) crashes often result in all-level injury outcomes, the deadliest tend to be those involving fixed objects, rollover, and vulnerable road users (pedestrians or bicyclists). For these crash types, the risk of death is high: about one in seven victims in fixed-object crashes, one in six victims in rollover crashes, and one in four victims in pedestrian or bicyclist crashes was killed.

*Table 9-24 Top 5 Crash Types for All Injuries or Fatalities in Tulalip Tribal Areas (2017-2024)*

| Crash Type | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Rear End | 560 | 50% | 8 | 12% | 2 | 15% | 1 : 70 | 1 : 280 | 1 : 4 |
| Angle | 252 | 22% | 12 | 18% | 0 | 0% | 1 : 21 | N/A | N/A |
| Fixed Object | 239 | 21% | 33 | 49% | 9 | 69% | 1 : 7 | 1 : 27 | 1 : 4 |
| Rollover | 67 | 6% | 12 | 18% | 4 | 31% | 1 : 6 | 1 : 17 | 1 : 3 |
| Pedestrian/ Bike | 35 | 3% | 9 | 13% | 3 | 23% | 1 : 4 | 1 : 12 | 1 : 3 |

N/A = not applicable because there were no fatalities due to this crash type.

## Target Zero Areas

As shown in Table 9-25, three major factors stand out in the most severe crashes in the Tulalip Tribal area: speeding drivers (29 percent), crashes involving an impaired person (27 percent), and crashes involving drivers age 65 and older (26 percent). Speeding and impairment are also the two leading causes of fatal crashes. Another serious concern is single-vehicle crashes on surface streets—often involving a driver losing control—which rank as the third-deadliest type of crash, making up 21 percent of all fatal victims.

While younger drivers (ages 16–25) are not linked to as many fatal crashes as other factors, they are involved in more crashes overall than any other group. They make up about 30 percent of all injury victims, highlighting the importance of addressing risks for new and inexperienced drivers.

*Table 9-25 Top Target Zero Areas for All Injuries or Fatalities in Tulalip Tribal Areas (2017-2024)*

| Target Zero Area | Total All Injuries | Share of All Injuries | Total Fatalities & Serious Injuries | Share of Fatalities & Serious Injuries | Total Fatalities | Share of Fatalities | Ratio of Serious Injuries & Fatalities to All Injuries | Ratio of Fatalities to All Injuries | Ratio of Fatalities to Serious Injuries & Fatalities |
|---|---|---|---|---|---|---|---|---|---|
| Driver Age 16-25 | 439 | 30% | 20 | 21% | 2 | 11% | 1 : 22 | 1 : 220 | 1 : 10 |
| Speeding Driver | 363 | 25% | 27 | 29% | 7 | 37% | 1 : 13 | 1 : 52 | 1 : 4 |
| Distracted Involved Person | 337 | 23% | 19 | 20% | 2 | 11% | 1 : 18 | 1 : 169 | 1 : 10 |
| Driver Age 65+ | 247 | 17% | 24 | 26% | 2 | 11% | 1 : 10 | 1 : 124 | 1 : 12 |
| Impaired Involved Person | 141 | 10% | 25 | 27% | 6 | 32% | 1 : 6 | 1 : 24 | 1 : 4 |
| Single Vehicle on Surface Streets | 141 | 10% | 17 | 18% | 4 | 21% | 1 : 8 | 1 : 35 | 1 : 4 |
| Hit and Run | 131 | 9% | 8 | 9% | 2 | 11% | 1 : 16 | 1 : 66 | 1 : 4 |
| Single Vehicle on Highway | 70 | 5% | 10 | 11% | 3 | 16% | 1 : 7 | 1 : 23 | 1 : 3 |

# High-Injury Network Summary (2016-2023)

As shown in Figure 9-28 and Table 9-26, within the Tulalip Tribal areas, 12 percent of the roadway network is identified as part of the HIN. The majority of the HIN roadways are surface streets (10 percent) that are either connected to I-5 or could serve as alternative routes parallel to the freeway. Notably, every I-5 interchange within the tribal boundaries has at least one HIN segment.

*Table 9-26 HIN Summary in Tulalip Tribal Areas (2016-2023)*

| Tribe | Population | Area (Sq. Mile) | Roadway Type | HIN Mile | HIN Corridors Count | HIN Mile Average | HIN miles per Square Mile | HIN Miles per 100k Pop. | Percent of Network Covered by HIN |
|---|---|---|---|---|---|---|---|---|---|
| Tulalip Tribal Areas | 14,218 | 51.7 | Freeway | 1.2 | 1 | 1.2 | 0.0 | 8.7 | 2% |
| | | | Surface | 7.2 | 11 | 0.7 | 0.1 | 50.3 | 10% |

HIN = high-injury network

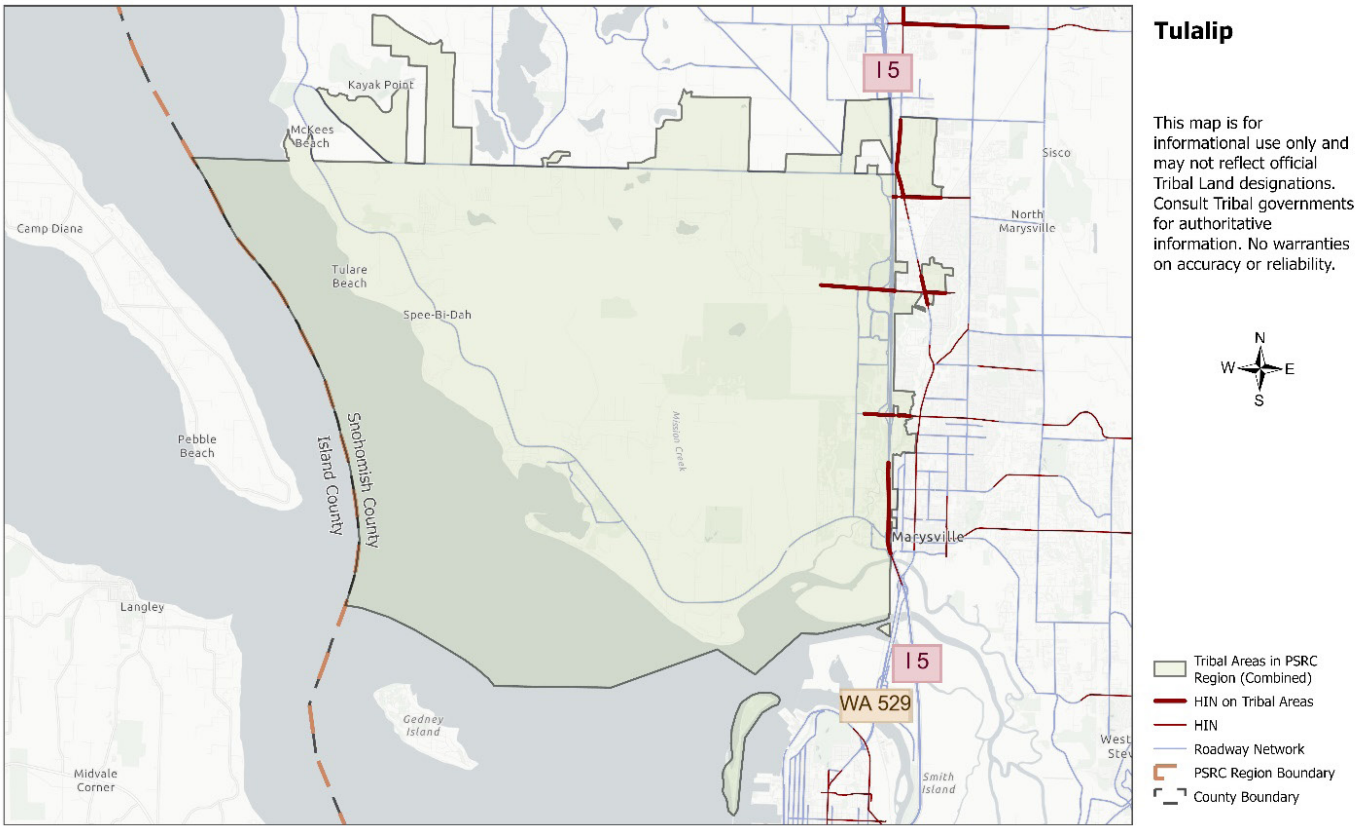


*Figure 9-28 High-Injury Network in or near Tulalip Tribal Areas*

# Strategies and Crash Countermeasures

With 12 percent of the roadway mileage identified as HIN within Tulalip Tribal Areas, speeding and impaired driving remain the primary contributors to deaths and serious injuries. Other factors such as distracted driving, failure to yield to a vehicle, and reckless driving, are more common in non-fatal injury crashes. The leading crash types are fixed object, rollover, and angle, followed by rear-end and pedestrian/bicycle crashes. In Target Zero areas, speeding and impairment-involved crashes each account for over 30 percent of deaths.

Based on the RSAP Strategies Toolbox, which provides a comprehensive framework for improving transportation safety, this section outlines a combination of design and engineering strategies and planning, policy, and program strategies tailored to address the identified issues in the Tulalip Tribal areas. Additionally, it is important to note that that many facilities in Tulalip Tribal areas fall under multiple jurisdictions. Understanding this context helps ensure that crash analyses and strategies are appropriately coordinated and aligned with agency responsibilities.

## Design and Engineering Strategies

- Speed Management: Automated red light running enforcement cameras, automated speed enforcement cameras, centerline rumble strips, hardened centerline/turn hardening, lane reduction or reconfiguration, protected crossing islands, raised crossings, roundabouts, shoulder or edge line rumble strips, speed feedback sign, warning signs at horizontal curves. (See RSAP Chapter 4, Pages 48, 55, and 60.)
- Pedestrian and Bicycle Safety: Advance stop lines, bike boxes/two-stage turn box, bike lane – conventional, conflict striping/bicycle crossing, high-visibility crosswalks, lane reduction or reconfiguration, leading pedestrian intervals, no right on red, pedestrian hybrid beacons, pedestrian walkways, protected crossing islands, protected signal phasing, raised crossings. (See RSAP Chapter 4, Pages 48 and 55.)
- Road Departures (Fixed-Objects and Rollover) Prevention: Centerline rumble strips, crash cushions at fixed features, widen edge lines. (See RSAP Chapter 4, Page 60.)
- Intersection (Angle) Safety: Systemic low-cost countermeasures at stop-controlled intersections, traffic signal backplates with retroreflective borders, yellow change intervals. (See RSAP Chapter 4, Page 66.)

## Planning, Policy, and Program Strategies

- Targeted Enforcement: Increased patrols for speeding and DUI, consider automated speed enforcement.
- Youth Driver Safety Programs: Education and outreach for younger drivers.
- Public Awareness Campaigns: Campaigns on impaired driving, distracted driving, and safe following distances.
- Data-Driven Policy Updates: Integrate crash analysis into Tribal transportation planning and safety plans.
- Funding Alignment: Leverage Target Zero and federal grants for infrastructure and education initiatives.

Appendix C: Comprehensive List of Strategies, in the 2025 adopted RSAP, provides a complete list of strategies mentioned in the RSAP Toolbox that can be considered to address safety issues. Attachment D-1 of the appendix provides detailed design and engineering and Attachment D-2 provides planning, policy, and program strategies.