

Pulaski
County



Pulaski County

Comprehensive Plan 2030

Vehicle Crash Analysis



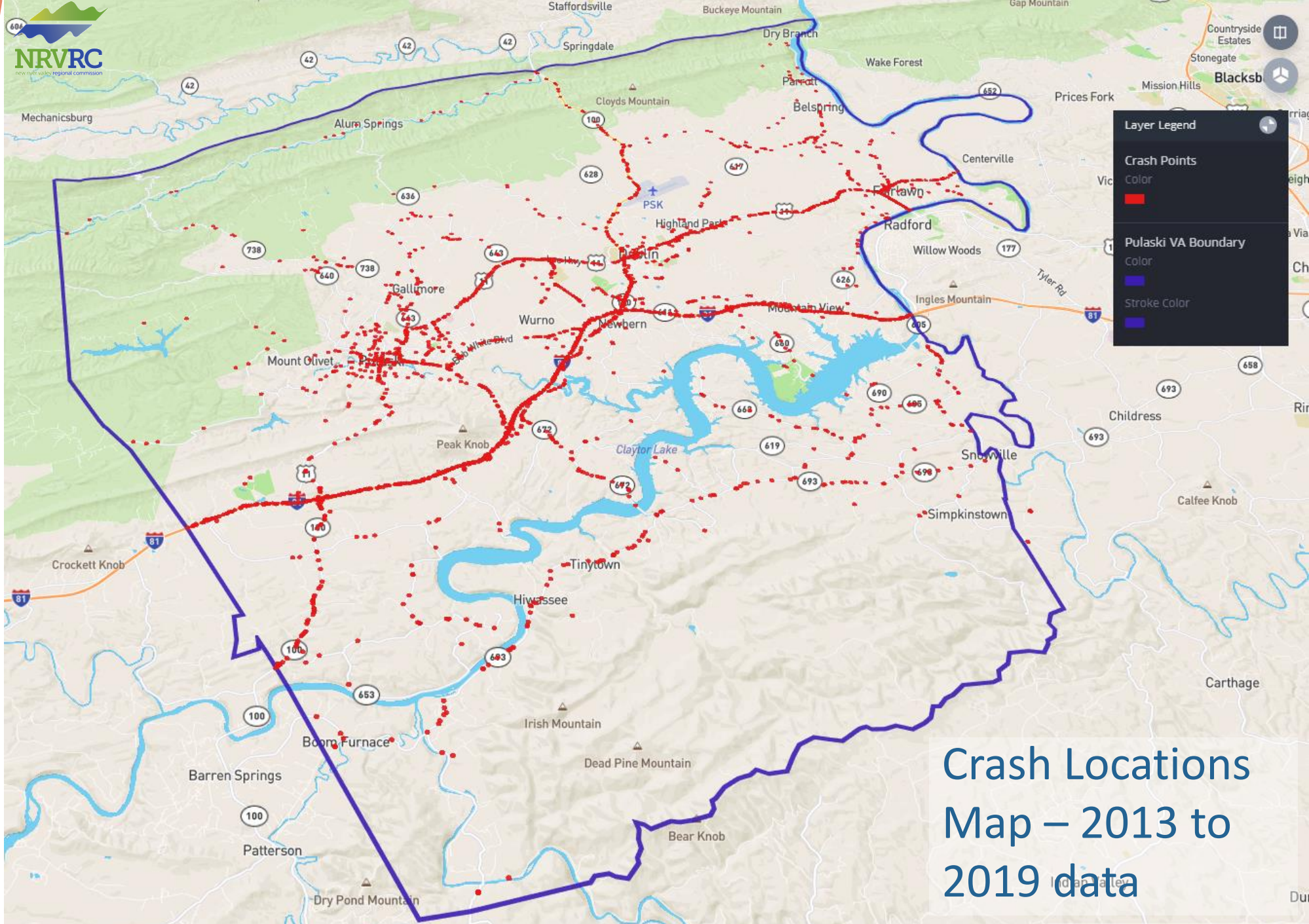
Overview

- ❖ **Vehicle Crash Analysis is useful to develop policies and strategies in the Transportation element of Comprehensive plan**
- ❖ **Vehicle crashes can have undesired impacts on individuals, families, community and the economy**
- ❖ **Understanding crash rates, trends, and hotspots can help in developing prevention measures.**
- ❖ **Reducing crash rates in highly traversed roads, employment locations, retail locations, etc., can improve quality of living and perception of the community.**
- ❖ **This analysis identifies trends and hotspots.**
- ❖ **This analysis does not identify causes and prevention solutions – this requires further studies.**

Data Source and Information

- ❖ **Crash Data downloaded from VDOT's Open Data Portal:**
 - ❖ http://www.virginiaroads.org/datasets/1c7c9f723d5947c19c0fc34aaa30ff2a_0
 - ❖ **Data Available from January 2013 to May 2019**
- ❖ **Metadata Information available at:**
 - ❖ <https://services.arcgis.com/p5v98VHDX9Atv3l7/arcgis/rest/services/VirginiaCrashes/FeatureServer/0>
- ❖ **Crash Severity Codes:**

Severity Code	Severity Description
A	Severe Injury
B	Visible Injury
C	Non-visible Injury
K	Fatal Injury
PDO	Property Damage Only

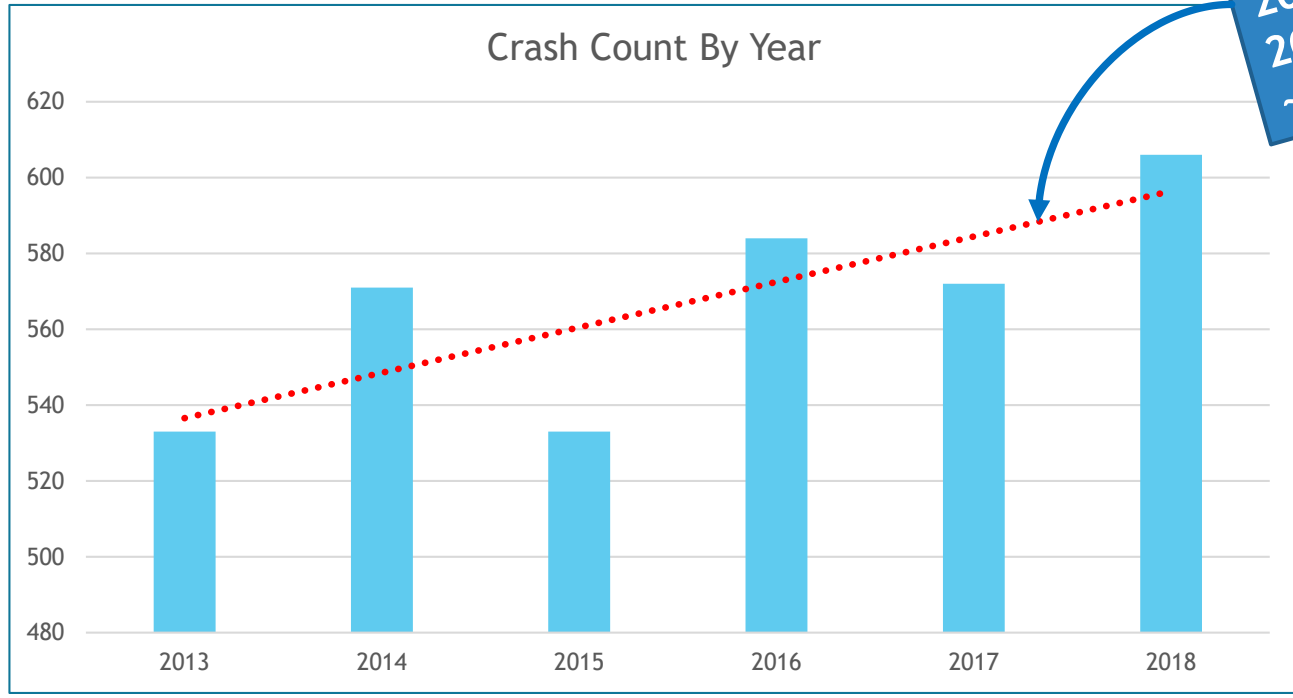


Layer Legend

- Crash Points**
Color: Red
- Pulaski VA Boundary**
Color: Blue
Stroke Color: Blue

Crash Locations Map – 2013 to 2019 data

Crashes Trend By Year

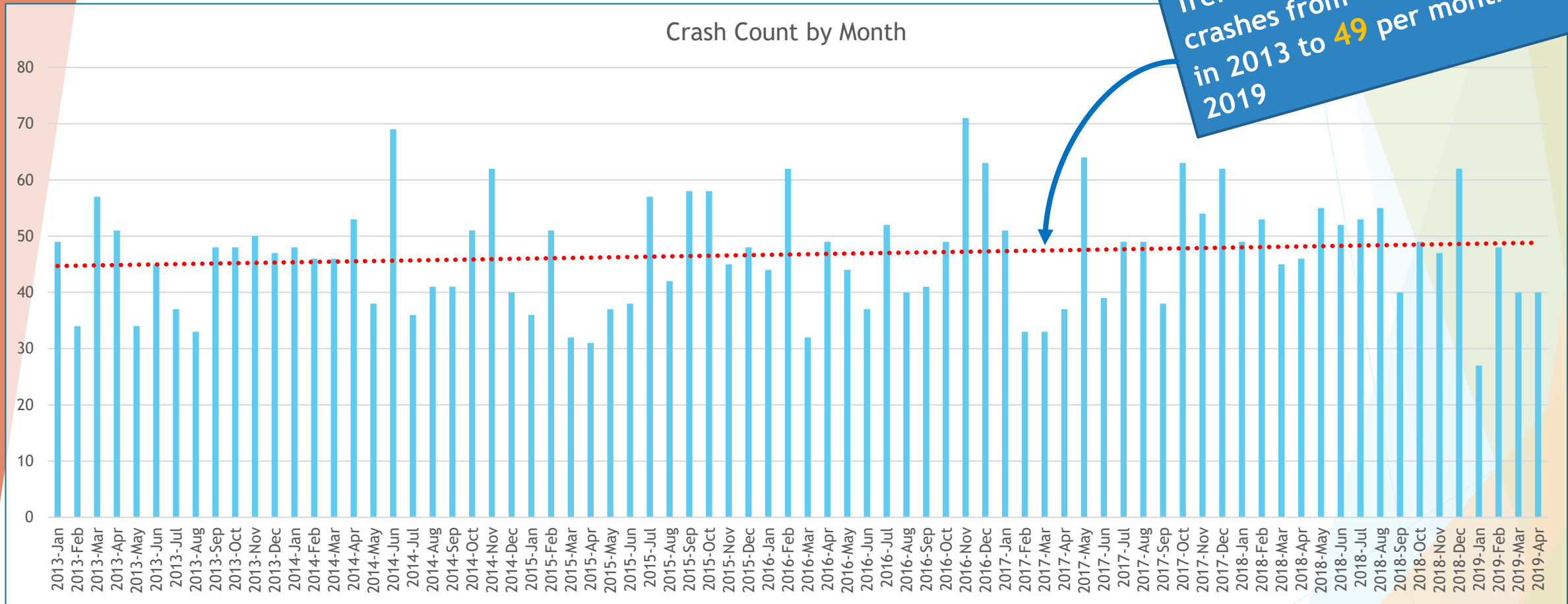


Trend shows increase in crashes from **533** per year in 2013 to **606** per year in 2018. The increase rate is ~12 crashes per year.

..... Trend Line (linear trend)

*Data includes all crashes, including Property Damages Only category.

Crashes Trend By Month

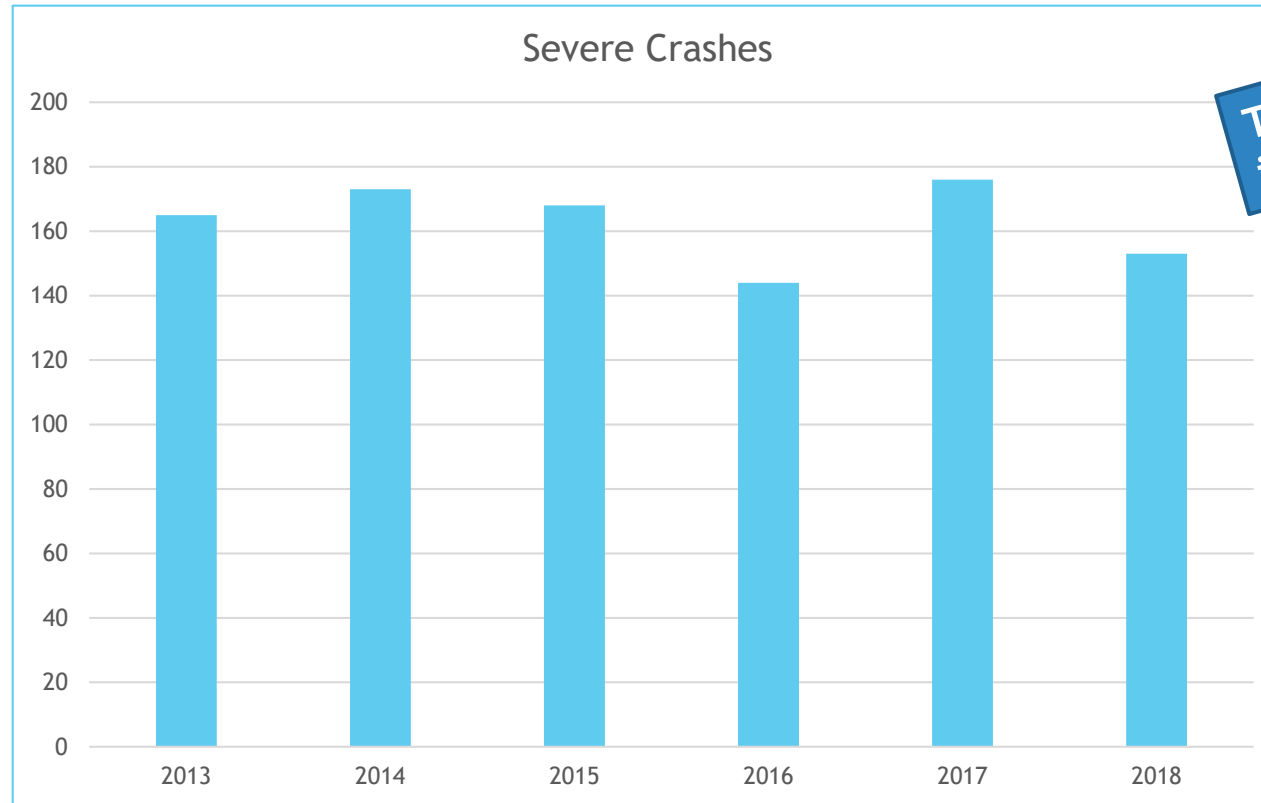


..... Trend Line (linear trend)

*Includes all crashes, including Property Damages Only category.

Severe Crashes By Year

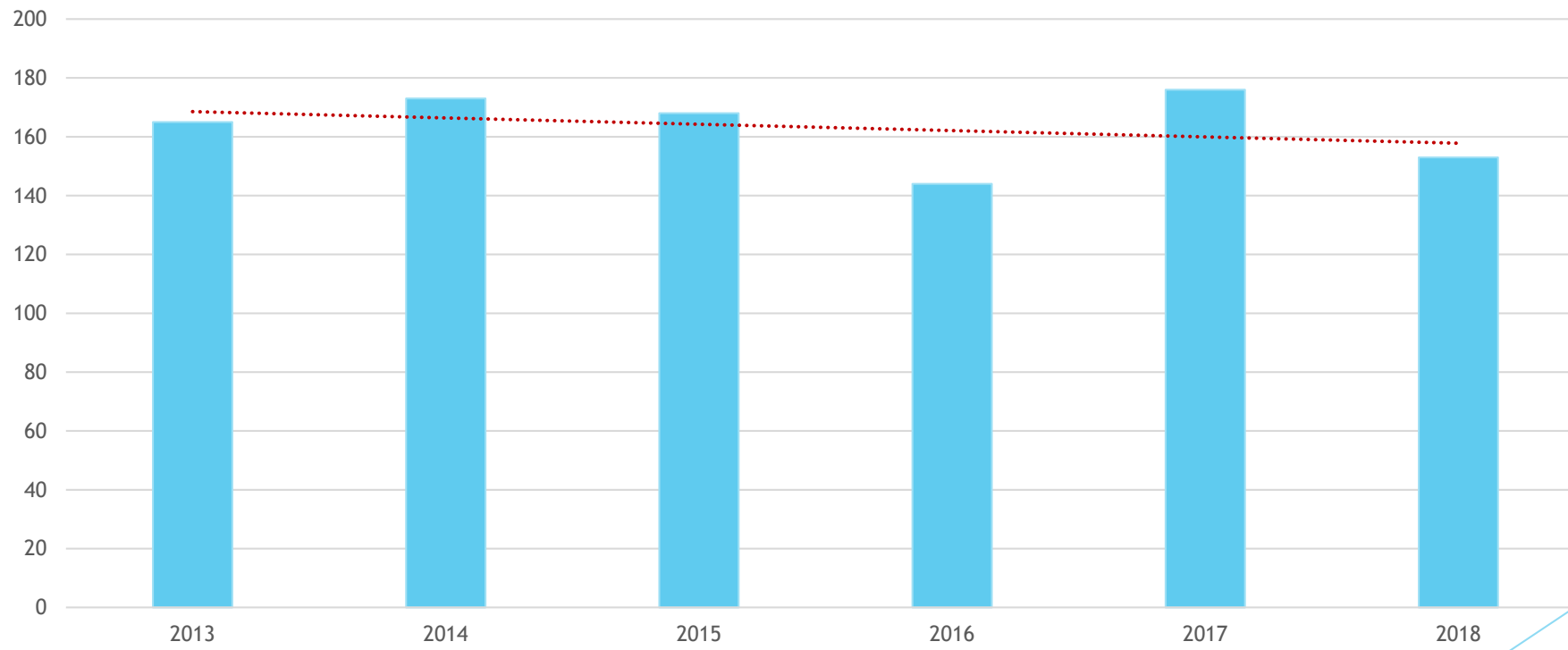
Year	Severe Crashes
2013	165
2014	173
2015	168
2016	144
2017	176
2018	153



There is no increasing trend in severe crashes.

*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Severe Crashes

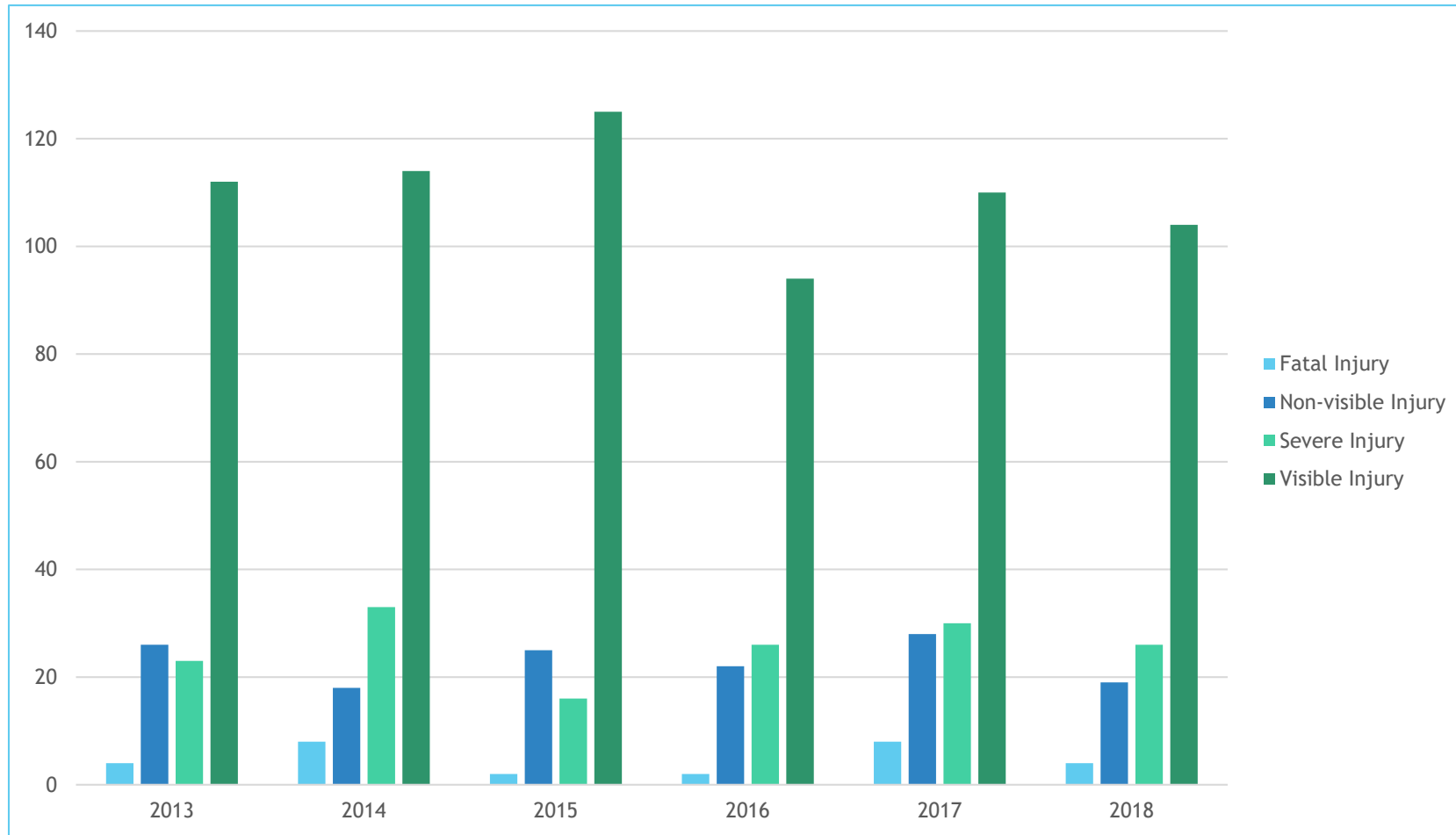


Crashes By Severity and Year - Table

Year	Fatal Injury	Non-visible Injury	Severe Injury	Visible Injury	Grand Total
2013	4	26	23	112	165
2014	8	18	33	114	173
2015	2	25	16	125	168
2016	2	22	26	94	144
2017	8	28	30	110	176
2018	4	19	26	104	153
Grand Total	28	138	154	659	979

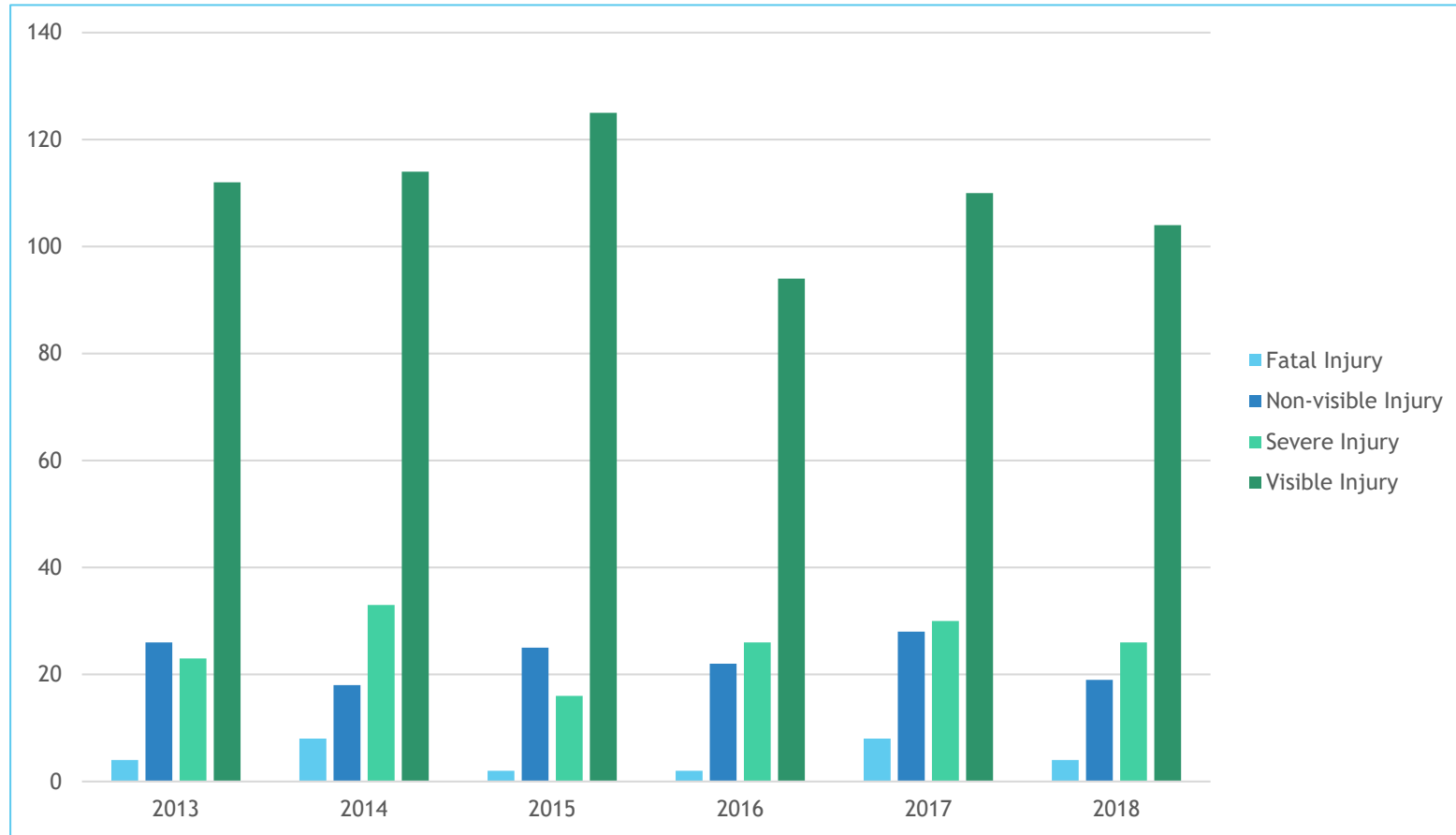
*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Crashes By Severity and Year - Chart



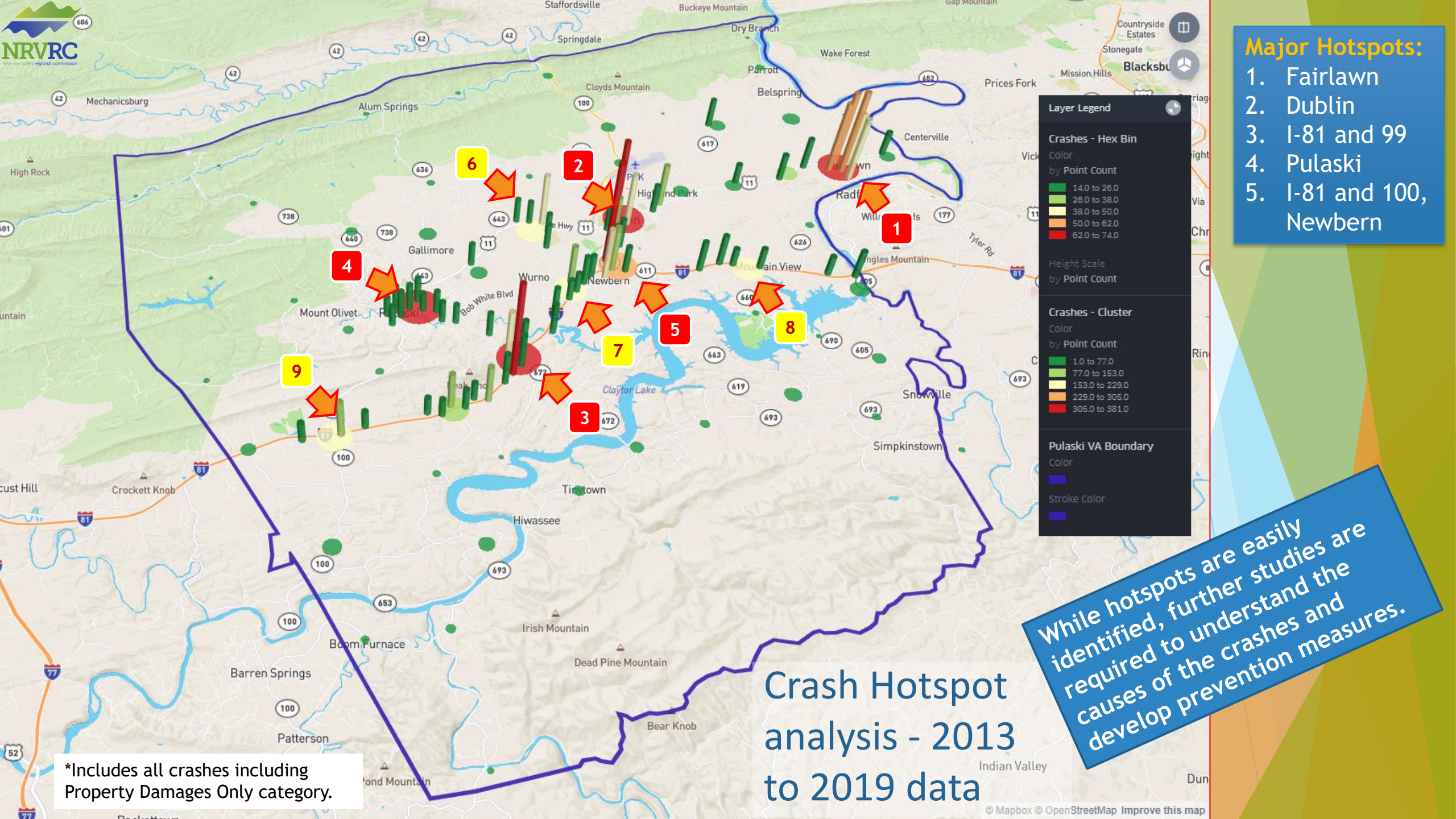
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Crashes By Severity and Year – Chart and Table



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*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.



- Major Hotspots:**
1. Fairlawn
 2. Dublin
 3. I-81 and 99
 4. Pulaski
 5. I-81 and 100, Newbern

Layer Legend

Crashes - Hex Bin

Color by Point Count

- 14.0 to 26.0
- 26.0 to 38.0
- 38.0 to 50.0
- 50.0 to 62.0
- 62.0 to 74.0

Height Scale by Point Count

Crashes - Cluster

Color by Point Count

- 1.0 to 77.0
- 77.0 to 153.0
- 153.0 to 229.0
- 229.0 to 305.0
- 305.0 to 381.0

Pulaski VA Boundary

Color: Purple

Stroke Color: Purple

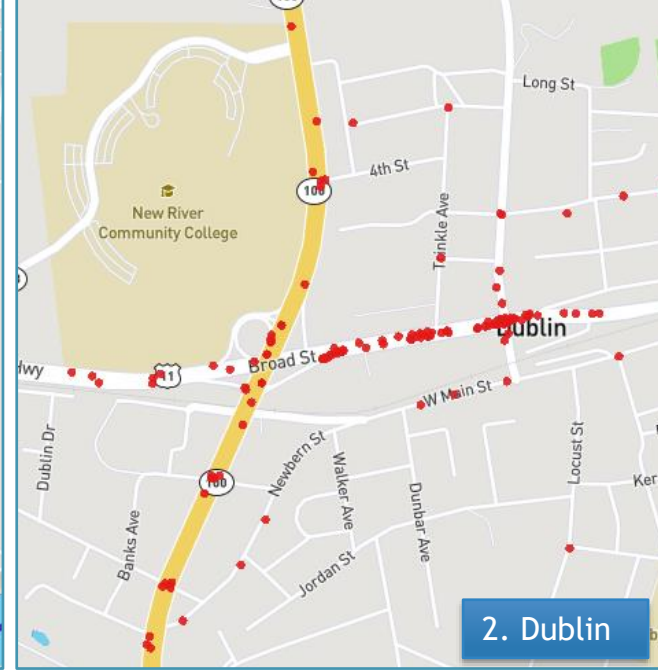
While hotspots are easily identified, further studies are required to understand the causes of the crashes and develop prevention measures.

Crash Hotspot analysis - 2013 to 2019 data

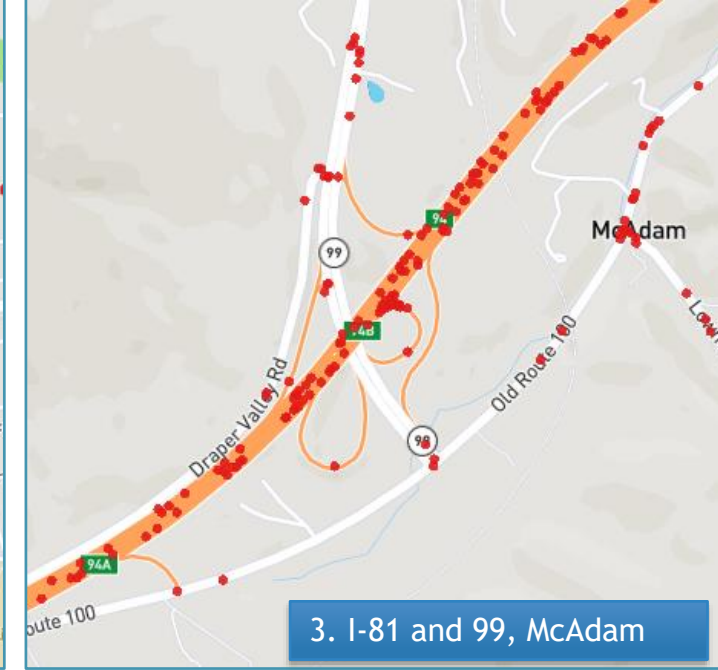
*Includes all crashes including Property Damages Only category.



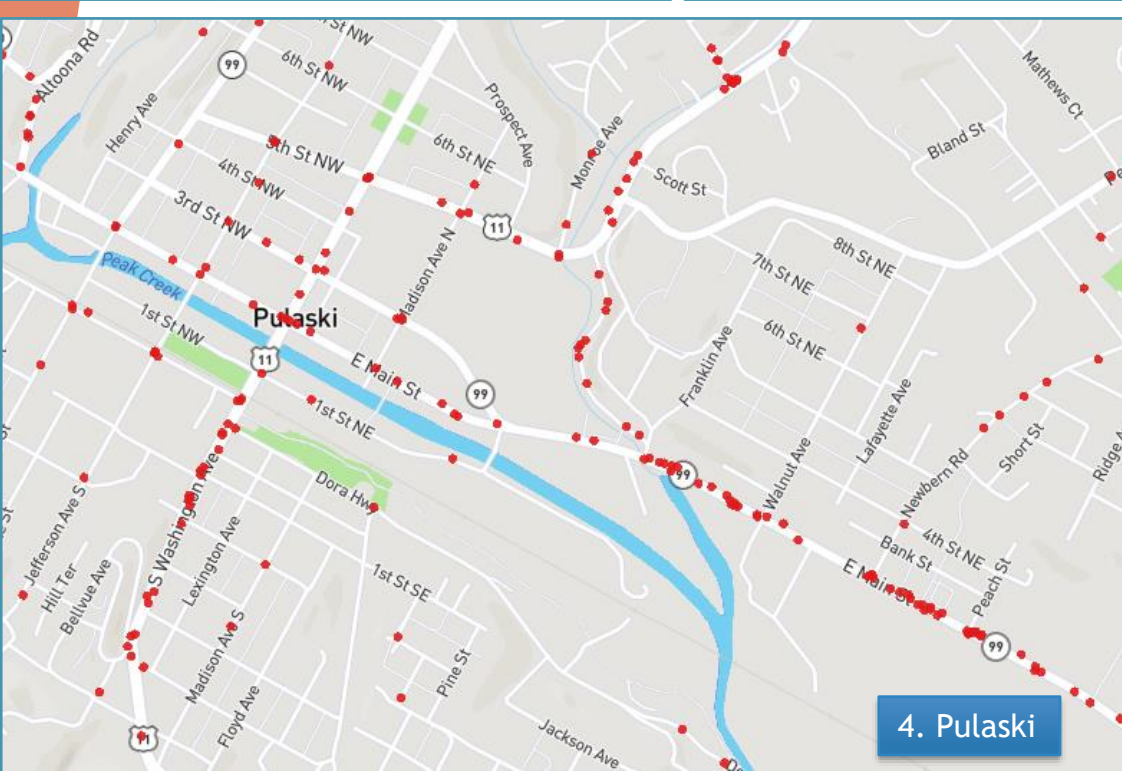
1. Fairlawn



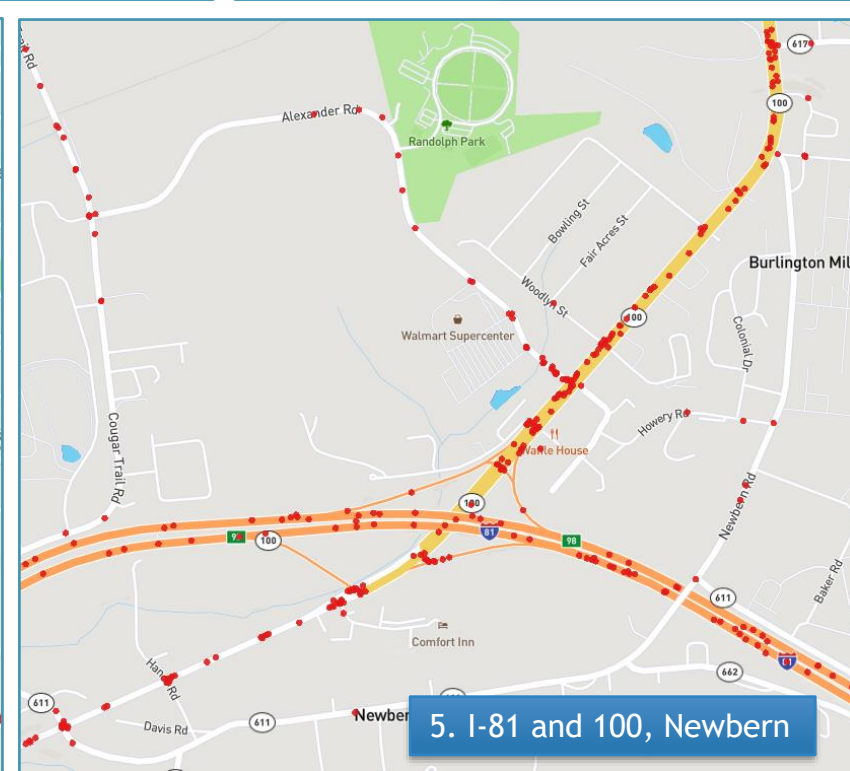
2. Dublin



3. I-81 and 99, McAdam



4. Pulaski

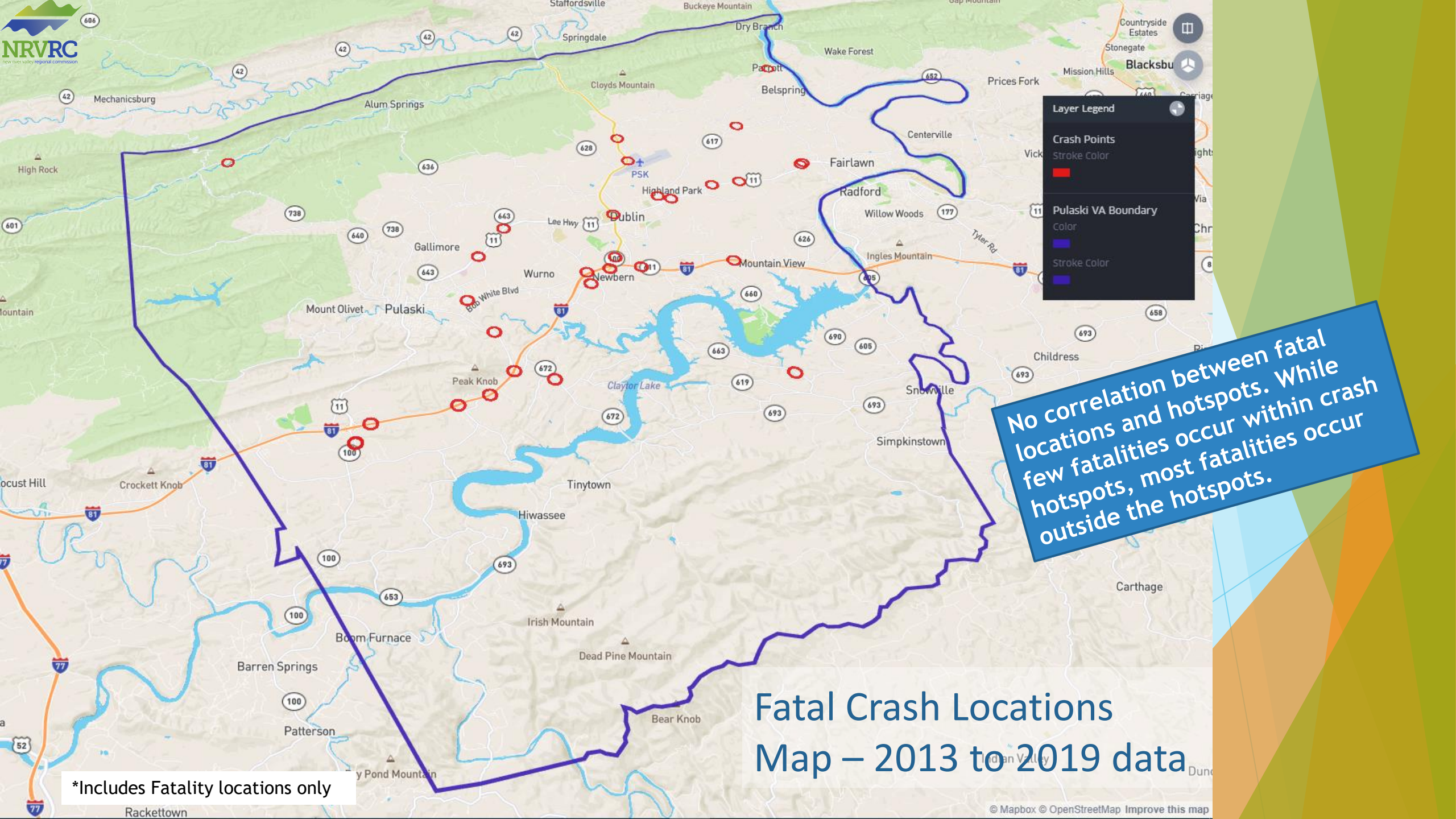


5. I-81 and 100, Newbern



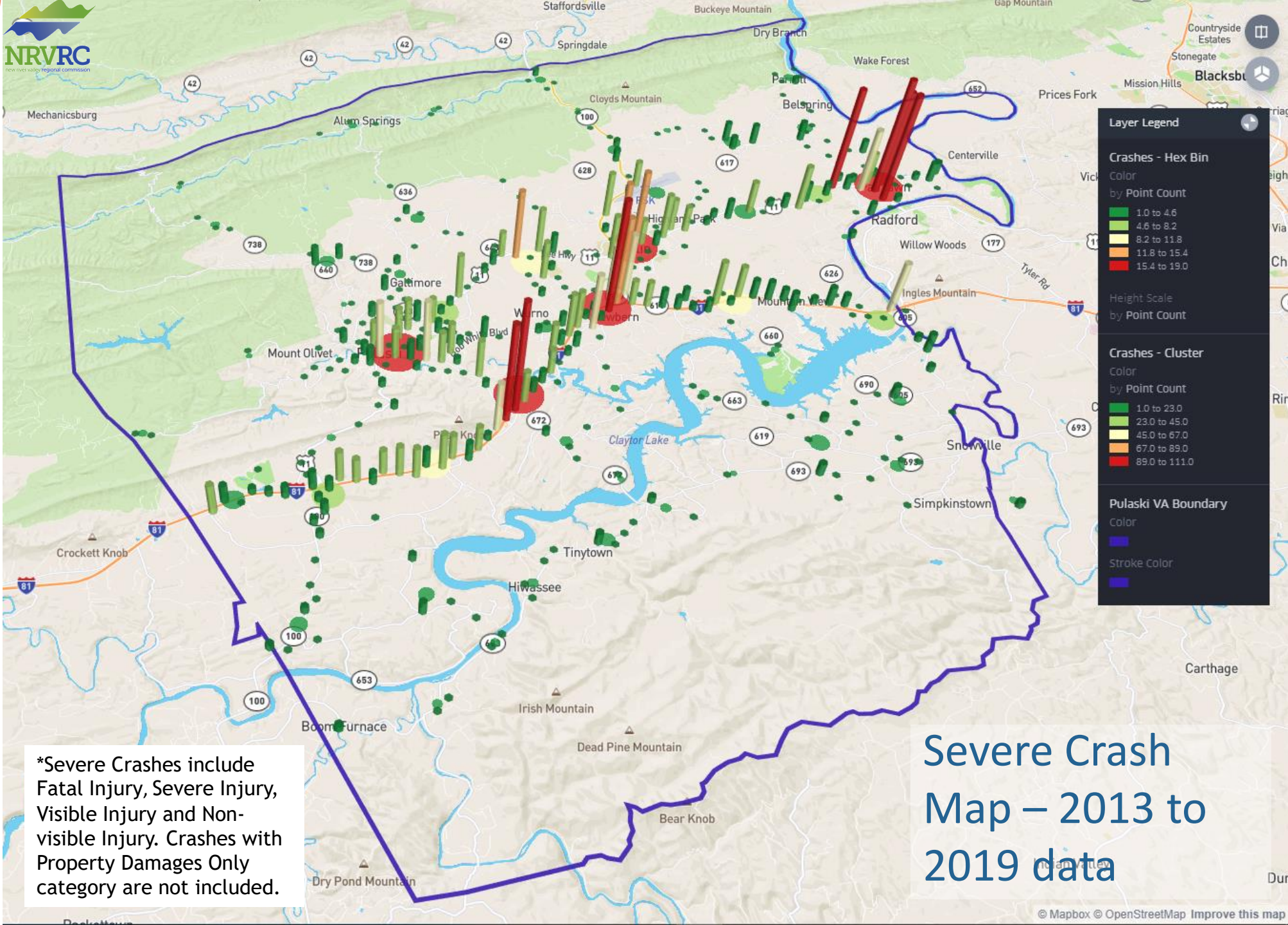
Major Hotspots – Crash Locations

*Includes all crashes including Property Damages Only category.



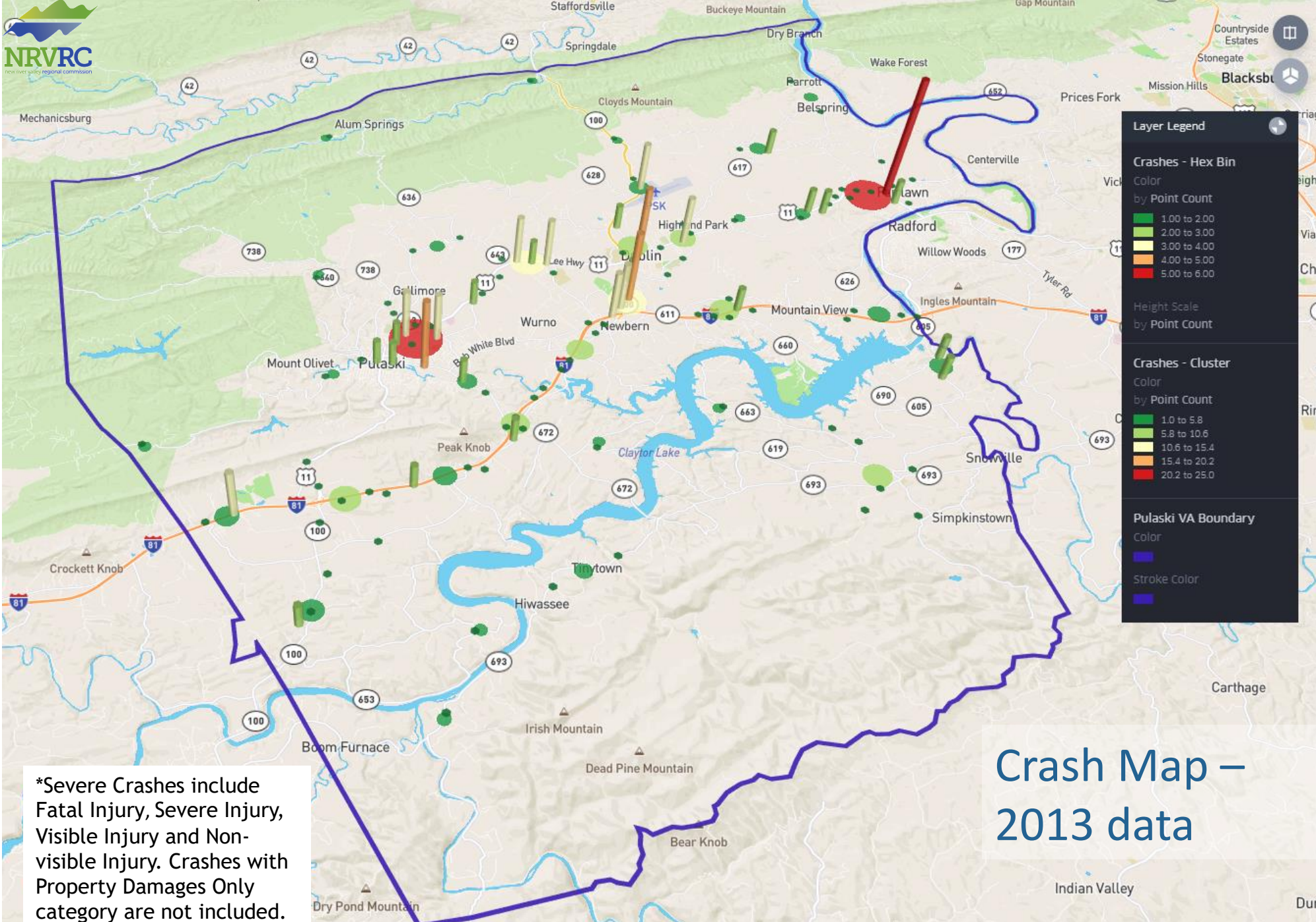
Fatal Crash Locations Map – 2013 to 2019 data

*Includes Fatality locations only



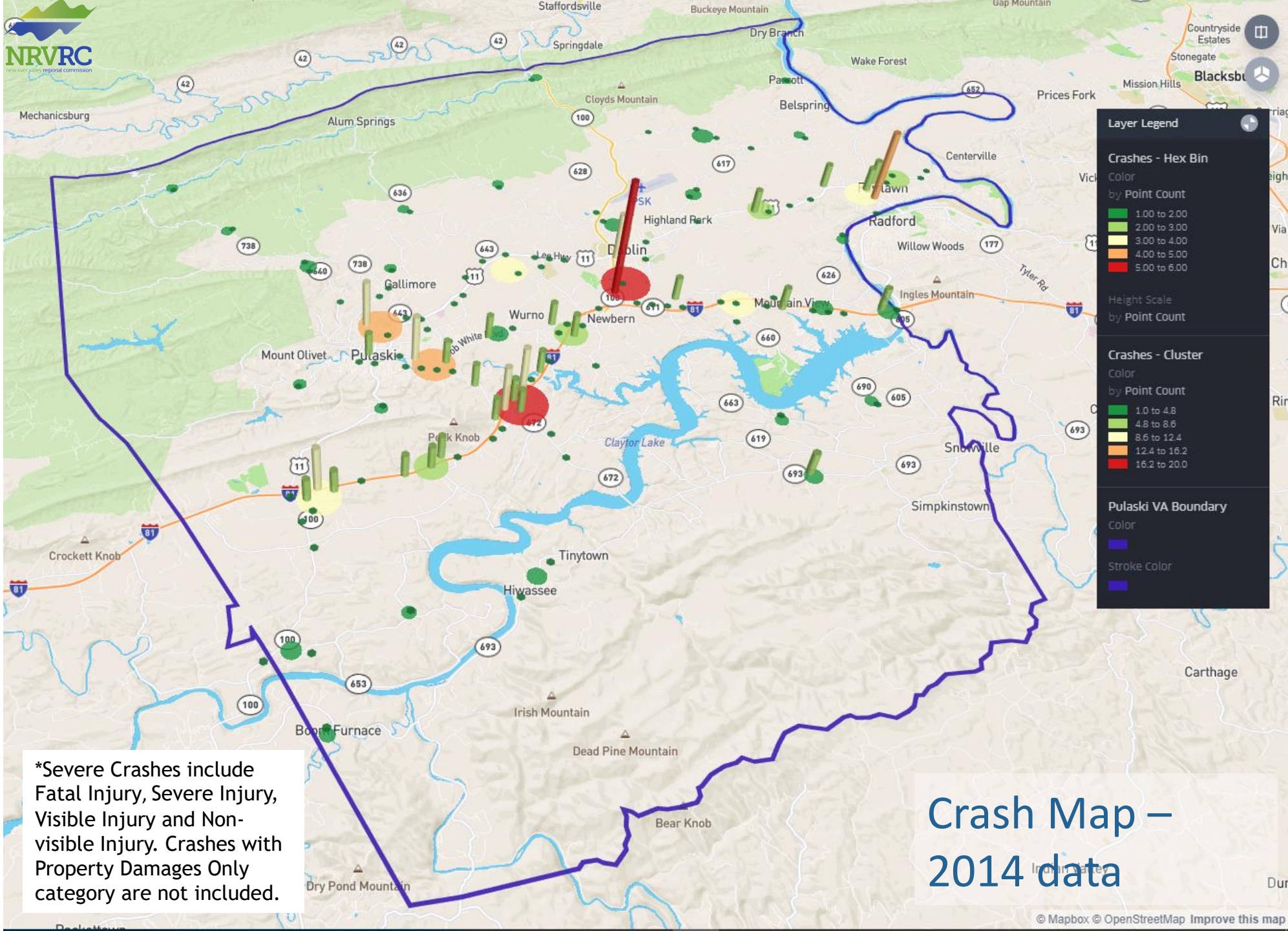
*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Severe Crash Map – 2013 to 2019 data



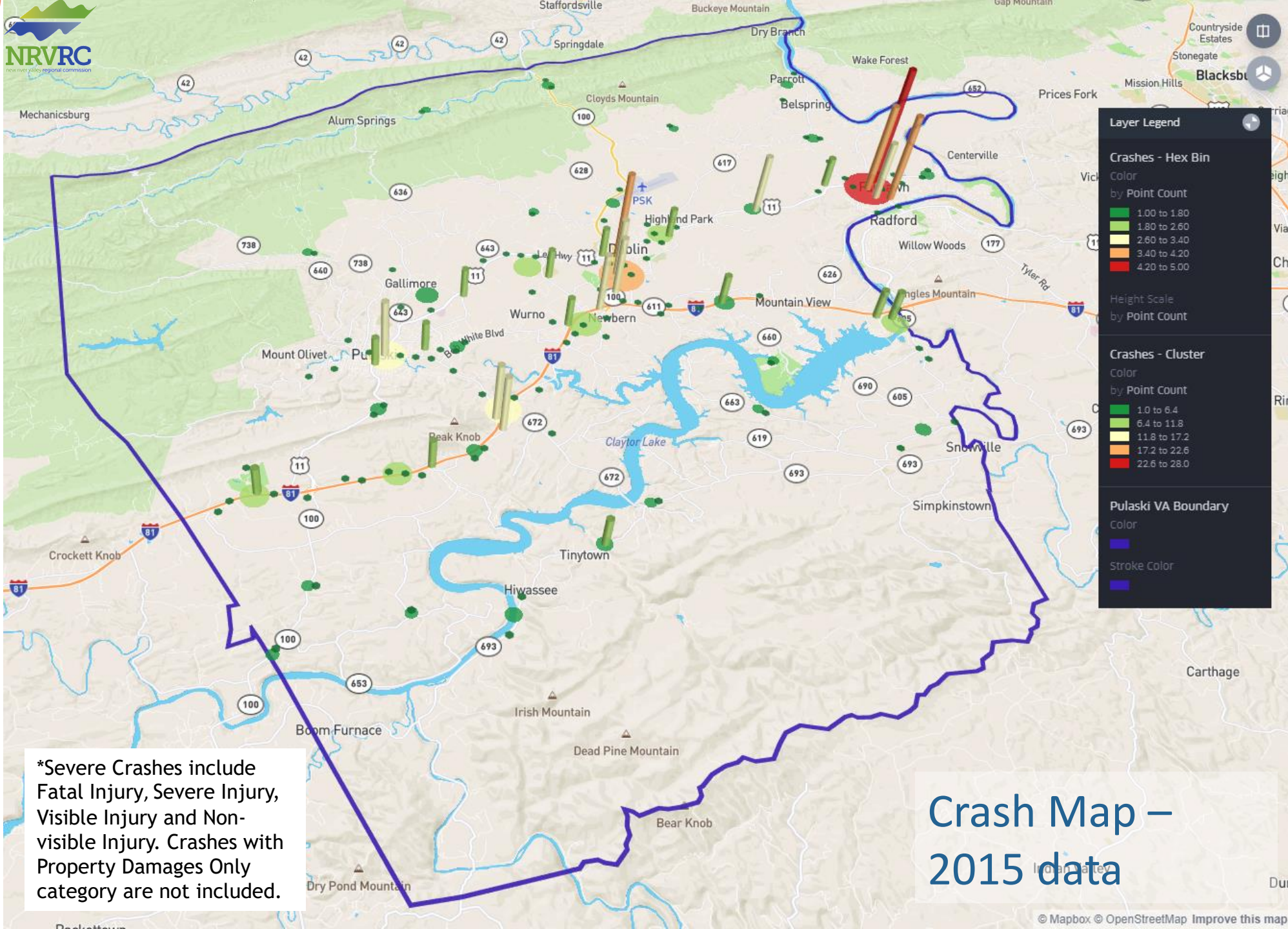
*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Crash Map – 2013 data



*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Crash Map – 2014 data



Layer Legend

Crashes - Hex Bin
Color
by Point Count

- 1.00 to 1.80
- 1.80 to 2.60
- 2.60 to 3.40
- 3.40 to 4.20
- 4.20 to 5.00

Height Scale
by Point Count

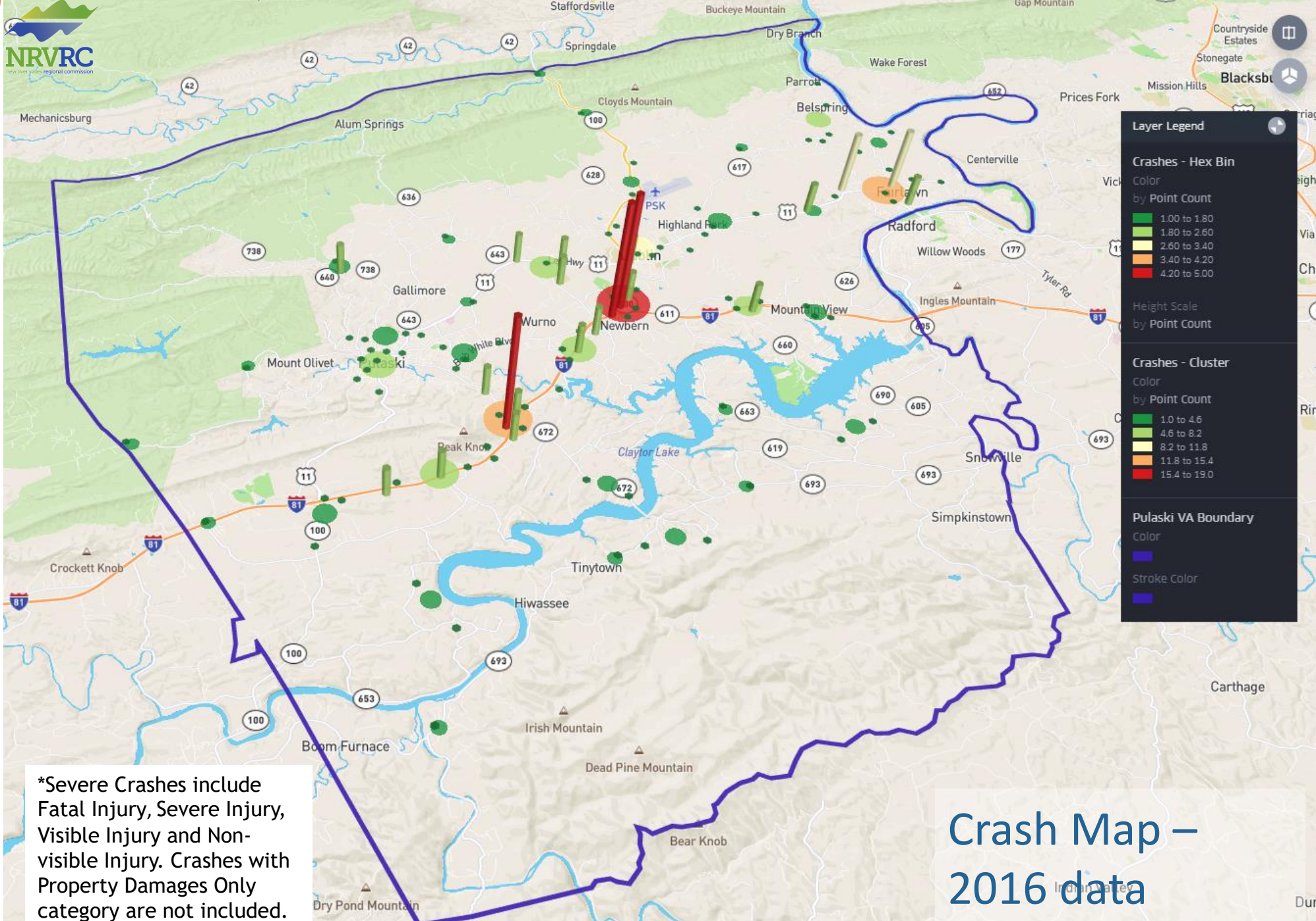
Crashes - Cluster
Color
by Point Count

- 1.0 to 6.4
- 6.4 to 11.8
- 11.8 to 17.2
- 17.2 to 22.6
- 22.6 to 28.0

Pulaski VA Boundary
Color
Stroke Color

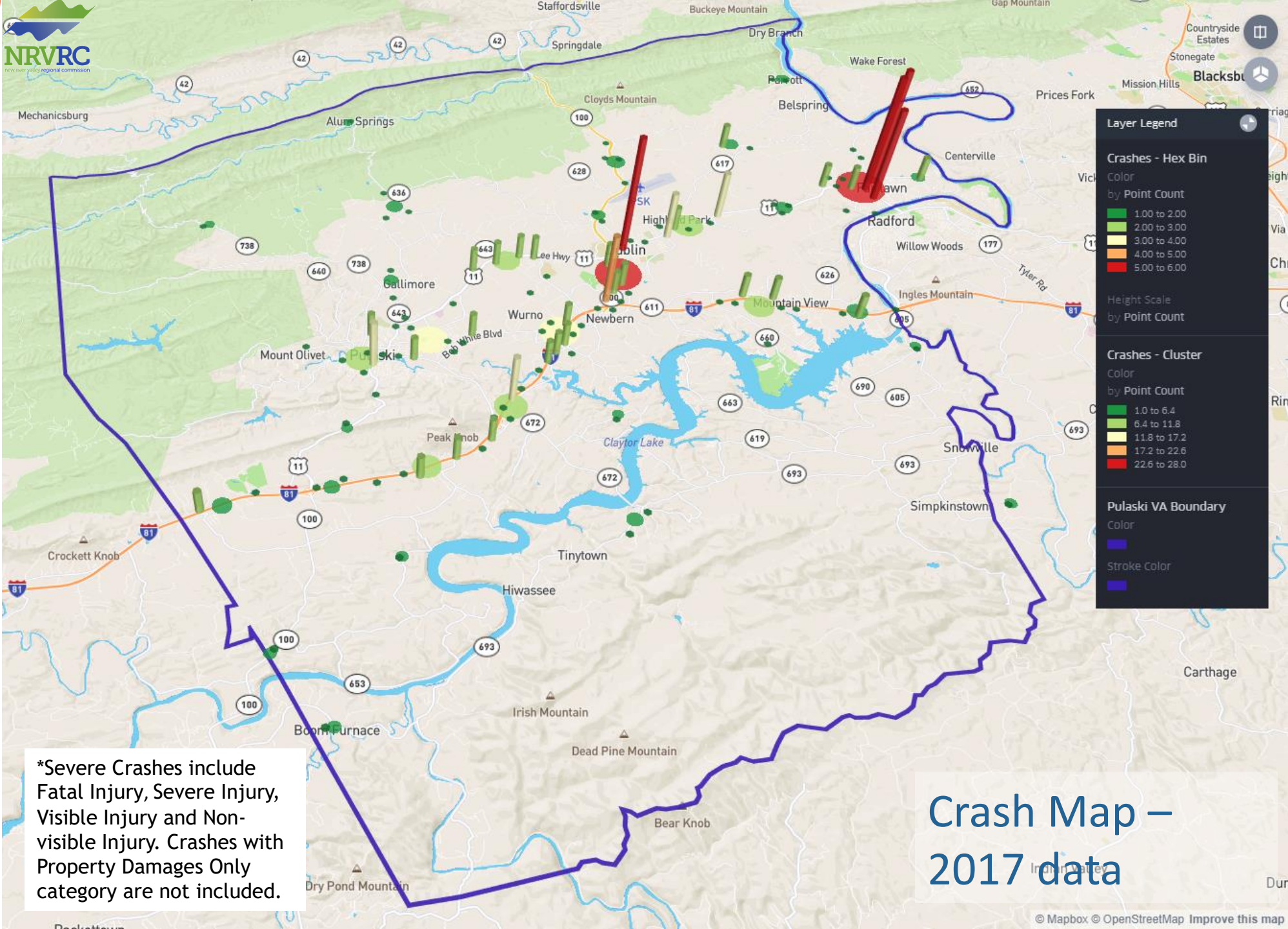
*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Crash Map – 2015 data



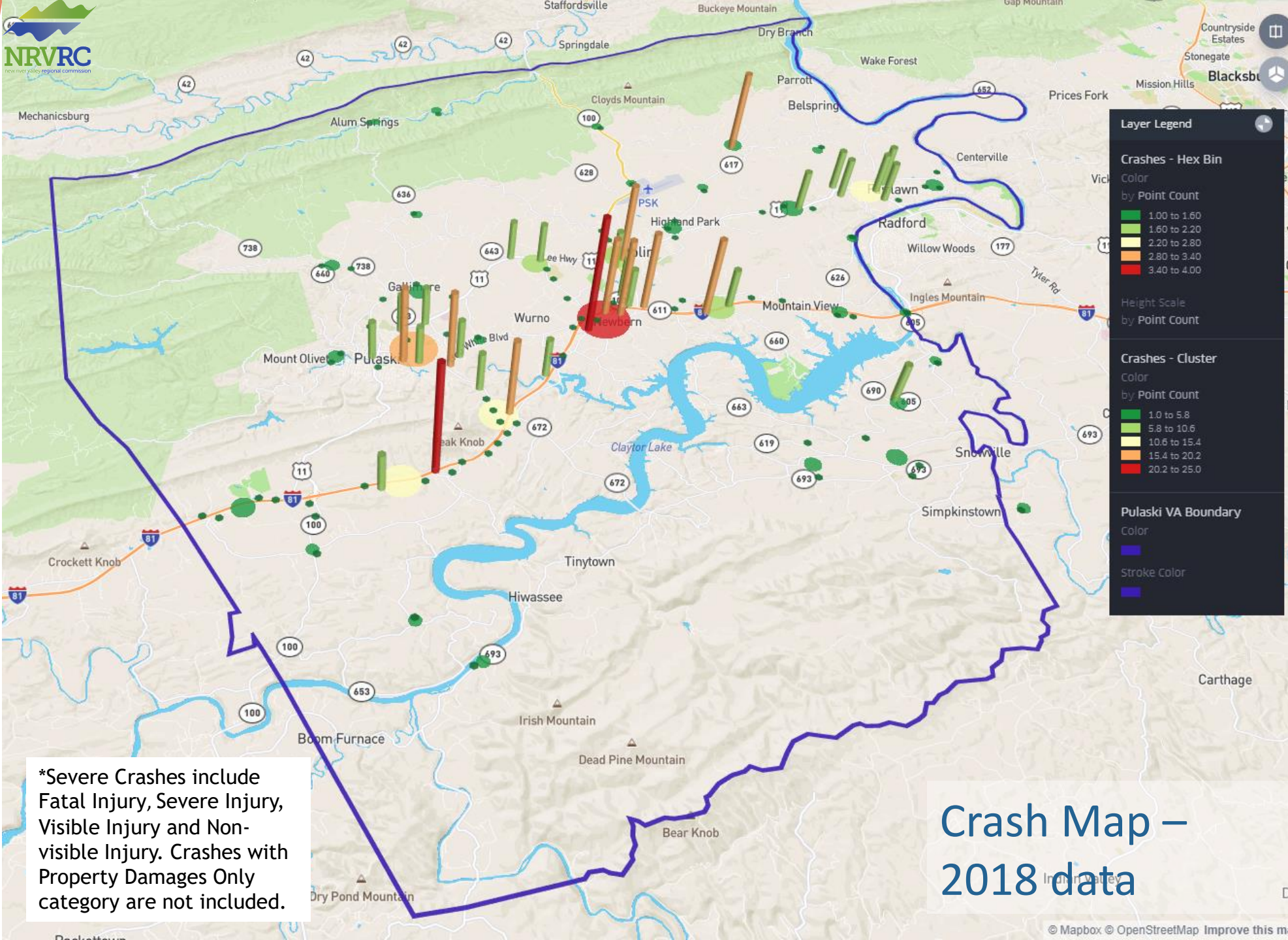
*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Crash Map – 2016 data



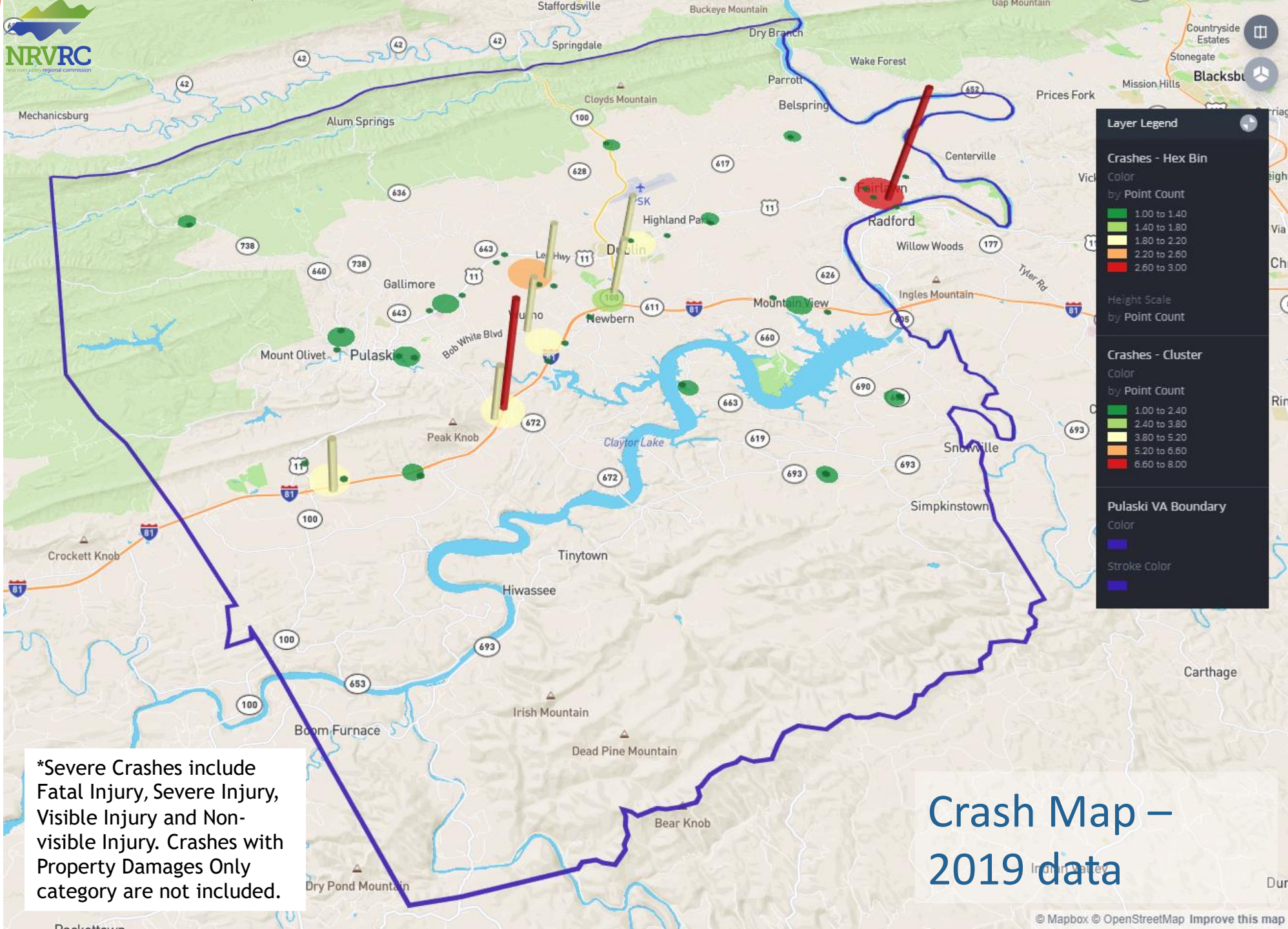
*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Crash Map – 2017 data



*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Crash Map – 2018 data



*Severe Crashes include Fatal Injury, Severe Injury, Visible Injury and Non-visible Injury. Crashes with Property Damages Only category are not included.

Crash Map – 2019 data

Key Take Aways

- ❖ **Trend shows slow increase in crashes from 533 per year in 2013 to 606 per year in 2018, with approximate increase rate of 12 crashes per year.**
- ❖ **No Increasing Trend in Severe Crashes (with Injuries and Fatalities)**
- ❖ **Major crash hotspots can be observed at: Fairlawn, Dublin, I-81 and 99, Pulaski, and I-81 and 100 – Newbern**
- ❖ **No correlation between fatalities and crash hotspots.**
- ❖ **Cause and Prevention of crashes in hotspot areas require further studies.**

Interactive Map

- To open interactive map in a browser, please double click the following icon,
- Preferred Browser: Google Chrome, Apple Safari, or Firefox. Internet Explorer may not work.



Pulaski Crash Map.html