

2015 SAFETY PLAN

TRIBAL TRANSPORTATION SAFETY PROGRAM



Collaboratively prepared by:



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Data Review 3 Map – Route 509

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Data Review 5 Map – E Portland Avenue

Data Review 6 Map – Levee Road

Data Review 7 Map – Norpoint Way

Data Review 8 Map – Pioneer Way

Data Review 9 Map – I-5

Data Review 10 - 99 from 54th to 62nd Avenue E

Data Review 11 – Pedestrian Involved Accidents

Data Review 12 – Bicyclist Involved Accidents

2015 Strategic Transportation Safety Plan

VISION

Safety Transportation Organization of the Puyallup Indian Tribe (STOPIT)

The Puyallup Indian Tribe would like to adopt the “STOPIT” Campaign as part of an area wide tribal effort to reduce distracted driving, speeding, driving under the influence, and the many other negative driving habits contributing to injuries and deaths on our shared transportation network. Our vision is to use this campaign to raise driver education and awareness. The STOPIT graphic and philosophy will provide a platform to launch our transportation safety initiatives and organize our Tribal Safety Program.



INTRODUCTION

THE PUYALLUP TRIBE OF INDIANS

The Puyallup Tribe of Indians has lived in villages from the foothills of Mount Tacoma, along the rivers and creeks to the Shores of the Puget Sound for thousands of years. Today the Puyallup Tribe's Reservation is one of the most urban in the United States with parts of seven communities in the Tacoma metropolitan area extending onto reservation land. According to the 2010 US Census the total Tribal population was 3,468 and today the total tribal membership is 7,094.

In years past and in their aboriginal language the Puyallup Tribe was known as the S'Puyalupubsh, which meant "generous and welcoming behavior to all people (friends and strangers) who enter our lands". Their villages were scattered all over the Pacific Northwest where they were able to successfully live off of what nature offered; salmon, shellfish, wild game, cedar trees, roots, and berries all of which provided food, shelter, clothing, and transportation. In 1854, after signing the Treaty of Medicine Creek, the Puyallup Tribe was forced to relocate onto reservation lands in what is now Tacoma, Washington.

The Puyallup Tribe of Indians are fishing people and endured many years of hardships before gaining back their right to fish at their usual and accustomed areas. In 1974, court decision gave the Indians in the State of Washington the right to fish and regulate their own fisheries. They, like many other Tribes, have since developed sophisticated programs to enhance and improve their fisheries.

Over the years, the Tribe hired experts, lawyers, and appointed a committee of tribal members to assist them in trying to reclaim land that had "mysteriously" gone out of trust and to determine if it was worth moving forward into court. This was felt to be a risky option by some Tribal members. After years of effort, in 1998, an agreement would be reached between the Tribe, local Government in Pierce County, the State of Washington, the US Government and some private property owners and soon became law by an official Act of Congress. The Tribal Board of Trustees appointed nine members to oversee the \$22 million held in Trust by the US and could be spent only on: housing, elderly needs, burial & cemetery maintenance, education & cultural preservation, supplemental health care, day care, and other social services. One of the most rewarding programs and an important investment in the Tribes future has been the education of their youth. Many are attending college, have already graduated college or are continuing on to pursue a Masters or Doctorate degree.

In the past seven years the Tribe has spent more than \$40 million on transportation projects and traffic safety services in neighboring areas. These are largely done in collaboration with state and local governments to benefit the region's growing traffic infrastructure, which helps everyone.

Projects range from lighting and safety improvements, to bridges and reconstruction projects, providing hundreds of jobs to local engineers, tradesmen, environmental and cultural resource consultants, construction contractors, and the like.

The Puyallup Tribe of Indians is committed to improving transportation safety and reducing fatalities and injuries that result from incidents on our transportation systems. The following plan will lead you through our transportation safety needs and strategies for our community. Implementation of the plan will improve transportation safety for the Tribe, its people, and its visitors. As part of an ongoing effort to make safety improvements, this Strategic Transportation Safety Plan was developed with input from several safety partners and will become a "living document" that will continue to effectively and efficiently address the safety needs of the Puyallup Tribe. The data analysis in this report will provide

baseline data from which to improve on. The Tribe will reevaluate the accident statistics in the next 3-5 years to understand the impacts made by initiating this program.

PROCESS

Plan Development

The Tribe received its initial safety grant through the Tribal Transportation Program (TTP) Safety Funds (TTPSF) which is a programmed 2% set aside within the TTP under Moving Ahead for Progress in the Twenty First Century (MAP-21). The award of \$12,500 was applied for and received with the intention of developing the Tribe's first Transportation Safety Plan. The limited funding of the Tribe's first award somewhat limited the scope of work and supporting resources to produce a comprehensive safety plan for the expansive transportation network of the Puyallup Tribe. Our transportation system is a public network that we share with several surrounding and intermingled jurisdictions. The 2015 Safety Plan will be one of the many documents produced by the Tribe to assist in future collaborative efforts to improve transportation safety on the shared network. Future funding applications will be submitted to the TTPSF program administered by the Federal Highway Administration (FHWA) to further support and supplement this initial overview, analysis and plan.

The Tribe, through a competitive bidding process, selected Red Plains Professional, Inc. to work with in the development of the Safety Plan. The project was awarded in May 2014. Red Plains and the Puyallup Tribe's Planning Department held a safety planning meeting and working session on June 11, 2014 to establish the Transportation Safety Stakeholders and Safety Partners. The team identified several emphasis areas of safety concern while we reviewed and revised the scope of work for the project to best support the specific needs of the Puyallup Tribe.

Data was collected and analyzed to better understand the traffic accidents occurring on the Tribe's transportation network. Given the multiple jurisdiction nature of the tribal service area, combined with the relatively high traffic volumes, data was plentiful on many of the roads within the transportation system. The Tribe has cross deputized law enforcement agents who work with the many surrounding jurisdictions who also maintain their law enforcement teams. Area accidents are reported to the Collision Location Analysis System (CLAS) which is maintained by the Washington State Department of Transportation (WSDOT).

The evaluation and implementation of this plan is discussed at the end of this document. The Puyallup Tribe has created a Safety Transportation Organization to oversee implementation and evaluation of the plan.

Safety Partners

The following entities contributed to this plan through participation in the safety planning workshops. The partnerships developed during this process represent good resources for the Tribe as the plan is evaluated, implemented and eventually updated.

- Puyallup Tribal Leadership
- Puyallup Tribal Police Department
- Puyallup Tribal Fire Department
- Puyallup Tribal Department of Planning and Land Use Services
- Puyallup Tribal GIS Department
- Puyallup Tribal Public Safety Department
- Puyallup Tribal Education Department

EXISTING EFFORTS

The Puyallup Tribe understands the critical need for a safe transportation network. The Tribe regularly has partnered with neighboring jurisdictions like the cities of Tacoma, Fife, Milton, Edgewood, Puyallup, as well as Pierce County & WSDOT to look at issues to improve pedestrian, bike, and auto safety on reservation roads. Safety has become an increasing priority for local jurisdictions and the Tribe has been working to pinpoint hazards, improve emergency response, and provide intelligent technology systems reservation wide all to meet the goal of reducing collisions and fatalities. The safety plan will act as a vehicle to help prioritize these needs to better coordinate with the different jurisdictions on the reservation.

The Tribe's Transportation Plan also identifies roadway and transportation improvement projects and priorities for improving the transportation network and its safety. The Tribe maintains the LRTP and their Tribal Transportation Improvement Program (TTIP) under the TTP and is constantly looking for ways to fund safety related improvements.

DATA REVIEW

The data presented below is organized by the type of contributing factor. The major data source was the Washington State Department of Transportation, Transportation Data and GIS office crash data maintained in the WSDOT CLAS System. Crash data is for the time frame of January 1, 2010 to December 31, 2013.

During the 4-year period from 2010 to 2013, within the boundaries of the Puyallup Indian Reservation, a total of 3,584 reported crashes resulted in thirteen (13) fatalities. There were 82 major injuries and 1,140 minor injuries. The remaining 2,349 crashes resulted in property damage only.

Overall statistics for the Data Review are presented in **Data Review 1 – Reservation Wide** data analysis. The overall analysis of this data provided insight into the reservation wide transportation issues of the heavily and densely populated areas experiencing significant traffic volumes. The largest corridor through the Reservation is Interstate 5 (I-5) and as expected this Class 1 Arterial represented a high percentage, 43% or 1,542 of the total 3,584 accidents recorded during the four year period. This overall analysis provides good regional data but we felt it important to “drill down” into the data and perform more detailed analysis on specific routes and segments of routes to identify specific issues. Utilizing GIS, we mapped each accident location. This allows us and the reader to visually see the accident locations and allow us to identify clusters and geographic areas of concern. The map is provided with this report as a graphic illustration and provided to the Tribe as an electronic deliverable in ArcGIS and Google Earth software. While I-5 data is present in the report and broken out into its own analysis (Data Review 8), it is also a data source that is likely to skew any real analysis of the supporting transportation network. We felt removing the 43% I-5 representation was critical to data integrity. From the mapping exercise we identified 10 specific routes or segments of routes we felt important to analyze separately.

The data reviews are structured as listed below and directly follow this page:

1. Reservation Wide Data Review
2. Route 167 River Road
3. Route 509 Marine View Drive
4. E 44th Street
5. E Portland Avenue
6. Levee Road
7. Norpoint Way
8. Pioneer Way
9. Interstate 5 (I-5)
10. State Route 99 from 54th Avenue E to 62nd Avenue E

To further illustrate the data reviews, we have provided Accident Location Maps of each Data Review Area. The Maps are located in the back of the report as listed:

- Puyallup Tribe Safety Plan Map – Overall Accident Locations
- Data Review Areas – Location Map
- Data Review 2 Map – Route 167
- Data Review 3 Map – Route 509
- Data Review 4 Map – E 44th Street
- Data Review 5 Map – E Portland Avenue
- Data Review 6 Map – Levee Road
- Data Review 7 Map – Norpoint Way
- Data Review 8 Map – Pioneer Way
- Data Review 9 Map – I-5
- Data Review 10 - 99 from 54th to 62nd Avenue E
- Data Review 11 – Pedestrian Involved Accidents
- Data Review 12 – Bicyclist Involved Accidents

DATA REVIEW 1- RESERVATION WIDE

During the 4-year period from 2010 to 2013, within the boundaries of the Puyallup Indian Reservation a total of 3,584 reported crashes resulted in 13 fatalities. There were 82 major injuries and 1,140 minor injuries. The remaining 2,349 crashes resulted in property damage only.

Crash Type

- 69% of all crashes involved two vehicles.
- 44% of all crashes were rear-end collisions.

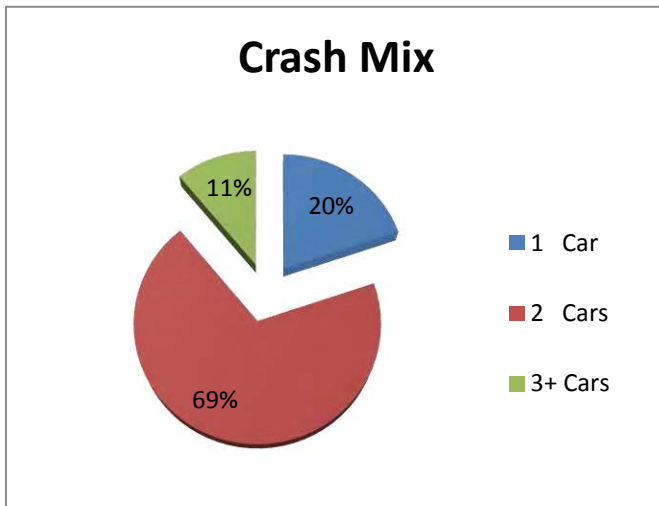


Figure 1 – Crash Mix All Crashes

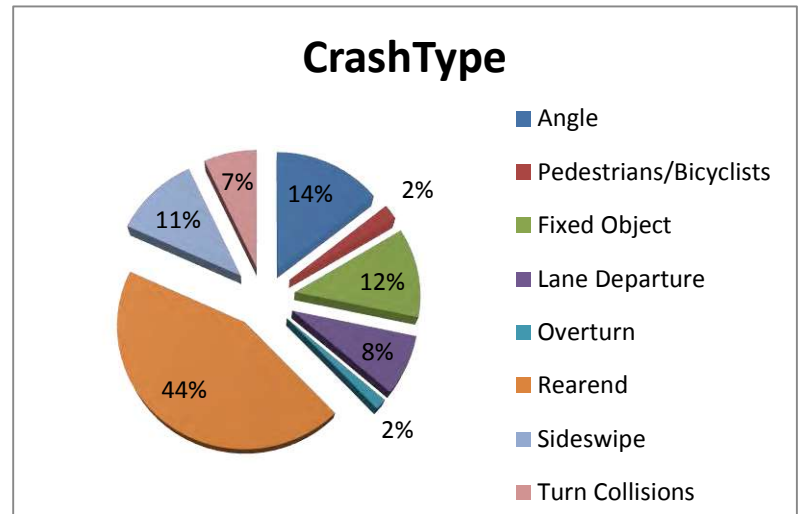


Figure 2 – Crash Type

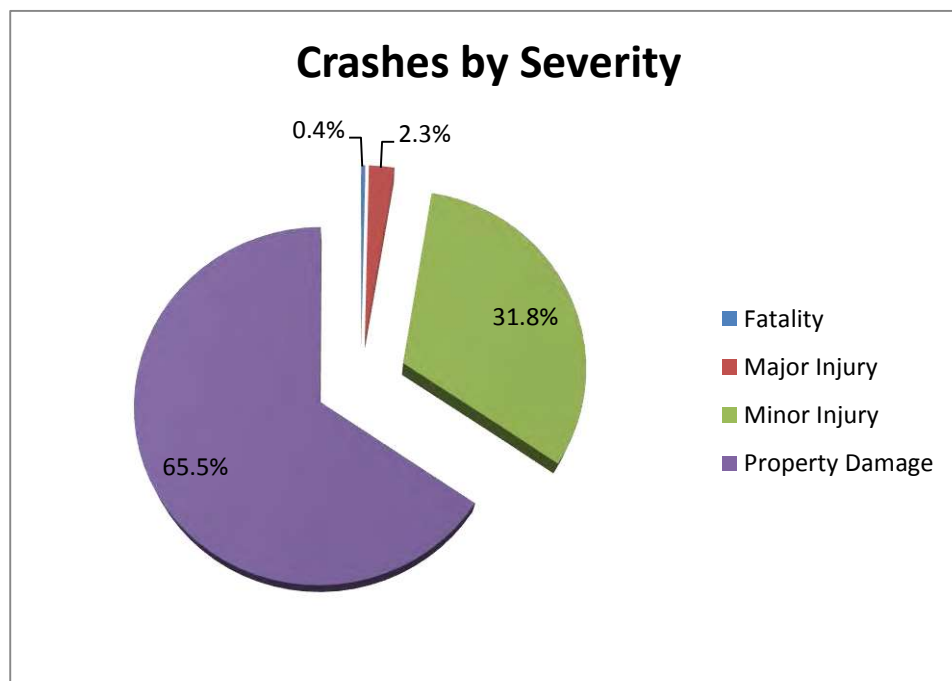


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- Alcohol/drug impaired drivers are involved in 7% of all crashes.
- In 51% of the total crashes, the Human Factors of “following too close” (17%), “failure to yield” (17%), and “speeding” (17%) were identified.
- 26% of drivers involved in crashes, were between the ages of 14 and 24.
- Of all crashes involving drivers who were alcohol/drug impaired, 26% were between the ages of 14-24.

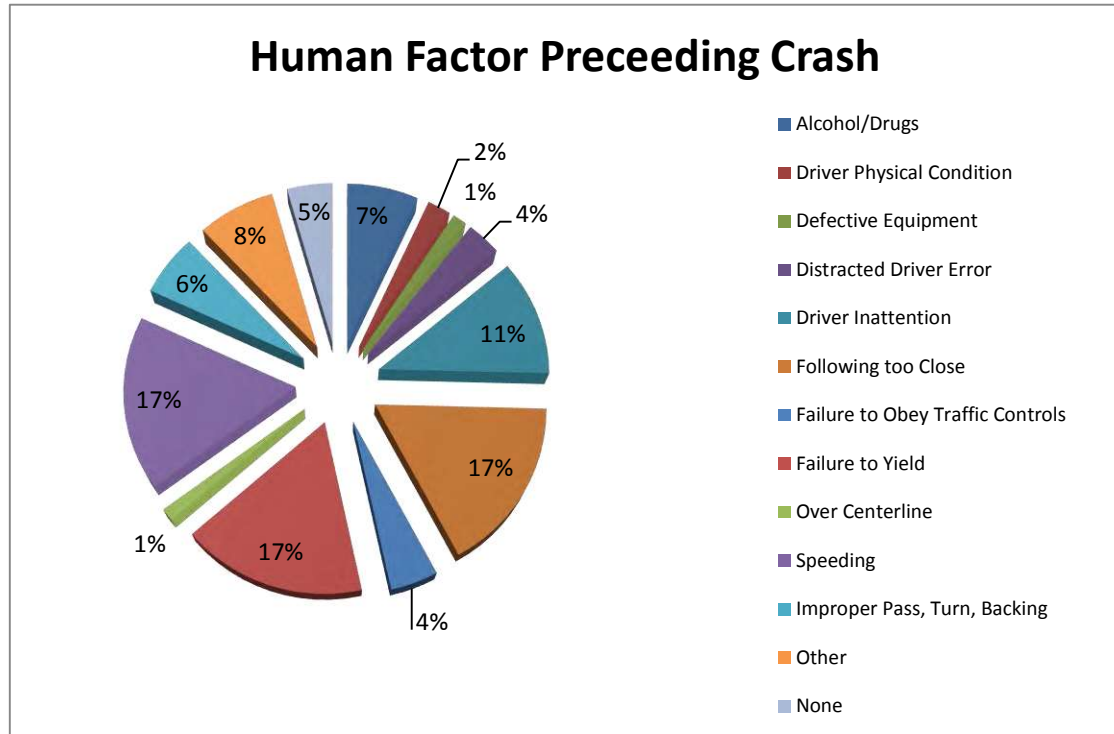


Figure 4 – Human Factor

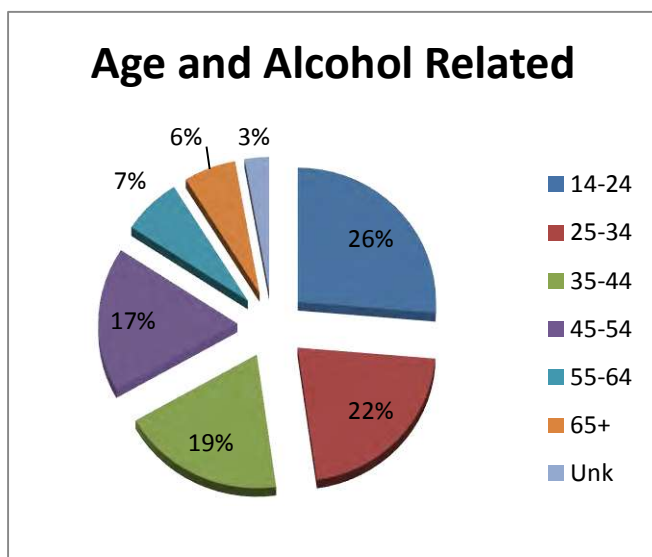


Figure 5 – Driver Age and Alcohol/Drug Impairment

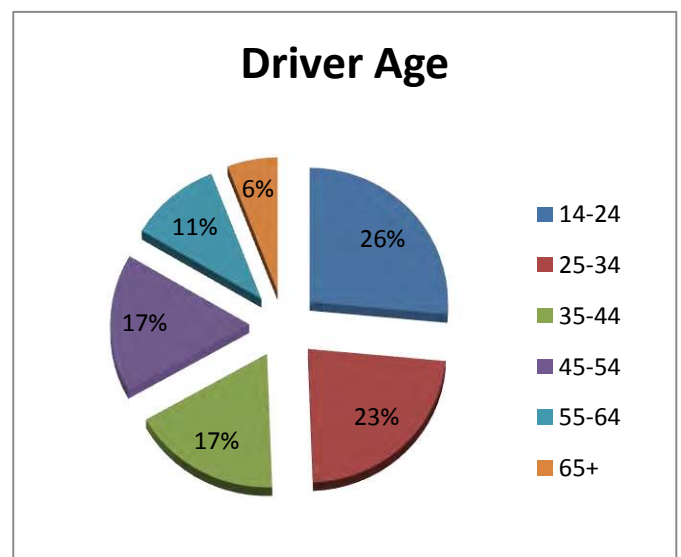


Figure 6 – Driver Age

Environment Factors

- Approximately 35% of all crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 65% of all crashes occurred when road conditions were dry.

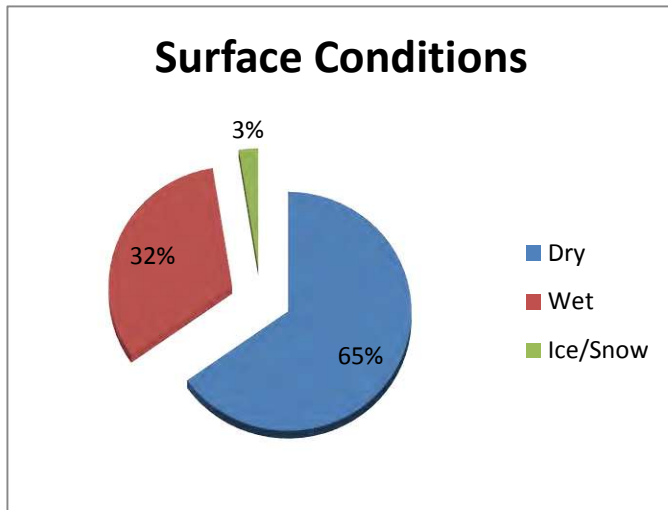


Figure 7 – Surface Conditions

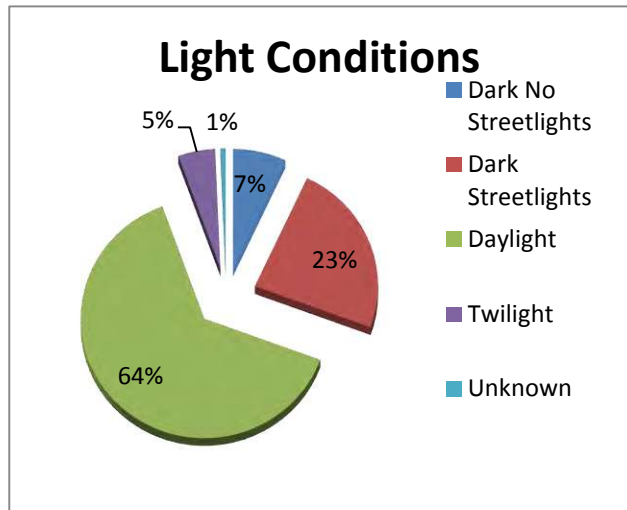


Figure 8 – Light Conditions

Roadway Factors

- 47% of all crashes occurred within intersections or driveways or related to them.

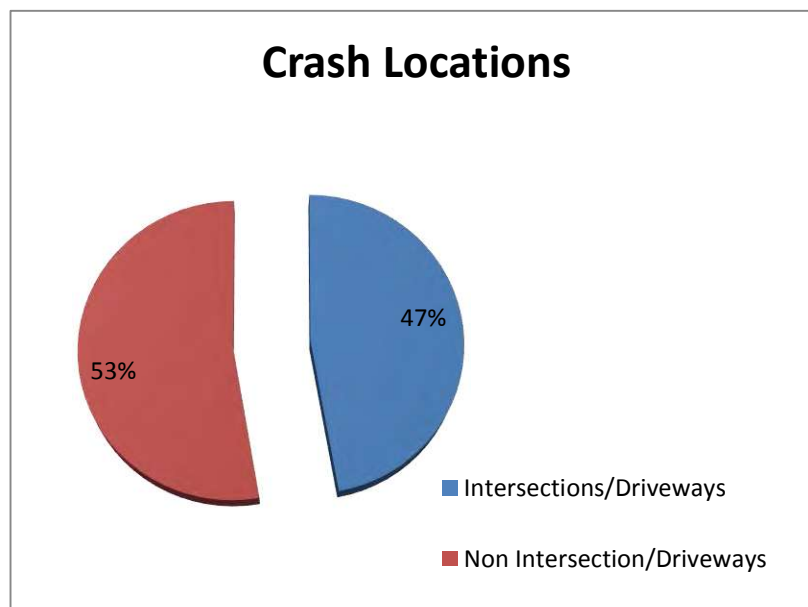


Figure 9 -Crash Locations

DATA REVIEW 2 - ROUTE 167 RIVER ROAD

Route 167 is an important road for the Tribe as many Tribal businesses exist along it between Tacoma and Puyallup. It also acts as a bus route for Chief Leschi School from the Indian Addition of Tacoma. Route 167 is notoriously known by Tribal members to be an unsafe road with no sidewalks and poor lighting.

During the 4-year period from 2010 to 2013, on Route 167 within the boundaries of the Puyallup Indian Reservation, a total of 256 reported crashes resulted in 7 major injuries and 102 minor injuries. The remaining 147 crashes resulted in property damage only.

Crash Type

- 68% of all crashes involved two vehicles.
- 21% of all crashes were rear-end collisions.
- 19% of all crashes involved lane departure.
- 57% of all crashes were property damage only.

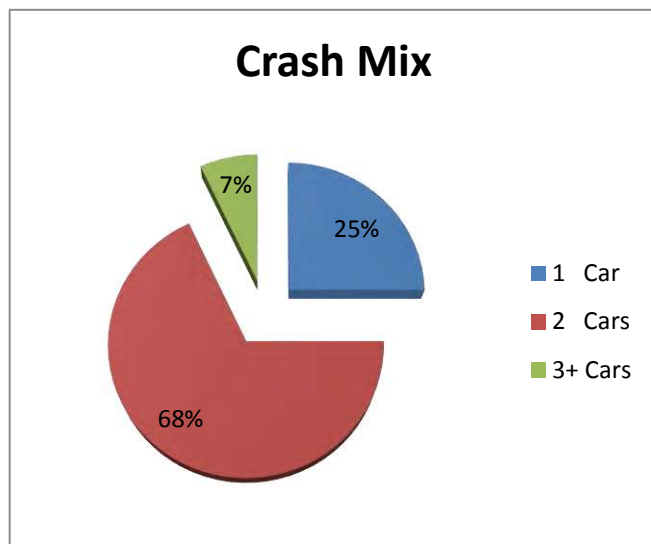


Figure 1 – Crash Mix All Crashes

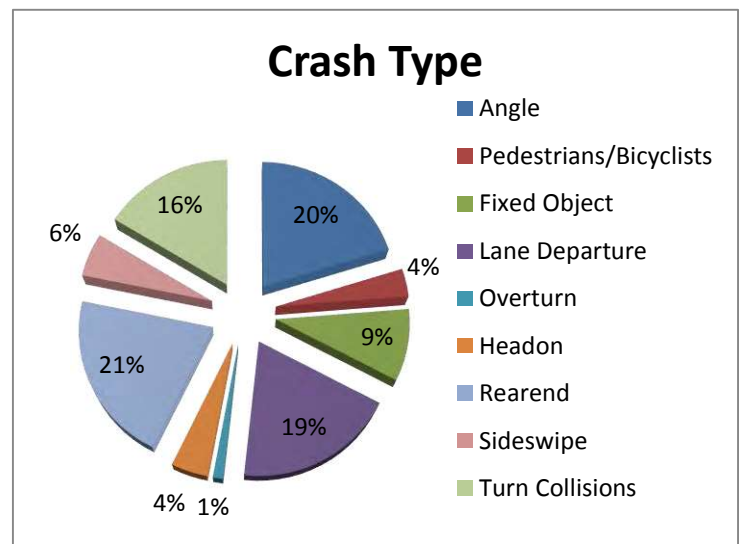


Figure 2 – Crash Type

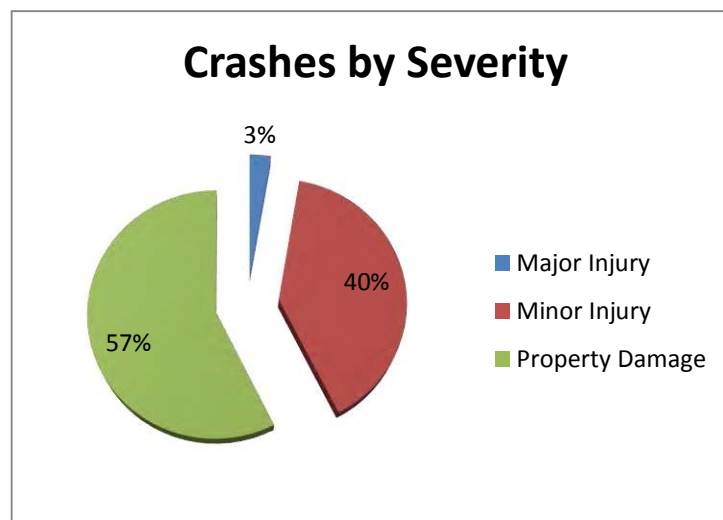


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 18% of all crashes involved drivers that were alcohol/drug impaired.
- 26% of all crashes involved drivers where the Human Factors of “driver inattention” (13%), and “improper pass, turn, or backing” (13%) were identified.
- 12% of all crashes involved drivers that were following too close.
- 53% of all crashes involved drivers that were between the ages of 14 and 34.
- Of all crashes involving drivers who were alcohol/drug impaired, 65% were between the ages of 14-34.

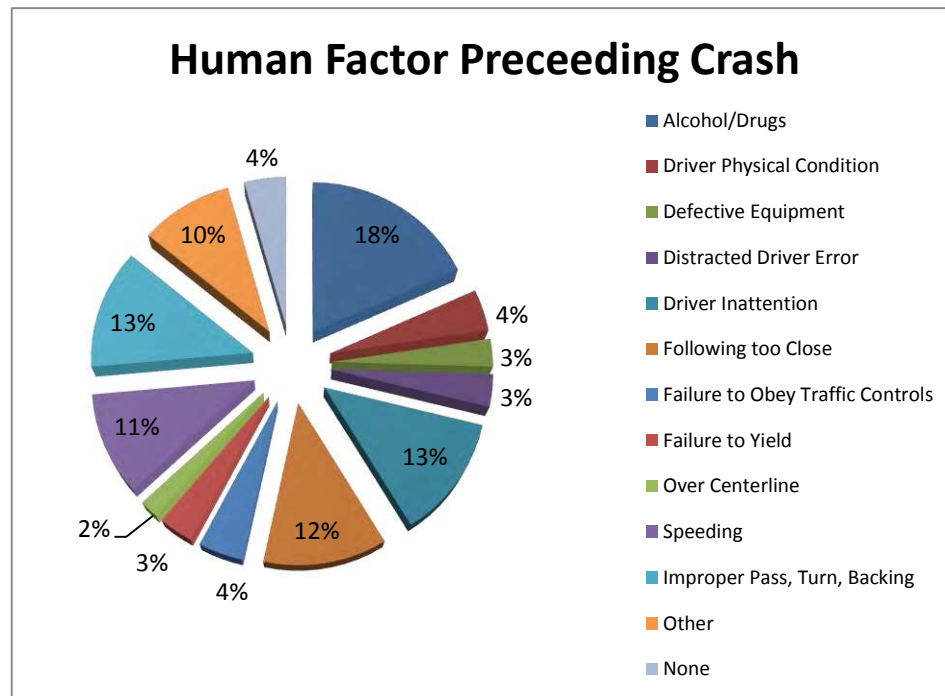


Figure 4 – Human Factor

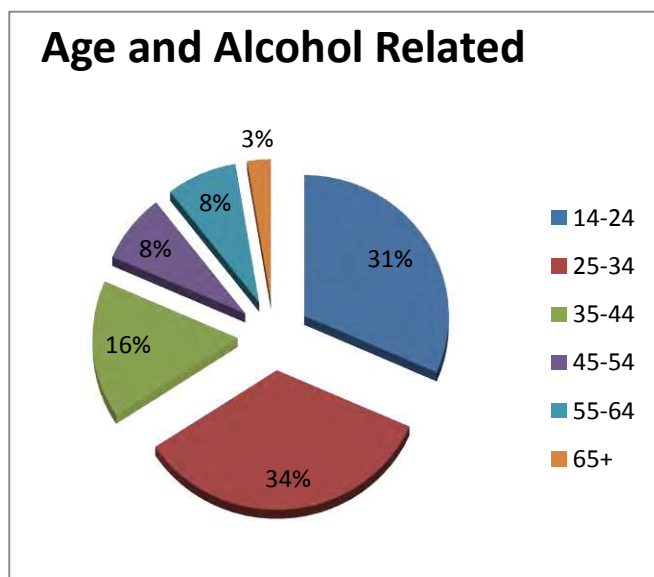


Figure 5 – Driver Age and Alcohol/Drug Impairment

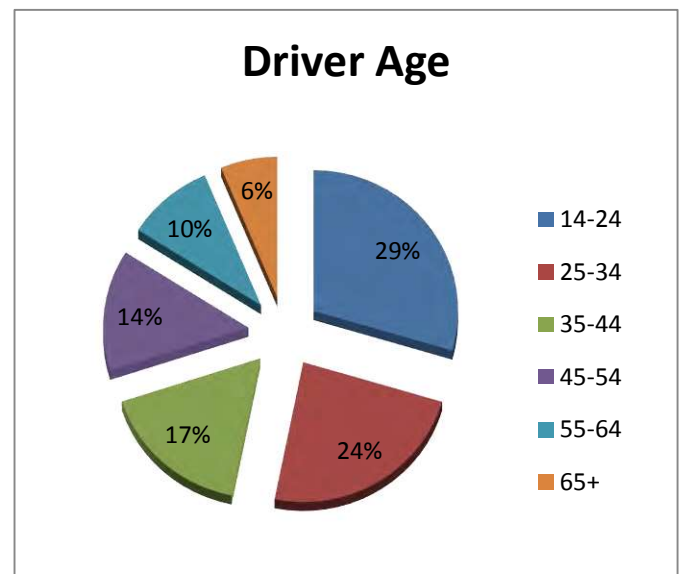


Figure 6 – Driver Age

Environment Factors

- Approximately 42% of all Crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 62% of all crashes occurred when road conditions were dry.

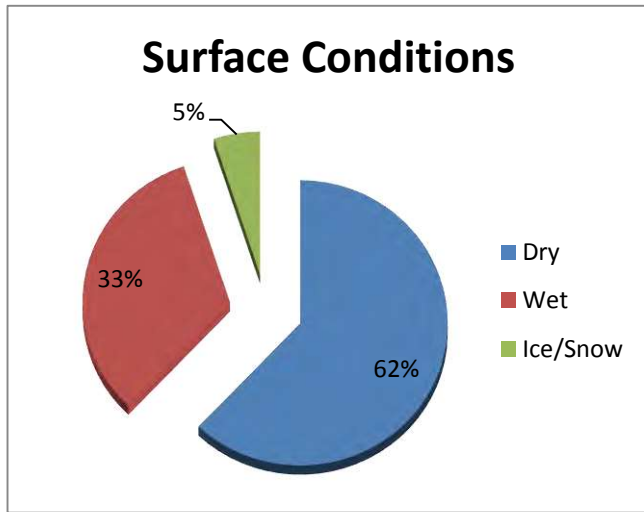


Figure 7 – Surface Conditions

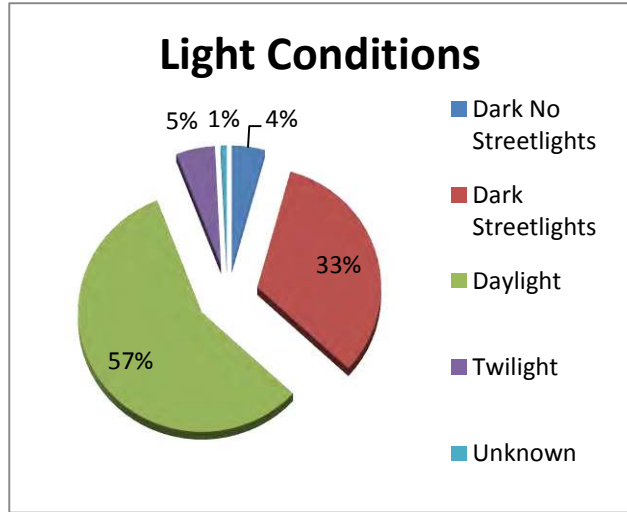


Figure 8 – Light Conditions

Roadway Factors

- 60% of all crashes occurred within intersections or driveways or related to them.

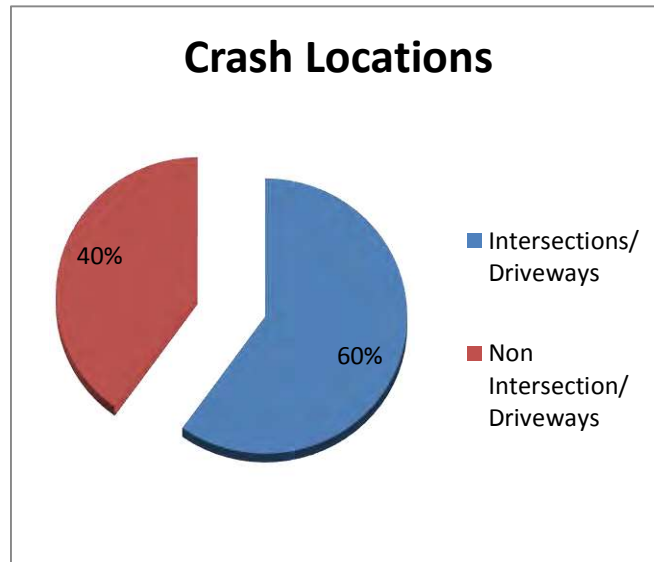


Figure 9 – Crash Locations

DATA REVIEW 3 - 509-MARINE VIEW DRIVE

State Route 509-Marine View Drive is the primary route to get to the northern section of the Reservation. Facilities here include North East Tribal Housing and the Tribal Marina. This route has a high tendency for freight trucks entering and exiting the Port of Tacoma. It is an essential route to get to some cultural sites like Browns Point and Dash Point State Park.

During the 4-year period from 2010 to 2013, on Route 509-Marine Way, within the boundaries of the Puyallup Indian Reservation, a total of 133 reported crashes resulted in 2 fatalities. There were 3 major injuries and 44 minor injuries. There were 80 crashes that resulted in property damage only and 4 unknowns.

Crash Type

- 69% of all crashes involved two vehicles.
- 29% of all crashes were rear-end collisions.
- 2% of the crashes were fatalities.
- 35% of the crashes involved either major or minor injuries.

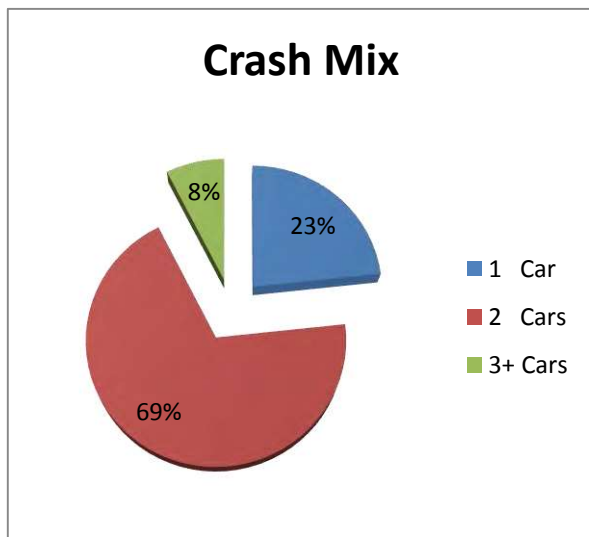


Figure 1 – Crash Mix All Crashes

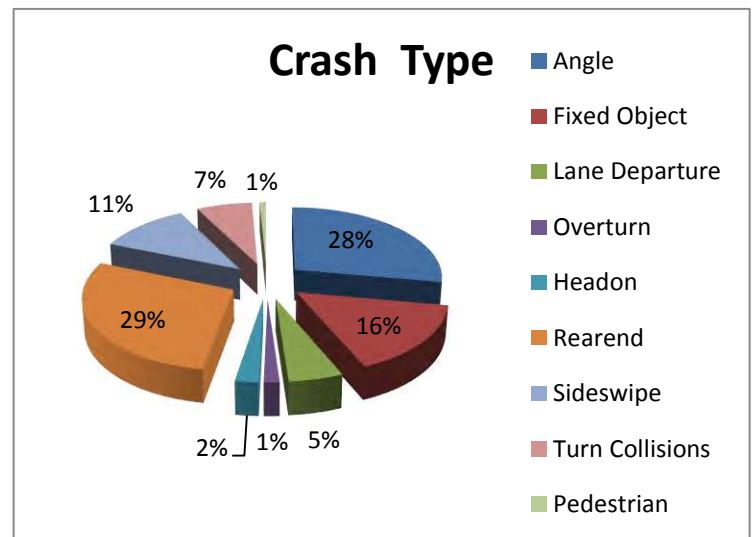


Figure 2 – Crash Type

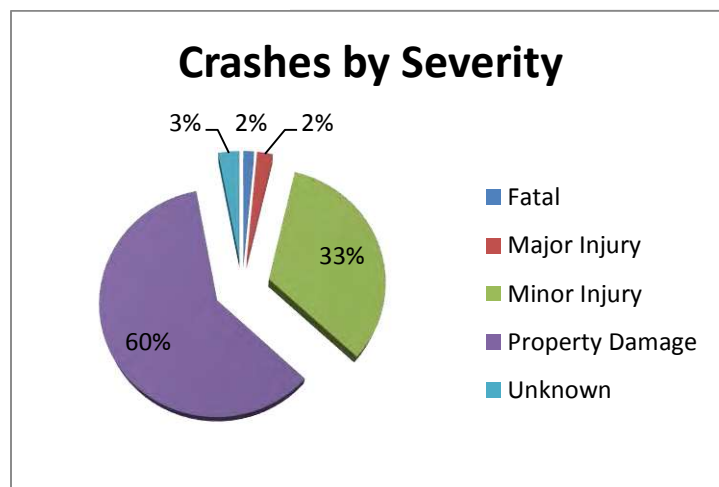


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 8% of all crashes involved Alcohol/drug impaired drivers.
- 20% of all crashes involved speeding.
- 19% of crashes involved a failure to obey traffic controls.
- 23% of all crashes involved drivers that were between the ages of 14 and 24.
- Of all crashes involving drivers who were alcohol/drug impaired, 40% were between the ages of 14-24.

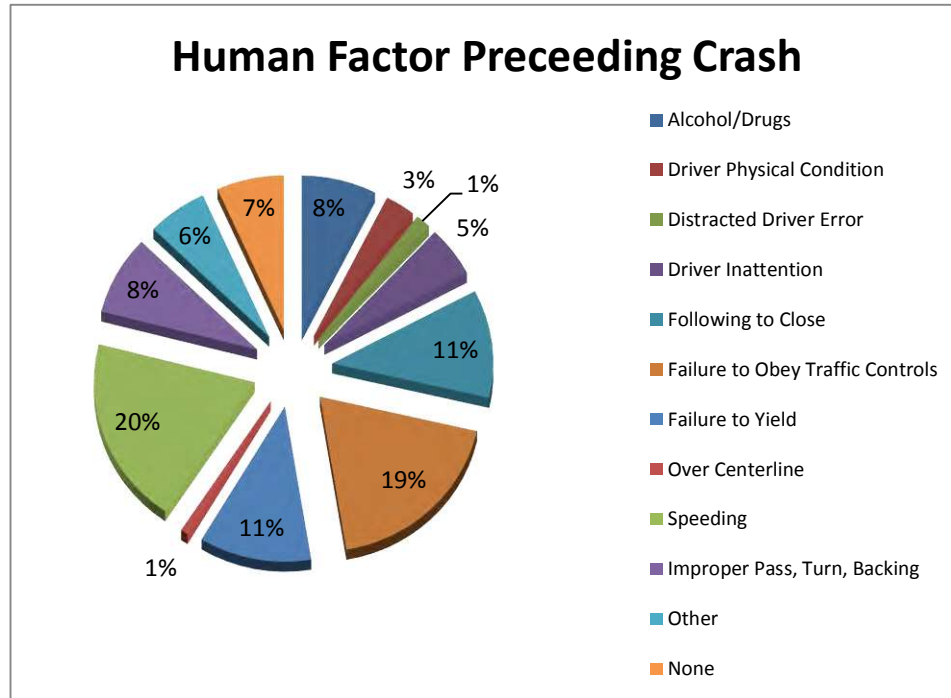


Figure 4 – Human Factor

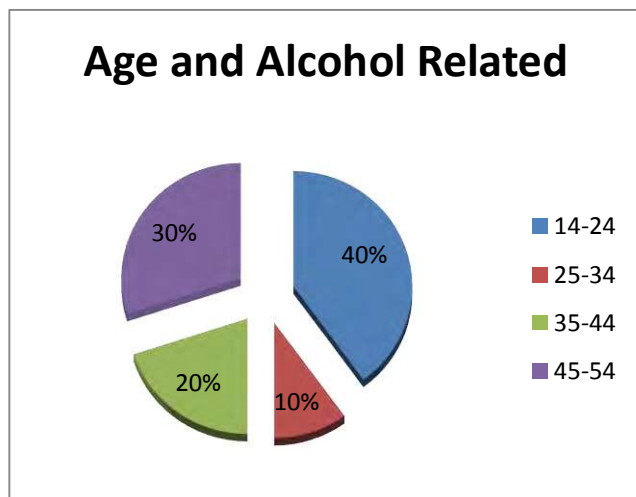


Figure 5 – Driver Age and Alcohol/Drug Impairment

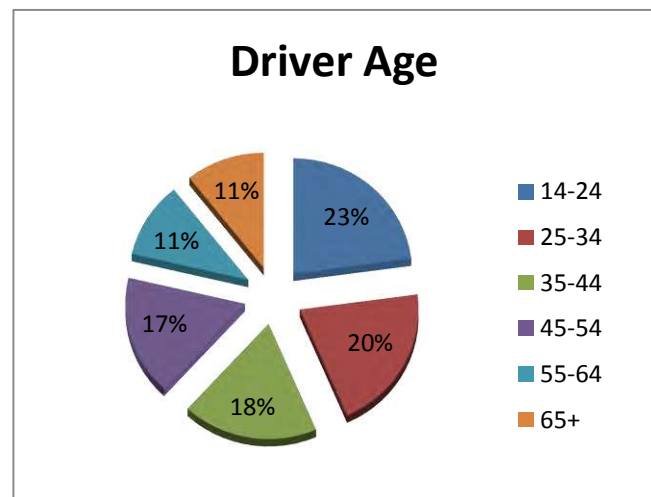


Figure 6 – Driver Age

Environment Factors

- Approximately 35% of all Crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 62% of all crashes occurred when road conditions were dry.

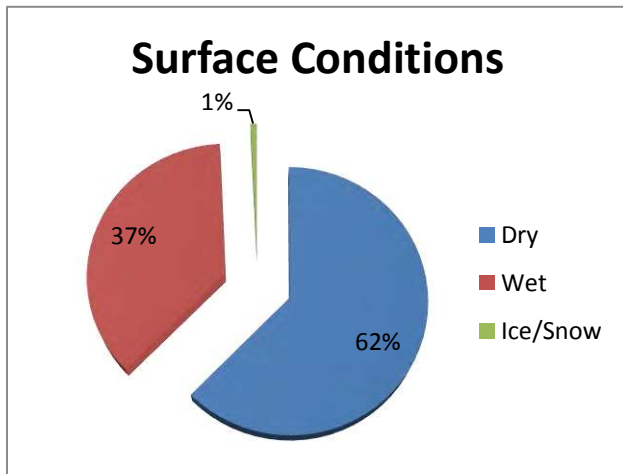


Figure 7 – Surface Conditions

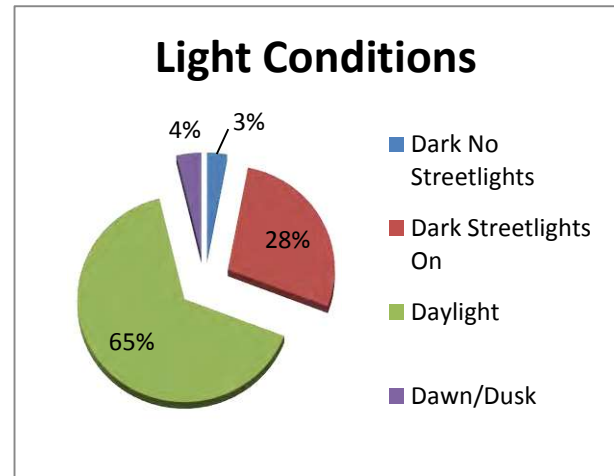


Figure 8 – Light Conditions

Roadway Factors

- 68% of all crashes occurred within intersections or driveways or related to them.

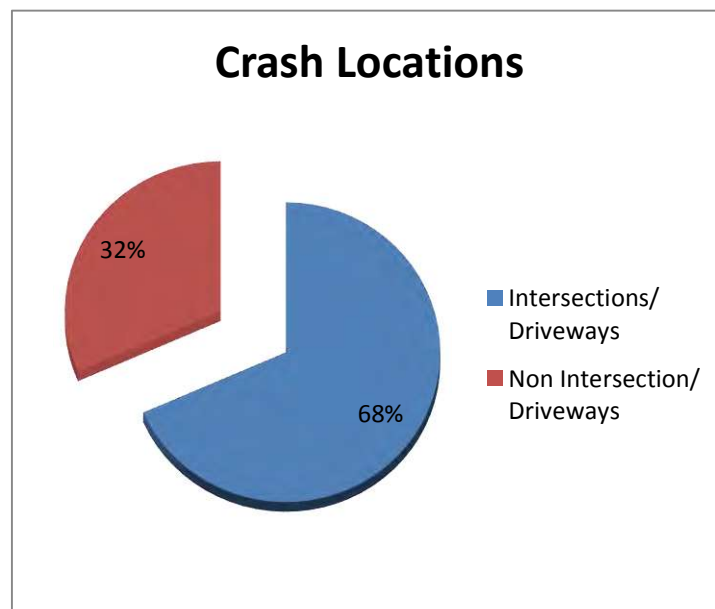


Figure 9 -Crash Locations

DATA REVIEW 4 - E 44TH STREET

East 44th Street is a collector route that feeds into the Salishan Neighborhood in East Tacoma. Many Tribal members live in this neighborhood and the amount of accidents identified from the data has prompted the Tribe to take a closer look at addressing safety in Tribal residential neighborhoods.

During the 4-year period from 2010 to 2013, on E 44th Street, within the boundaries of the Puyallup Indian Reservation, a total of 16 reported crashes resulted in 1 major injury and 8 minor injuries. The remaining 7 crashes resulted in property damage only.

Crash Type

- 63% of all crashes involved two vehicles.
- 38% of all crashes were either angle crashes (19%) or fixed object crashes (19%).
- 56% of all crashes resulted in either major (6%) or minor (50%) injuries.

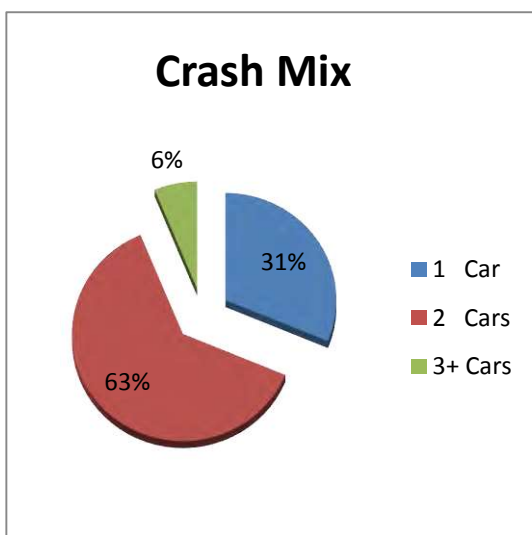


Figure 1 – Crash Mix All Crashes

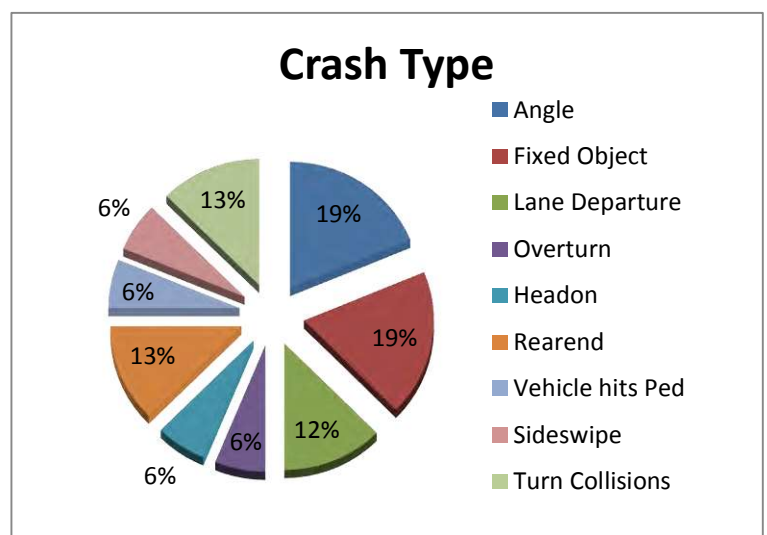


Figure 2 – Crash Type

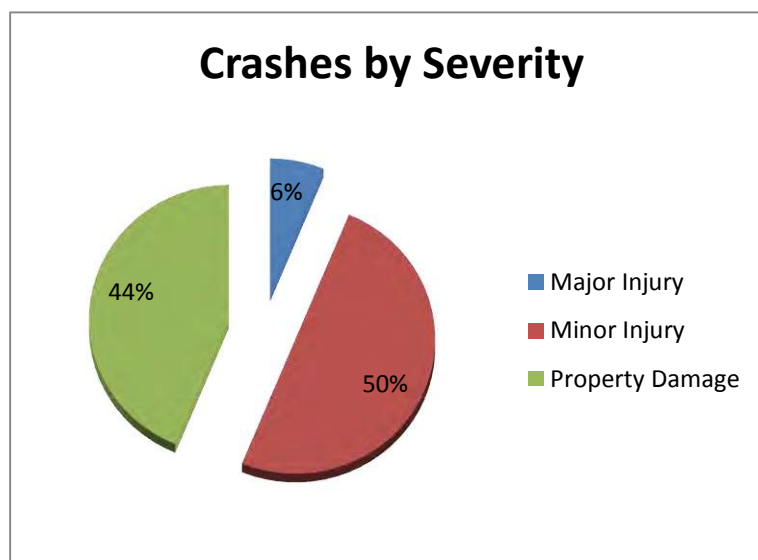


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 6% of all crashes involved drivers that were alcohol/drug impaired.
- 19% of all crashes involved drivers where the Human Factor “Driver Inattention” was identified.
- 44% of all crashes involved drivers that were between the ages of 25 and 34.

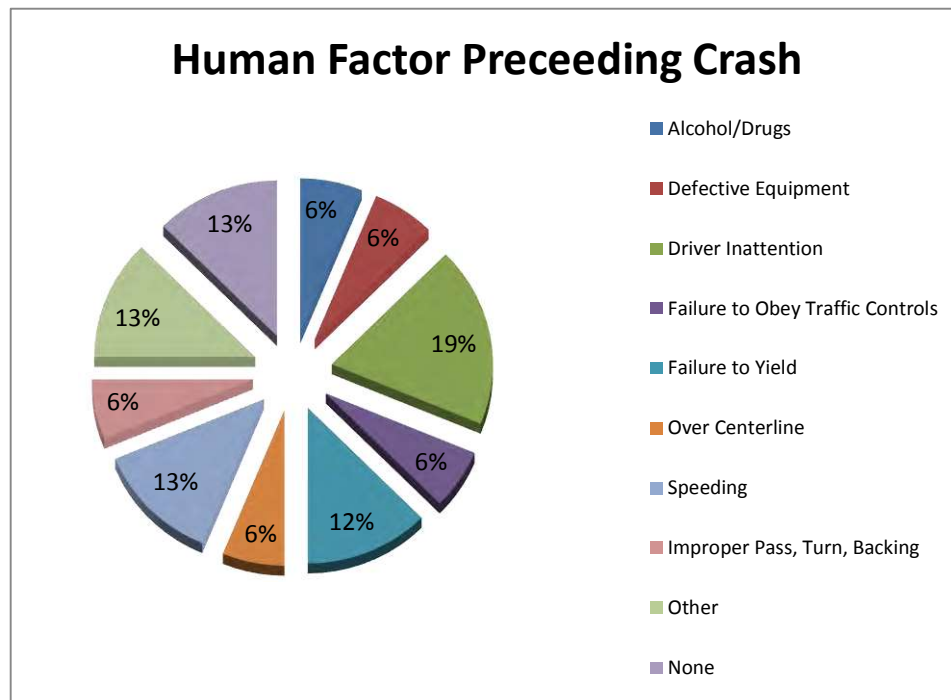


Figure 4 – Human Factor

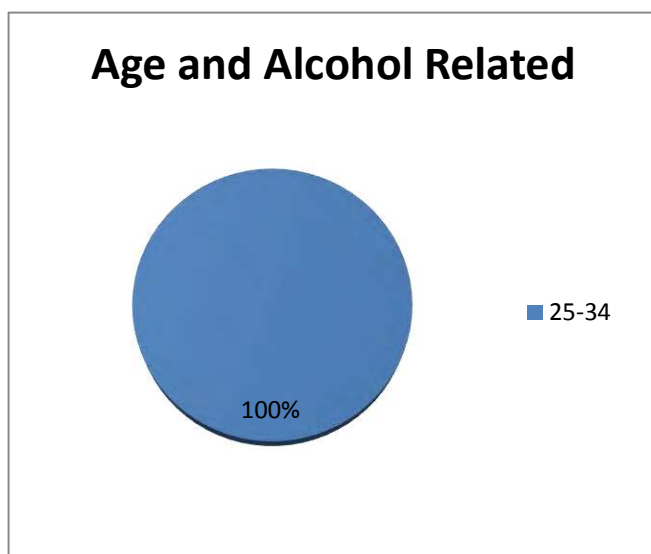


Figure 5 – Driver Age and Alcohol/Drug Impairment

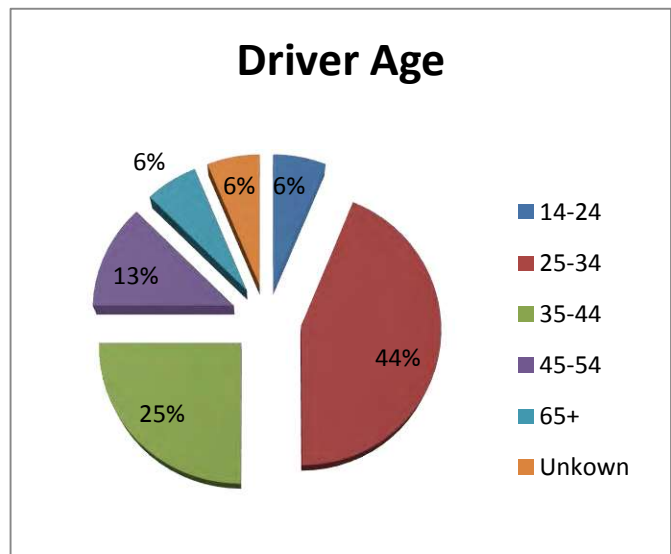


Figure 6 – Driver Age

Environment Factors

- Approximately 37% of all crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 50% of all crashes occurred when road conditions were dry.

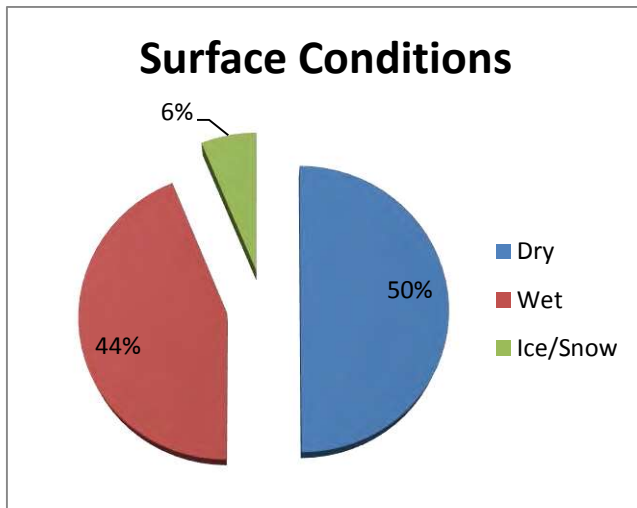


Figure 7 – Surface Conditions

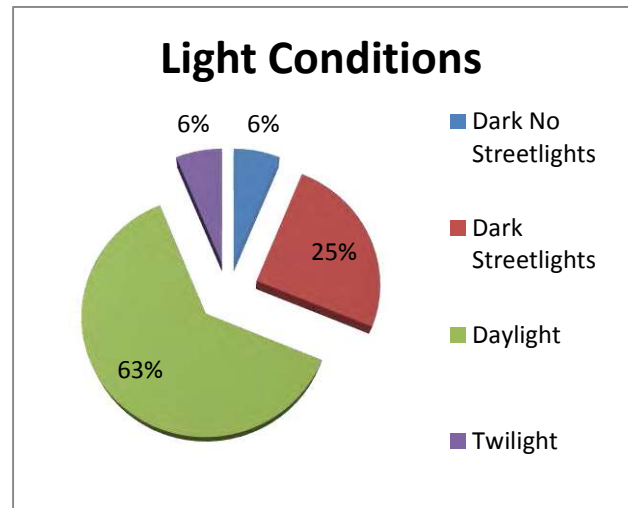


Figure 8 – Light Conditions

Roadway Factors

- 62% of all crashes occurred within intersections or driveways or related to them.

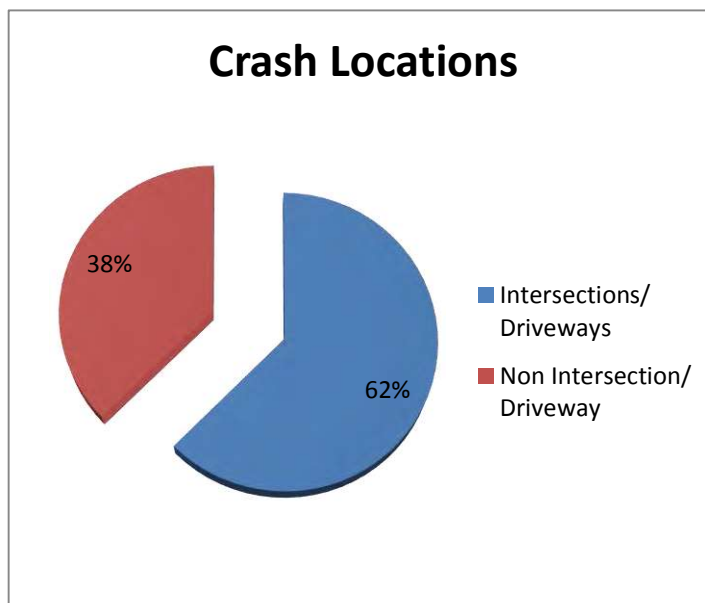


Figure 9 - Crash Locations

DATA REVIEW 5 – E PORTLAND AVENUE

East Portland Avenue is the primary arterial to reach essential services which include Tribal Government, Housing, Police, Gaming, and Health. This route has a high posted speed limit and high pedestrian counts. There are few places to cross the street and the level of service during rush hour is routinely failing.

During the 4-year period from 2010 to 2013, on East Portland Avenue, within the boundaries of the Puyallup Indian Reservation, a total of 154 reported crashes resulted in 5 major injuries and 65 minor injuries. The remaining 84 crashes resulted in “Property Damage” (79) and “Unknowns” (5).

Crash Type

- 78% of all crashes involved two vehicles.
- 7% (10) of all crashes, involved pedestrians and bicyclists.
- 32% of all crashes were turn related collisions.
- 27% of all crashes were angle related.
- 45% of all crashes resulted in major (3%) or minor (42%) injuries.

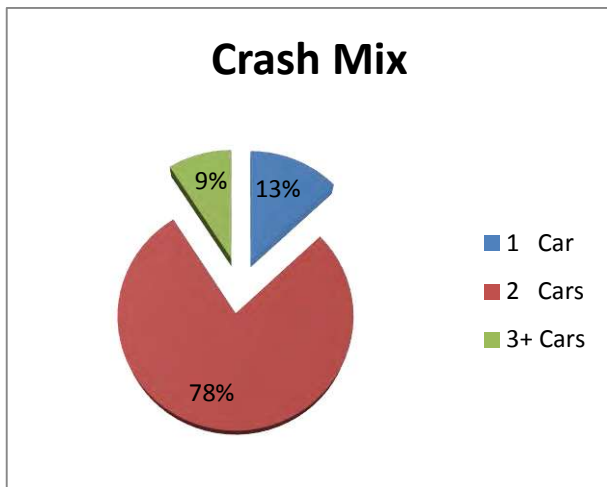


Figure 1 – Crash Mix All Crashes

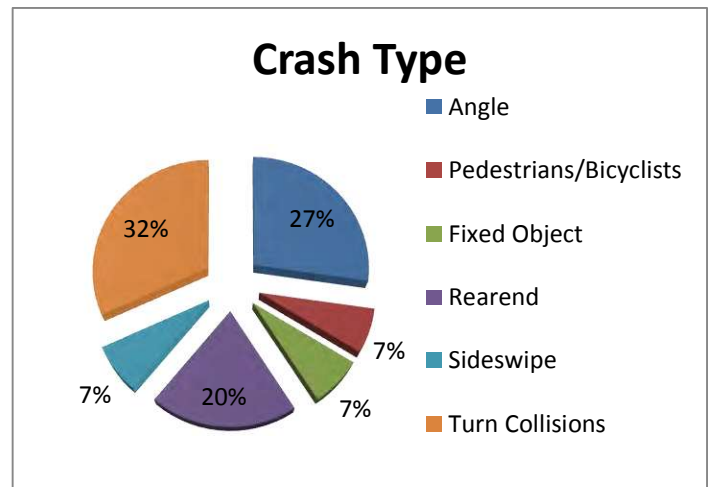


Figure 2 – Crash Type

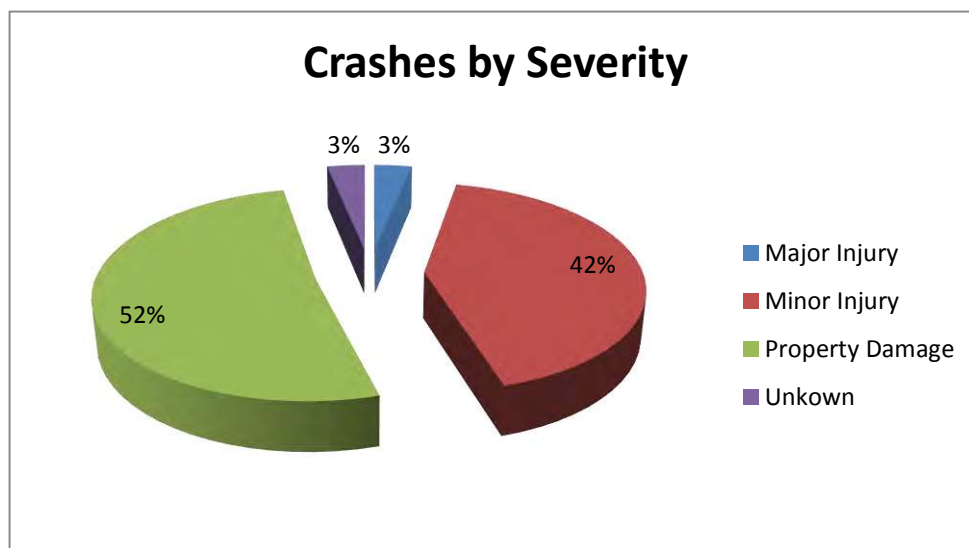


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 7% of all crashes involved drivers that were alcohol/drug impaired.
- 34% of all crashes involved drivers where the Human Factor “failure to yield” was identified.
- 17% of all crashes involved drivers that were between the ages of 14 and 24.
- Of all crashes involving drivers who were alcohol/drug impaired, 30% were between the ages of 14-24.
- Of all crashes involving drivers who were alcohol/drug impaired, 40% were between the ages of 25-34.

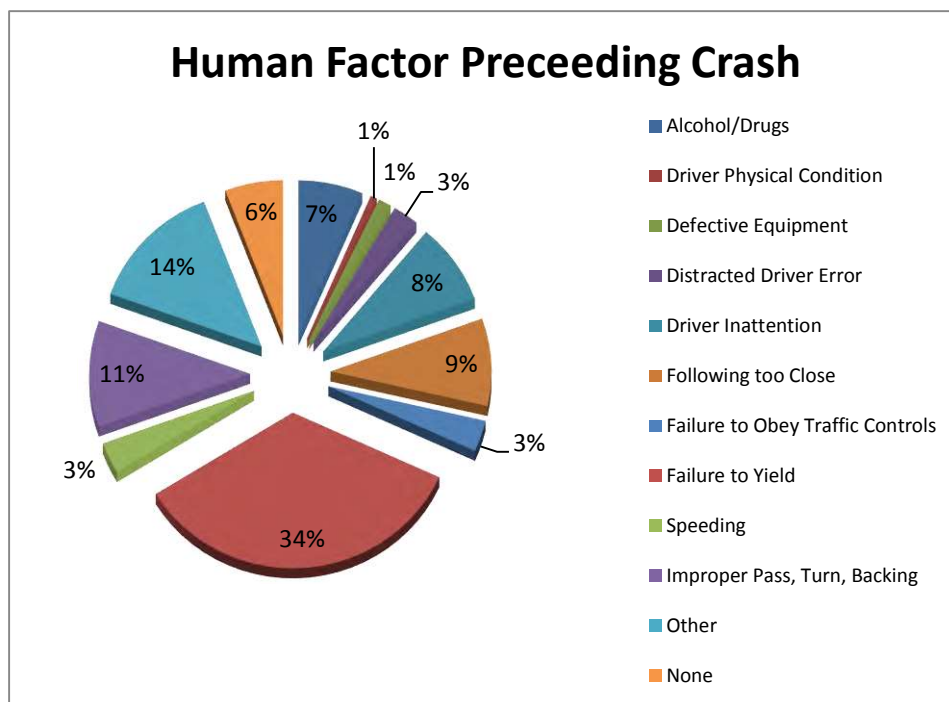


Figure 4 – Human Factor

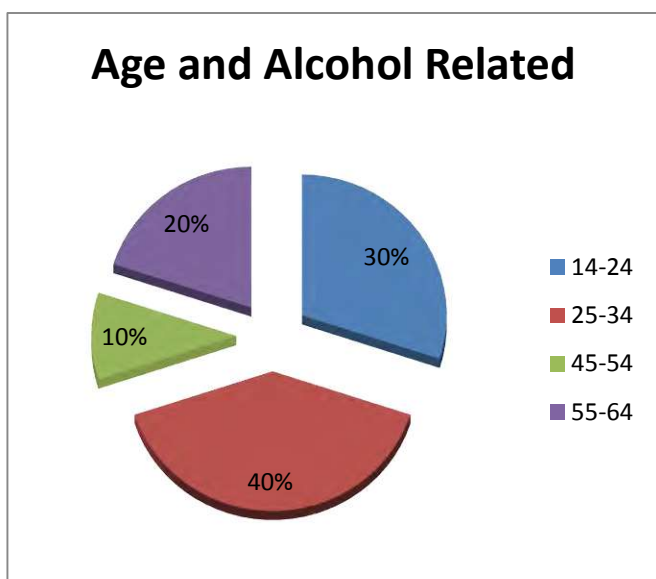


Figure 5 – Driver Age and Alcohol/Drug Impairment

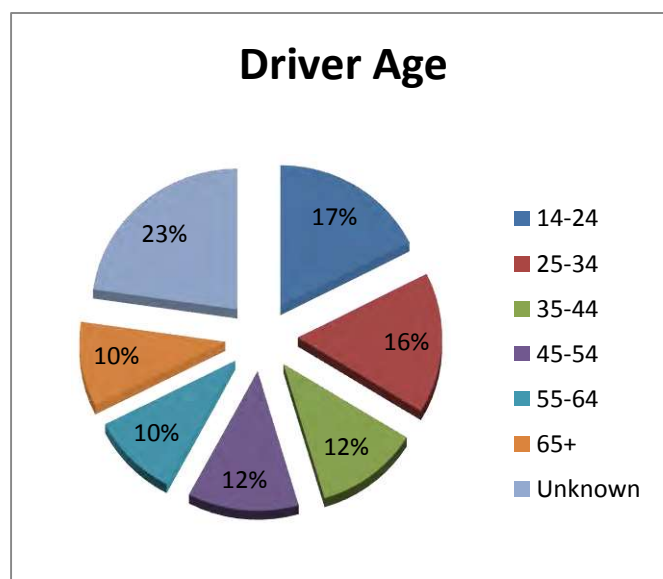


Figure 6 – Driver Age

Environment Factors

- Approximately 37% of all Crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 71% of all crashes occurred when road conditions were dry.

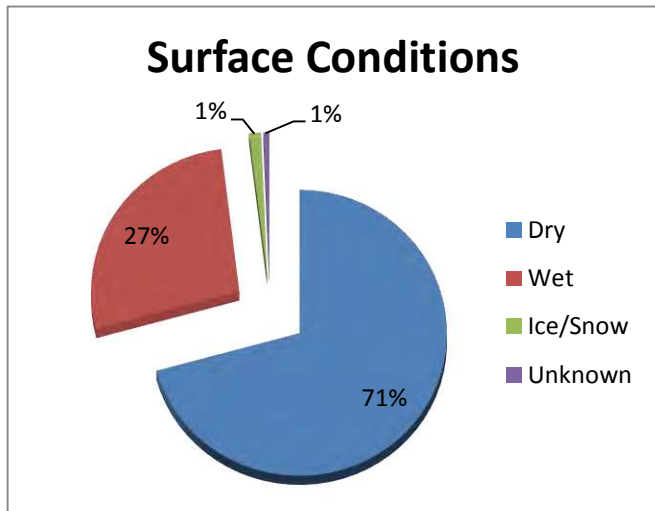


Figure 7 – Surface Conditions

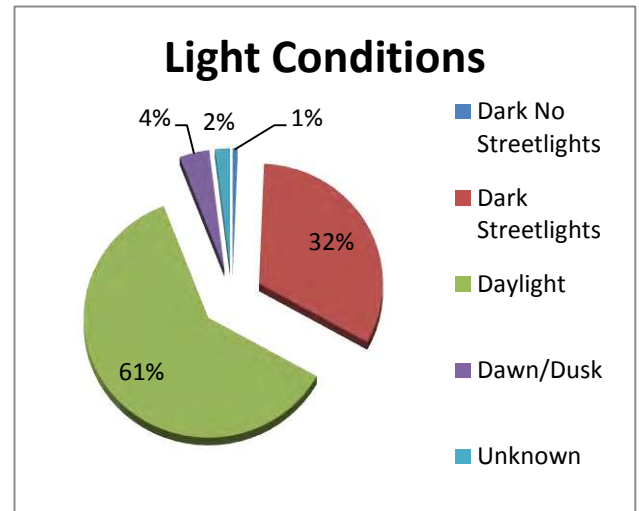


Figure 8 – Light Conditions

Roadway Factors

- 83% of all crashes occurred within intersections or driveways or related to them.

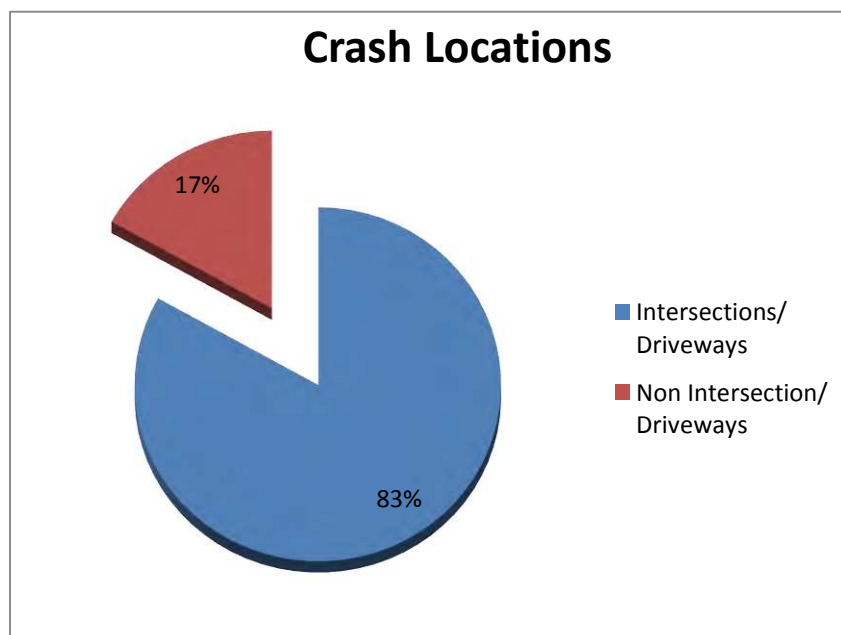


Figure 9 Crash Locations

DATA REVIEW 6 – LEVEE RD

Levee Road provides access to the Tribe's new Youth Center Facilities which include a Gym, Cafeteria, Canoe Club, and Language Program. The road also grants access to key Tribal properties that are not yet developed but are in the preliminary planning process for economic development. The Youth Center has acted as a bus stop for Pierce Transit and pedestrians have to walk on the shoulder to access this stop.

During the 4-year period from 2010 to 2013, on Levee Road, within the boundaries of the Puyallup Indian Reservation a total of 36 reported crashes resulted in 7 major injuries and 4 minor injuries. The remaining 25 crashes resulted in property damage only.

Crash Type

- 66% of all crashes involved two vehicles.
- 26% of all crashes were angle related.
- 20% of all crashes were rear-end collisions.
- 31% % of all crashes resulted in 20% major injuries and 11 % minor injuries.

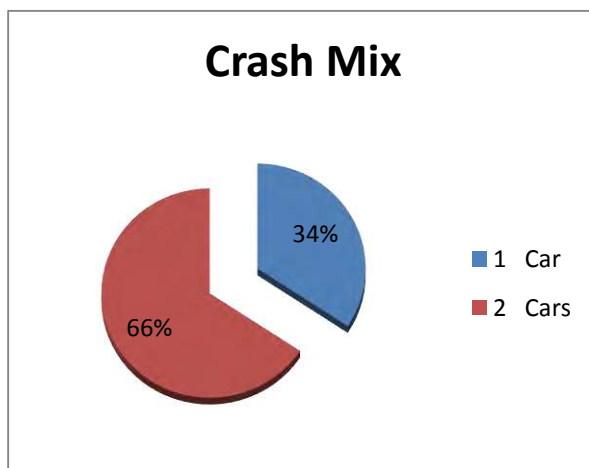


Figure 1 – Crash Mix All Crashes

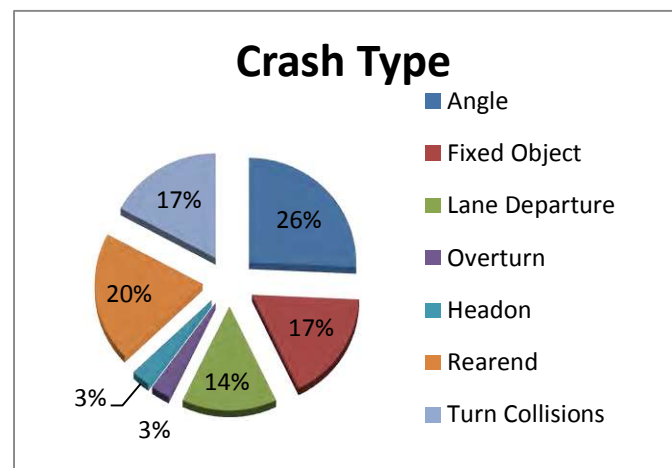


Figure 2 – Crash Type

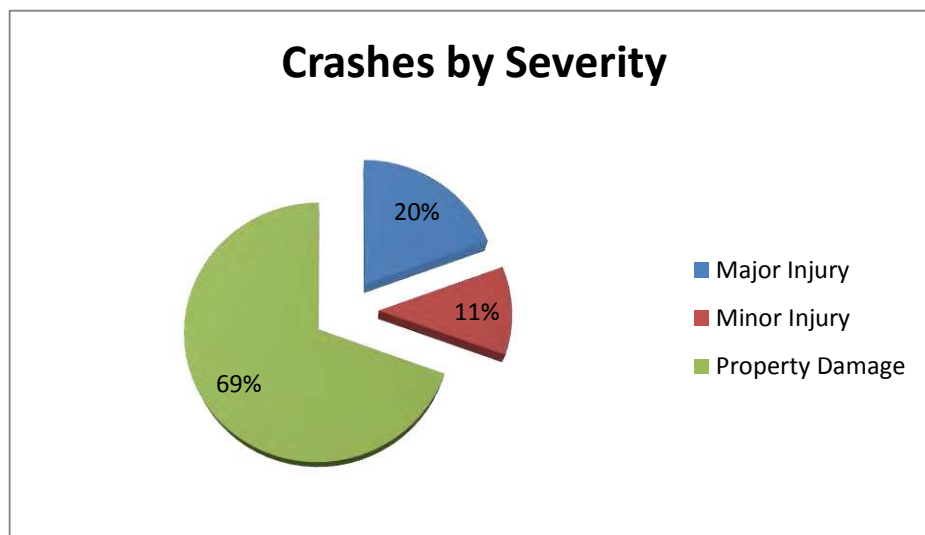


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 8% of all crashes involved drivers that were alcohol/drug impaired.
- 20% of all crashes were due to Driver Inattention.
- 34% of all crashes were due either to a “failure to yield” (17%) or “speeding” (17%).
- 29% of all crashes involved drivers that were between the ages of 16 and 24.

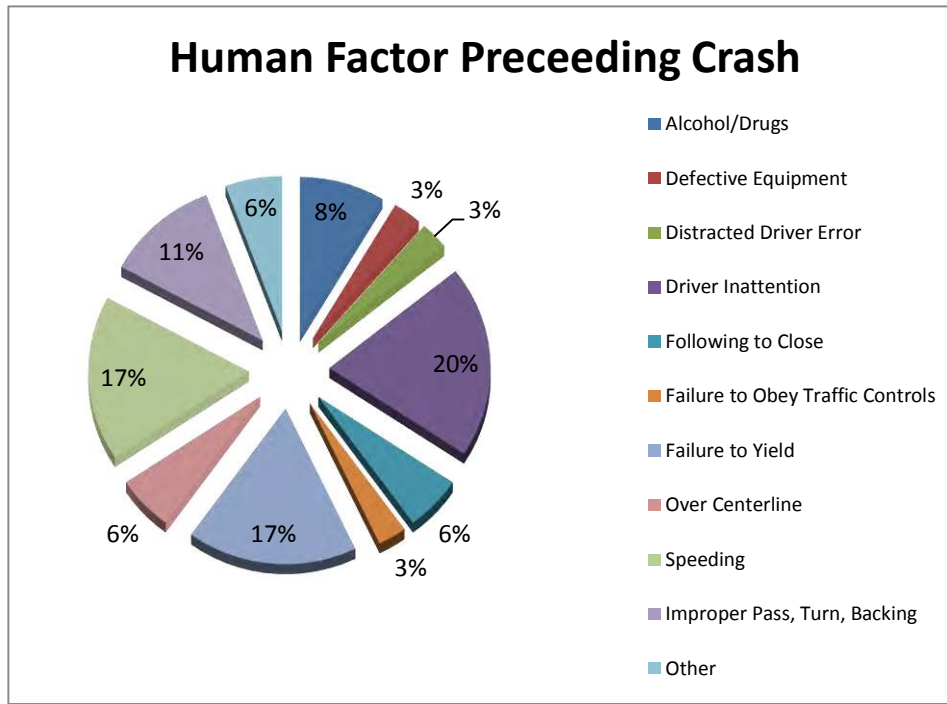


Figure 4 – Human Factor

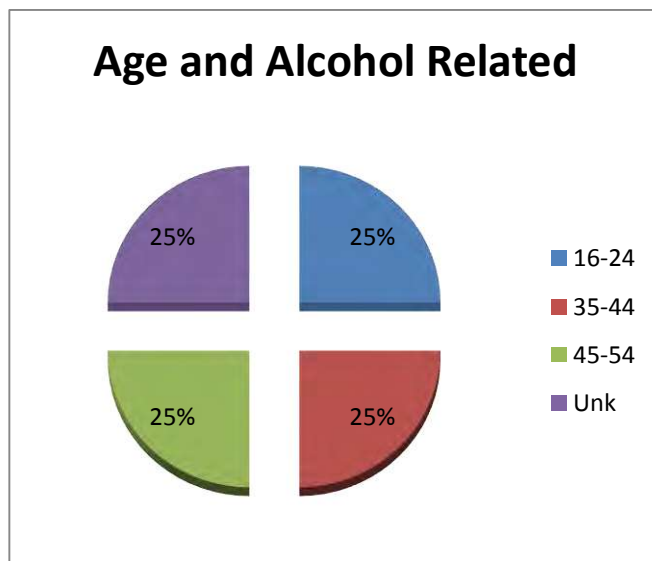


Figure 5 – Driver Age and Alcohol/Drug Impairment

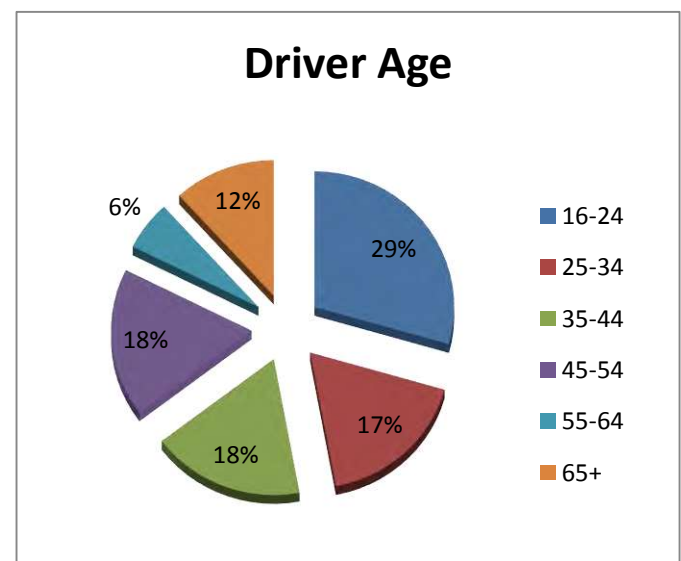


Figure 6 – Driver Age

Environment Factors

- 40% of all Crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 49% of all crashes occurred when road conditions were dry.

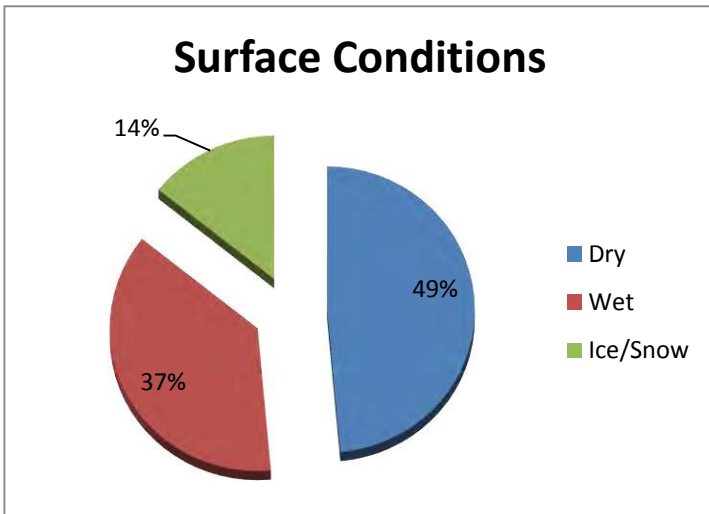


Figure 7 – Surface Conditions

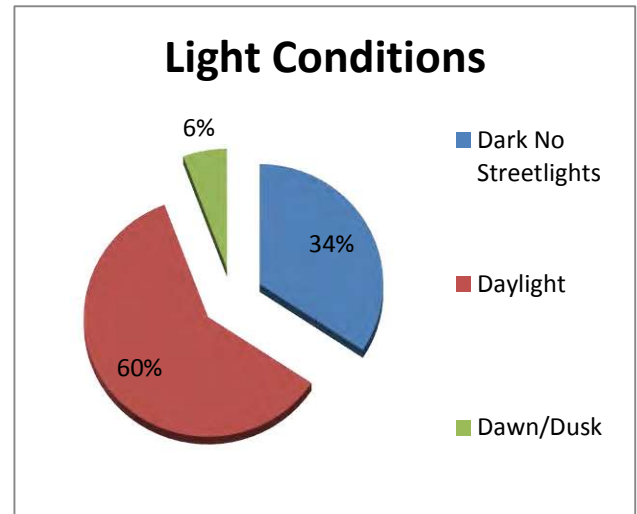


Figure 8 – Light Conditions

Roadway Factors

- 69% of all crashes occurred within intersections or driveways or related to them.

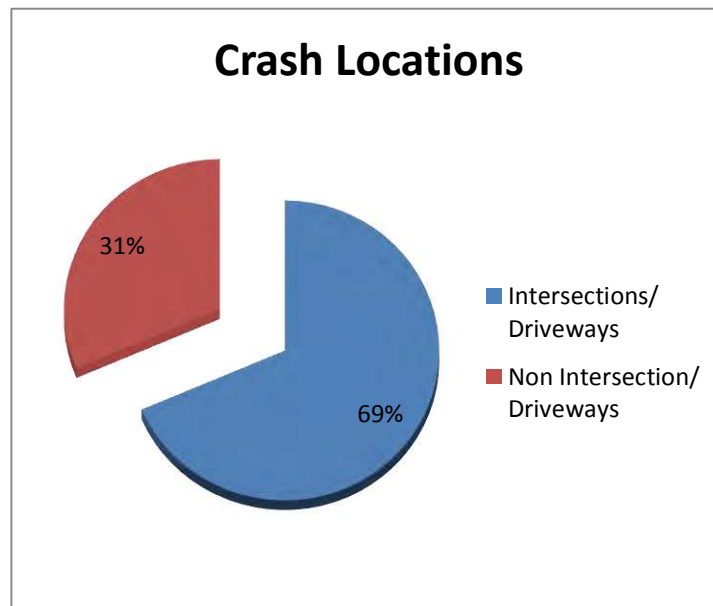


Figure 9 - Crash Locations

DATA REVIEW 7 – NORPOINT WAY

Norpoint Way is an urban collector that goes through housing facilities in the northern section of the Reservation. The road is near a City of Tacoma community center and pool. It curves in several areas sometimes prohibiting visibility of oncoming traffic and pedestrians crossing the road.

During the 4-year period from 2010 to 2013, on Norpoint Way, within the boundaries of the Puyallup Indian Reservation, a total of 41 reported crashes resulted in 12 minor injuries. Of the remaining 29 crashes, 25 were property damage only and 4 were unknown.

Crash Type

- 54% of all crashes involved two vehicles.
- 34% of all crashes were with fixed objects.
- 29% of all crashes were turn related.
- 22% of all crashes were rear-end collisions.
- 29% of all crashes resulted in minor injuries.

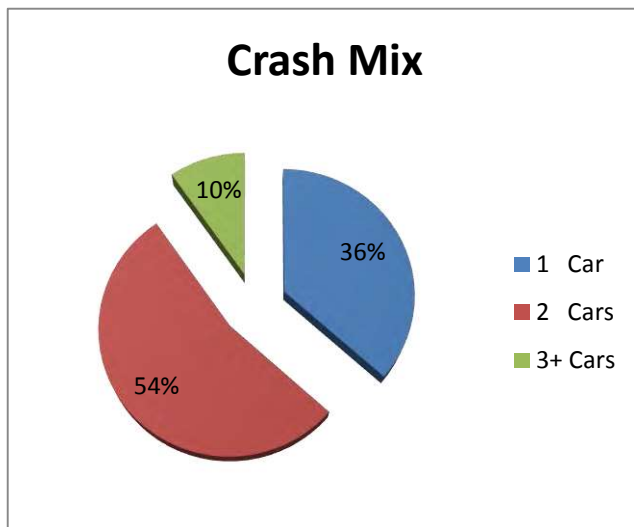


Figure 1 – Crash Mix All Crashes

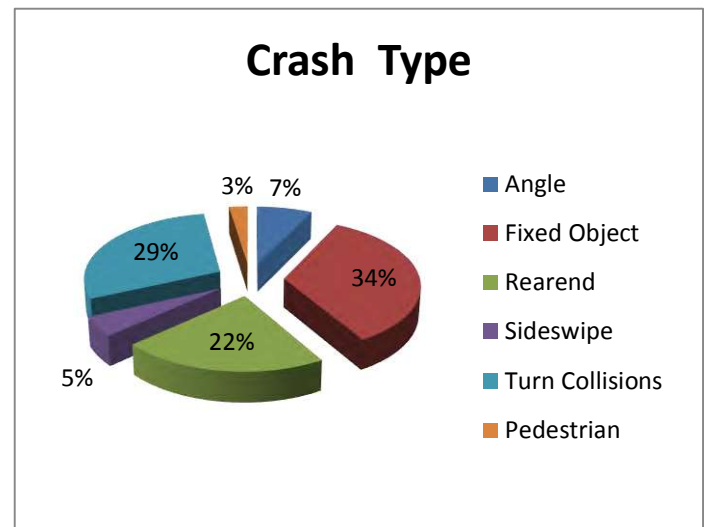


Figure 2 – Crash Type

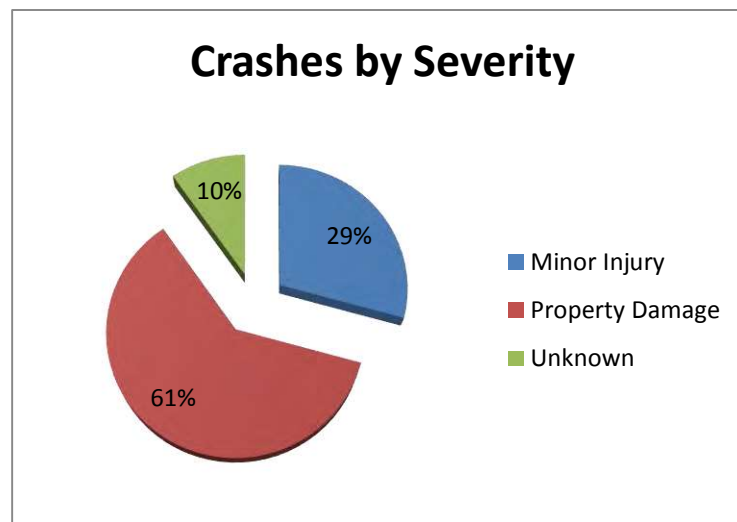


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 10% of all crashes involved alcohol/drug impaired drivers.
- 27% (data gap) of crashes involved drivers that were other non-specified reasons.
- 22% of all crashes involved drivers that failed to yield.
- 14% of all crashes were caused by Driver inattention.
- 34% of all crashes involved drivers that were between the ages of 15 and 24.

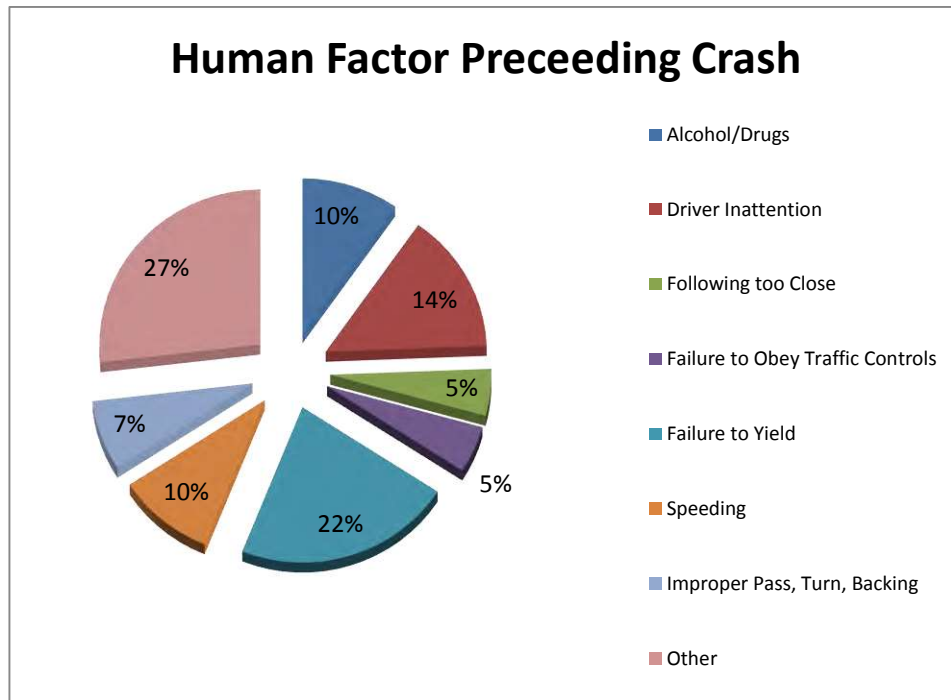


Figure 4 – Human Factor

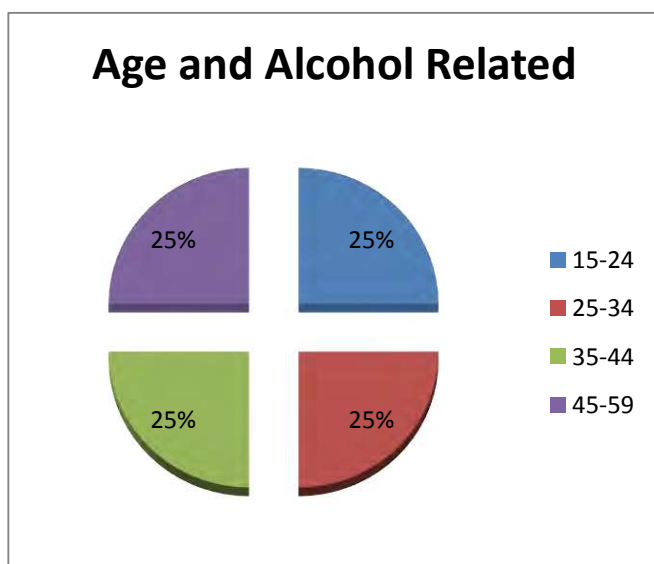


Figure 5 – Driver Age and Alcohol/Drug Impairment

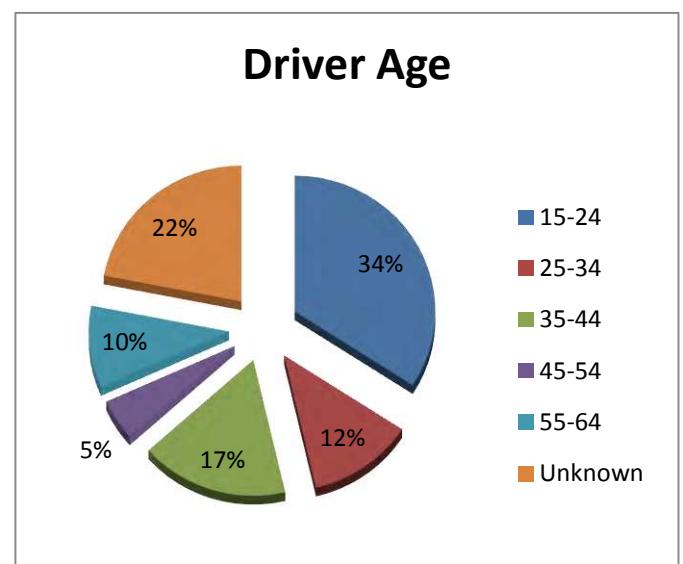


Figure 6 – Driver Age

Environment Factors

- Approximately 63% of all Crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 51% of all crashes occurred when road conditions were dry.

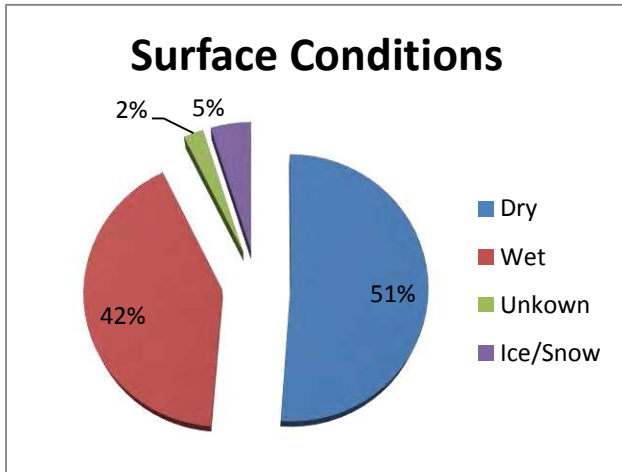


Figure 7 – Surface Conditions

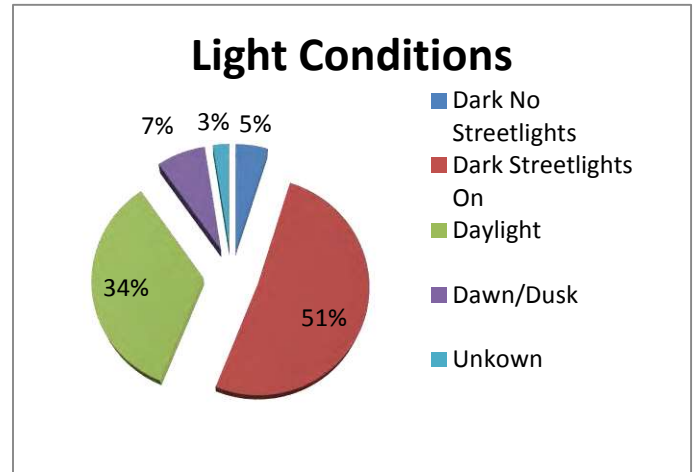


Figure 8 – Light Conditions

Roadway Factors

- 59% of all crashes occurred within intersections or driveways or related to them.

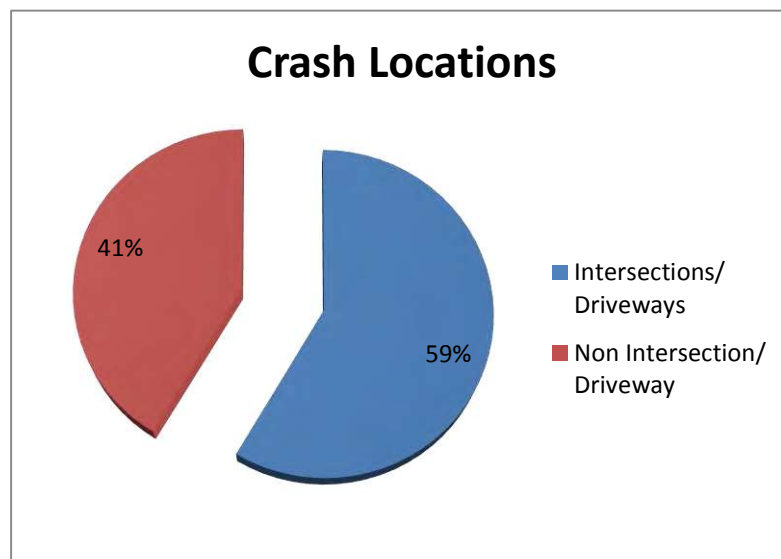


Figure 9 -Crash Locations

DATA REVIEW 8 – PIONEER WAY

Pioneer Way is another access point to get from the Indian Addition of Tacoma to Chief Leschi School. Tribal buses frequently use this route to get children to and from school. This is also a primary route to Tribal Fisheries, Hunting, and Environmental Departments. This road is unlit and contains several safety hazards along its length.

During the 4-year period from 2010 to 2013, on Pioneer Way, within the boundaries of the Puyallup Indian Reservation, a total of 78 reported crashes resulted in six (6) major injuries and 28 minor injuries. Of the remaining 44 crashes, 42 were property damage only with 2 unknown.

Crash Type

- 50% of all crashes involved two vehicles.
- 28% of all crashes were rear-end collisions.
- 25% of all crashes were with fixed objects.
- 44% of all crashes resulted in either major (8%) or minor (36%) injuries.

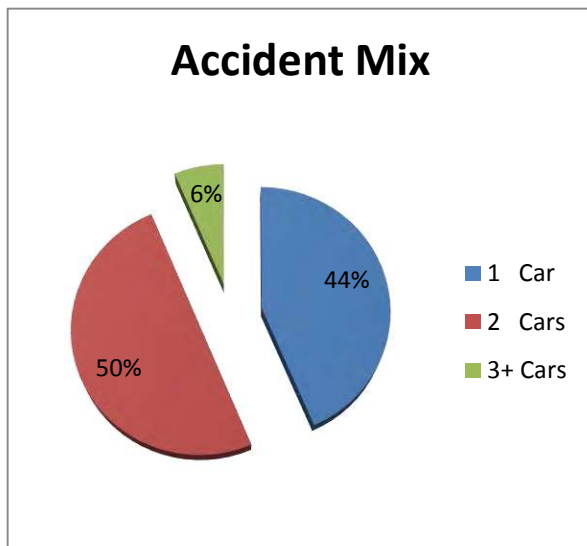


Figure 1 – Crash Mix All Crashes

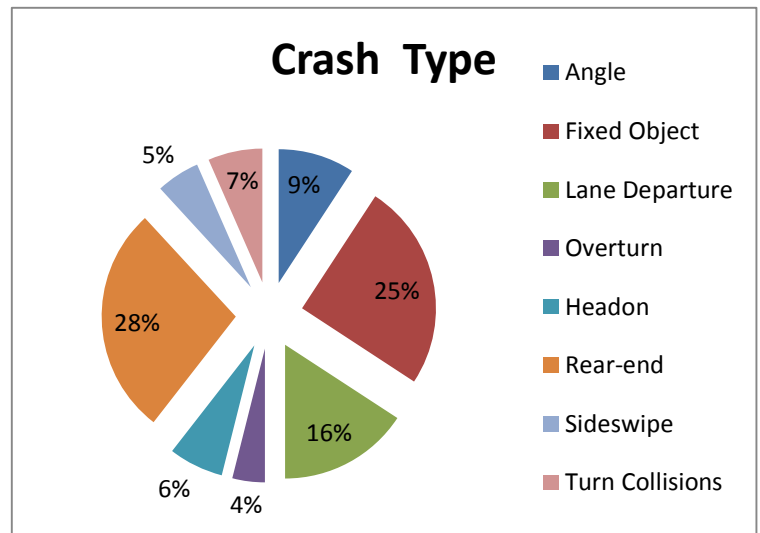


Figure 2 – Crash Type

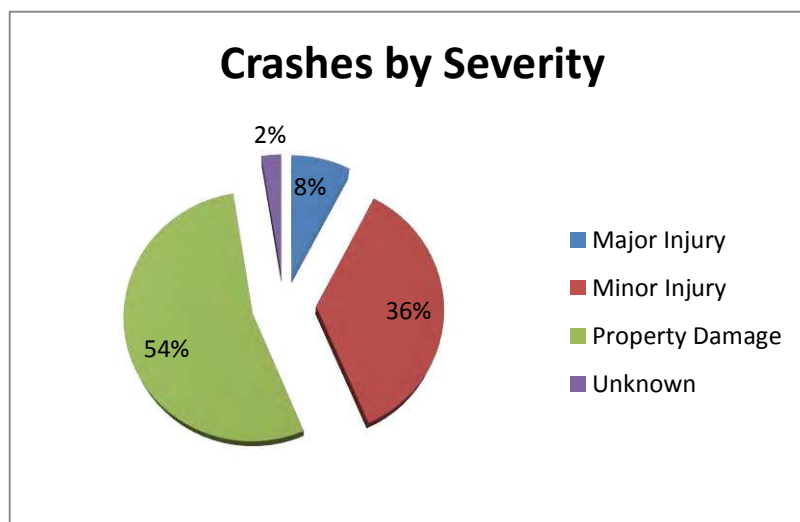


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 7% of all crashes involved drivers that were alcohol/drug impaired.
- 17% of crashes involved drivers that were speeding.
- 15% of crashes involved drivers that were inattentive.
- 29% of all crashes involved drivers between the ages of 25-34.
- 28% of all crashes involved drivers between the ages of 16 and 24.
- 80% of all crashes involved drivers between the ages of 16-34 that were alcohol/drug impaired.

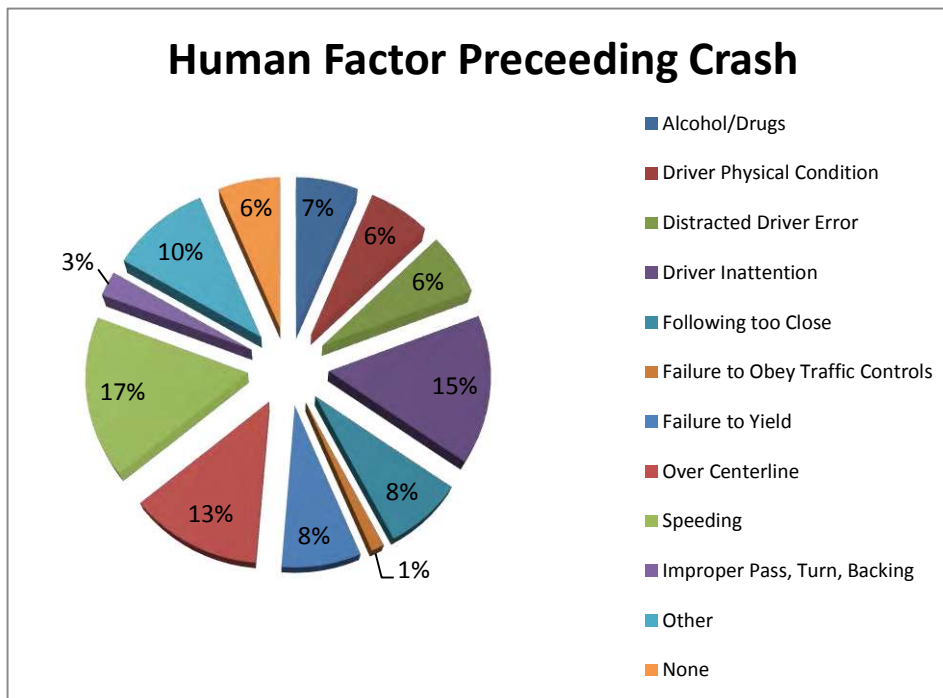


Figure 4 – Human Factor

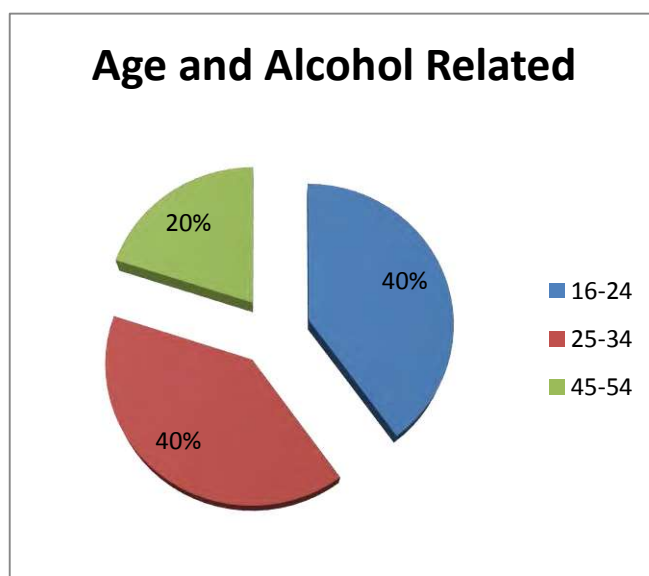


Figure 5 – Driver Age and Alcohol/Drug Impairment

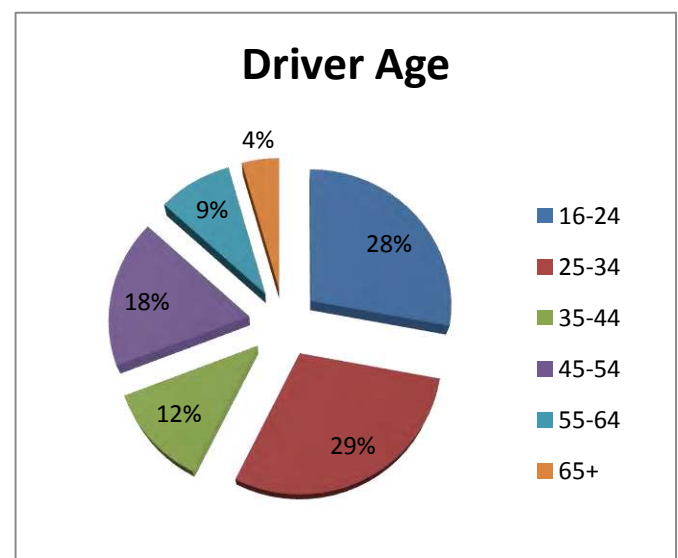


Figure 6 – Driver Age

Environment Factors

- Approximately 38% of all crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 51% of all crashes occurred when road conditions were dry.

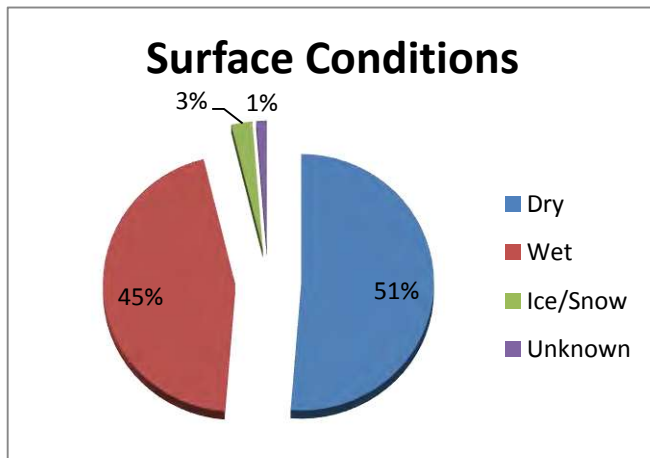


Figure 7 – Surface Conditions

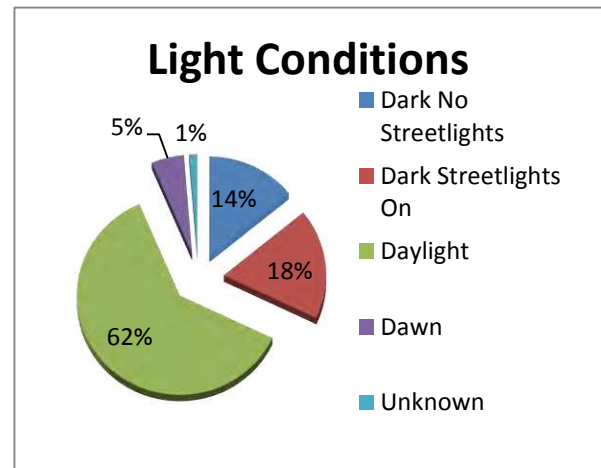


Figure 8 – Light Conditions

Roadway Factors

- 38% of all crashes occurred within intersections or driveways or related to them.

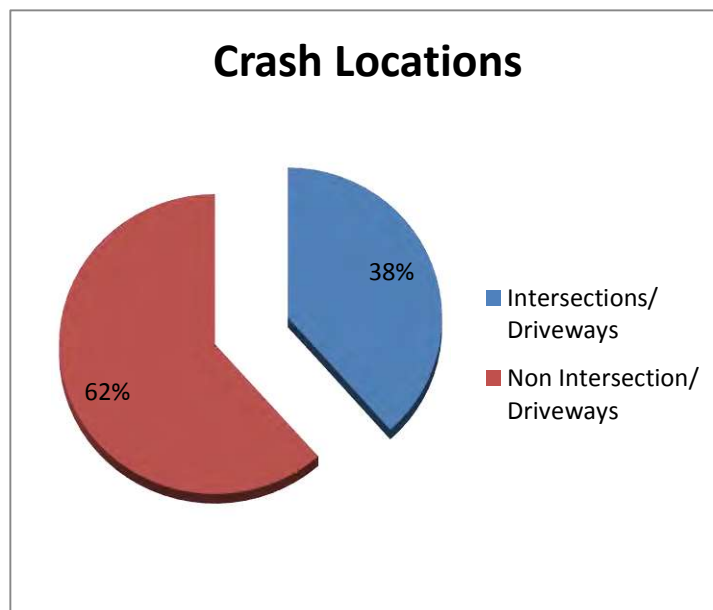


Figure 9 - Crash Locations

DATA REVIEW 9 – I-5

Interstate 5 bisects the Reservation and naturally is the primary ingress and egress for the Tribe to all facilities.

Interstate 5 connects individuals to the Tribe's two casinos, tribal government, all services, and other services not specifically on the reservation. Traffic Counts are so high that regular rear-end accidents are an hourly occurrence sometimes.

During the 4-year period from 2010 to 2013, on I-5, within the boundaries of the Puyallup Indian Reservation, there were a total of 1,542 reported crashes resulting in one (1) fatality; seventeen (17) major injuries and 454 minor injuries. Of the remaining 1,070 crashes, 1,058 were property damage only and twelve (12) crashes were unknown.

Crash Type

- 70% of all crashes involved two vehicles.
- 58% of all crashes were rear-end collisions.
- 17% of all crashes were sideswipes.
- 69% of all crashes were property damage only.

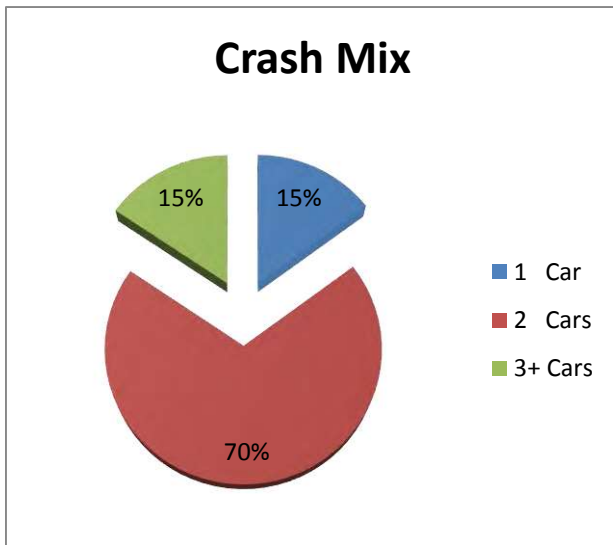


Figure 1 – Crash Mix All Crashes

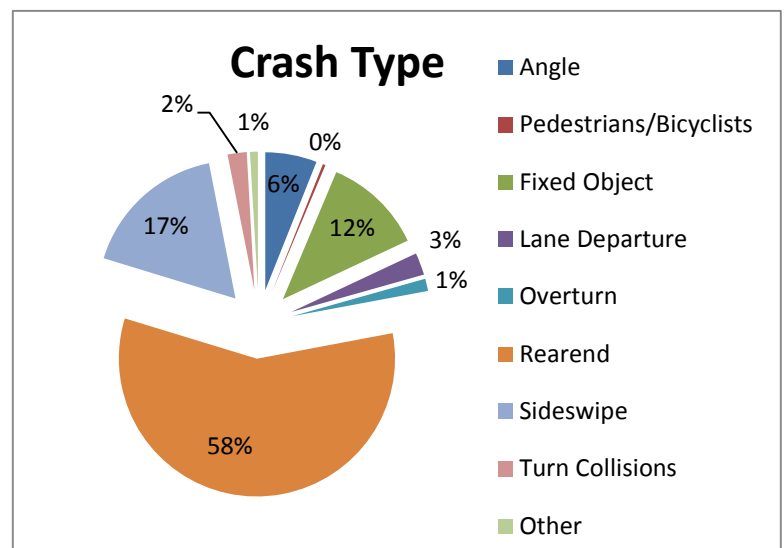


Figure 2 – Crash Type

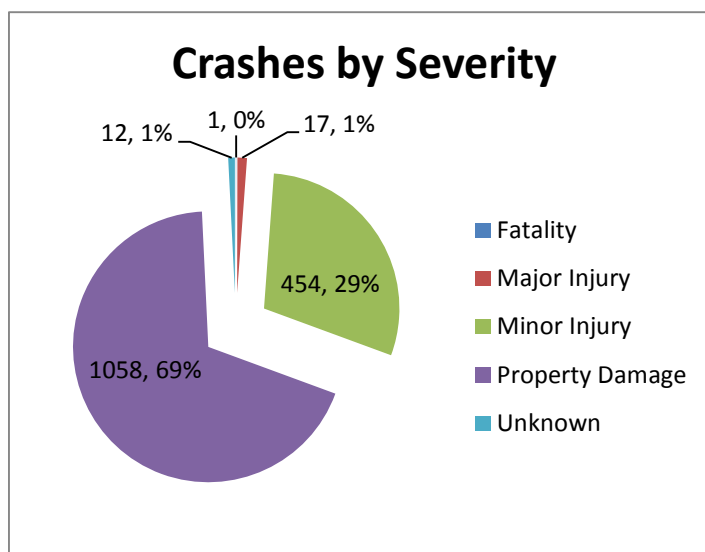


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 6% of all crashes involved drivers that were alcohol/drug impaired.
- In 25% of crashes, the human factor of “following too close” was identified.
- In 22% of all crashes, the human factor of speeding was identified.
- 23% of all crashes involved drivers, between the ages of 25 - 34.
- 30% of all crashes involved drivers between the ages of 25-34 that were alcohol/drug impaired.

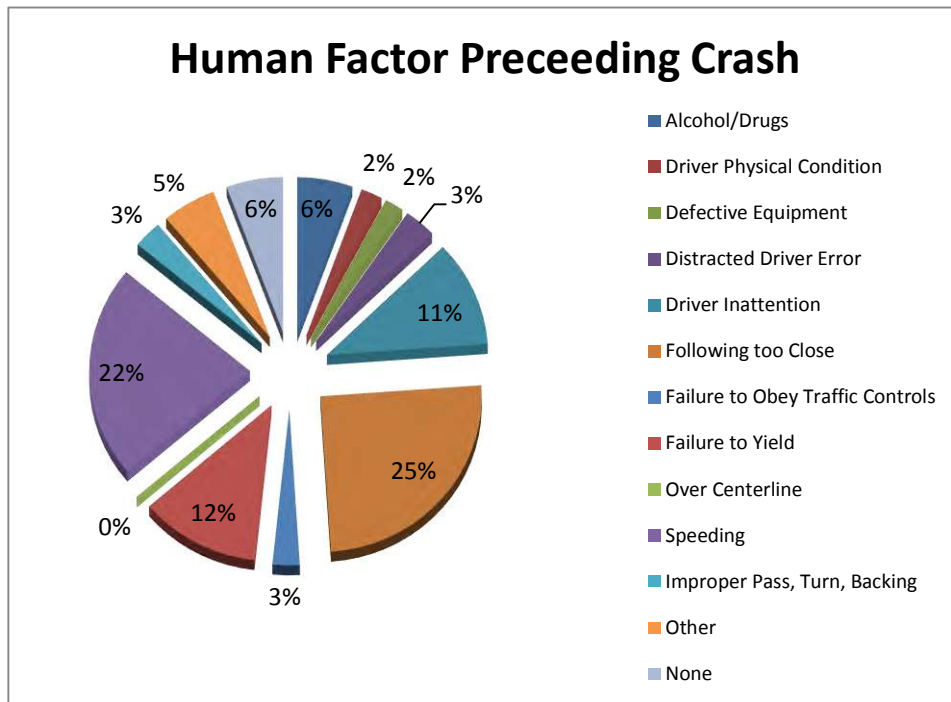


Figure 4 – Human Factor

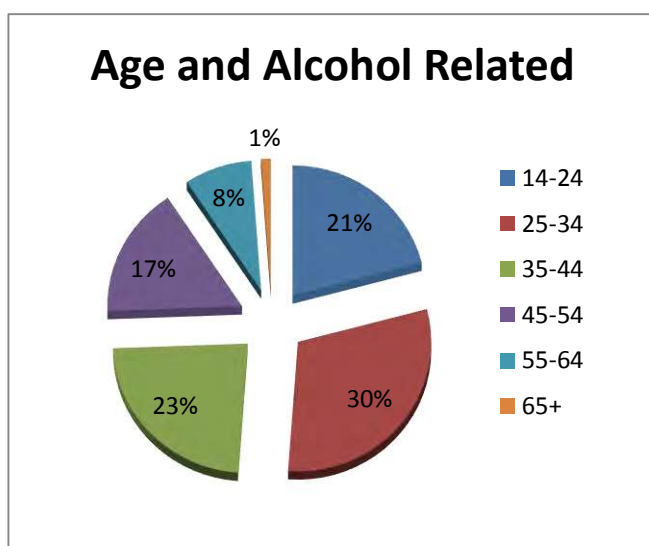


Figure 5 – Driver Age and Alcohol/Drug Impairment

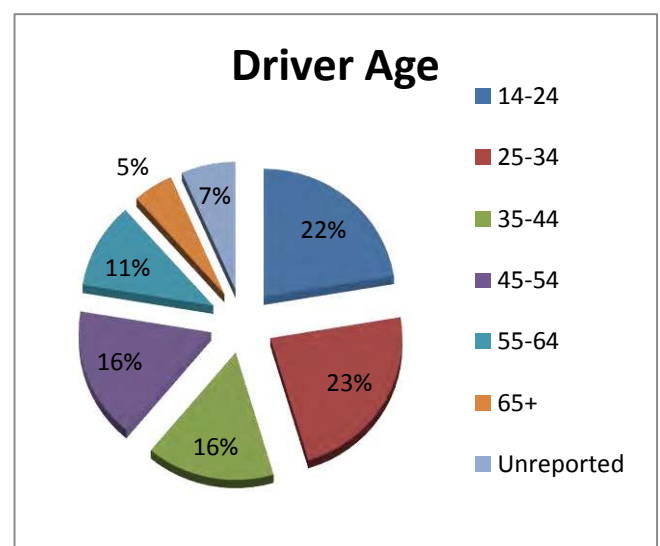


Figure 6 – Driver Age

Environment Factors

- Approximately 35% of all Crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 68% of all crashes occurred when road conditions were dry.

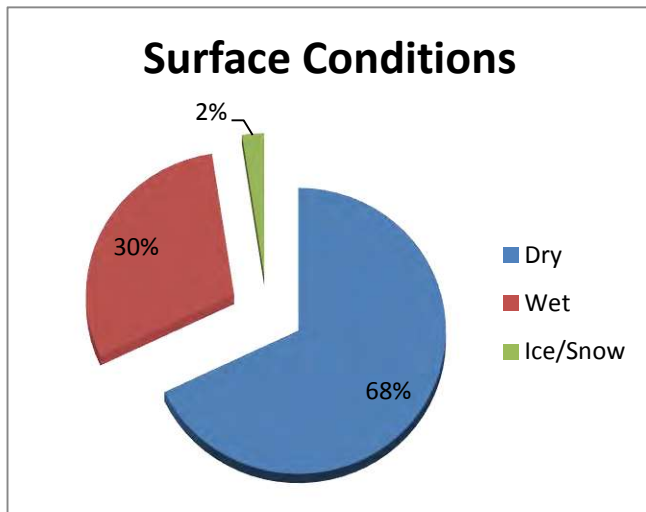


Figure 7 – Surface Conditions

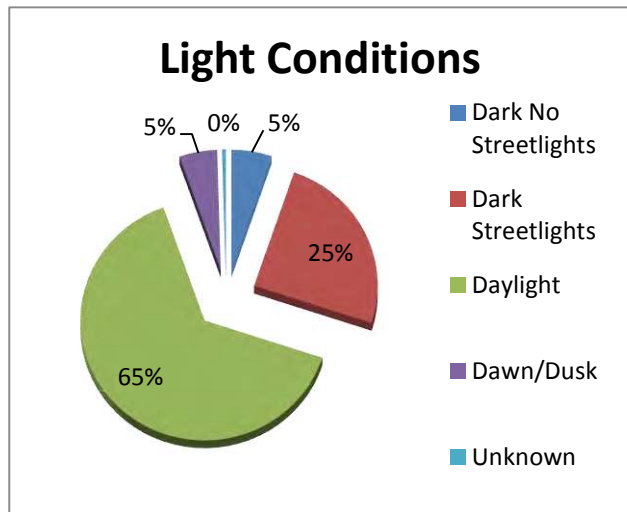


Figure 8 – Light Conditions

Roadway Factors

- 75% of all crashes were not at, or related to, intersections or driveways.

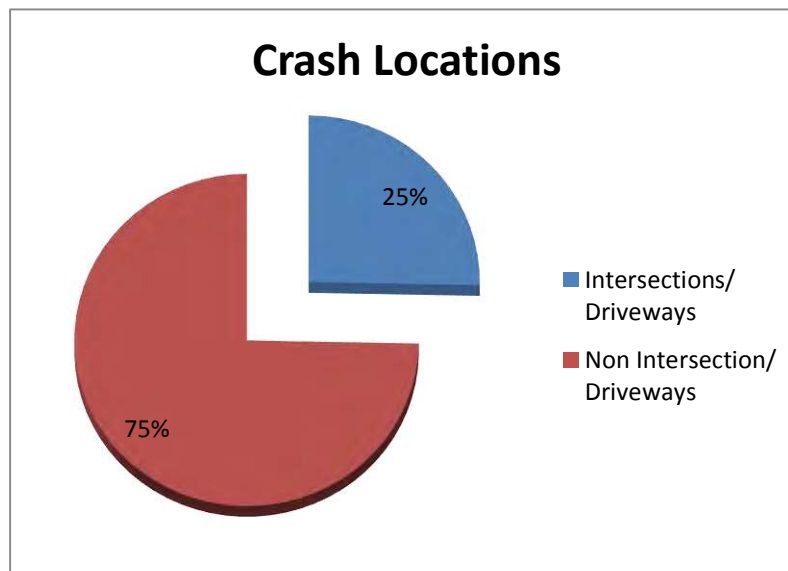


Figure 9 - Crash Locations

DATA REVIEW 10 – SR 99 FROM 54TH AVE E TO 62ND AVE E

State Route 99 from 54th Avenue to 62nd Avenue E is the primary frontage of the EQC Casino in Fife. This stretch of State Route 99 can sometimes back up half a mile to get on to Interstate 5. The City of Fife has several plans they are suggesting to alleviate congestion and improve safety along this corridor.

During the 4-year period from 2010 to 2013, on SR 99 from 54th Ave E to 62nd Ave E, within the boundaries of the Puyallup Indian Reservation, a total of 158 reported crashes resulted in 17 major injuries and 40 minor injuries. The remaining 101 crashes resulted in 100 property damage only and 1 unknown.

Crash Type

- 85% of all crashes involved two vehicles.
- 33% of all crashes were rear-end collisions.
- 26% of all crashes were angle collisions.
- 63% of all crashes were property damage only.

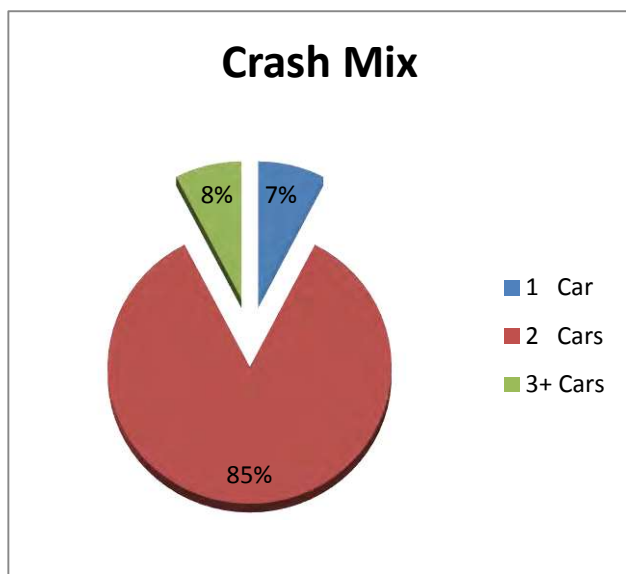


Figure 1 – Crash Mix All Crashes

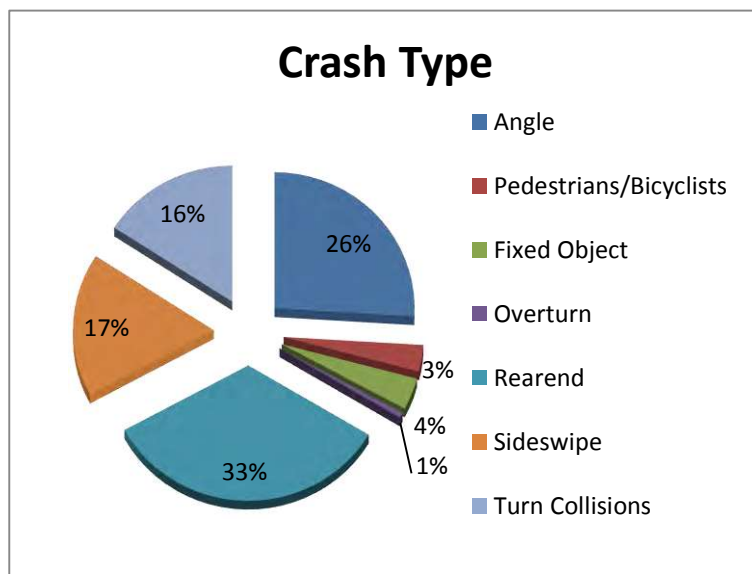


Figure 2 – Crash Type

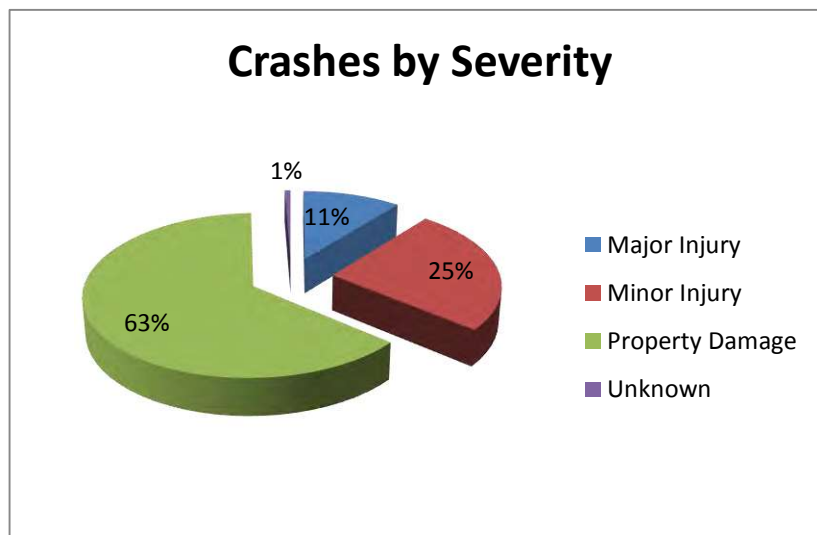


Figure 3 - Crashes by Severity 2010-2013

Driver Factors

- 4% of all crashes involved drivers that were alcohol/drug impaired.
- 37% of all crashes involved drivers that failed to yield.
- 14% of all crashes involved drivers where the Human Factor of “following too close” was identified.
- 13% of all crashes involved driver inattention.
- 22% of all crashes involved drivers that were between the ages of 14 and 24.
- 50% of all crashes involved drivers between the ages of 35-44 that were alcohol/drug impaired.

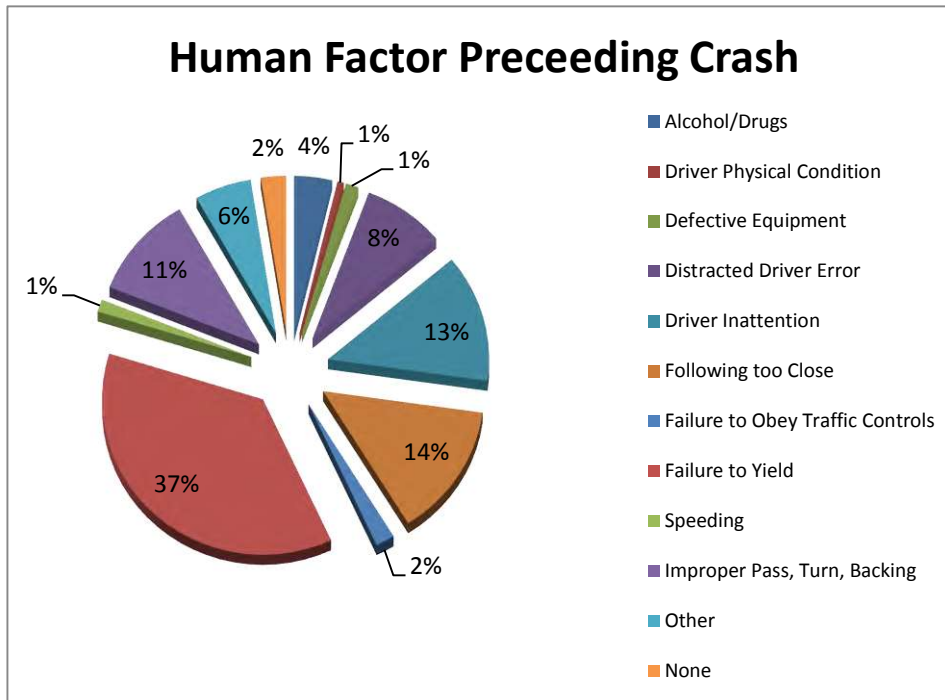


Figure 4 – Human Factor

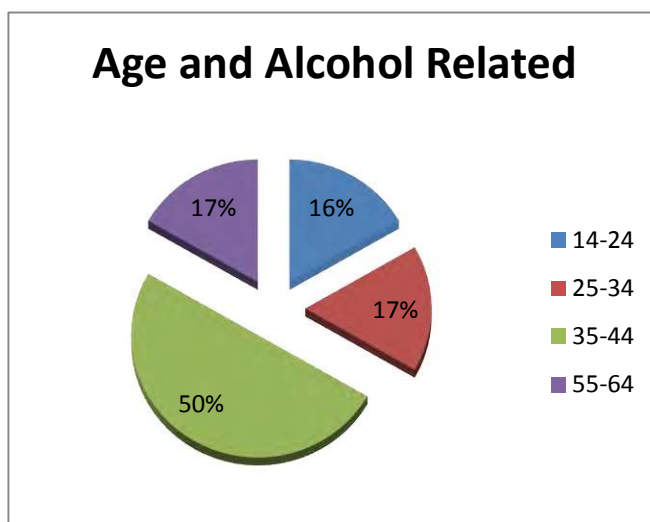


Figure 5 – Driver Age and Alcohol/Drug Impairment

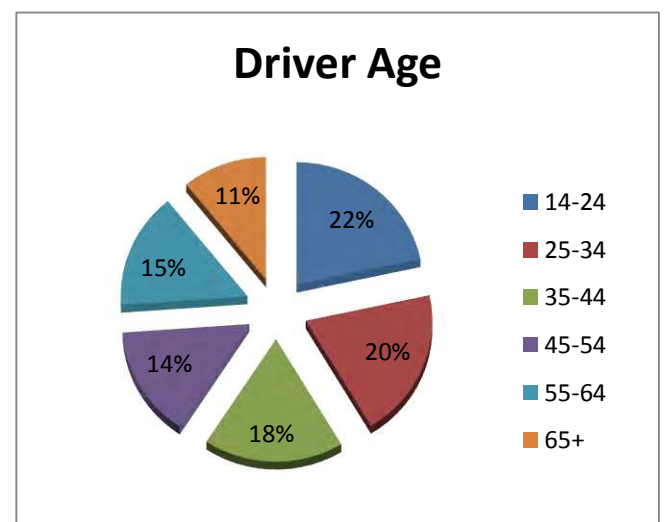


Figure 6 – Driver Age

Environment Factors

- Approximately 23% of all crashes occurred at night or in low light conditions. However, 80% of the annual average daily traffic on our roads is during the daytime.
- 70% of all crashes occurred when road conditions were dry.

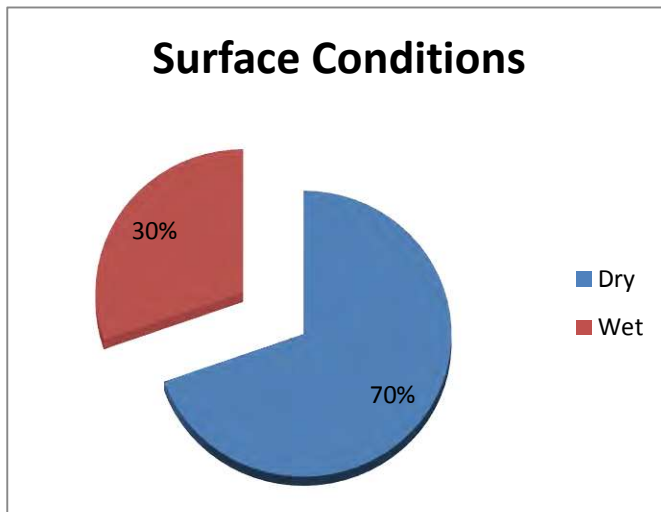


Figure 7 – Surface Conditions

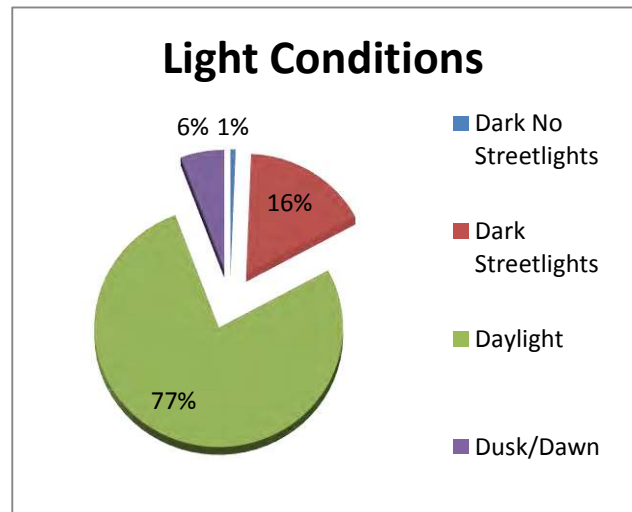


Figure 8 – Light Conditions

Roadway Factors

- 88% of all crashes occurred within intersections or driveways or related to them.

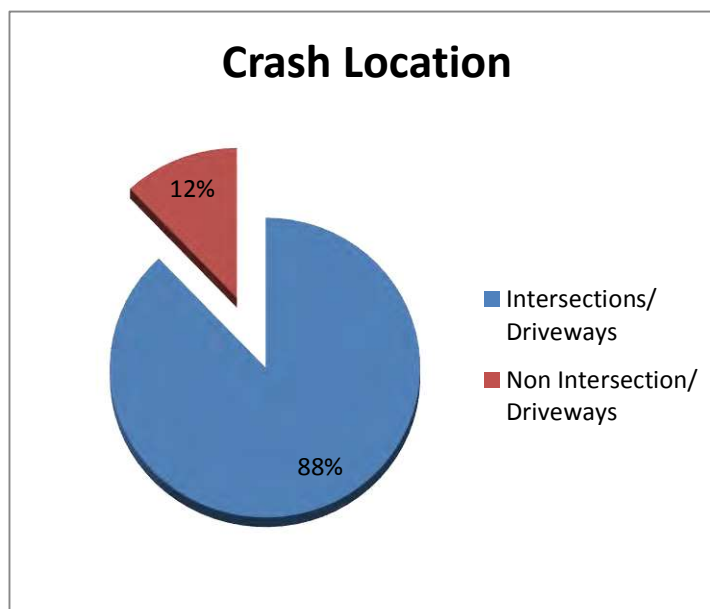


Figure 9 – Crash Locations

EMPHASIS AREAS

After reviewing the available data, four overall emphasis areas were selected for added attention in the transportation safety efforts of the Puyallup Tribe. These emphasis areas represent the most significant opportunities to accomplish the vision. The selected emphasis areas are:

- Establish STOPIT – Safety Transportation Organization of the Puyallup Indian Tribe
- Develop a Strategic Plan for STOPIT
- Reduce distracted driving, speeding, and driving while under the influence related accidents
- Improve pedestrian safety and pedestrian specific transportation infrastructure throughout the region to reduce pedestrian accidents, fatality, and near missed
- Better Coordinate with the other Jurisdictions and Safety Partners represented in and around the Puyallup Reservation/Service Area
- Raise public awareness for the need to drive responsibly
- Enhance the inaugural Safety Plan with additional analysis of existing data, better coordination with regional safety partners, and diversify the data set
- Perform Roadway Safety Audits of the Data Analysis Areas already identified in this report to provide more insight to potential cost effective solutions
- Incorporate more of a safety component when developing the next Tribal NTTFI and LRTP Updates
- Initiate a region wide safety campaign “STOPIT”

Each emphasis area is described below and is accompanied by a list of strategies that, if implemented, are expected to reduce the associated crashes. Each strategy is assigned to departments identified under the soon to be formalized Safety Transportation Organization of the Puyallup Tribe “STOPIT”.

EMPHASIS AREA 1 – AREA WIDE COORDINATED SAFETY CAMPAIGN LED BY PUYALLUP INDIAN TRIBE

Safety Transportation Organization of the Puyallup Indian Tribe “STOPIT”

A reliable and safe transportation network is essential to the health of a community, area, region, and nation. The Puyallup Indian Tribe, as its own Nation, must make transportation safety a priority. Based on the unique multijurisdictional makeup of the Reservation’s service area, organization and coordination between the many jurisdictions is essential to the shared transportation system’s safety improvements. The Data Analysis 1 - Reservation Wide statistics indicate high numbers of accidents occurring in the area with little to no improvement from year to year since 2010. The multijurisdictional area must come together and develop a coordinated transportation safety improvement program to address the unique challenges faced.

Goal A (How will the Emphasis Area progress be measured?)

Increase the interagency transportation safety coordination efforts with increased Tribal influence and involvement.

Strategies for Goal A (What will be done? Who will do it?)

- Formally establish the Safety Transportation Organization of the Puyallup Tribe (STOPIT). To complete this a Puyallup Tribal staff member must be named as the coordinator or lead person of the organization through Tribal Council Action.
- In addition to establishing the leadership of the organization, the Council should identify who the organization tribal participant will be from the various tribal departments and programs. A representative from each of the “Safety Partners” listed previously in this report would be recommended.
- Develop an organizational Strategic Safety Plan.



Goal B

Use this established Organization as a collective voice for the Puyallup Indian Tribe to implement the Strategic Safety Plan which will be designed to improve the Tribe’s role in Regional Transportation Safety Planning, call more awareness to the regional transportation safety issues, and increase the safety of the regional transportation system.

Strategies for Goal B

- Contact each of the other regional jurisdiction transportation safety departments/leadership to announce the organization and plans of STOPIT.
- Utilize the Regional Transportation Planning Organization (RTPO) & Metropolitan Planning Organization (MPO) to announce, market, and solicit involvement and coordination with STOPIT.
- Host TTPSF funded training and educational seminars to raise awareness of the tribal safety concerns with other Jurisdiction’s Transportation Safety staff/organizations.

Goal C

Reduce traffic accidents within the reservation boundary annually starting in 2017 and for each of the next five (5) subsequent years through the development of a STOPIT Safety Campaign designed to reduce distracted driving, speeding, and alcohol related accidents. The campaign should be geared towards younger generations spanning from early driver education to existing drivers under thirty-four (34) years of age.

The Data Analysis 1 - Reservation Wide statistics indicate that nearly half of the accidents occurring in the region are caused by people between the ages of 14 and 34. Analysis of this data set combined with nation trends indicate that an increasing number of accidents are occurring specifically in this demographic in relation to distracted driving (including cell phone use and texting), speeding, and driving under the influence of alcohol.

Strategies for Goal C

- Adopt a marketing campaign to include various forms of media most prevalent to the target demographic including: Radio Advertisements, Social Media Marketing/Advertising, Road Signs, Billboard Advertisement, etc.
- Add the STOPIT Logo to all public awareness and marketing materials developed and distributed by the Puyallup Tribe.

Funding Comprehensive Safety Planning and Specific Safety Project Identification/Prioritization

This inaugural Transportation Safety Plan as funded (\$12,500) through the TTPSF program within the Tribal Transportation Program is only enough funding to scratch the surface when it comes to the evaluation of traffic accident data for the Puyallup Indian Tribe's Reservation. Given the location and characteristics of the Puyallup Tribal Reservation more funding is required to better analyze and prioritize specific safety enhancement projects within the established 4-E's: Engineering, Education, Enforcement, and Emergency Response.

Preliminary accident data analysis and research of the various transportation safety related programs and jurisdictions of the study area indicate significant issues both with the physical conditions of the transportation network and the non-cohesive and non-comprehensive safety planning approach of the region. As identified in Emphasis Area 1, the Tribe will make efforts to improve on the administrative and safety planning side of this equation. More analysis and field conducted Roadway Safety Audits are required for specific corridors identified by the various Data Analysis Subsets provided in this report.

In addition to the identified physical corridors requiring more detailed analysis, specific transportation emphasis areas require more comprehensive targeted planning efforts. Data and research indicates the lack of safe and user-friendly Bicycle and Pedestrian Facilities, conflicts between intended uses of the transportation networks (freight/heavy equipment, port expansion, commuting passenger vehicles, tourism/economic development passenger vehicles, transit vehicles, pedestrians, etc.

A regional coordinated transportation plan, various jurisdictions transportation plans, and tribal transportation plan lack cohesive collaboration and coordination. Funding is needed to support these regional efforts towards safety and transportation planning.

Goal A

Perform Roadway Safety Audits of the specific corridors represented in the "Data Analysis Areas" to better support and recommend effective and cost efficient improvements specific to each transportation facility.

Strategies for Goal A

- Apply for additional TTPSF Planning funding to support the Roadway Safety Audit field evaluations, analysis, and reporting.
- If TTPSF funding is not awarded, research potential and applicable programs (TTP Tribal Share Funding, State Safety Funding, Regional Planning Funding through the RTPO or other jurisdictions).
- Request funding allocations from the Tribe.
- Research and coordinate with other jurisdiction to ascertain if safety studies or Roadway Safety Audits have been performed on any or all of the identified corridors.
- From the existing studies and Roadway Safety Audits develop a prioritized list of safety improvement/enhancement projects.
- Coordinate the prioritized safety improvement/enhancement projects list with the regional and various jurisdiction's transportation improvement programs (TIP's) and capital improvement programs (CIP's)

Goal B

Expand and improve upon the inaugural Transportation Safety Study. Supplement the current Safety Funding to allow for more data analysis and cross analysis in specific areas of concern for the transportation systems most used by the Tribal Public.

Strategies for Goal B

- Apply for additional TTPSF Planning funding (or other source) to support a more comprehensive analysis and evaluation of the existing accident data and transportation system data.
- Maintain and add additional accident data when available after the 2010 through 2013 data analyzed in this report.
- If TTPSF funding is not awarded, research potential and applicable programs (TTP Tribal Share Funding, State Safety Funding, Regional Planning Funding through the RTPO or other jurisdictions).
- Request funding allocations from the Tribe.
- Research and coordinate with other jurisdictions to ascertain if safety studies or Roadway Safety Audits have been performed on any or all of the identified corridors.
- From the existing studies and Roadway Safety Audits develop a prioritized list of safety improvement/enhancement projects.
- Coordinate the prioritized safety improvement/enhancement projects list with the regional and various jurisdiction's transportation improvement programs (TIP's) and capital improvement programs (CIP's)

Goal C

Re-develop and update the Puyallup Tribe's National Tribal Transportation Facilities Inventory (NTTFI) and Long Range Transportation Plan (LRTP) with an increased emphasis of safety conditions analysis to support the Safety Planning efforts to improve the tribal emphasis on transportation safety.

Strategies for Goal C

- While completing the next NTTFI Update, have the field collection crew also gather pertinent information to include more specific transportation safety conditions assessments.
- While completing the next LRTP Update, include a Safety specific component to the plan itself and support that with a coordinated workshop with STOPIT and other surrounding transportation safety partners and jurisdictions.
- Program specific funding within the Tribe's Transportation Improvement Program TTIP to support safety specific transportation system analysis.

EMPHASIS AREA 3 – BIKE & PEDESTRIAN SAFETY IMPROVEMENTS

The Transportation Safety Plan maps have identified several locations where bike & pedestrian accidents are widely prevalent. The Tribe has identified the need for increasing safety along bike & pedestrian corridors primarily where Tribal facilities are located at like the Tribal Health Clinic, Youth Center, Tribal Campus, and the network of roads that serve those areas.

Goal A

Locate corridors that have a high level of bike & pedestrian incidents and high capacity corridors that have deficient bike & pedestrian infrastructure. Evaluate these corridors to identify potential roadway treatments to help mitigate the level of incidents.

Strategies for Goal A

- Update the Puyallup Tribe's National Tribal Transportation Facilities Inventory (NTTFI) if mitigation treatments require the addition of pedestrian and bike facilities that are not already on the NTTFI.

- Prioritize & program projects on the Puyallup Tribe’s Tribal Transportation Improvement Program TTIP as capital projects.
- Measure the effectiveness of treatments through future roadway safety audits that measure safety data before and after implementation.

EMPHASIS AREA 4 – EMERGENCY RESPONSE INTELLIGENT TRANSPORTATION SYSTEM PLAN & IMPROVEMENTS

Intelligent Transportation Systems (ITS) encompass physical infrastructure and processes that improve overall transportation operations and safety. They may include elements such as traffic cameras, fiber optic networks, variable message signs and adaptive signal control. An ITS system typically provides a lower cost alternative for improving transportation operations and safety without the need for additional roadways or other expensive infrastructure on the reservation.

In order to implement ITS solutions and to obtain funding for construction, an ITS Strategic Plan is a beneficial and necessary step in the process. The strategic plan development involves examining current conditions, identifying existing ITS infrastructure, and assessing agency plans for ITS in the future.

Goal A

Establish and coordinate an Emergency Response ITS plan with local jurisdictions on the reservation.

Strategies for Goal A

- Considering the Puyallup Tribe owns very few roads on the reservation coordinate working with local jurisdictions to establish an Emergency Response ITS plan.
- Have the plan identify roadway treatments and improvements to increase safety and response time.
- Prioritize & program projects identified on the Emergency Response ITS Plan on the Puyallup Tribe’s Tribal Transportation Improvement Program TTIP.
- Measure the effectiveness of treatments through future roadway safety audits that measure safety and response time data before and after implementation.

IMPLEMENTATION & EVALUATION

Safety Transportation Organization of the Puyallup Indian Tribe “STOPIT”

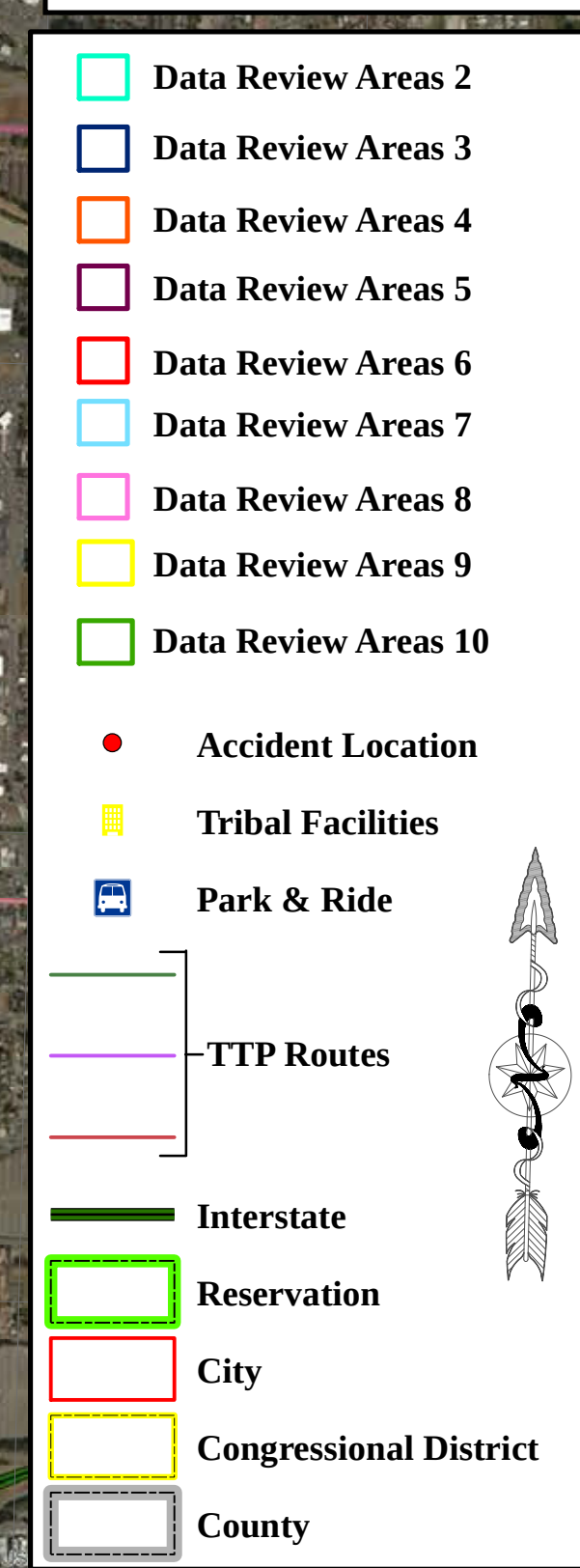
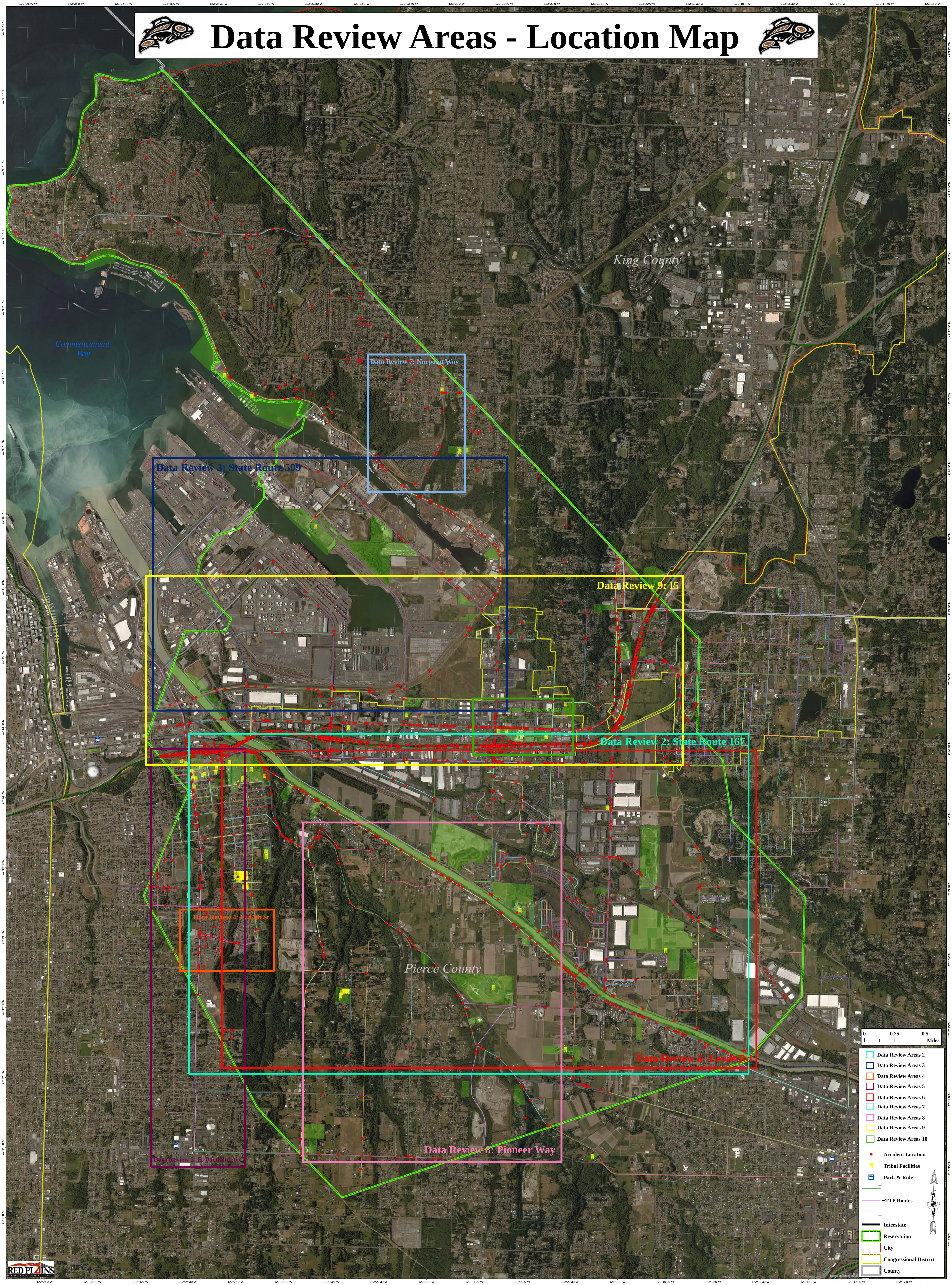
For this plan to be successful it must be implemented and monitored. Revisions to this plan will be necessary as success will mandate change. The Puyallup Tribe will establish a Transportation Safety Management Steering Committee comprised of directors from various departments to review this plan and make recommendations for future revisions. The committee will hold quarterly meetings to evaluate progress toward each goal, discuss the progress of strategies that are being implemented, and consider any needed revisions to this plan.

Strategy Implementation Champions

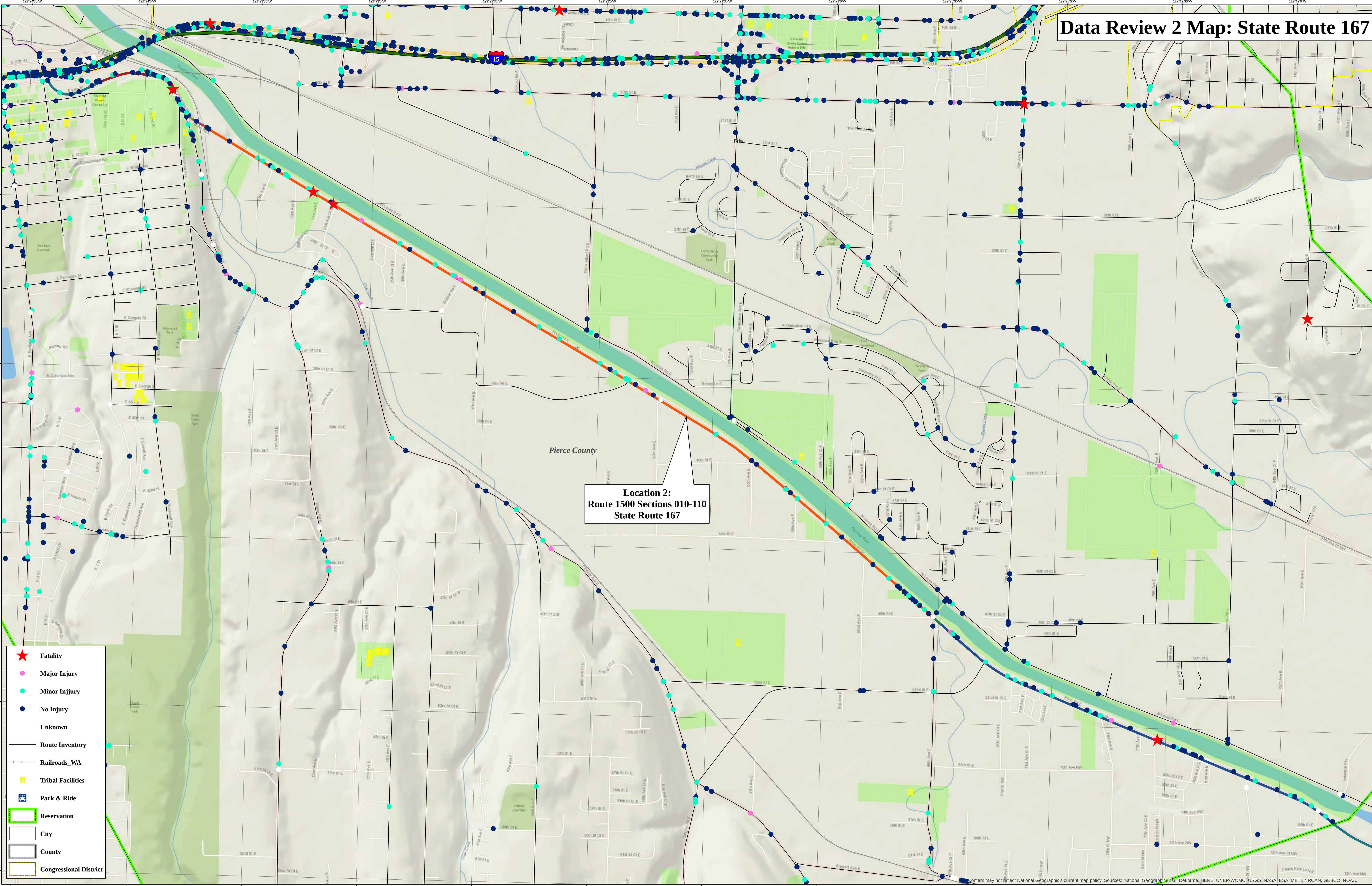
The strategies listed above designate a champion department or task force for each strategy. This strategy champion has the lead on implementation of the strategy. Many of the strategies may require an implementation plan be created that is separate from this document. As needed, the strategy champions will build an action plan for their strategy that outlines the implementation steps, schedule, and needed resources. A Strategic Plan for STOPIT will be developed. The strategy champions will report back to the Tribal Council on their strategy when updates are available or as requested.

Regular Corridor Evaluation with Transportation Plan Update

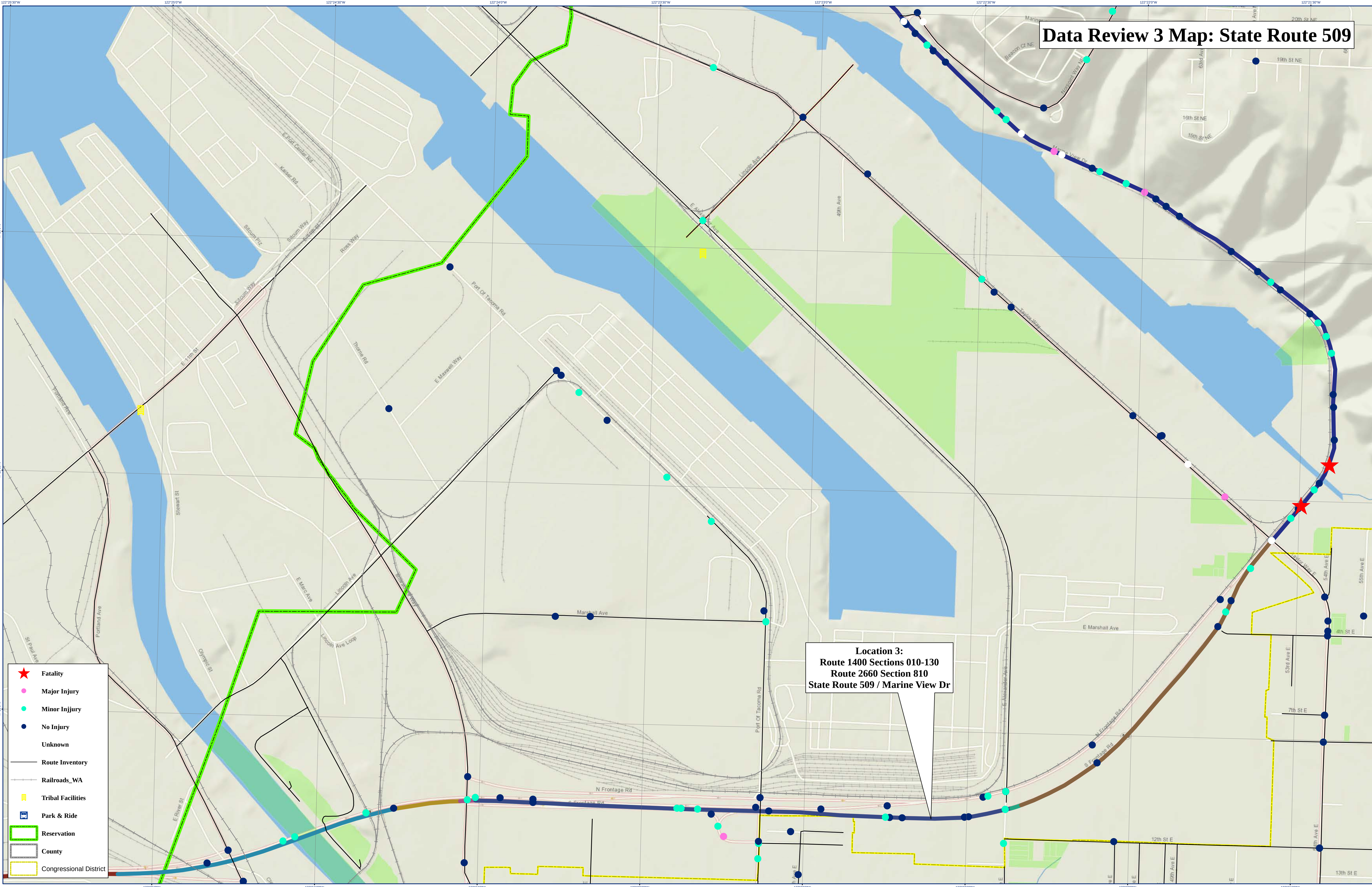
In order to properly evaluate mitigation measures to reduce the level of bike and pedestrian incidents, corridor data should be regularly updated with the Transportation Safety Plan. The effectiveness of these measures should be evaluated and measured through future roadway safety audits.



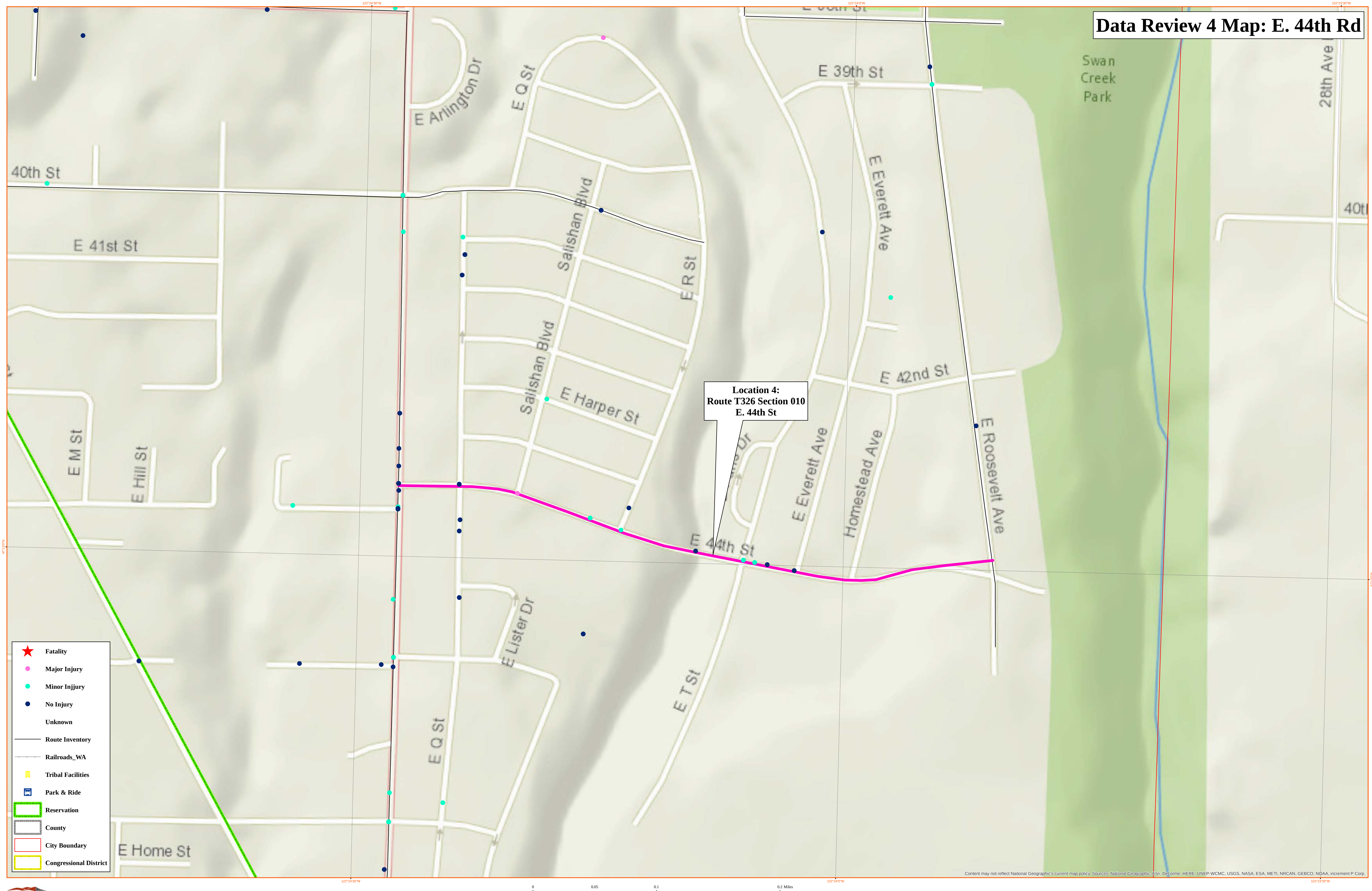
Data Review 2 Map: State Route 167



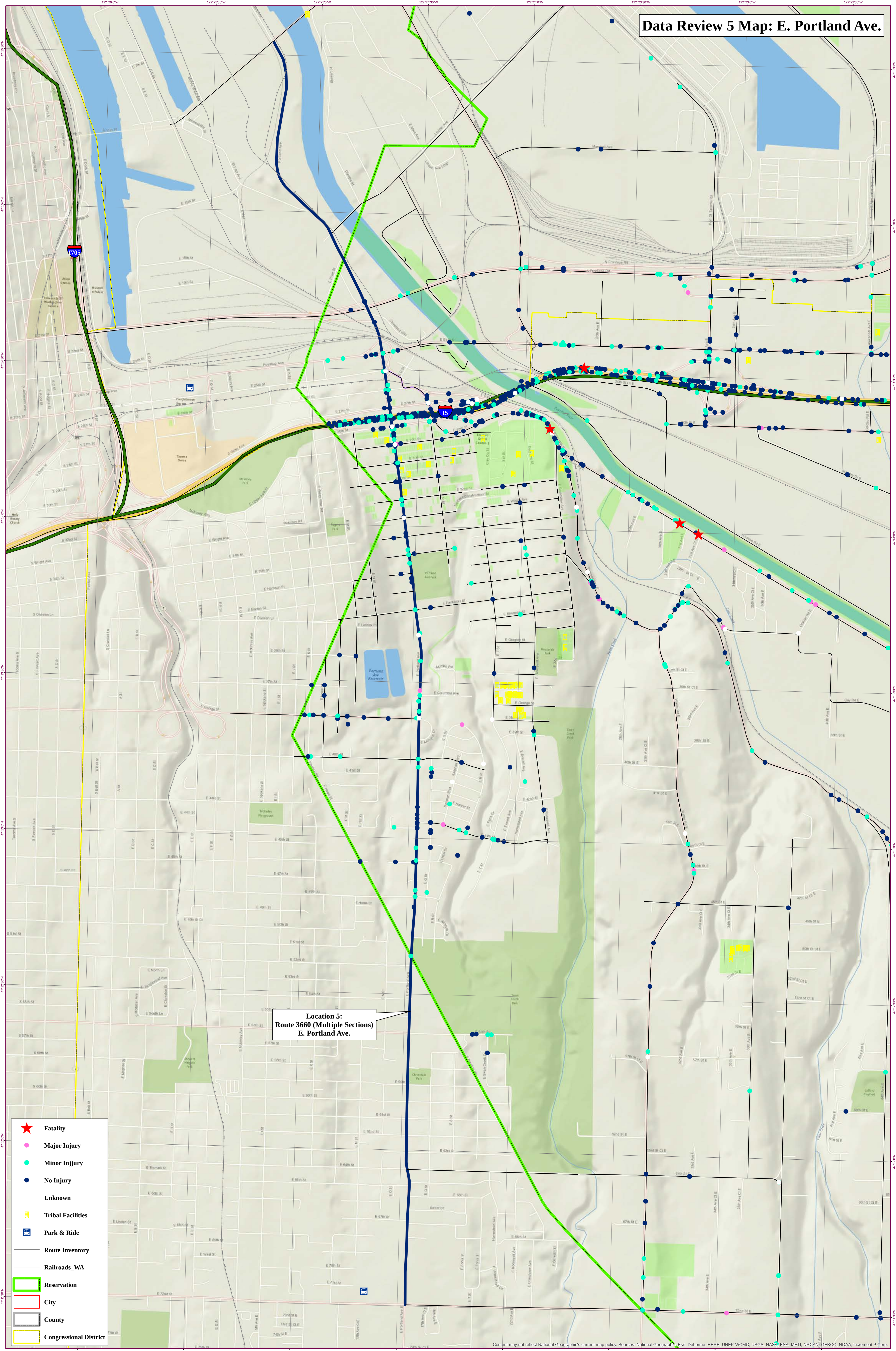
Data Review 3 Map: State Route 509



Data Review 4 Map: E. 44th Rd

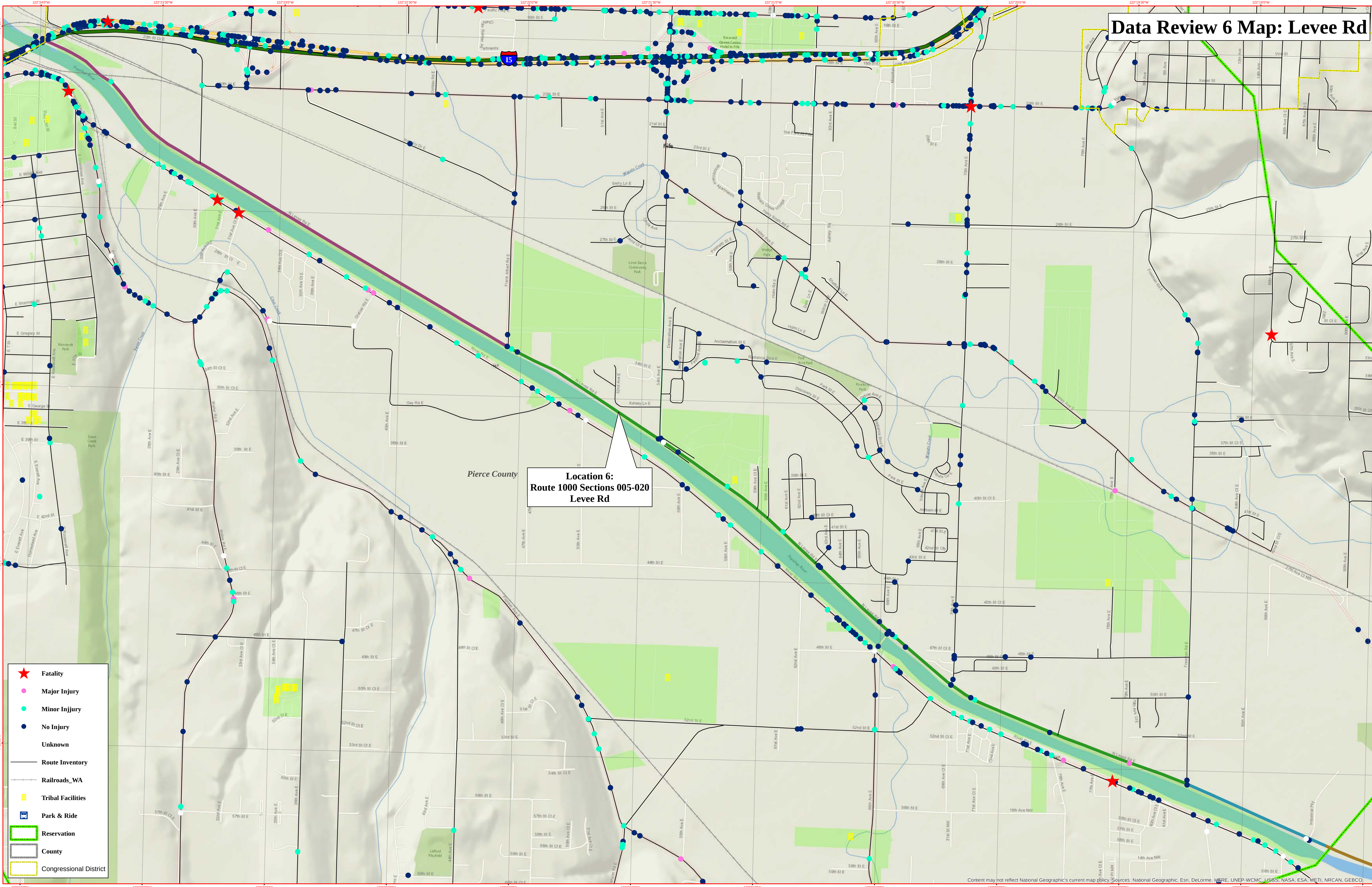


Data Review 5 Map: E. Portland Ave.

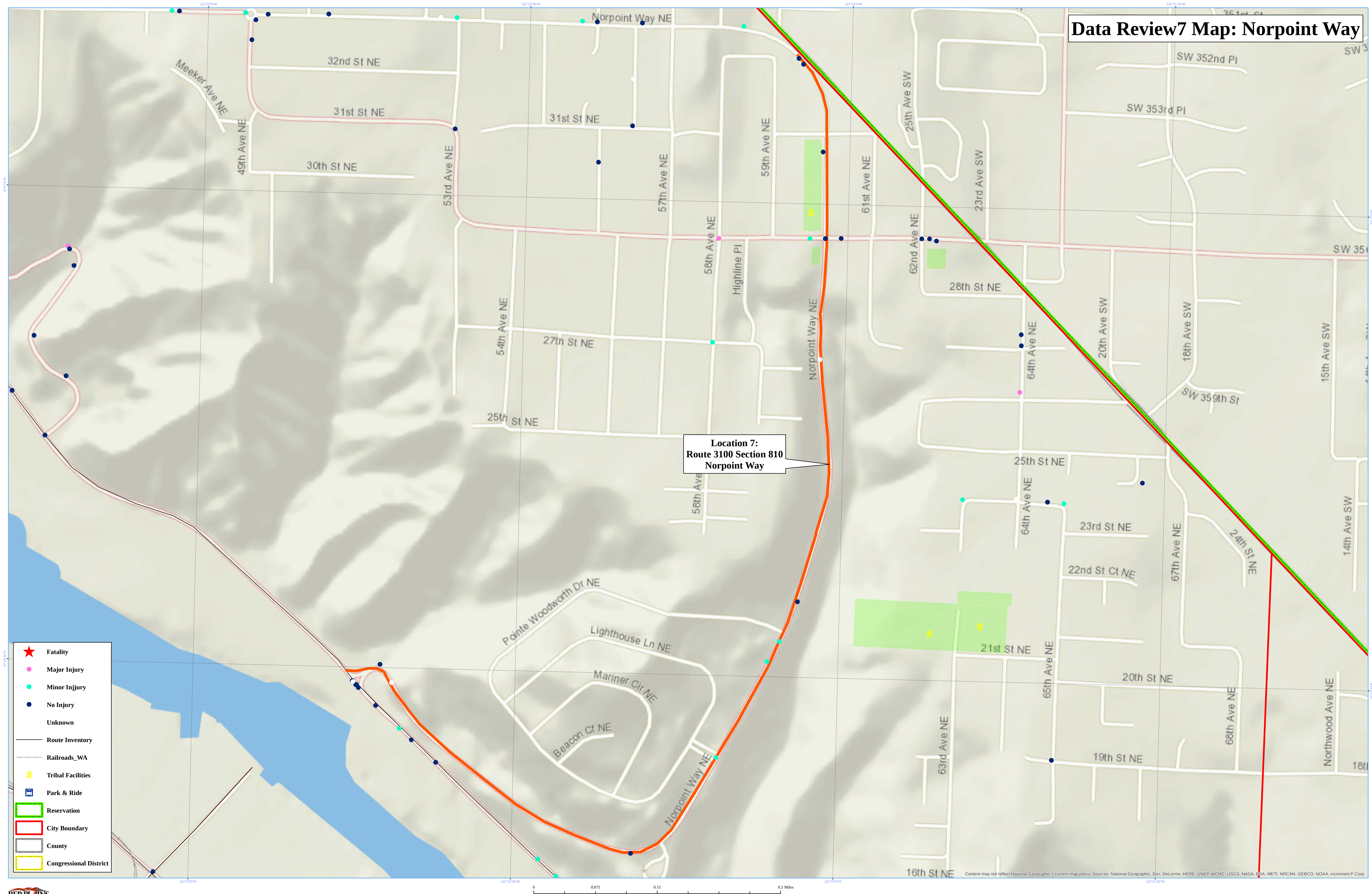


Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

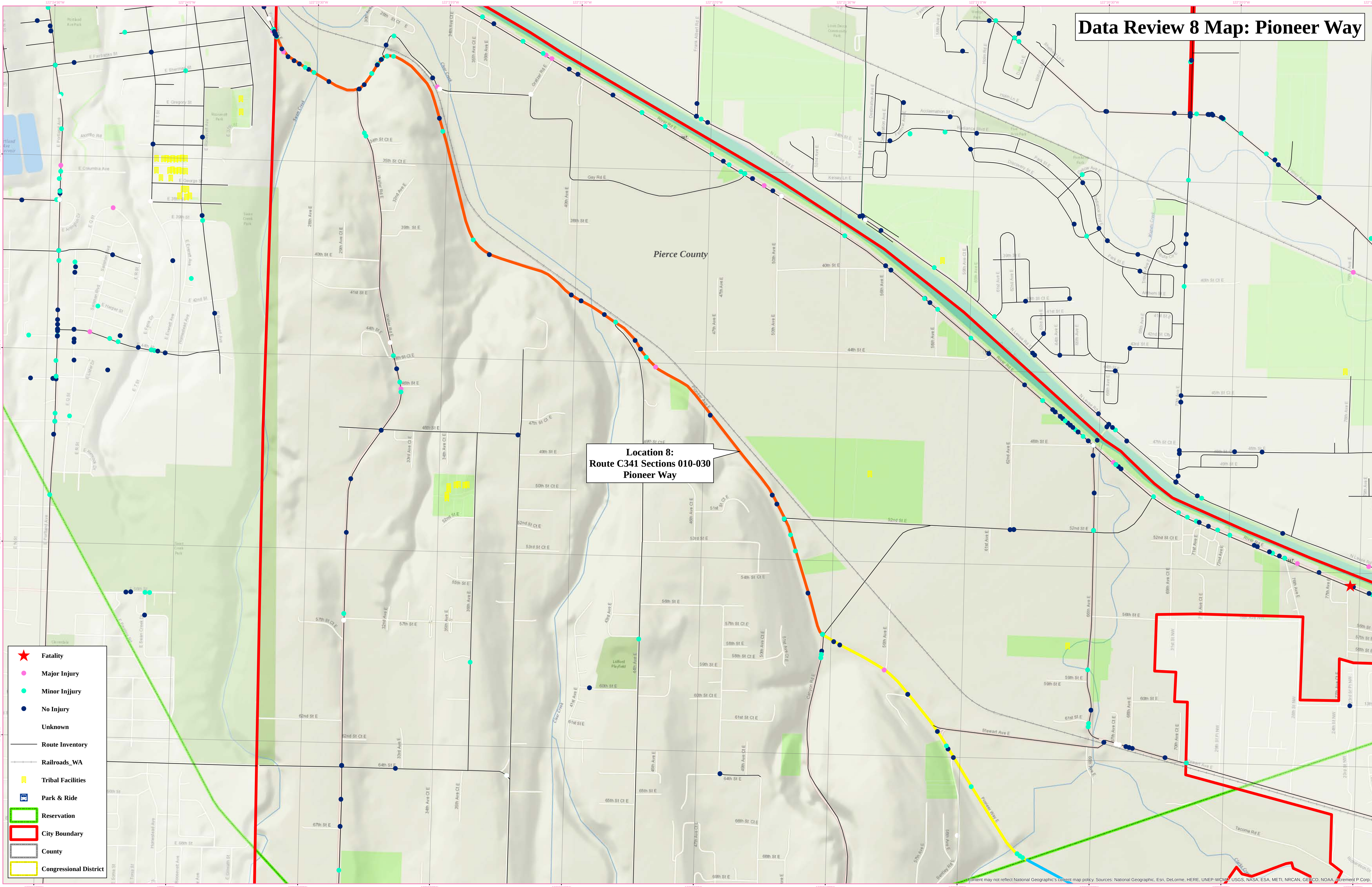
Note of Authorship: ESRI, Payalup Tribe, WSDOT, National Geographic, U.S. Census, State of Washington, Red Plains Professional 2015



Data Review7 Map: Norpoint Way

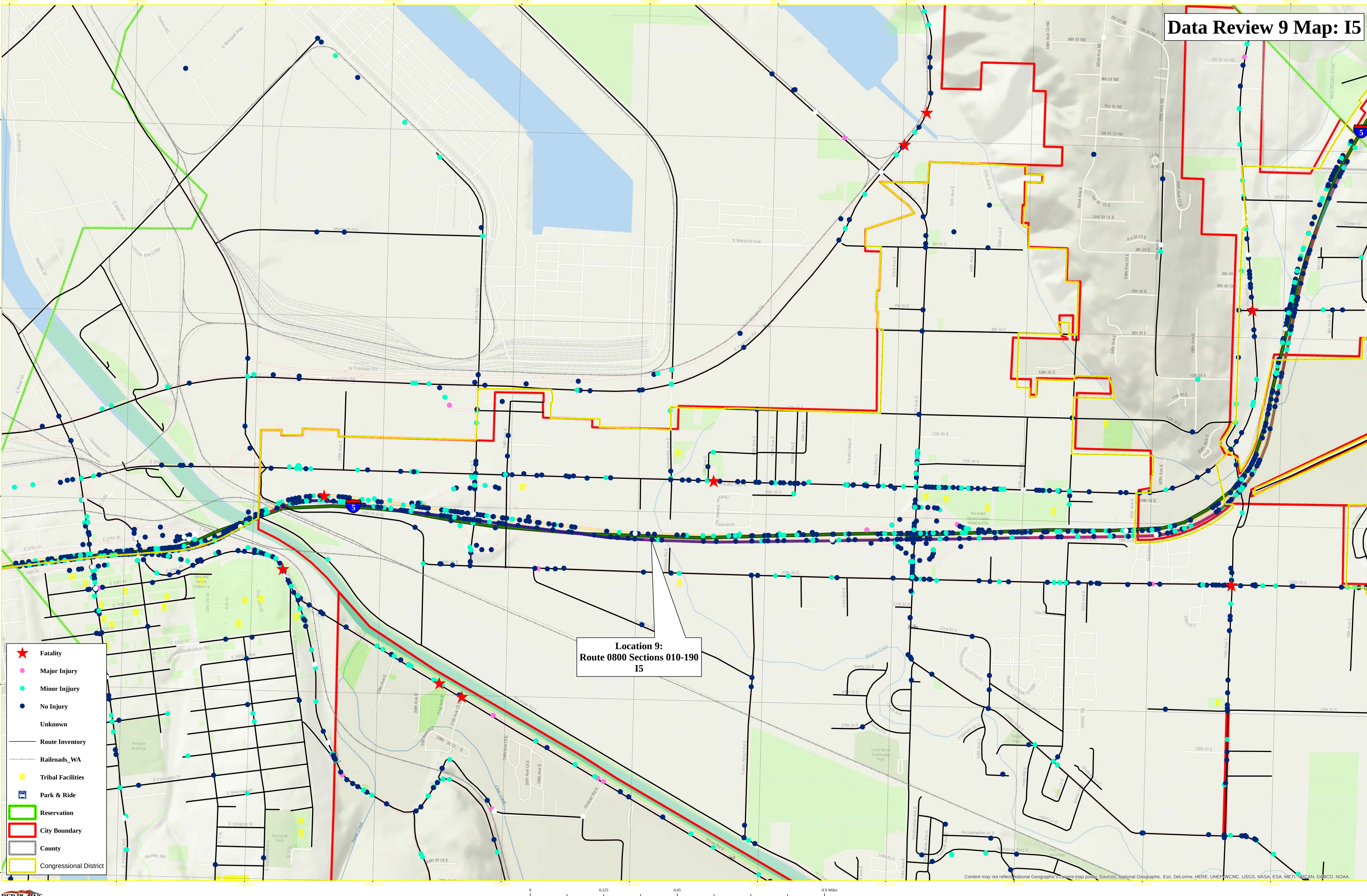


Data Review 8 Map: Pioneer Way

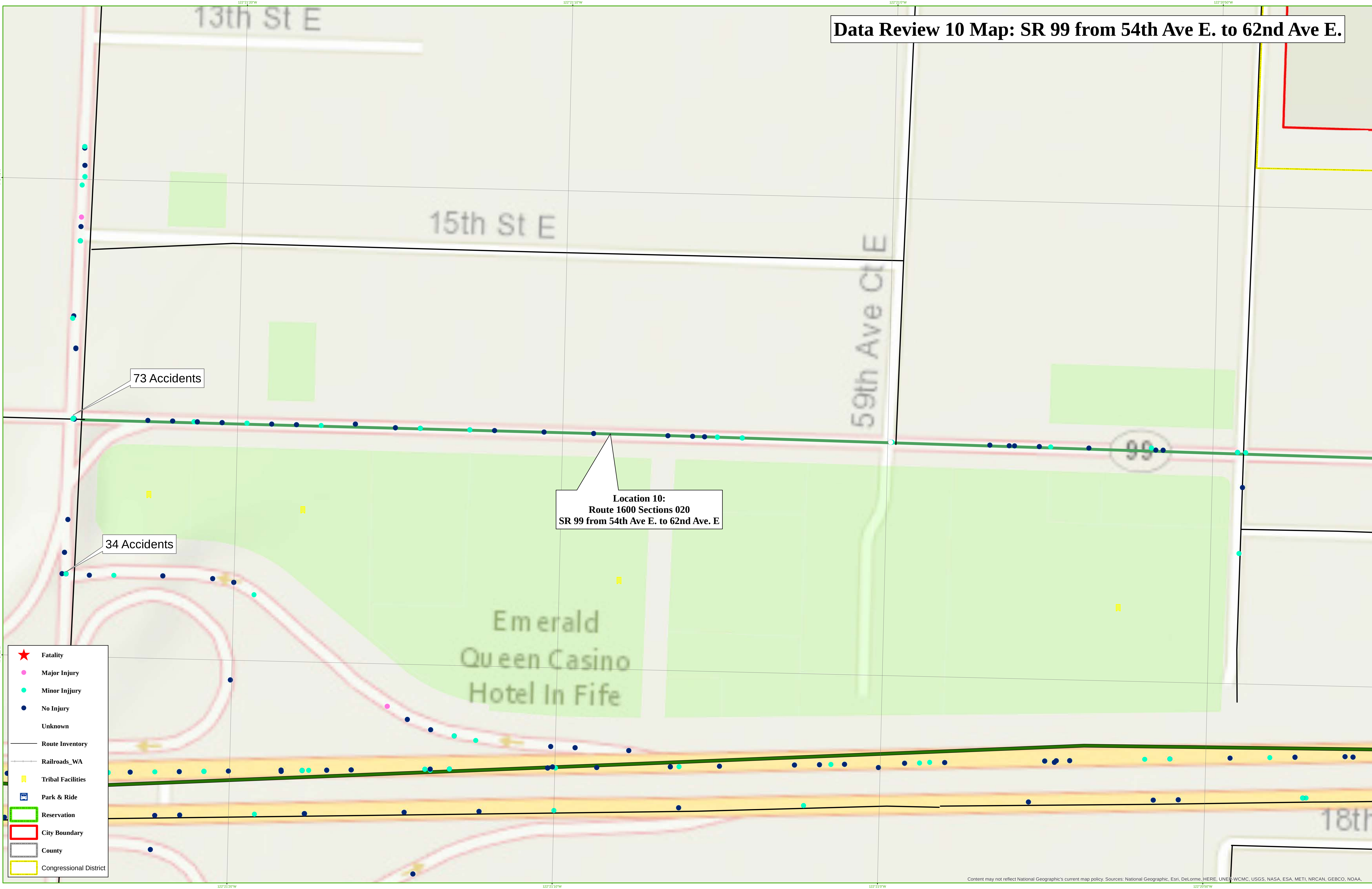


Location 8:
Route C341 Sections 010-030
Pioneer Way

Data Review 9 Map: I5



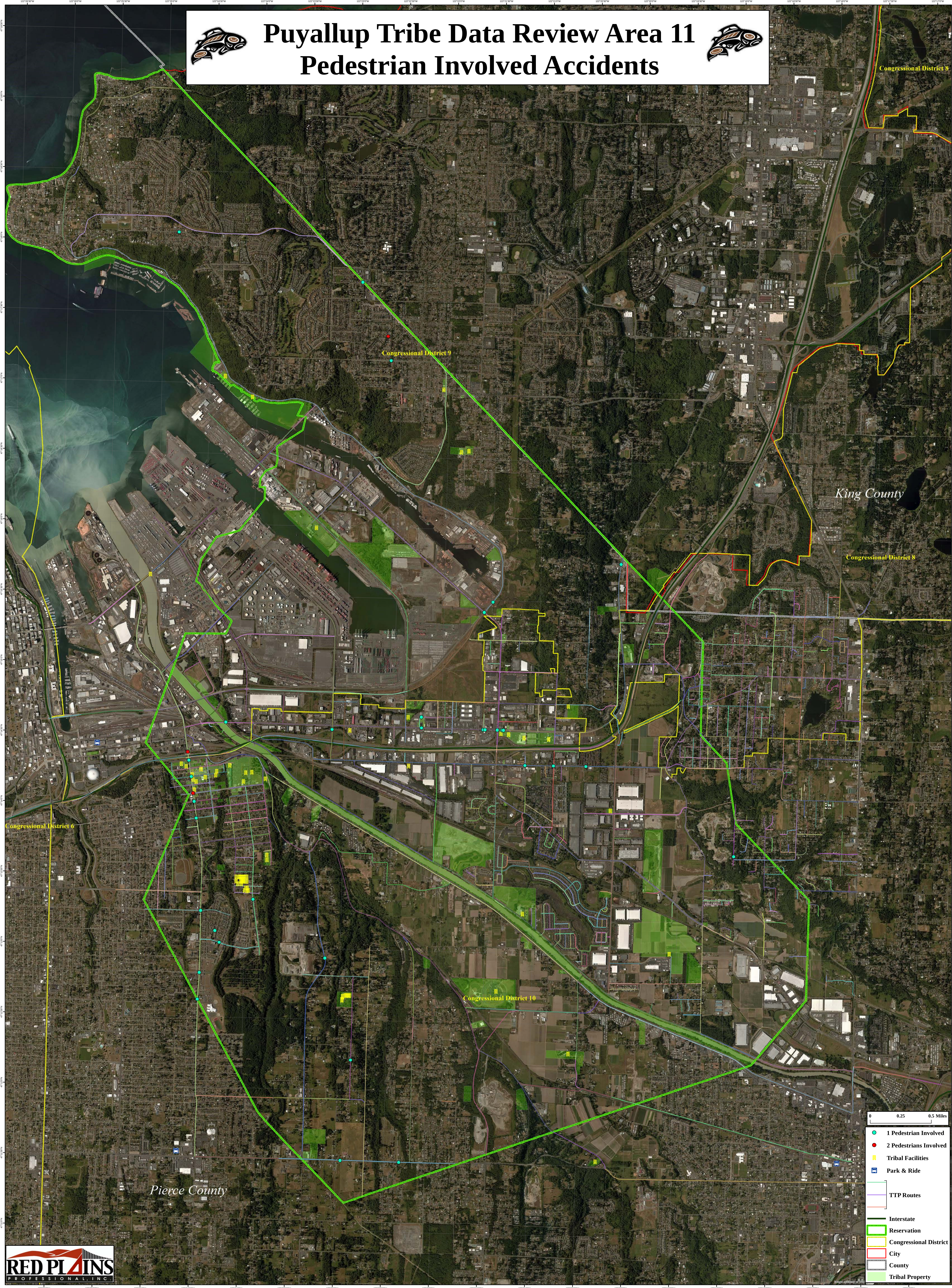
Data Review 10 Map: SR 99 from 54th Ave E. to 62nd Ave E.





Puyallup Tribe Data Review Area 11

Pedestrian Involved Accidents





Bicycle Involved Accidents

Puyallup Tribe

