Bicycle and Pedestrian Collision Data
Torrance

Purpose of Study

This study is an information tool which South Bay cities can utilize to improve street safety. The study reports collision data so it can easily be viewed and accessed in one document. We hope this information and data will bring awareness and insights that can inform decision-making. Ultimately, this study looks to make our community safer for pedestrians and bicyclists.

Overview

This study analyzes collisions in Torrance relative to ten other South Bay cities (Carson, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Manhattan Beach, Palos Verdes Estates, and Redondo Beach). Data for Lomita, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates is not available in records noted below - further research is in work for these cities.

The study focuses on the following data sets: 1. Pedestrian victims due to vehicle collision. 2. Bicyclist victims due to vehicle collision. This data is summarized year-over-year, geographically, by intersection, and with respect to other South Bay cities.

Methodology

Records of collisions involving pedestrians and bicyclists were taken from the California Statewide Integrated Traffic Records System (SWITRS), accessed via the Transportation Injury Mapping System (TIMS)[1]. A query was entered into TIMS to identify collisions involving pedestrians from January 1 2018, through December 31, 2022, in Torrance. The same search was made for bicycle victims involved in collisions. TIMS also provides the heatmaps and intersection rankings used in this report. The top ranked intersections by number of bicycle or pedestrian collisions were aggregated using a 150 ft search distance. Unless otherwise noted, collision counts refer to the raw count from 2018-2022. Population-adjusted metrics are also provided using the historical E-4 population estimates from the California Department of Finance[2].
Collisions are coded in severity in the following order based on SWITRS:

1. Fatal
2. Severe (injury)
3. Visible (injury)
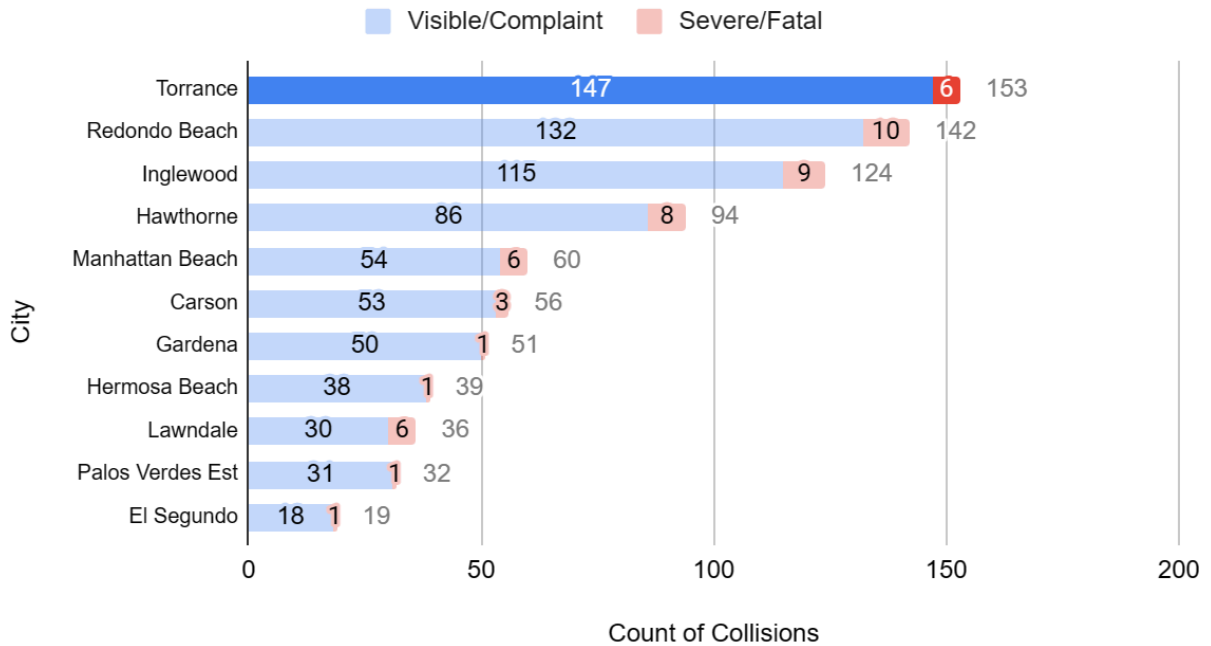4. Complaint (of pain)

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[1] https://tims.berkeley.edu/
[2] https://dof.ca.gov/Forecasting/Demographics/Estimates/

Bicycle Collision Data
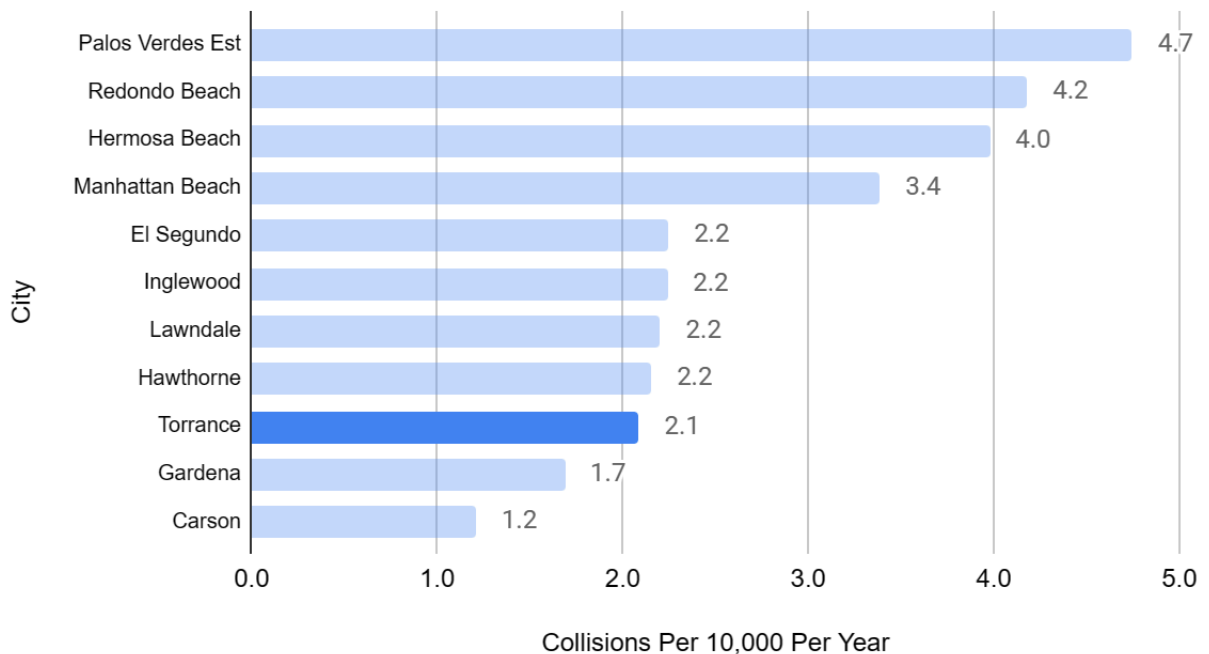
The chart below shows the total number of bicycle collisions between 2018-2022.
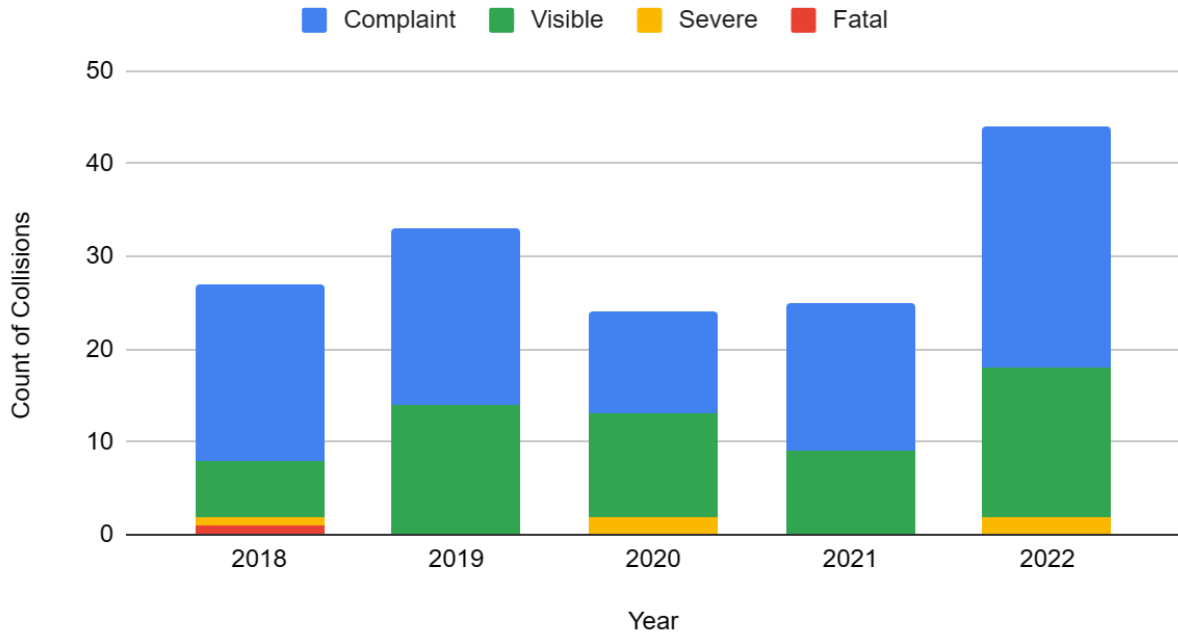
Total Bicycle Collisions, 2018-2022

Legend: Visible/Complaint | Severe/Fatal

City	Visible/Complaint	Severe/Fatal	Total
Torrance	147	6	153
Redondo Beach	132	10	142
Inglewood	115	9	124
Hawthorne	86	8	94
Manhattan Beach	54	6	60
Carson	53	3	56
Gardena	50	1	51
Hermosa Beach	38	1	39
Lawndale	30	6	36
Palos Verdes Est	31	1	32
El Segundo	18	1	19

Count of Collisions

The chart below shows the average bicycle collision rate between 2018-2022, adjusted for population.

Bicycle Collision Rate, 2018-2022

| City	Collisions Per 10,000 Per Year
Palos Verdes Est	4.7
Redondo Beach	4.2
Hermosa Beach	4.0
Manhattan Beach	3.4
El Segundo	2.2
Inglewood	2.2
Lawndale	2.2
Hawthorne	2.2
Torrance	2.1
Gardena	1.7
Carson	1.2

Collisions Per 10,000 Per Year

To understand this trend on a year-to-year basis, the absolute number of bicycle collisions in Torrance for each year is plotted below.

Bicycle Collision History: Torrance

Legend: Complaint, Visible, Severe, Fatal

A stacked bar chart showing the count of bicycle collisions by year (2018–2022), broken down by severity: Complaint (blue), Visible (green), Severe (yellow), and Fatal (red). The y-axis is "Count of Collisions" ranging from 0 to 50, and the x-axis is "Year."

- 2018: total ~27
- 2019: total ~33
- 2020: total ~24
- 2021: total ~25
- 2022: total ~44

The heatmap below shows where bicycle collisions between are most common in Torrance from 2018-2022. For context, the largest circle represents 4 collisions in this period.
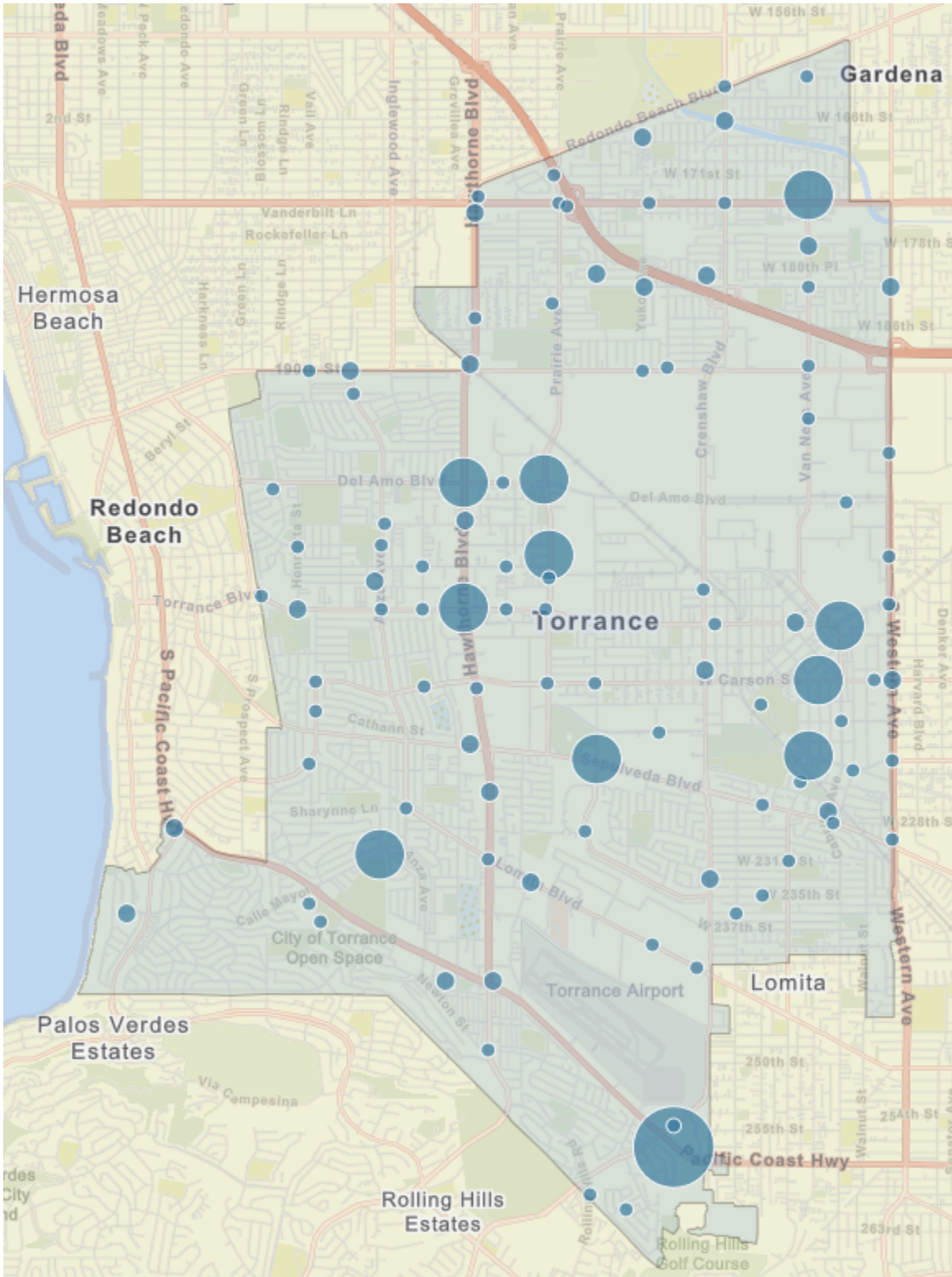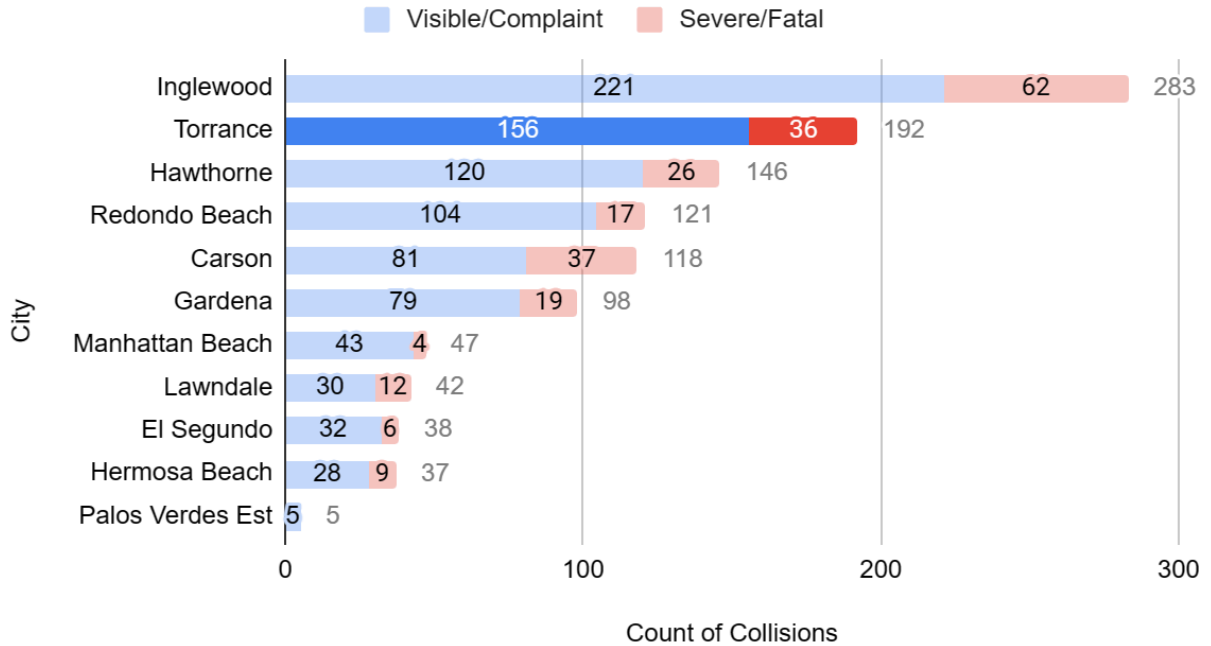
The table below shows the top ranked intersections in Torrance for bicycle collisions.

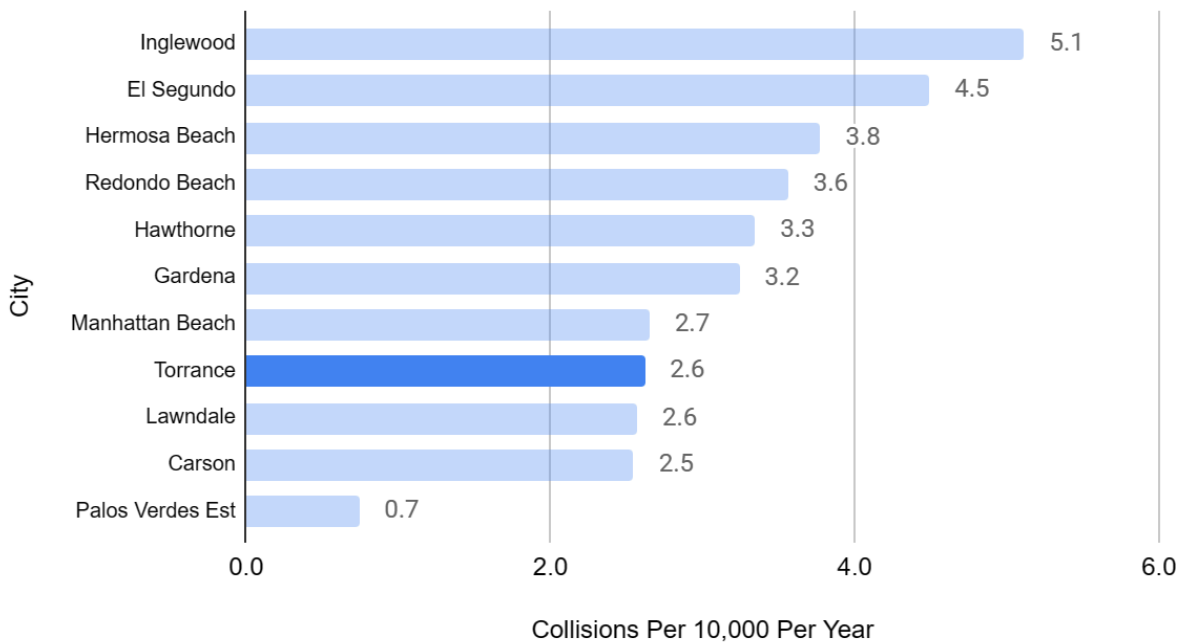| Rank	Intersection	# of Collisions
1	DEL AMO BLVD & HAWTHORNE BLVD	3
1	MADRONA AVE & ONYX ST	3
2	178TH ST & VAN NESS AVE	2
2	182ND ST & YUKON AVE	2
2	190TH ST & ANZA AVE	2
2	ARLINGTON AVE & CARSON ST	2
2	ARTESIA BLVD & VAN NESS AVE	2
2	DEL AMO BLVD & PRAIRIE AVE	2
2	HENRIETTA ST & TORRANCE BLVD	2
2	MAPLE AVE & SEPULVEDA BLVD	2

Pedestrian Collision Data

The chart below shows the total number of pedestrian collisions between 2018-2022.
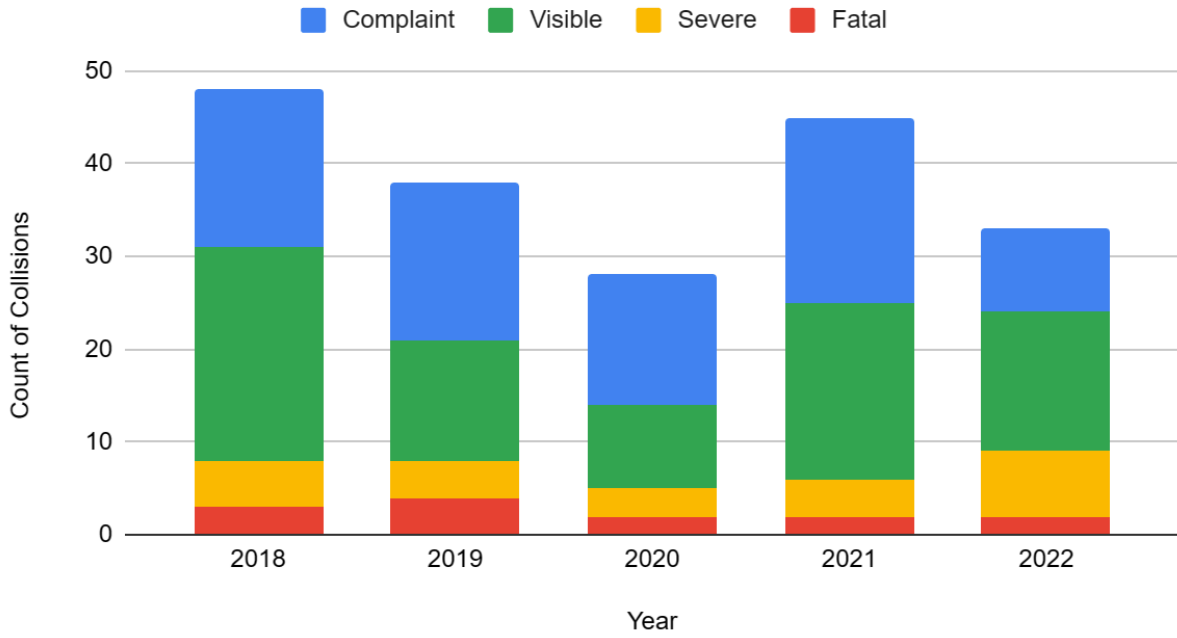
Total Pedestrian Collisions, 2018-2022

Visible/Complaint Severe/Fatal

City	Visible/Complaint	Severe/Fatal	Total
Inglewood	221	62	283
Torrance	156	36	192
Hawthorne	120	26	146
Redondo Beach	104	17	121
Carson	81	37	118
Gardena	79	19	98
Manhattan Beach	43	4	47
Lawndale	30	12	42
El Segundo	32	6	38
Hermosa Beach	28	9	37
Palos Verdes Est	5		5

Count of Collisions

The chart below shows the average pedestrian collision rate from 2018-2022, adjusted for population.

Pedestrian Collision Rate, 2018-2022

| City	Collisions Per 10,000 Per Year
Inglewood	5.1
El Segundo	4.5
Hermosa Beach	3.8
Redondo Beach	3.6
Hawthorne	3.3
Gardena	3.2
Manhattan Beach	2.7
Torrance	2.6
Lawndale	2.6
Carson	2.5
Palos Verdes Est	0.7

Collisions Per 10,000 Per Year

To understand this trend on a year-to-year basis, the absolute number of pedestrian collisions in Torrance for each year is plotted below.

Pedestrian Collision History: Torrance

Legend: Complaint (blue), Visible (green), Severe (yellow), Fatal (red)

Y-axis: Count of Collisions (0 to 50)
X-axis: Year (2018, 2019, 2020, 2021, 2022)

The heatmap below shows where pedestrian collisions between are most common in Torrance from 2018-2022. For context, the largest circle represents 8 collisions in this period.
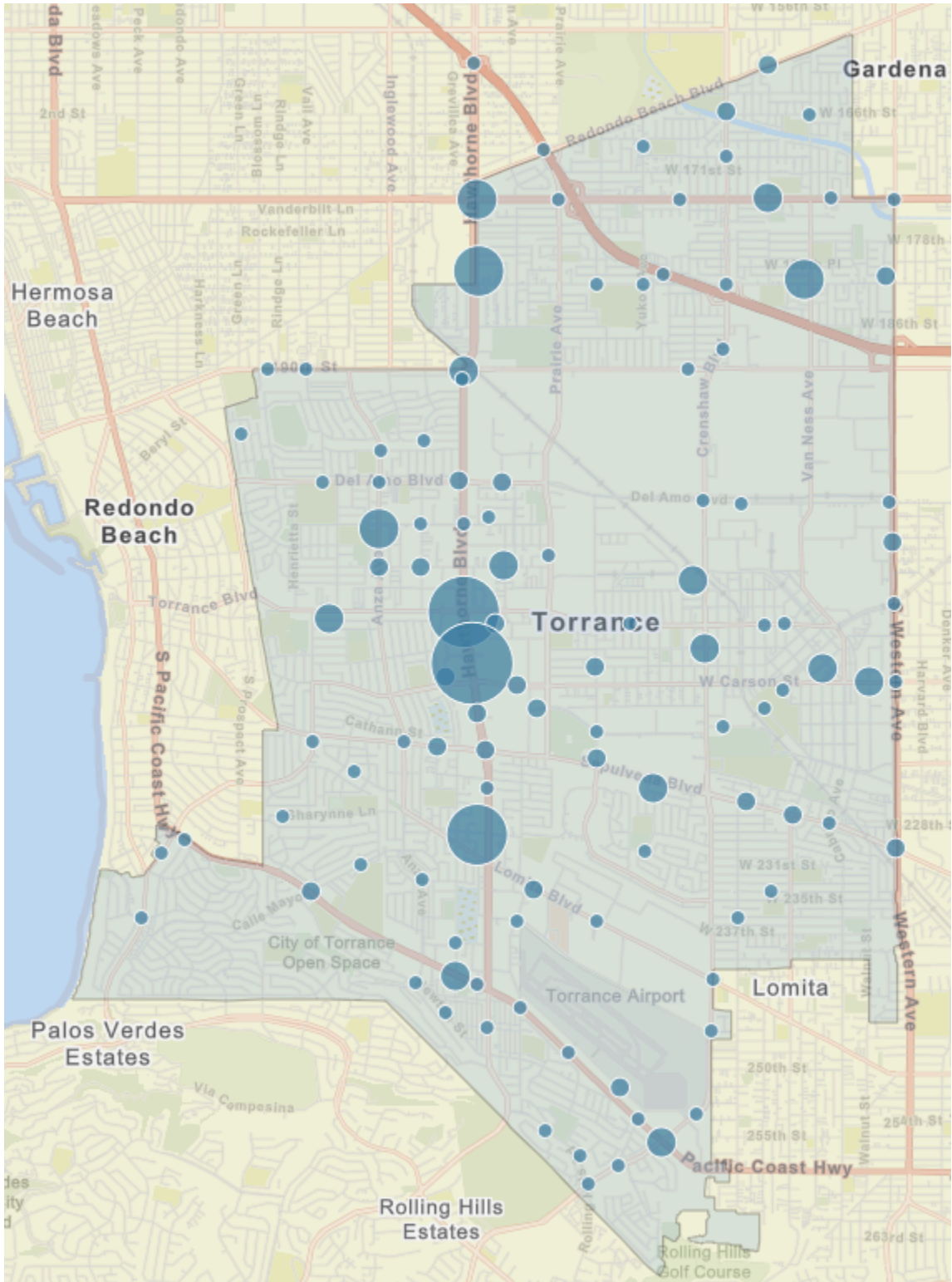
The table below shows the top ranked intersections in Torrance for pedestrian collisions.

Rank	Intersection	# of Collisions
1	230TH ST & HAWTHORNE BLVD	4
1	ARTESIA BLVD & HAWTHORNE BLVD	4
1	DEL AMO CIR W & HAWTHORNE BLVD	4
2	180TH ST & HAWTHORNE BLVD	3
2	190TH ST & HAWTHORNE BLVD	3
2	ABALONE AVE & CARSON ST	3
2	ANZA AVE & SPENCER ST	3
2	CARSON ST & HAWTHORNE BLVD	3
2	CRENSHAW BLVD & PACIFIC COAST HWY	3
2	CRENSHAW BLVD & EL DORADO ST	3

Conclusions

Summary: Torrance	Bicycle		Pedestrian	
Metric	*Value*	*Rank*	*Value*	*Rank*
Total Collisions from 2018-2022	153	1	192	2
Average Collisions per Year	30.6		38.4	
Collision Rate (per 10,000 pop.)	2.1	9	2.6	8

Torrance ranks 1st across the studied South Bay cities for bicycle collisions, and 2nd for pedestrian collisions. Due to its large population, Torrance has lower population-adjusted collision rates. Torrance has had at least two fatal pedestrian collisions every year since the beginning of the available data (2012). Hawthorne Blvd and Madrona Ave have some of the highest collision rates in Torrance.

A few caveats should be understood with the summary of this data. The SWITRS data is compiled from police reports, meaning that close calls or unsafe acts that don't result in police assistance and investigation are not represented in this data. Additionally, some regions may have reduced bicycle or pedestrian traffic and therefore collisions based on an individual's risk tolerance as it pertains to the safety of the as-built environment. Thus it is important to not only reactively focus on hot-spots but also to proactively build a complete and connected network of safe bicycle and pedestrian infrastructure (South Bay Bicycle Master Plan). Lastly, the collision data was population-adjusted to allow for a more clear comparison between cities, as a proxy for the relative amount of people walking or biking. It is understood that this is not a perfect metric for normalizing based on total time or distance spent walking or biking, but provides normalization for the general size of cities.

South Bay Bicycle Coalition Plus Walking welcomes any questions, feedback, or additional sources of data to consider as part of this summary.