



**City Council Business Agenda Item
City of Kenmore, WA**

Subject/Topic:
Analysis of Pedestrian and Bicycle Collision Data

For Council Meeting Agenda of: January 26, 2015

Department: Engineering and Environmental Services
Department

Prepared by: Andrew Calkins, Graduate Intern and
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Environmental Services Director

Proposed Council Action/Motion:
No action required.

Approved by Department Head:
Approved by City Attorney:
Approved by Finance Director:
Approved by City Manager:

Initial & Date
KMO 1/15/15
N/A
AKC 1/15/15
AKC

Exhibits/Attachments:
Appendix A: Pedestrian and Bicycle Data Tables and Charts
Appendix B: Location of Pedestrian and Bicycle Collisions

Expenditure Required N/A

Amount Budgeted

Appropriation Required N/A

INFORMATION/BACKGROUND:

This agenda bill discusses and analyzes bicycle and pedestrian collisions that occurred in Kenmore between 2001 and mid-2014, based on data from the Washington State Department of Transportation (WSDOT). The data has allowed staff to analyze some of the key characteristics of individual collisions, including collision location, the traffic conditions that led to the collisions and information on the involved road users. Understanding the history of collisions in Kenmore can help target resources and education in order to decrease the number of pedestrian and bicycle collisions that may occur in the future. The main takeaways from the data analysis are briefly discussed below.

The staff presentation at the January 26, 2014 City Council meeting will be interactive, meaning that the tables and charts will be projected on the screen and filtered using certain queries and criteria.

Number of Collisions and Serious Injuries or Fatalities (2001 through Mid-2014): The WSDOT data includes only collisions that involved a vehicle and includes any collisions whether they resulted in an injury or not. The number of total collisions and serious injuries or fatalities during the 13.5 year period are as follows:

Vehicle v. Bicycle Collisions:	78
Vehicle v. Pedestrian Collisions:	54
Bicyclist Serious Injuries or Fatalities:	8 (2 fatalities)
Pedestrian Serious Injuries or Fatalities:	17 (4 fatalities)

Marked Crosswalks and Pedestrians: 42% of collisions between vehicles and pedestrians occurred in marked crosswalks, as opposed to 16% in unmarked crosswalks. Of the 21 incidents in marked crosswalks, 16 of them occurred at signalized intersections. The high percentage of incidents in marked crosswalks may reflect both higher volumes of pedestrians (and vehicles) and pedestrians may feel safer when in a marked crosswalk and proceed with less caution.

Location of Incidents: Since 2001, 40% of all bicycle collisions with vehicles occurred on Juanita Drive. If one looks only at city roads and excludes collisions that occurred on SR 522, then the percentage on Juanita Drive increases to 52%. For pedestrians, most collisions occurred in the downtown core where most of the commercial activity takes place and where there are likely to be more pedestrians. Pedestrian collisions at SR 522 intersections and along SR 522 account for 50% of all pedestrian collisions that occurred during the 13.5 year period (See Appendix B for map of collisions).

Only 1 collision occurred in a school zone, a non-serious injury to a 15 year old bicyclist in November, 2002. 2 incidents have occurred in work zones.

Lighting Conditions: While collisions with pedestrians were nearly evenly split between occurring during dark and light hours, 91% of bicycle collisions occurred during daylight hours. This may suggest that there are many more cyclists on the road during the day.

Time of Year: The highest number of pedestrian collisions have historically occurred in March (10 collisions), even excluding the two that occurred in March, 2014. On the other hand, bicycle collisions have historically been higher in the summer and early fall. 75% of bicycle collisions occurred between May and October.

Age of Road Users Involved: The average age of drivers involved in collisions with bicyclists and pedestrians was 44, higher than the average age of pedestrians and bicyclists, 37 and 36 respectively. For drivers, the most common age group to be involved in these collisions was 51 to 55 year olds, and the second most common age group was 16 to 20 year olds.

The age of pedestrians involved in collisions typically skewed lower: pedestrians age 15 to 29 accounted for 36% of collisions. The age of bicyclists were more evenly distributed, though there were 10 collisions (out of 78 total) with bicyclists aged 14 or younger since 2001.

FISCAL CONSIDERATION:

N/A

COUNCIL GOAL/BUDGET OBJECTIVE BEING ADDRESSED:

Council Goal 1: To focus and emphasize multimodal transportation safety in the City of Kenmore with a specific focus on pedestrian, bike and other means of travel.

APPENDIX A: Pedestrian and Bicycle Data Tables and Charts

TABLE 1: Roadway Location of Pedestrian Collisions

Pedestrian Was Using:	Count:	% of Total
Marked X walk	21	42%
Unmarked X walk	8	16%
Roadway	17	34%
Shoulder	3	6%
Sidewalk	1	2%
Total	50	100%

TABLE 2: Roadway Location of Bicycle Collisions

Bicyclist Was Using:	Count	% of Total
Designated Bike Route	4	5%
Marked X walk	13	17%
Other	1	1%
Roadway	30	39%
Shoulder	22	29%
Sidewalk	1	1%
Unmarked X walk	5	7%
Total	76	100%

CHART 1: Age of Vehicle's Driver in Collisions Involving Pedestrians or Bicyclists:

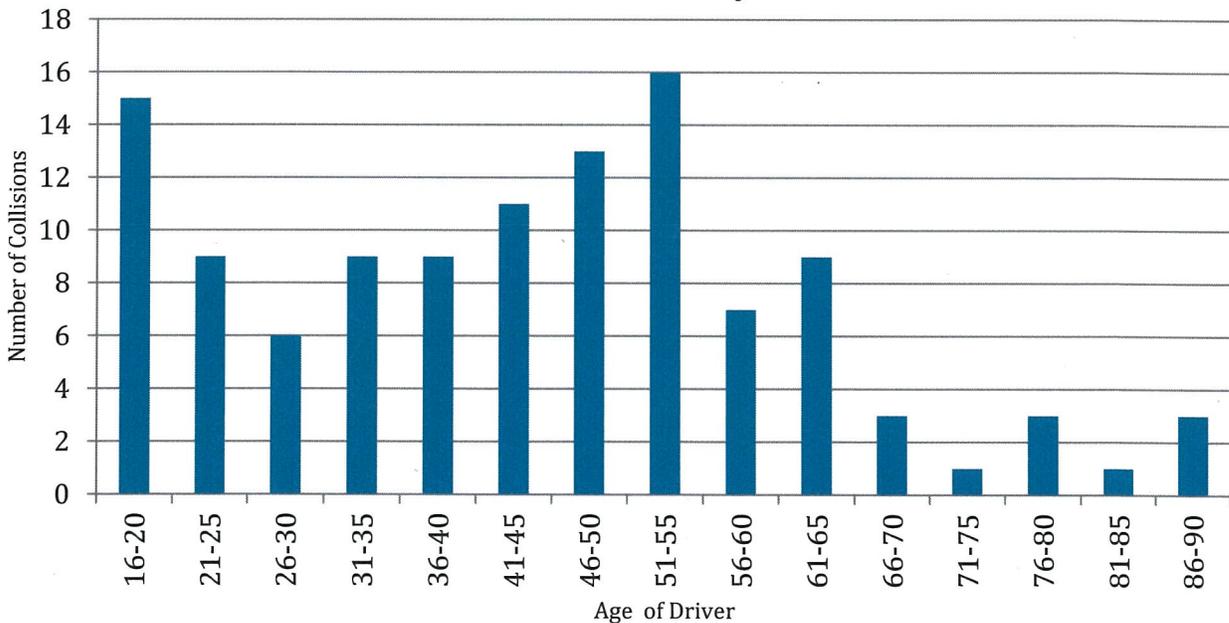


CHART 2: Age of Bicyclist in Collisions Involving Motor Vehicles

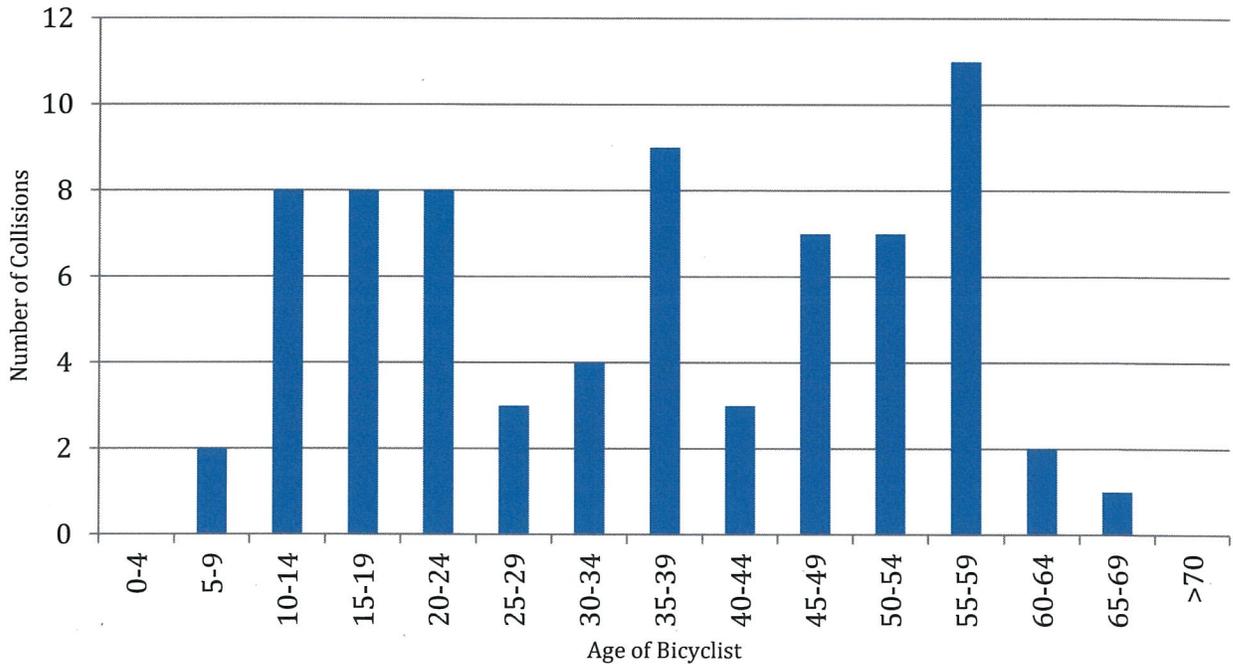
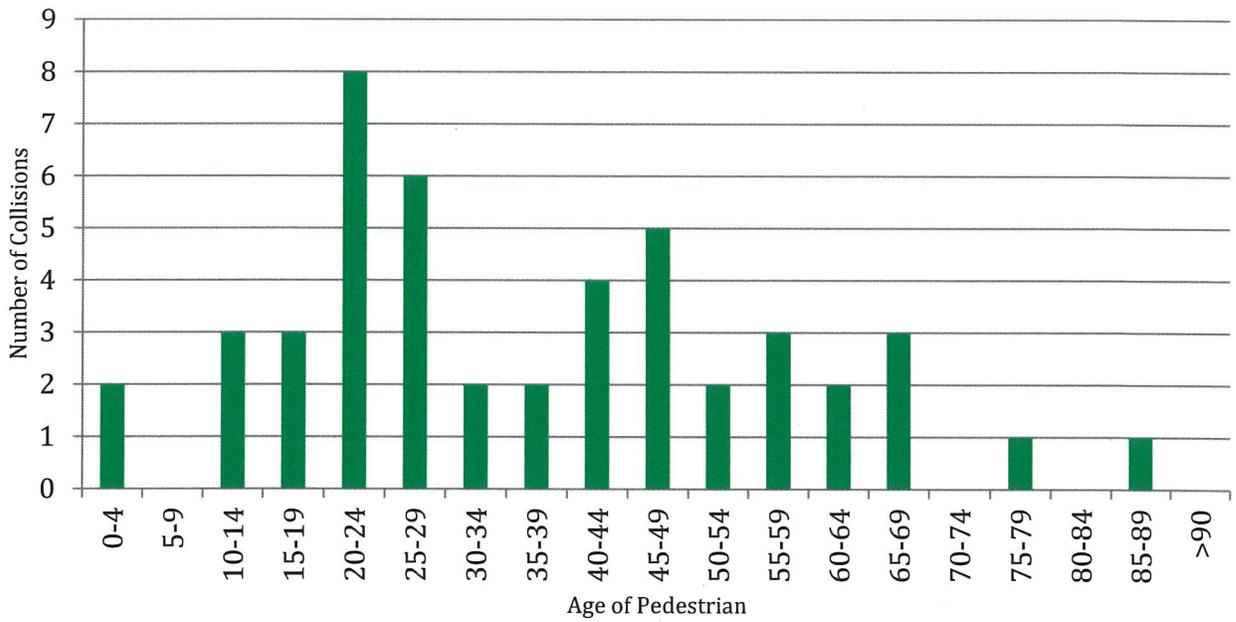
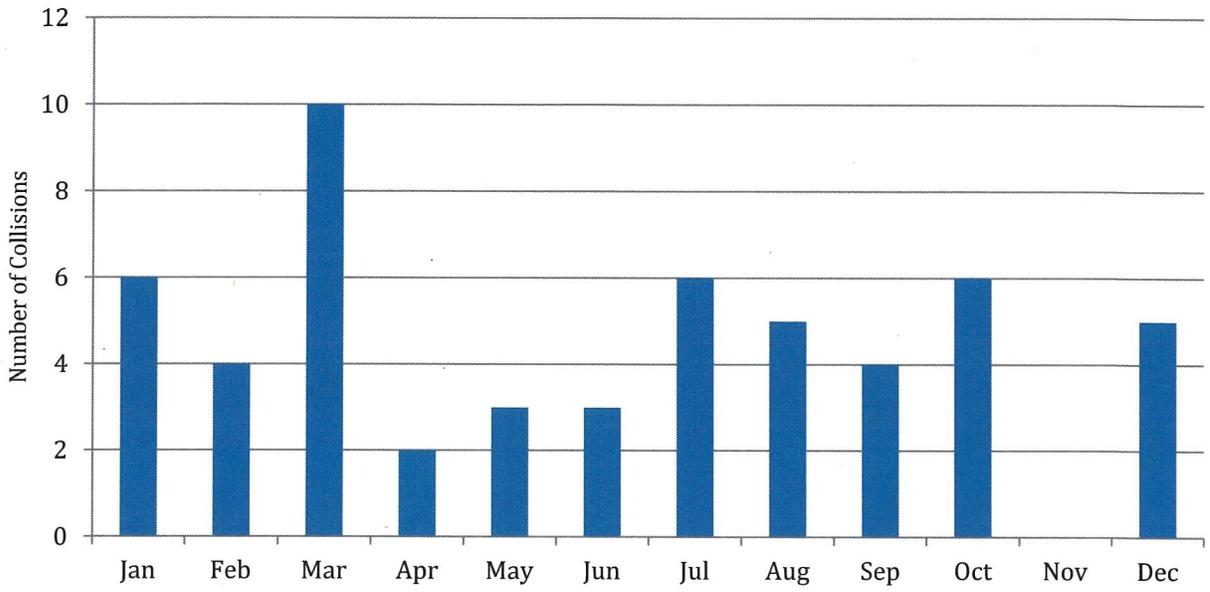


CHART 3: Age of Pedestrian in Collisions Involving Motor Vehicles

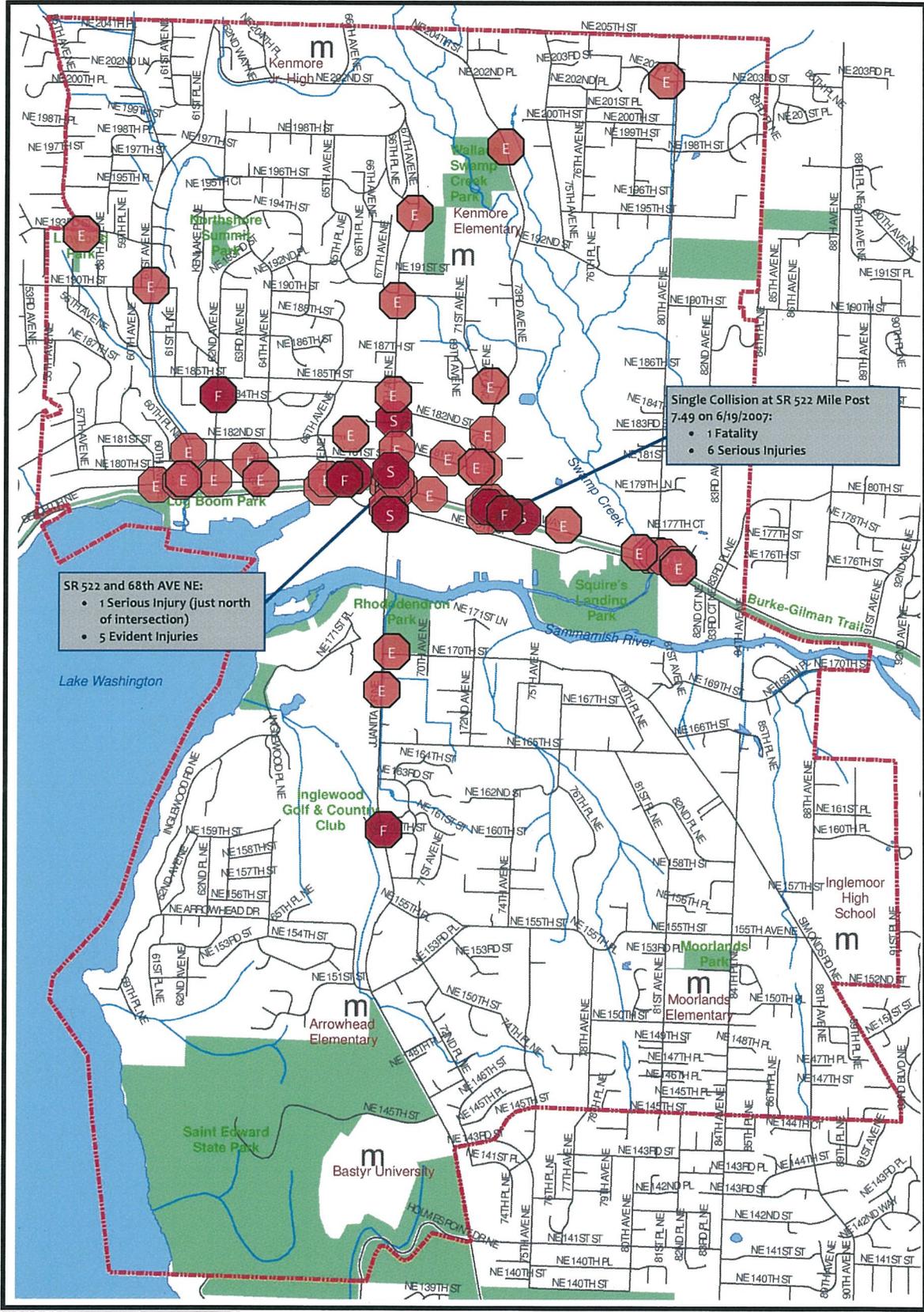


**CHART 4: Pedestrian Incidents by Month
(2001 - Mid-2014)**



APPENDIX B: Location of Pedestrian and Bicycle Collisions

Pedestrian v. Vehicle Collisions in Kenmore (2001 to Mid-2014)



SR 522 and 68th AVE NE:
 • 1 Serious Injury (just north of intersection)
 • 5 Evident Injuries

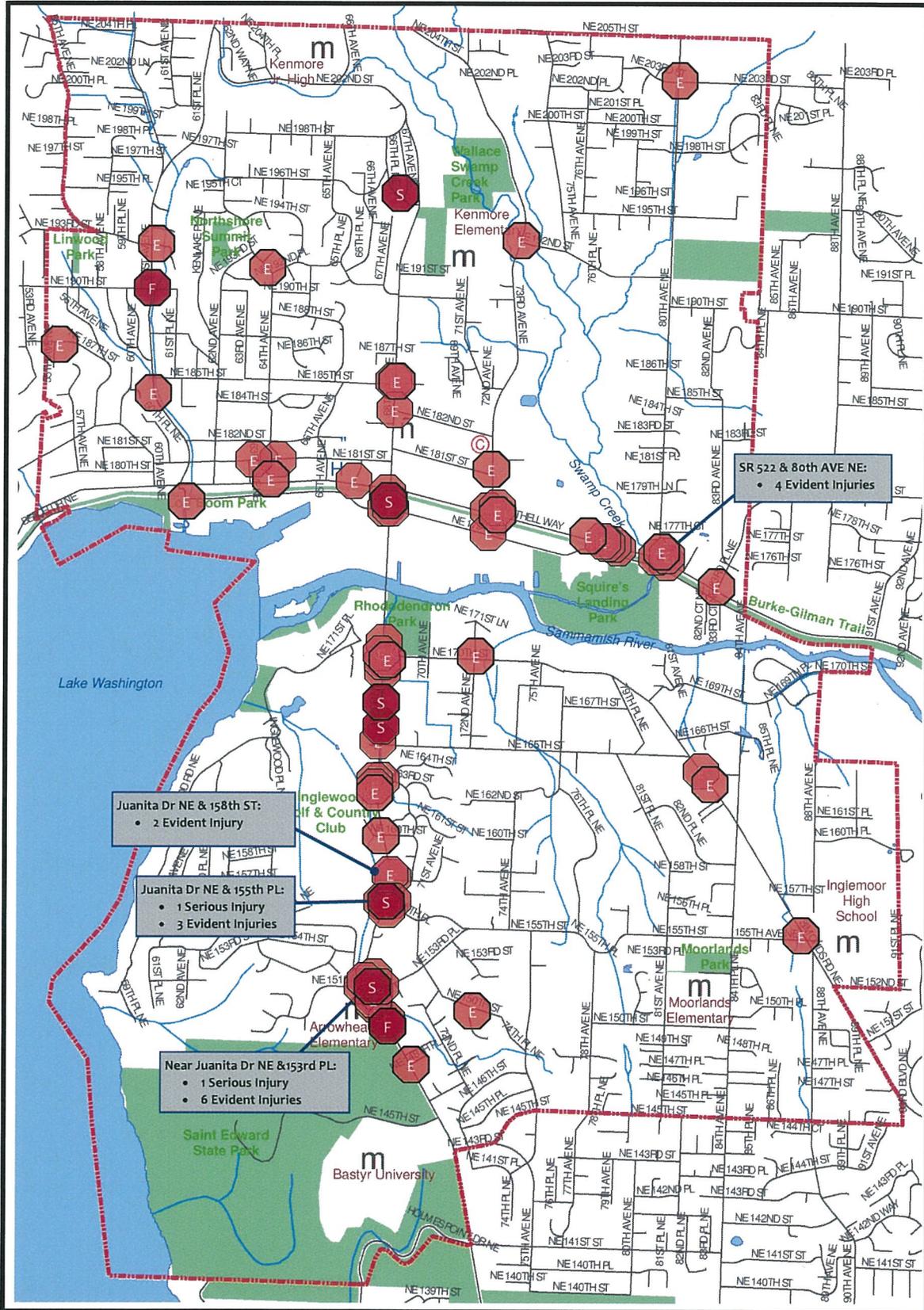
Single Collision at SR 522 Mile Post 7.49 on 6/19/2007:
 • 1 Fatality
 • 6 Serious Injuries

- Fatality
- Serious Injury
- Evident or Possible Injury

Note: The above locations are approximations. Accidents that occurred mid-block may be less accurately represented. Each injury is represented by the most severe injury type recorded in the police report. No Injury or Unknown injuries are excluded.

Data Source: WSDOT Collision Data.

Bicycle v. Vehicle Collisions in Kenmore (2001 to Mid-2014)



- Fatality
- Serious Injury
- Evident or Possible Injury

Note: The above locations are approximations. Accidents that occurred mid-block may be less accurately represented. Each injury is represented by the most severe injury type recorded in the police report. No Injury or Unknown injuries are excluded.

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