Motor Vehicle Traffic Crash Summary

January 2020 – December 2022

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Overview

The Monroe County Highway Department (MCHD) is proud to present the 2022 Monroe County Motor Vehicle Traffic Crash Summary. This document will present various crash statistics from 2020-2022 including primary causes, type of collision, and high-volume crash locations by HMVM and MEV.

MCHD maintains over 700 miles of roadway within its jurisdiction. Improvements to existing roads and the construction of new roads occur each year, changing the maintenance responsibility of the department. Improvements made on such roads are intended to reduce hazards and increase safety of vehicular travel. Roads are categorized into road classifications such as interstate, principle/minor arterial, major/minor collector, and local. Such categorizations were determined by a study of the Monroe County road system and formalized in the Thoroughfare Plan.

Motor-vehicle crashes that occur on roads within MCHD jurisdiction are investigated and reported by the Indiana State Police, Monroe County Sheriff's Department, and/or other local/municipal police departments. The information collected from the police crash reports is the source of the statistics presented in the following report.

Crash statistics are reported monthly to the Monroe County Traffic Commission, Monroe County Plan Commission, and other agencies upon request. Crash data is used to improve signage and pavement markings on county roads in order to reduce future vehicle crashes. Areas where crashes appear to be disproportionately concentrated are inspected to identify potential room for improvement. If warranted, additional signs are installed or existing signs are modified. The location of any fatality on a county road is immediately inspected. Signs, pavement markings, and other interventions are documented and kept on file to assist with future claims which may arise against MCHD.

Each year, the Indiana University Public Policy Institute publishes their annual "Indiana Crash Fact" report. In it, counties are compared directly on metrics such as fatalities, speed related collisions, alcohol impaired collisions, motorcycle collisions, unrestrained passenger vehicle injuries, and young driver collisions. The counties are then ranked by the average of these statistics, in which Monroe County ranked 17th out of the 92 Indiana counties and 80th for fatalities as a percent of total crashes in 2020. It should be noted that several important factors are not considered in the ranking, such as road type, driving conditions, reporting inconsistencies, etc.

Total Crashes Reported

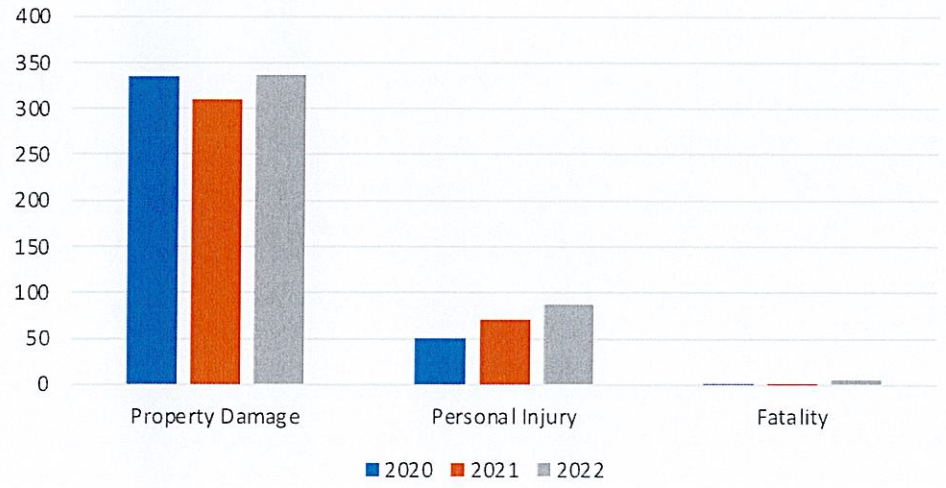
There were 1,201 crashes reported from January 2020 through December 2022, a 10% decrease from the previous three-year period. Of those, 209 resulted in a personal injury and 9 resulted in a fatality. The increase seen between 2021 and 2022 is likely due to the diminishing effects of the COVID-19 pandemic on travel. Please note, however, that the number of crashes in 2022 is still less than pre-pandemic levels.

Property damage crashes made up 82% of the total crashes reported from 2020-2022; personal injury make up 17%; and fatal crashes account for 0.7%. Table 1 below displays the count of each type of crash by year.

Table 1: Count of Crashes by Type

	Year			
Type of Crash	2020	2021	2022	Average
Property Damage	336	310	337	328
Personal Injury	51	71	87	70
Fatality	2	2	5	3
Total	389	383	429	400

Figure 1: Count of Crashes by Type



The nine fatal crashes which occurred in the analysis period are presented in Table 2, along with the road on which the crash occurred and the primary cause of the collision.

Table 2: Fatalities on County Roads (2020-2022)

Collision Date	Road	Primary Cause
4/14/2020	Curry Pike	Left Of Center
10/15/2020	Orchard Ln	Ran Off Road Right
3/3/2021	Rogers St	Left Of Center
4/18/2021	Dinsmore Rd	Ran Off Road Right
2/25/2022	Lost Mans Ln	Unsafe Speed
5/1/2022	Old SR 37 N	Driving While Intoxicated
6/10/2022	Airport Rd	Driving While Intoxicated*
9/20/2022	Ratliff Rd	Unsafe Speed
10/12/2022	Popcorn Rd	Speed Too Fast For Weather Conditions

**Pedestrian Fatality*

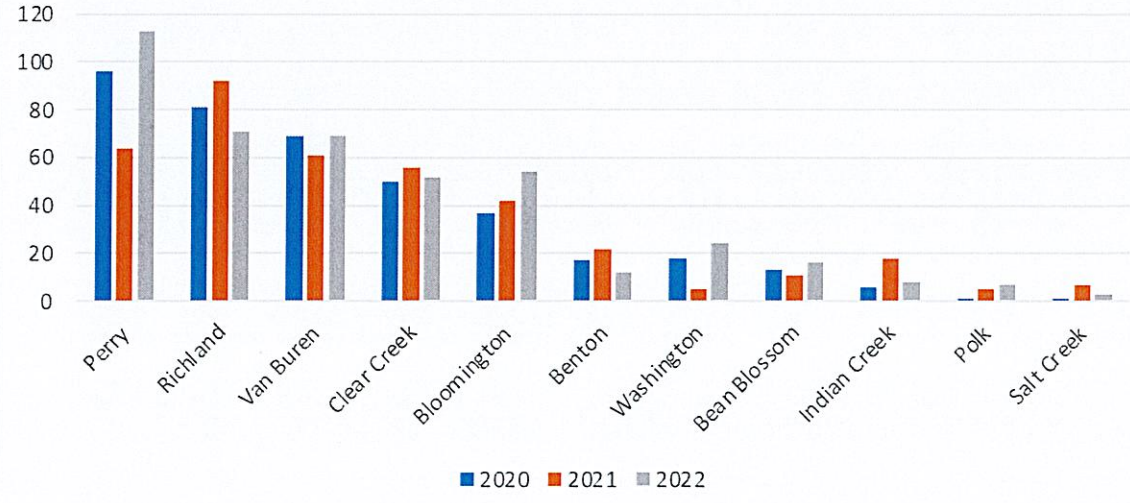
Crashes by Township

The reported crashes were categorized into the townships in which they occurred to identify which regions of the county reported the highest number of crashes. The presented data does not scale the number of crashes to account for differing populations and road usage, which would contribute greatly to the relatively greater number of reported crashes in Perry Township compared to Polk Township. The townships of Monroe County are listed in descending order based upon the average number of crashes over the analysis period.

Table 3: Count of Crashes by Township

	Year			
Township	2020	2021	2022	Average
Perry	96	64	113	91
Richland	81	92	71	81
Van Buren	69	61	69	66
Clear Creek	50	56	52	53
Bloomington	37	42	54	44
Benton	17	22	12	17
Washington	18	5	24	16
Bean Blossom	13	11	16	13
Indian Creek	6	18	8	11
Polk	1	5	7	4
Salt Creek	1	7	3	4

Figure 2: Count of Crashes by Township



Alcohol/Drug Related Crashes

There were 53 alcohol or drug related crashes in the analysis period. Roads on which an inebriated crash occurred are presented in Table 4. Crashes where the reporting officer suspected or confirmed the influence of drugs or alcohol were included, while crashes in which it was proven otherwise (such as a tested BAC 0.08%) were excluded. Only Fairfax Rd had drug or alcohol related crashes in all three years.

Table 4: Alcohol/Drug Related Crashes by Location

	Year			
Road	2020	2021	2022	Average
Fairfax Rd	1	1	2	1.33
Old SR 37 S	0	1	3	1.33
Old SR 37 N	0	2	1	1.00
Bottom Rd	1	1	0	0.67
Rockport Rd	0	1	1	0.67
Rogers St	1	0	1	0.67
Union Valley Rd	1	0	1	0.67
Wayport Rd	2	0	0	0.67
Airport Rd	0	0	1	0.33
Boltinghouse Rd	0	1	0	0.33
Breeden Rd	0	1	0	0.33
Brookwood Dr	0	0	1	0.33
Business 37	0	1	0	0.33
Chapel Hill Rd	1	0	0	0.33
Connaught Rd	0	0	1	0.33
Curry Pike	1	0	0	0.33
Derby Dr	1	0	0	0.33
Evans Rd	0	1	0	0.33
Fullerton Pike	0	0	1	0.33
Handy Ridge Rd	0	0	1	0.33
Leonard Springs Rd W	1	0	0	0.33
Liberty Dr	0	1	0	0.33
Lost Mans Ln	0	0	1	0.33
Maple Grove Rd N	0	1	0	0.33
Miller Rd	0	0	1	0.33
Popcorn Rd	1	0	0	0.33
Ratliff Rd	0	1	0	0.33
Rhorer Rd	0	0	1	0.33
Robinson Rd	0	1	0	0.33
Sample Rd	0	1	0	0.33
Schacht Rd	0	1	0	0.33
Shuffle Creek Rd	1	0	0	0.33
Smith Pike	1	0	0	0.33
Snow Rd	0	1	0	0.33
Tailwater Dr	0	1	0	0.33
Tapp Rd	1	0	0	0.33
Thompson Ridge Rd	1	0	0	0.33
Vernal Pike	0	0	1	0.33
Victor Pike	0	1	0	0.33
Walnut Street Pike	0	1	0	0.33
Will Sowders Rd	0	1	0	0.33
Total	15	21	18	18

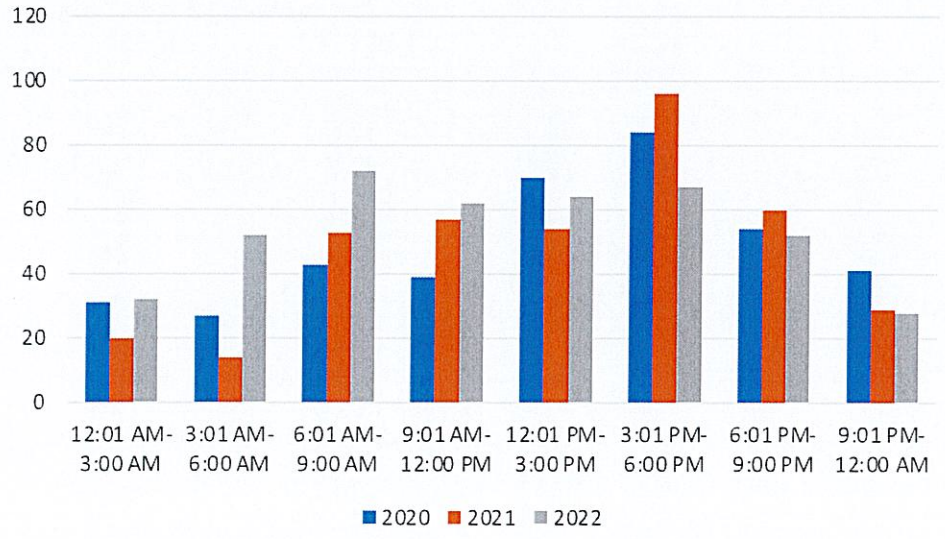
Crashes by Time of Day

The crash data was categorized into three-hour periods in which the crash occurred, shown in Table 5. Figure 3 displays the data visually, so that the overall trends can be seen more clearly. The trends shown in the data make sense, as more people will be on the roads during the middle of the day. There are also two peaks from 6:01 AM – 9:00 AM and 3:01 PM – 6:00 PM. These times include the morning and afternoon rush hours, respectively.

Table 5: Crashes by Time of Day

	Year			
Time	2020	2021	2022	Average
12:01 AM-3:00 AM	31	20	32	28
3:01 AM-6:00 AM	27	14	52	31
6:01 AM-9:00 AM	43	53	72	56
9:01 AM-12:00 PM	39	57	62	53
12:01 PM-3:00 PM	70	54	64	63
3:01 PM-6:00 PM	84	96	67	82
6:01 PM-9:00 PM	54	60	52	55
9:01 PM-12:00 AM	41	29	28	33

Figure 3: Crashes by Time of Day



Crashes by Primary Cause

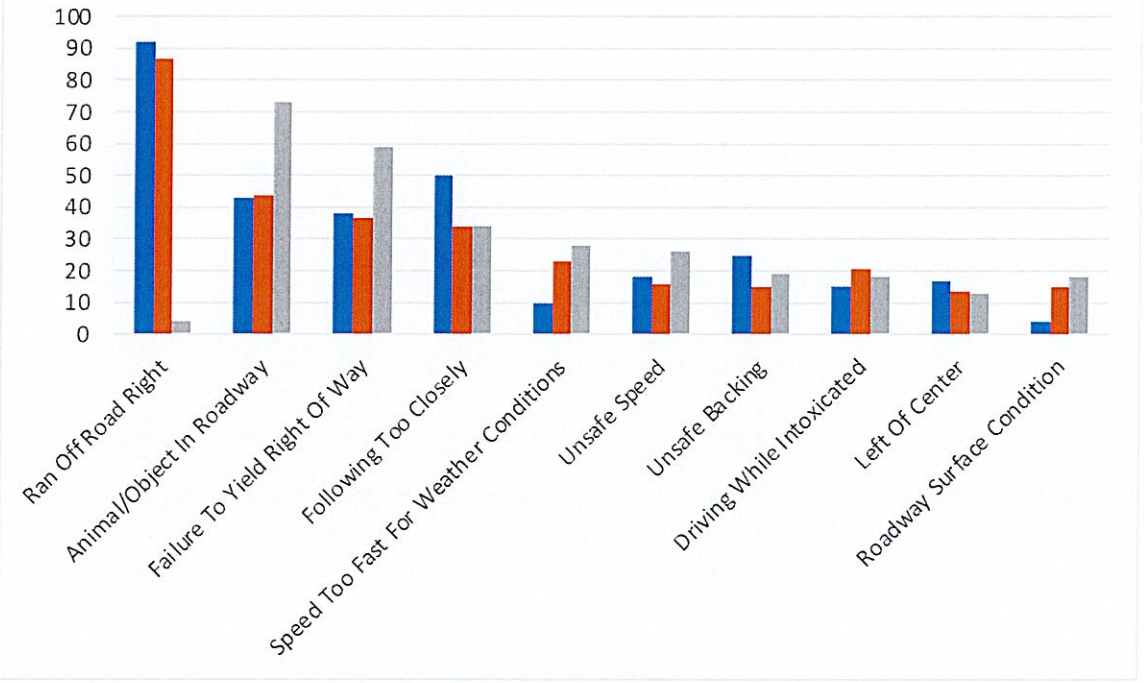
Table 6 presents the volume of crashes categorized by their primary cause. It is very likely that primary causes of crashes overlap, and it is often the discretion of the reporting officer that determines how it is identified. Along with this, there appears to be differences in reporting standards between each year. For example, "Failure to Maintain Lane" reports 0 crashes in 2020 and 2021, then jumps to 20 crashes in 2022. This is likely due to the fact that this category was first introduced in 2022 and is matched by a decrease in some other categories.

Table 6: Crashes by Primary Cause

	Year			
Primary Cause	2020	2021	2022	Average
Ran Off Road Right	92	87	4	61
Animal/Object In Roadway	43	44	73	53
Failure To Yield Right Of Way	38	37	59	45
Following Too Closely	50	34	34	39
Speed Too Fast For Weather Conditions	10	23	28	20
Unsafe Speed	18	16	26	20
Unsafe Backing	25	15	19	20
Driving While Intoxicated	15	21	18	18
Left Of Center	17	14	13	15
Roadway Surface Condition	4	15	18	12
Improper Turning	6	12	10	9
Other (Driver)	14	14	0	9
Improper Lane Usage	9	8	5	7
Disregard Signal/Reg Sign	6	7	7	7
Failure To Maintain Lane	0	0	20	7
Unsafe Lane Movement	5	5	7	6
Driver Distracted	10	7	0	6
Driver Asleep Or Fatigued	5	3	7	5
Overcorrecting/Oversteering	2	2	11	5
Improper Passing	4	5	4	4
Driver Illness	4	3	3	3
Other (Environmental)	3	4	0	2
Other (Vehicle)	4	2	0	2
Cell Phone Usage	1	1	1	1
Pedestrian Action	0	1	2	1
Oversize/Overweight Load	0	1	1	1
Tire Failure Or Defective	0	1	1	1
Accelerator Failure Or Defective	1	0	0	0
Headlight Defective Or Not On	1	0	0	0
Steering Failure	1	0	0	0
Insecure/Leaky Load	0	0	1	0
View Obstructed	0	1	0	0
Brake Failure Or Defective	0	0	1	0

The ten primary causes with the largest three-year average are displayed in Figure 5.

Figure 5: Crashes by Primary Cause



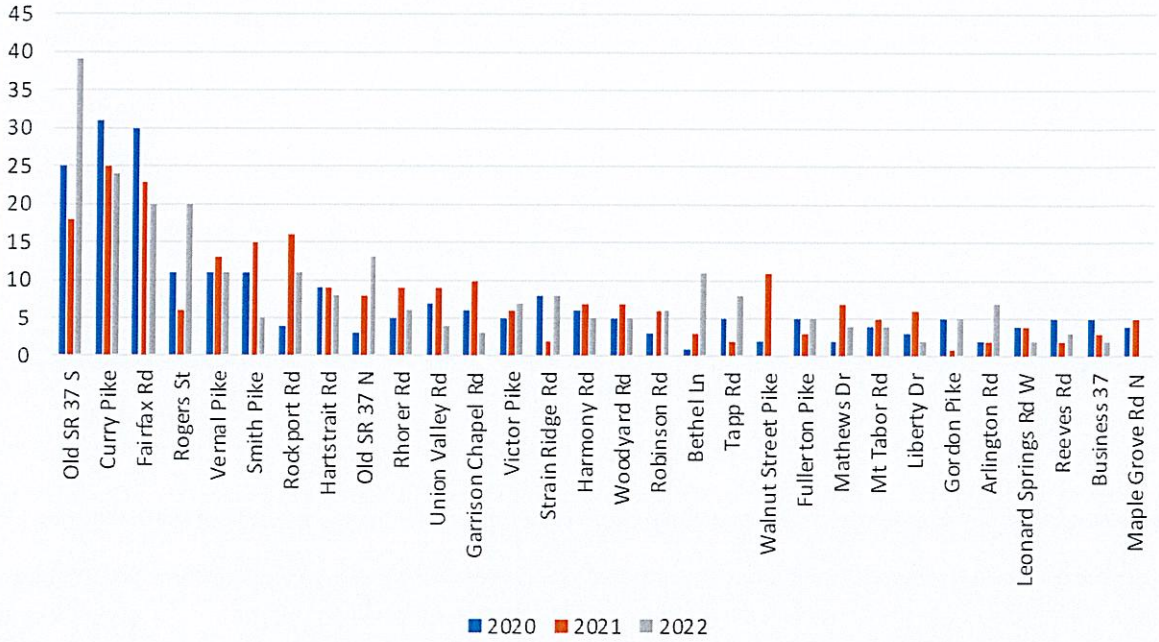
High Crash Roads by Count and HMVM

Table 7 organizes the crashes in the analysis period based upon the primary road on which they occurred. Of the 1,201 crashes from 2020-2022, 59% occurred on these 30 roads. Some significant increases and decreases can be seen between years, suggesting no significant connection between year and primary cause. Of these, 63% of the roads saw a decrease from 2021 to 2022, despite the general increase as traffic rates increased after the pandemic.

Table 7: Highest Crash Volume Roads by Count

	Year				
Roadway	2020	2021	2022	Average	Total
Old SR 37 S	25	18	39	27	82
Curry Pike	31	25	24	27	80
Fairfax Rd	30	23	20	24	73
Rogers St	11	6	20	12	37
Vernal Pike	11	13	11	12	35
Smith Pike	11	15	5	10	31
Rockport Rd	4	16	11	10	31
Hartstrait Rd	9	9	8	9	26
Old SR 37 N	3	8	13	8	24
Rhorer Rd	5	9	6	7	20
Union Valley Rd	7	9	4	7	20
Garrison Chapel Rd	6	10	3	6	19
Victor Pike	5	6	7	6	18
Strain Ridge Rd	8	2	8	6	18
Harmony Rd	6	7	5	6	18
Woodyard Rd	5	7	5	6	17
Robinson Rd	3	6	6	5	15
Bethel Ln	1	3	11	5	15
Tapp Rd	5	2	8	5	15
Walnut Street Pike	2	11	0	4	13
Fullerton Pike	5	3	5	4	13
Mathews Dr	2	7	4	4	13
Mt Tabor Rd	4	5	4	4	13
Liberty Dr	3	6	2	4	11
Gordon Pike	5	1	5	4	11
Arlington Rd	2	2	7	4	11
Leonard Springs Rd W	4	4	2	3	10
Reeves Rd	5	2	3	3	10
Business 37	5	3	2	3	10
Maple Grove Rd N	4	5	0	3	9

Figure 6: Highest Crash Volume Roads by Count



The count of the crashes by road, however, is not sufficient alone for analysis. Identifying the roads which account for the highest number of crashes is certainly important but does not take into account the varying lengths or usage of the roads to standardize the statistics to allow for consistent comparison. To do this for single roads, analysts use a metric called the Hundred Million Vehicle-Miles (HMVM) of travel. In short, this statistic tells the number of crashes which will occur on average for one hundred million vehicle miles of travel on a given road. The higher the HMVM, the more crashes are expected to occur on that road. The HMVM is calculated as follows, where ADT refers to the average daily traffic count for the road:

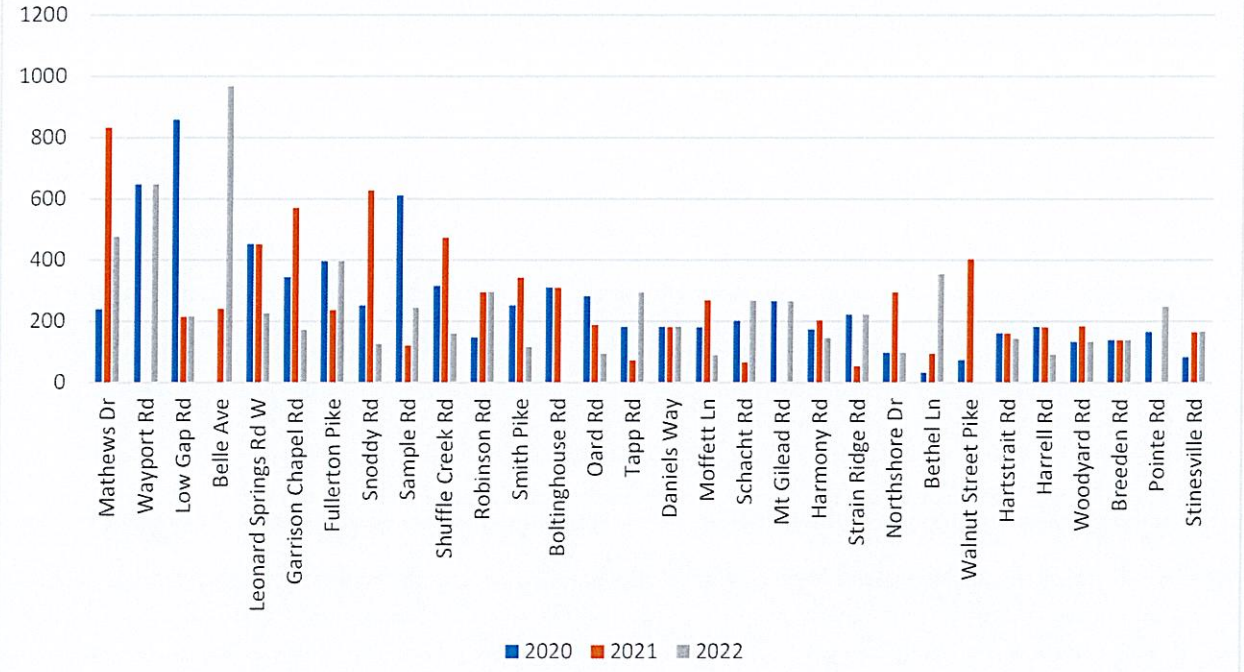
$$HMVM = \frac{Crashes * 100{,}000{,}000}{Road\ Length * ADT * 365}$$

The thirty roads with the greatest average HMVM are presented in Table 8. The nature of the HMVM calculation allows it to be skewed heavily if a crash occurs on a short, rarely traveled road. To account for outliers such as this, only roads with at least 5 total crashes were included in Table 8.

Table 8: Highest Crash Volume Roads by HMVM

Roadway	Year			Average
	2020	2021	2022	
Mathews Dr	238	834	476	516
Wayport Rd	647	0	647	431
Low Gap Rd	858	215	215	429
Belle Ave	0	242	967	403
Leonard Springs Rd W	452	452	226	377
Garrison Chapel Rd	343	571	171	362
Fullerton Pike	395	237	395	342
Snoddy Rd	251	628	126	335
Sample Rd	610	122	244	325
Shuffle Creek Rd	316	474	158	316
Robinson Rd	147	295	295	246
Smith Pike	252	343	114	236
Boltinghouse Rd	311	311	0	207
Oard Rd	283	189	94	189
Tapp Rd	183	73	292	183
Daniels Way	182	182	182	182
Moffett Ln	180	270	90	180
Schacht Rd	201	67	268	179
Mt Gilead Rd	264	0	264	176
Harmony Rd	175	204	146	175
Strain Ridge Rd	222	55	222	166
Northshore Dr	98	295	98	164
Bethel Ln	32	97	354	161
Walnut Street Pike	73	403	0	159
Hartstrait Rd	161	161	143	155
Harrell Rd	184	184	92	153
Woodyard Rd	132	185	132	150
Breeden Rd	140	140	140	140
Pointe Rd	165	0	247	137
Stinesville Rd	82	164	164	137

Figure 7: Highest Crash Volume Roads by HMVM



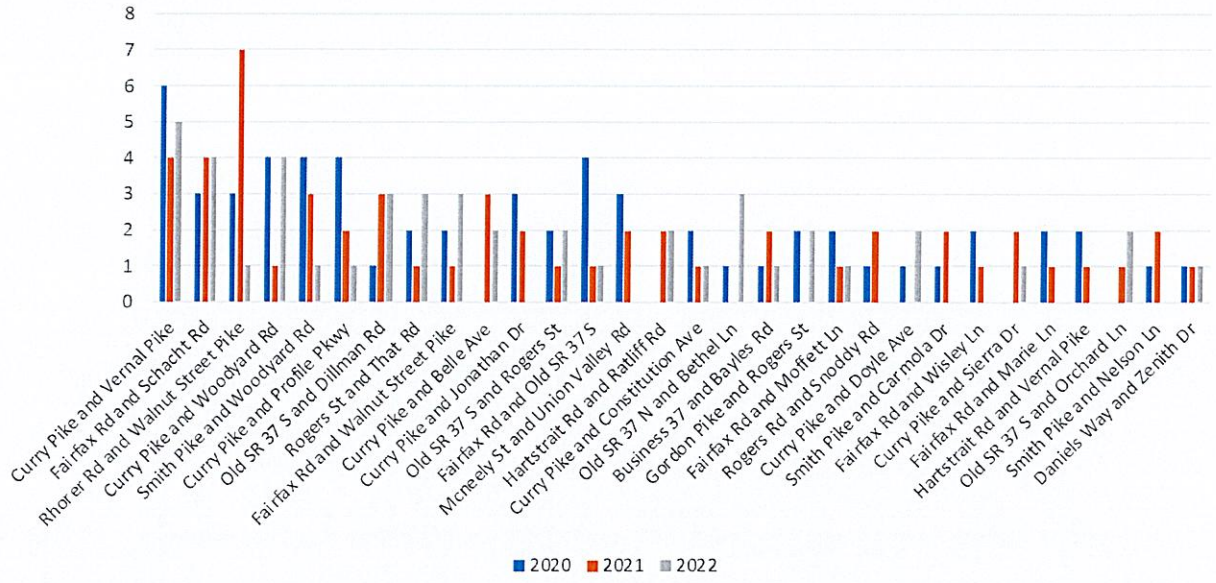
High Crash Intersections by Count and MEV

Table 9 organizes intersection crashes in the analysis period passed upon the roads on which they occurred. A crash was considered to be related to an intersection if it occurred within 250 feet of it, as such a roadway feature can have a significant impact on traffic patterns. Of the 524 intersection crashes from 2020-2022, 30% of them occurred on these roads, indicating the majority of intersection crashes occur infrequently at specific locations.

Table 9: Highest Crash Volume Intersections by Count

	Year				
Roadway	2020	2021	2022	Total	Average
Curry Pike and Vernal Pike	6	4	5	15	5
Fairfax Rd and Schacht Rd	3	4	4	11	4
Rhorer Rd and Walnut Street Pike	3	7	1	11	4
Curry Pike and Woodyard Rd	4	1	4	9	3
Smith Pike and Woodyard Rd	4	3	1	8	3
Curry Pike and Profile Pkwy	4	2	1	7	2
Old SR 37 S and Dillman Rd	1	3	3	7	2
Rogers St and That Rd	2	1	3	6	2
Fairfax Rd and Walnut Street Pike	2	1	3	6	2
Curry Pike and Belle Ave	0	3	2	5	2
Curry Pike and Jonathan Dr	3	2	0	5	2
Old SR 37 S and Rogers St	2	1	2	5	2
Fairfax Rd and Old SR 37 S	4	1	1	5	2
Mcneely St and Union Valley Rd	3	2	0	5	2
Hartstrait Rd and Ratliff Rd	0	2	2	4	1
Curry Pike and Constitution Ave	2	1	1	4	1
Old SR 37 N and Bethel Ln	1	0	3	4	1
Business 37 and Bayles Rd	1	2	1	4	1
Gordon Pike and Rogers St	2	0	2	4	1
Fairfax Rd and Moffett Ln	2	1	1	4	1
Rogers Rd and Snoddy Rd	1	2	0	3	1
Curry Pike and Doyle Ave	1	0	2	3	1
Smith Pike and Carmola Dr	1	2	0	3	1
Fairfax Rd and Wisley Ln	2	1	0	3	1
Curry Pike and Sierra Dr	0	2	1	3	1
Fairfax Rd and Marie Ln	2	1	0	3	1
Hartstrait Rd and Vernal Pike	2	1	0	3	1
Old SR 37 S and Orchard Ln	0	1	2	3	1
Smith Pike and Nelson Ln	1	2	0	3	1
Daniels Way and Zenith Dr	1	1	1	3	1

Figure 8: Highest Crash Volume Intersections by Count



The count of the crashes by intersection, however, is not sufficient alone for analysis. Identifying the intersections which account for the highest number of crashes is certainly important, but it does not take into account the varying usage of each road to standardize the statistics to allow for consistent comparison. To do this for intersections, analysts will use a metric called Million Entering Vehicles (MEV). In short, this statistic tells the number of crashes which will occur on average for every one million vehicles which enter the intersection. The higher the MEV, the more crashes are expected to occur at that location. The MEV is calculated as follows, where ADT, in this case, refers to the average of the two roads' respective ADTs:

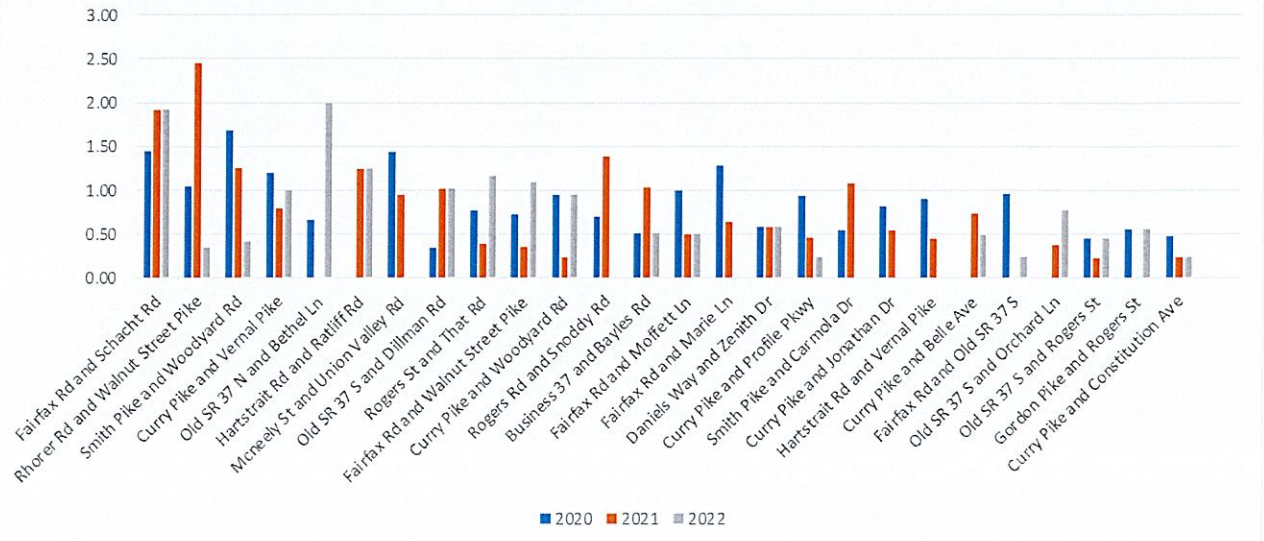
$$MEV = \frac{Crashes * 1{,}000{,}000}{ADT * 365}$$

The intersections with the highest crashes per MEV are presented in Table 10. Similar to HMVM, MEV is very sensitive to outliers. To account for this, only intersections with crash volume counts greater than 3 were included in the table.

Table 10: Highest Crash Volume Intersections by MEV

Roadway	Year			Average
	2020	2021	2022	
Fairfax Rd and Schacht Rd	1.45	1.93	1.93	1.77
Rhorer Rd and Walnut Street Pike	1.05	2.45	0.35	1.29
Smith Pike and Woodyard Rd	1.69	1.26	0.42	1.12
Curry Pike and Vernal Pike	1.20	0.80	1.00	1.00
Old SR 37 N and Bethel Ln	0.67	0.00	2.00	0.89
Hartstrait Rd and Ratliff Rd	0.00	1.25	1.25	0.84
Mcneely St and Union Valley Rd	1.43	0.96	0.00	0.80
Old SR 37 S and Dillman Rd	0.34	1.02	1.02	0.80
Rogers St and That Rd	0.78	0.39	1.17	0.78
Fairfax Rd and Walnut Street Pike	0.73	0.36	1.09	0.73
Curry Pike and Woodyard Rd	0.95	0.24	0.95	0.71
Rogers Rd and Snoddy Rd	0.70	1.39	0.00	0.70
Business 37 and Bayles Rd	0.52	1.03	0.52	0.69
Fairfax Rd and Moffett Ln	1.00	0.50	0.50	0.67
Fairfax Rd and Marie Ln	1.28	0.64	0.00	0.64
Daniels Way and Zenith Dr	0.59	0.59	0.59	0.59
Curry Pike and Profile Pkwy	0.94	0.47	0.23	0.55
Smith Pike and Carmola Dr	0.54	1.09	0.00	0.54
Curry Pike and Jonathan Dr	0.82	0.55	0.00	0.46
Hartstrait Rd and Vernal Pike	0.90	0.45	0.00	0.45
Curry Pike and Belle Ave	0.00	0.74	0.49	0.41
Fairfax Rd and Old SR 37 S	0.96	0.00	0.24	0.40
Old SR 37 S and Orchard Ln	0.00	0.38	0.77	0.38
Old SR 37 S and Rogers St	0.45	0.22	0.45	0.37
Gordon Pike and Rogers St	0.56	0.00	0.56	0.37
Curry Pike and Constitution Ave	0.48	0.24	0.24	0.32

Figure 9: Highest Crash Volume Intersections by MEV



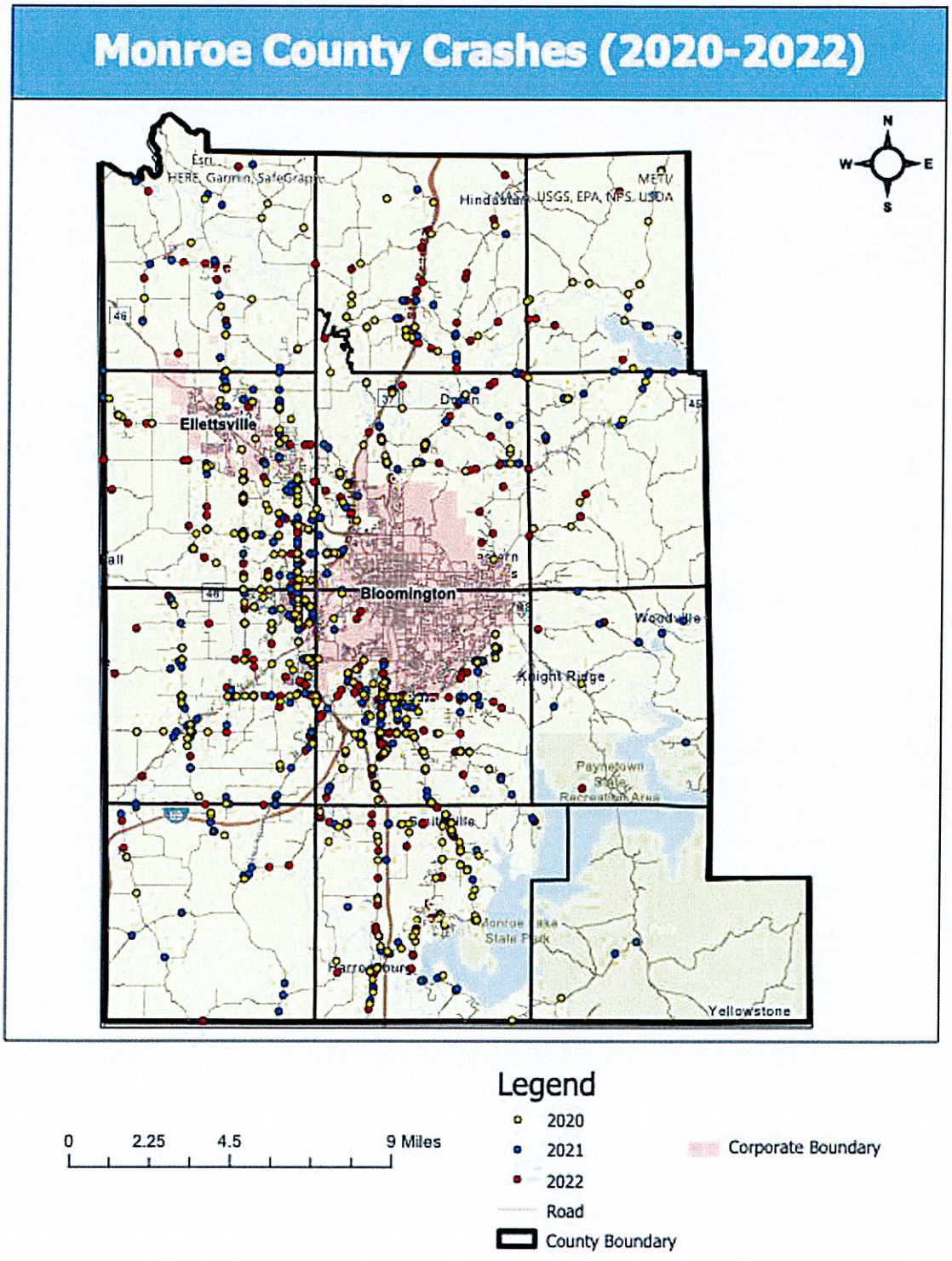
Conclusion

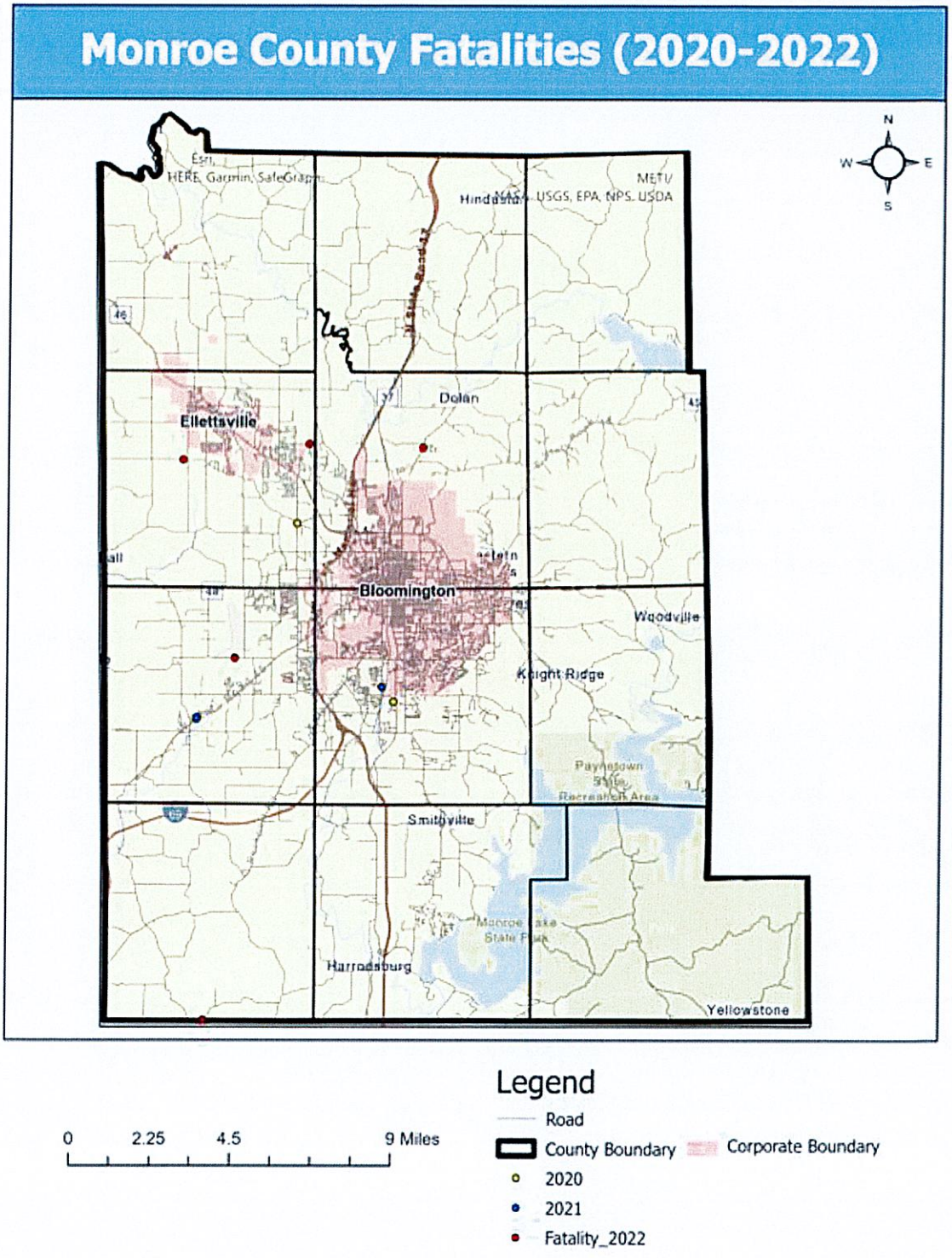
This report is intended to improve awareness of roads and intersections that experience high crash rates, as well as identify the contributing factors which might cause this. The report will be forwarded to the appropriate officials for use and review.

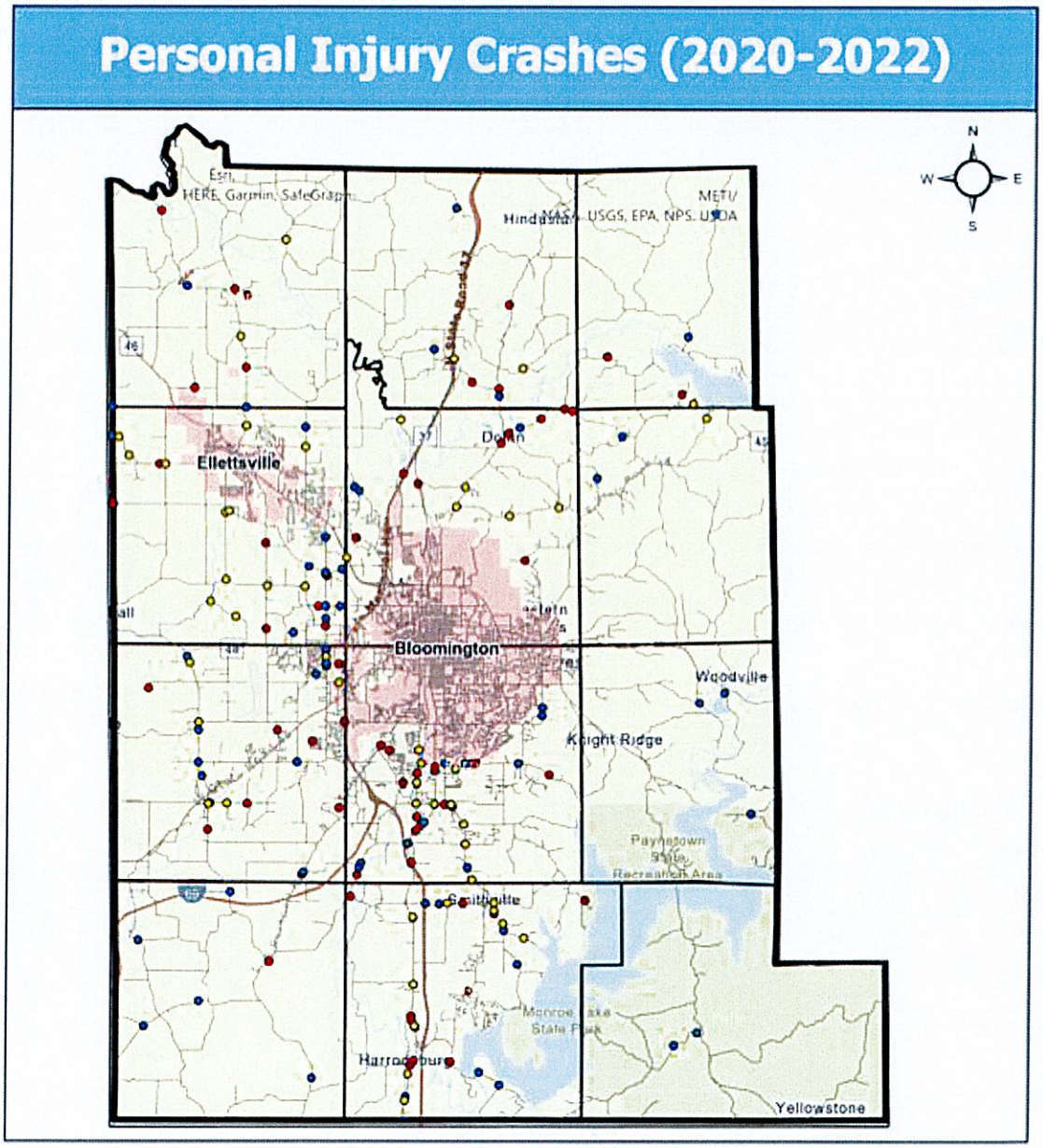
To promote this awareness, copies of this report will be made available online and be forwarded to:

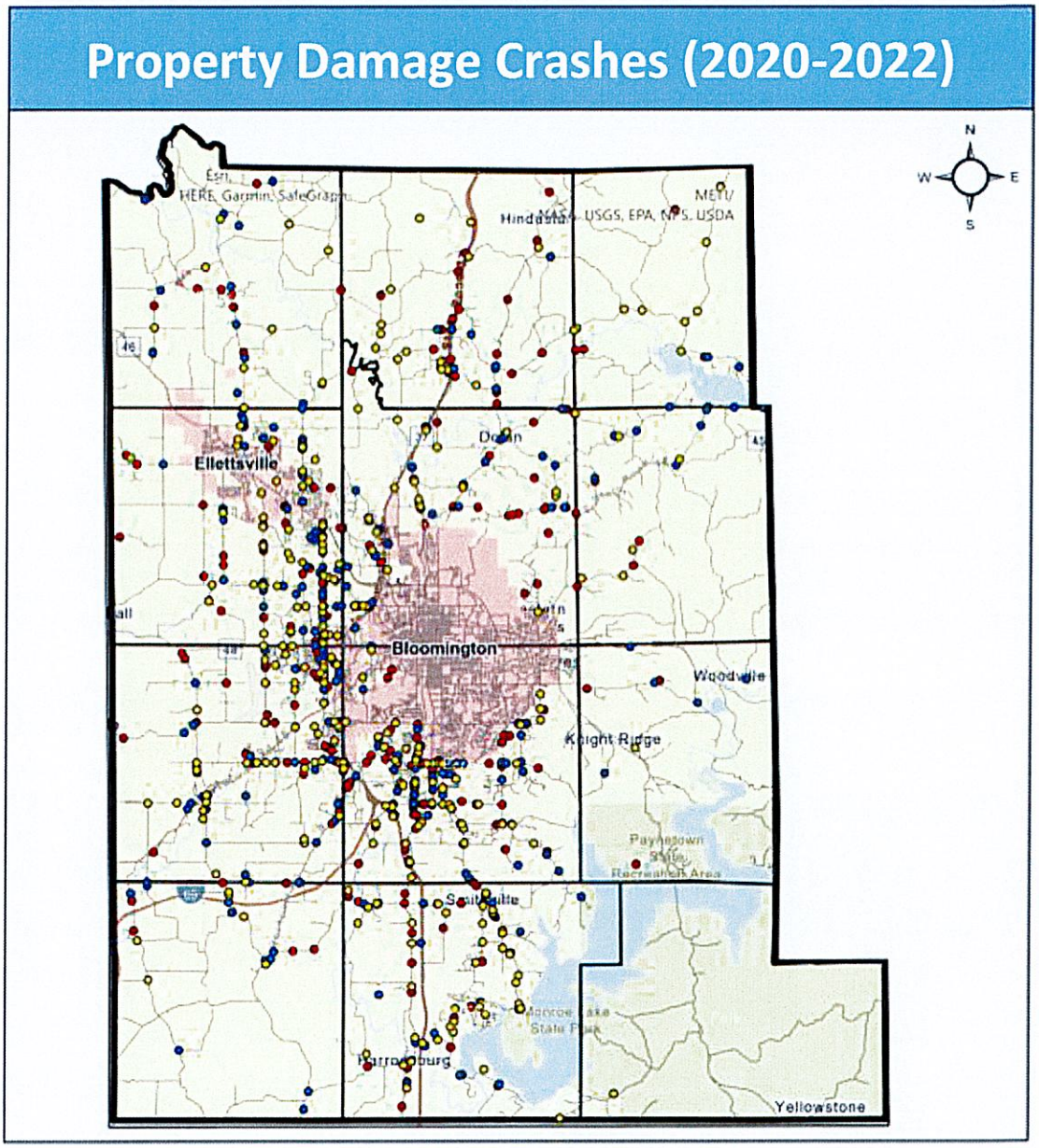
- Monroe County Board of Commissioners
- Monroe County City Councils
- Monroe County Sheriff
- Monroe County Traffic Commission
- Monroe County Planning Department
- Town of Ellettsville Police Department
- City of Bloomington Police Department
- Bloomington/Monroe County Metropolitan Planning Organizations
- Indiana State Police

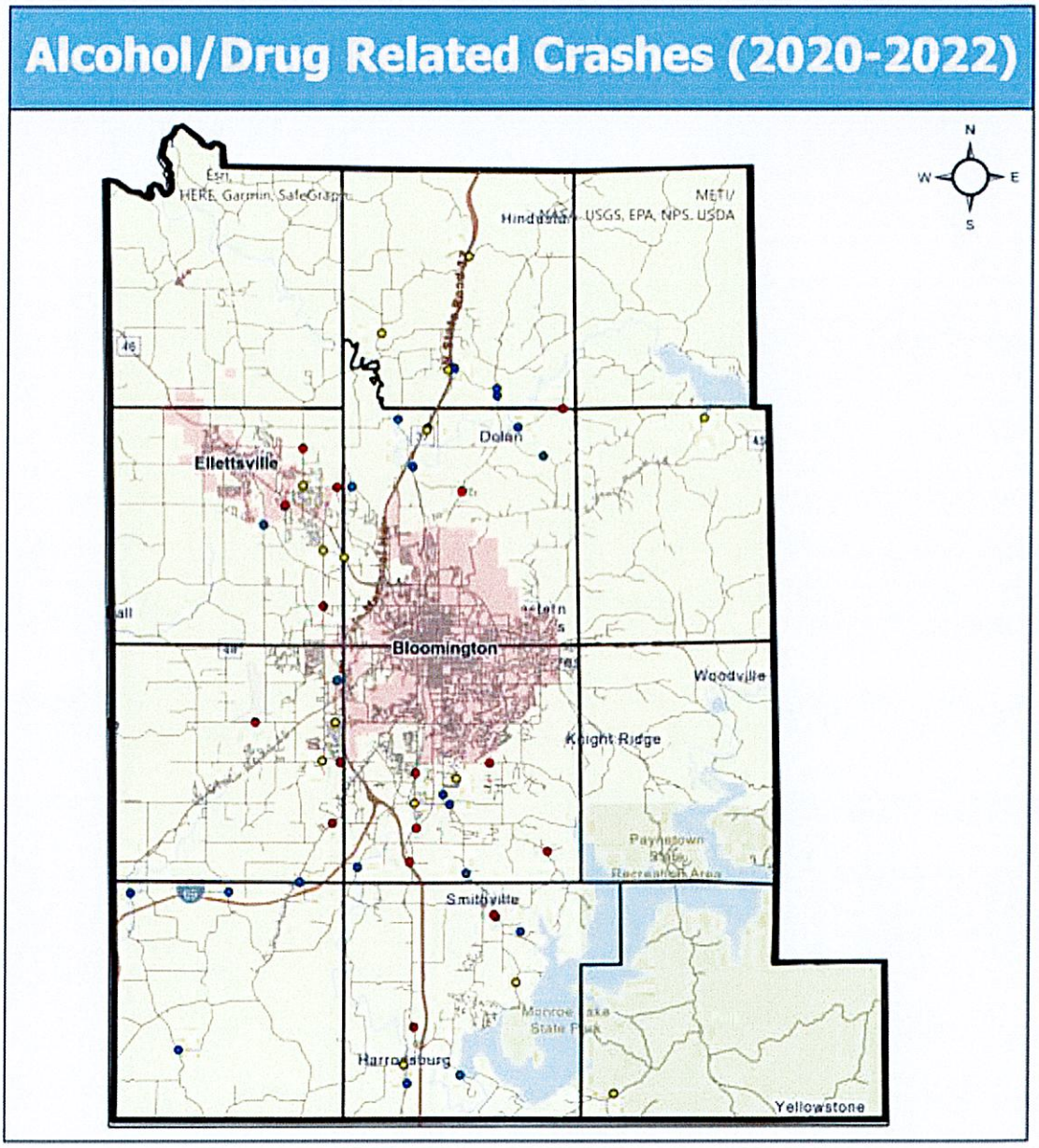
Appendix

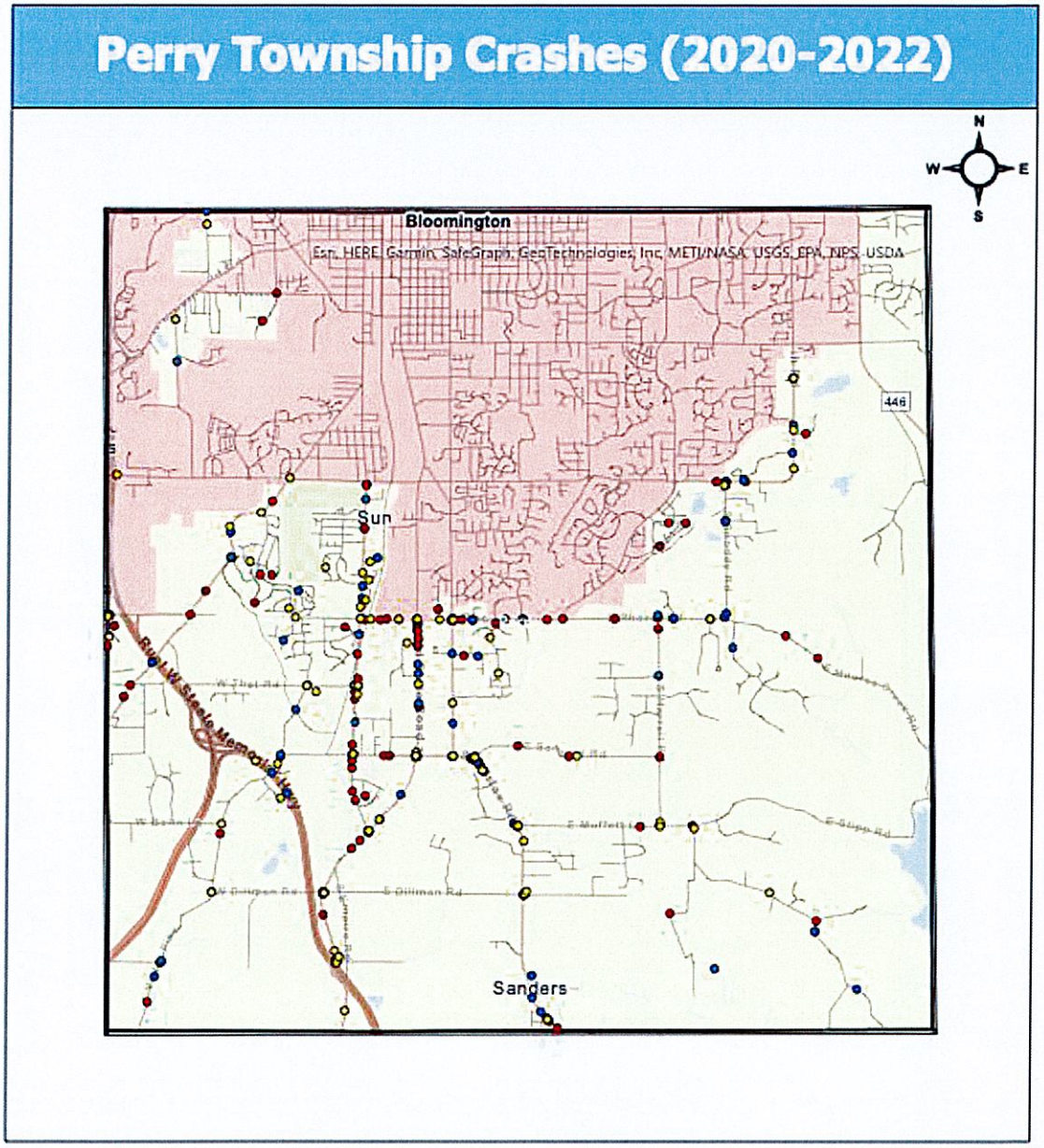

Monroe County Crashes (2020-2022)
N
W
E
S
Ellettsville
Bloomington
Woodville
Knight Ridge
Paynetown State Recreation Area
Yellowstone
0
2.25
4.5
9 Miles
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary


Monroe County Fatalities (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph
USGS, EPA, NPS, USDA
Ellettsville
Dolan
Bloomington
Woodville
Knight Ridge
Smithville
Harrodsburg
Yellowstone
0
2.25
4.5
9 Miles
Legend
Road
County Boundary
Corporate Boundary
2020
2021
Fatality_2022

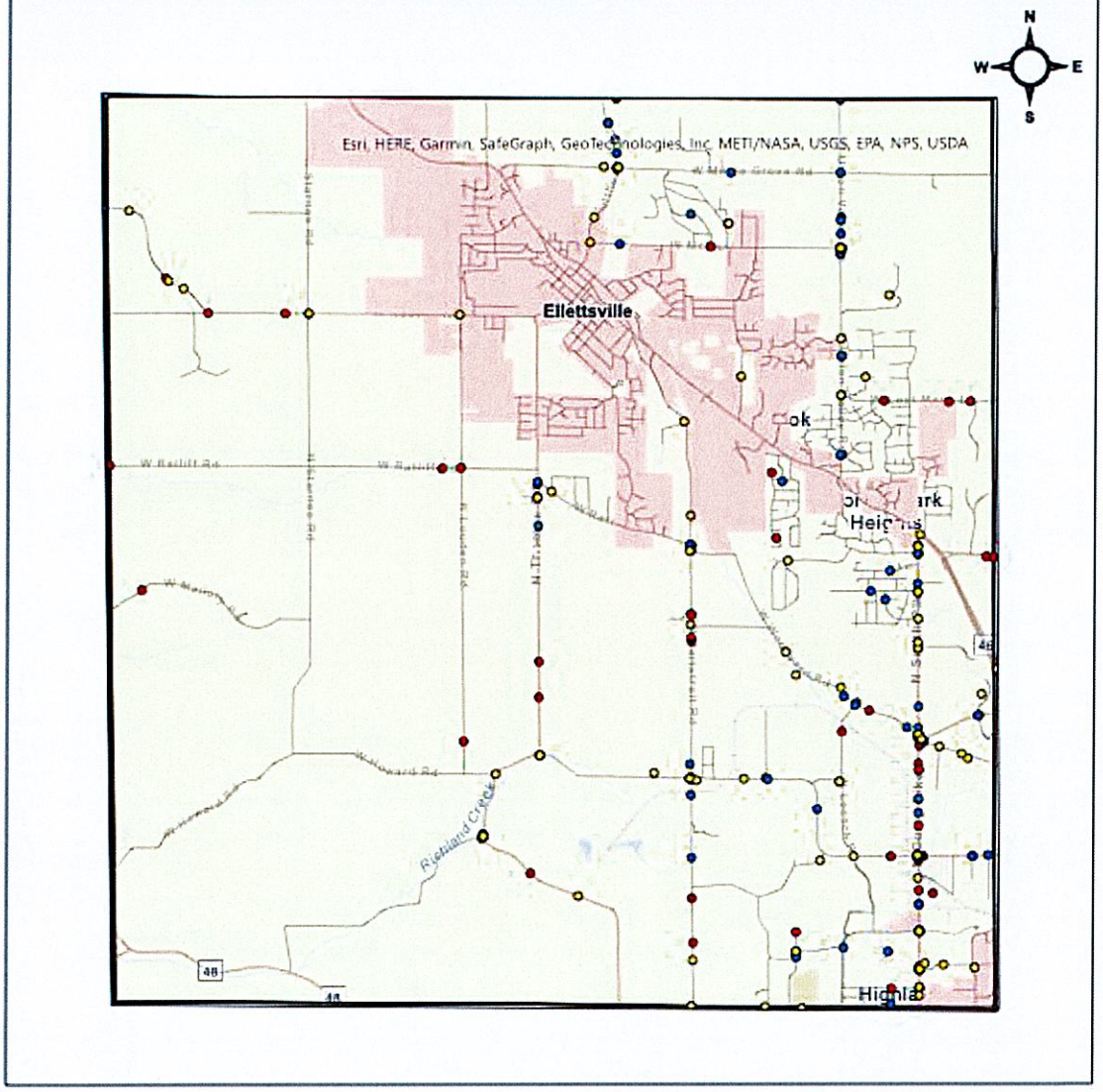

Personal Injury Crashes (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph
USGS, EPA, NPS, USDA
Ellettsville
Bloomington
Woodville
Knight Ridge
Payntown State Recreation Area
Monroe Lake State Park
Yellowstone
0
2.25
4.5
9 Miles
Legend
Road
County Boundary
Corporate Boundary
2020
2021
2022

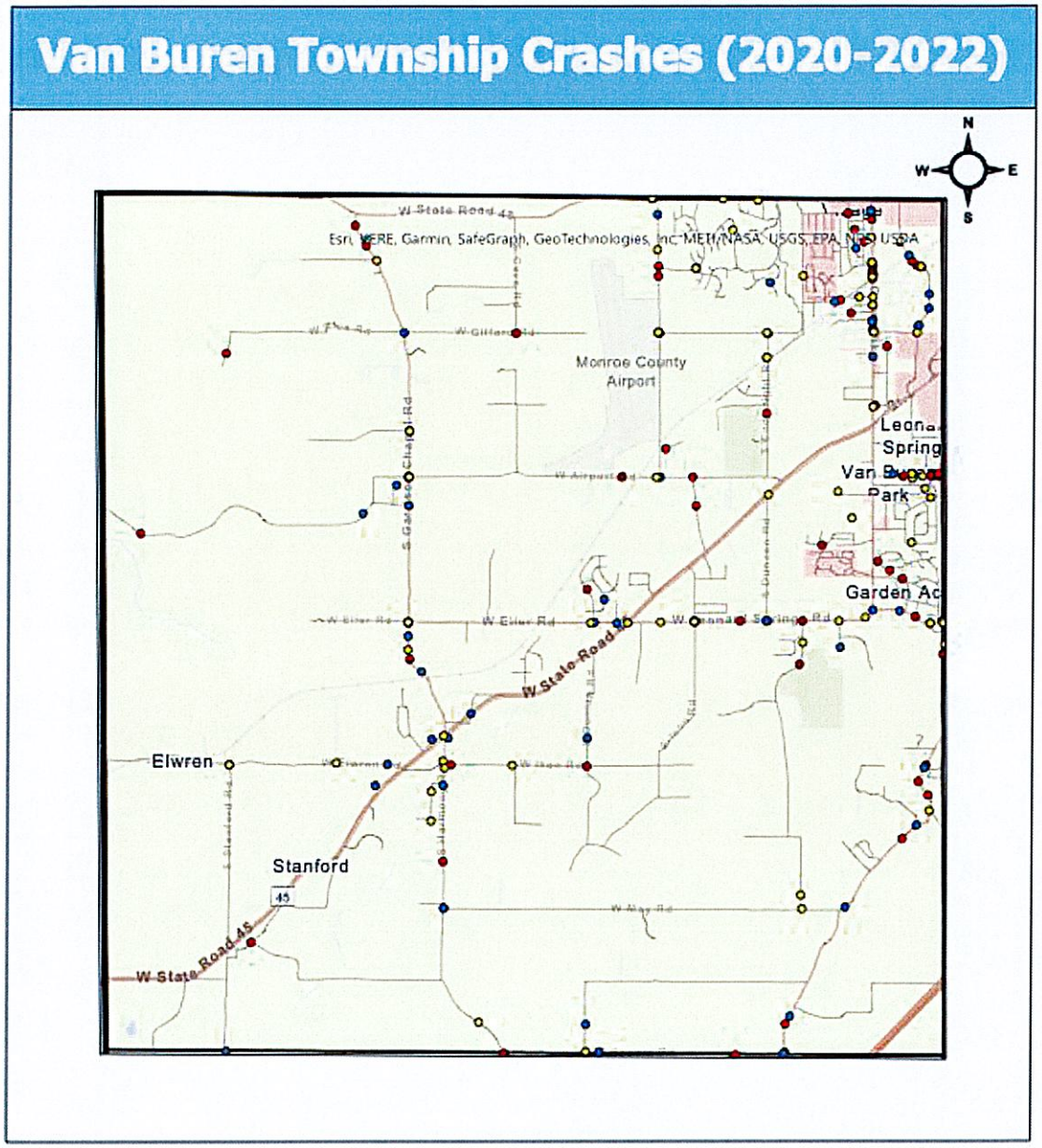

Property Damage Crashes (2020-2022)
N
W
E
S
Ellettsville
Bloomington
Knight Ridge
Yellowstone
0
2.25
4.5
9 Miles
Legend
Road
County Boundary
Corporate Boundary
2020
2021
2022

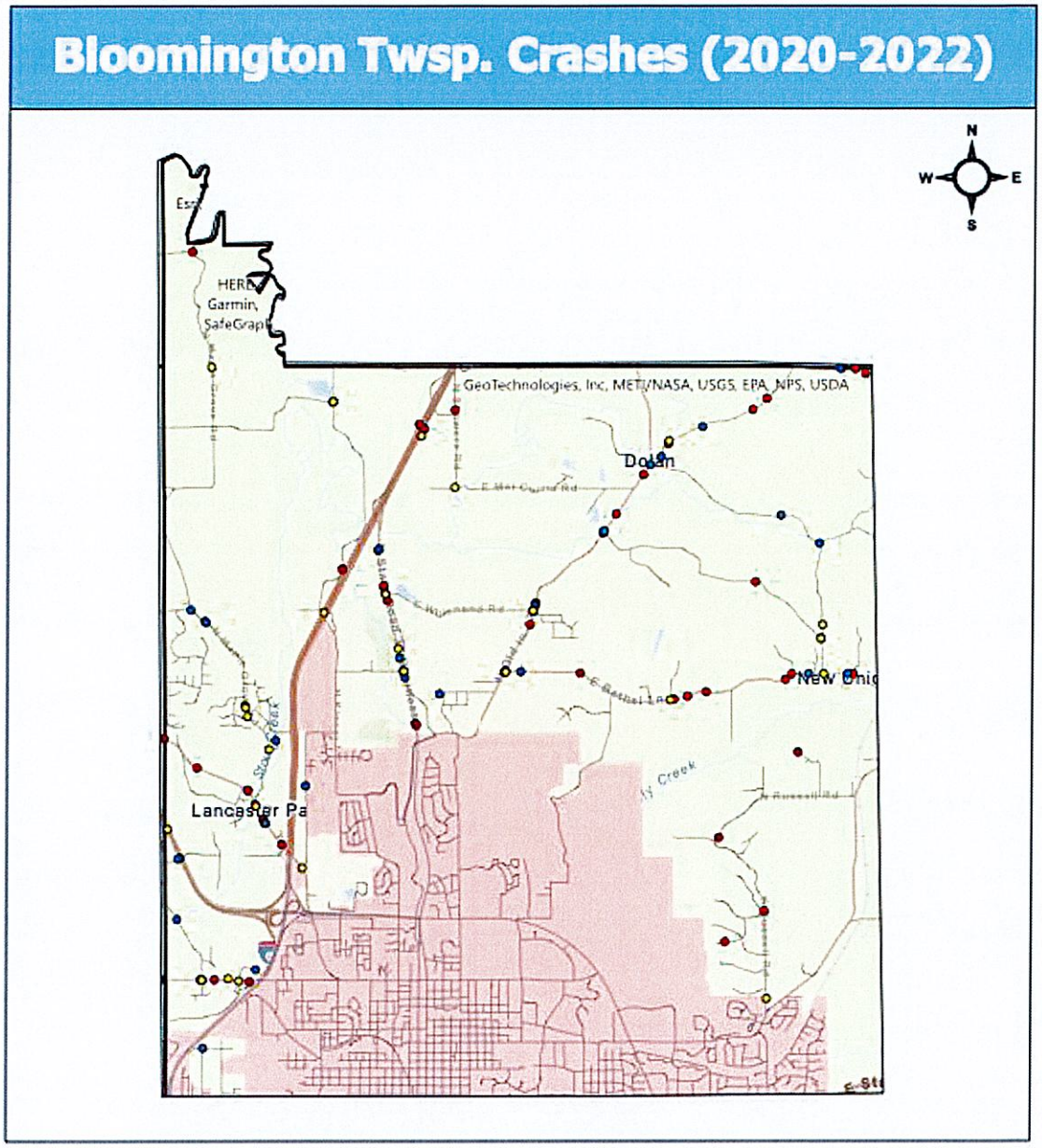

Alcohol/Drug Related Crashes (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph
METI/ USGS, EPA, NPS, USDA
Dolan
Ellettsville
Bloomington
Woodville
Knight Ridge
Smithville
Harrodsburg
Yellowstone
0 2.25 4.5 9 Miles
Legend
Road
County Boundary
Corporate Boundary
2020
2021
2022

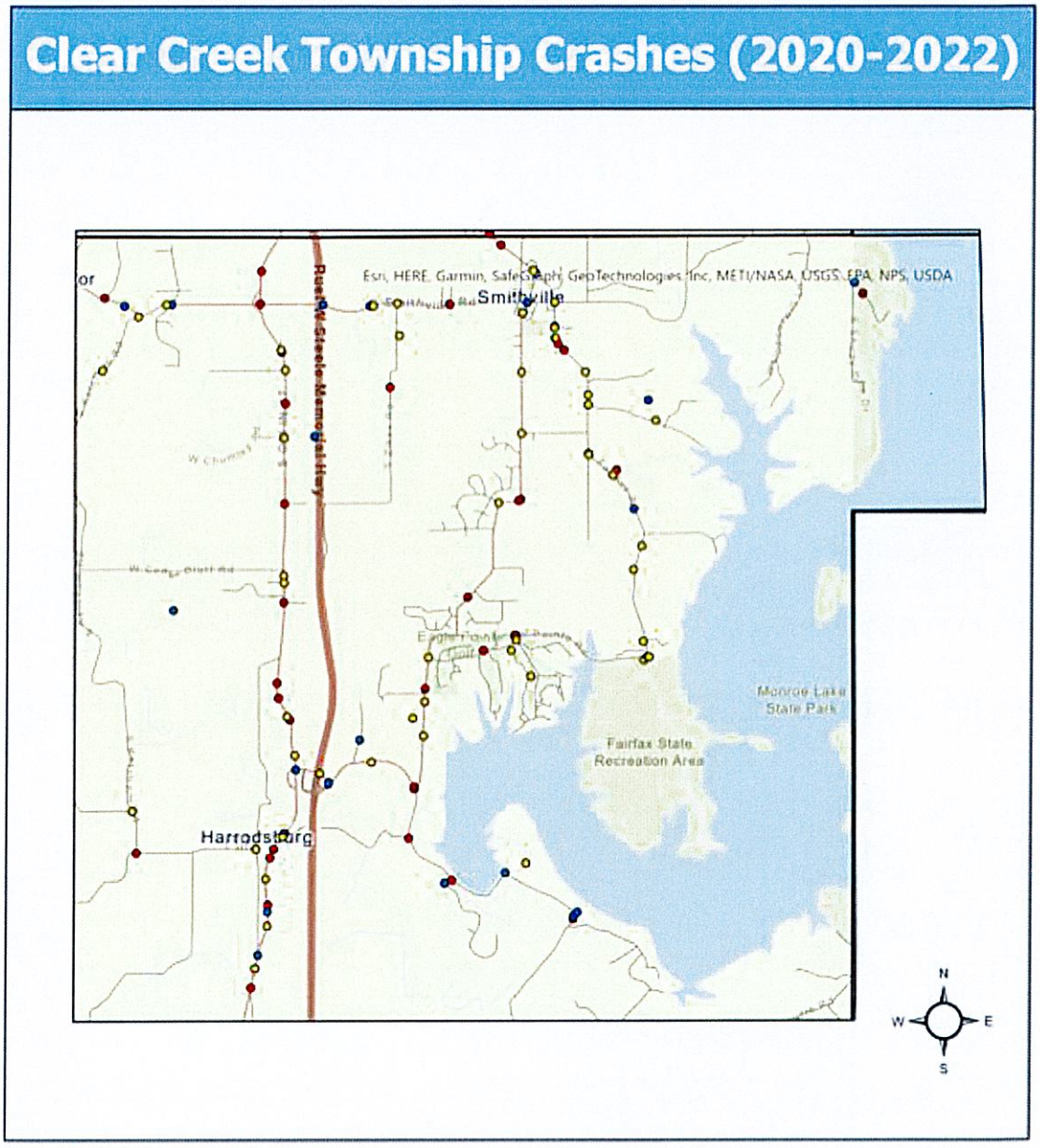

Perry Township Crashes (2020-2022)
N
W
E
S
Bloomington
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
446
Sun
Sanders
0 0.5 1 2 Miles
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary

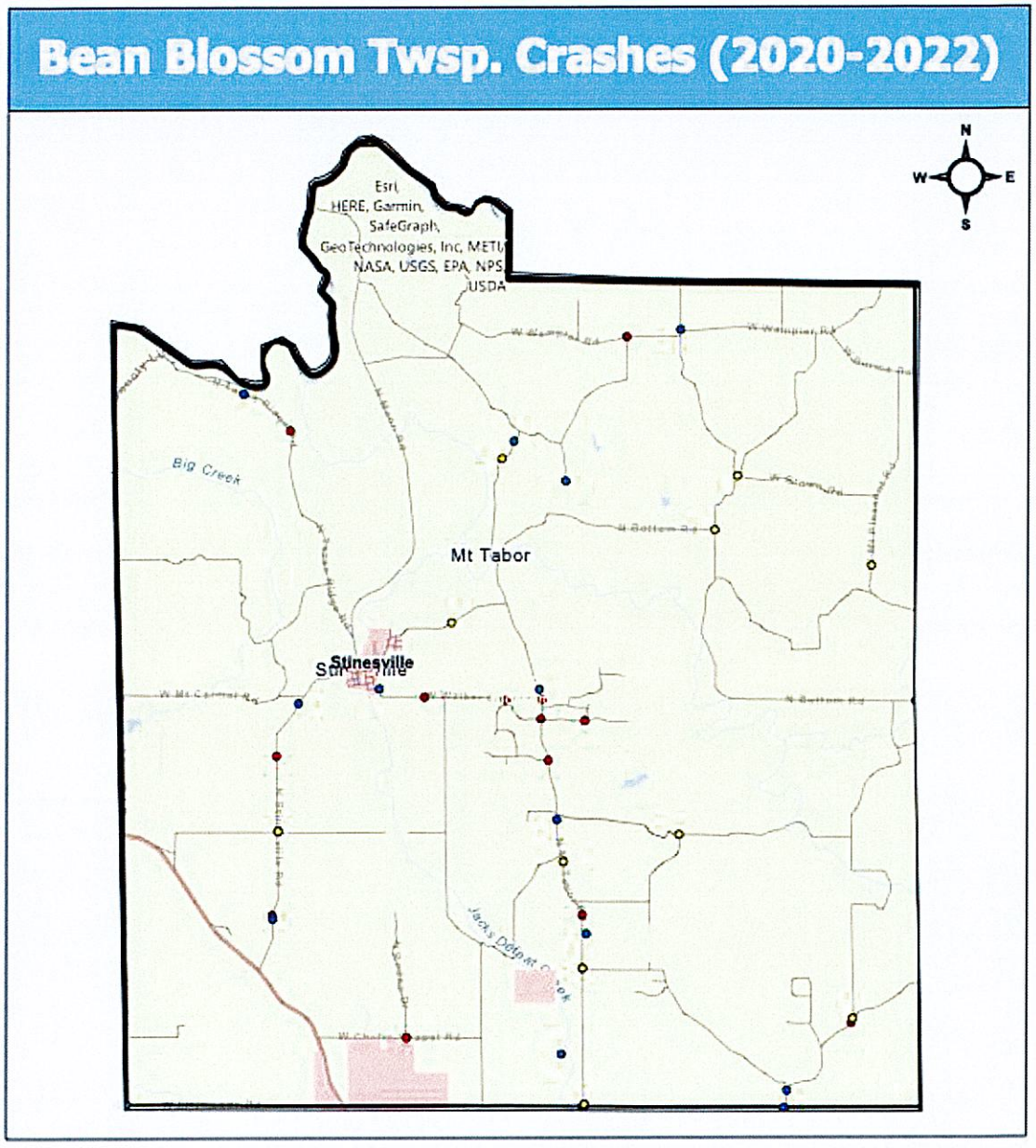
Richland Township Crashes (2020-2022)

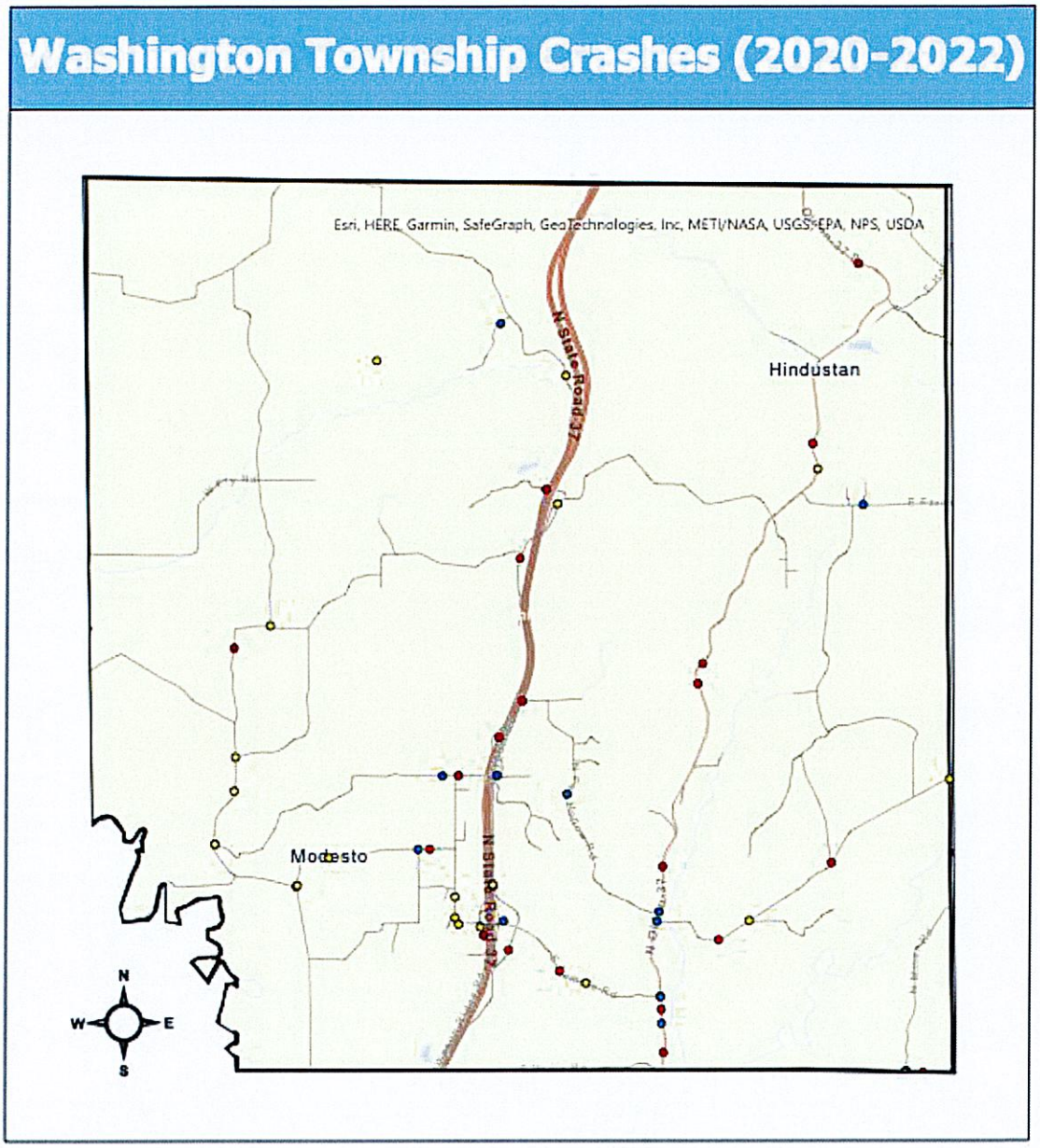


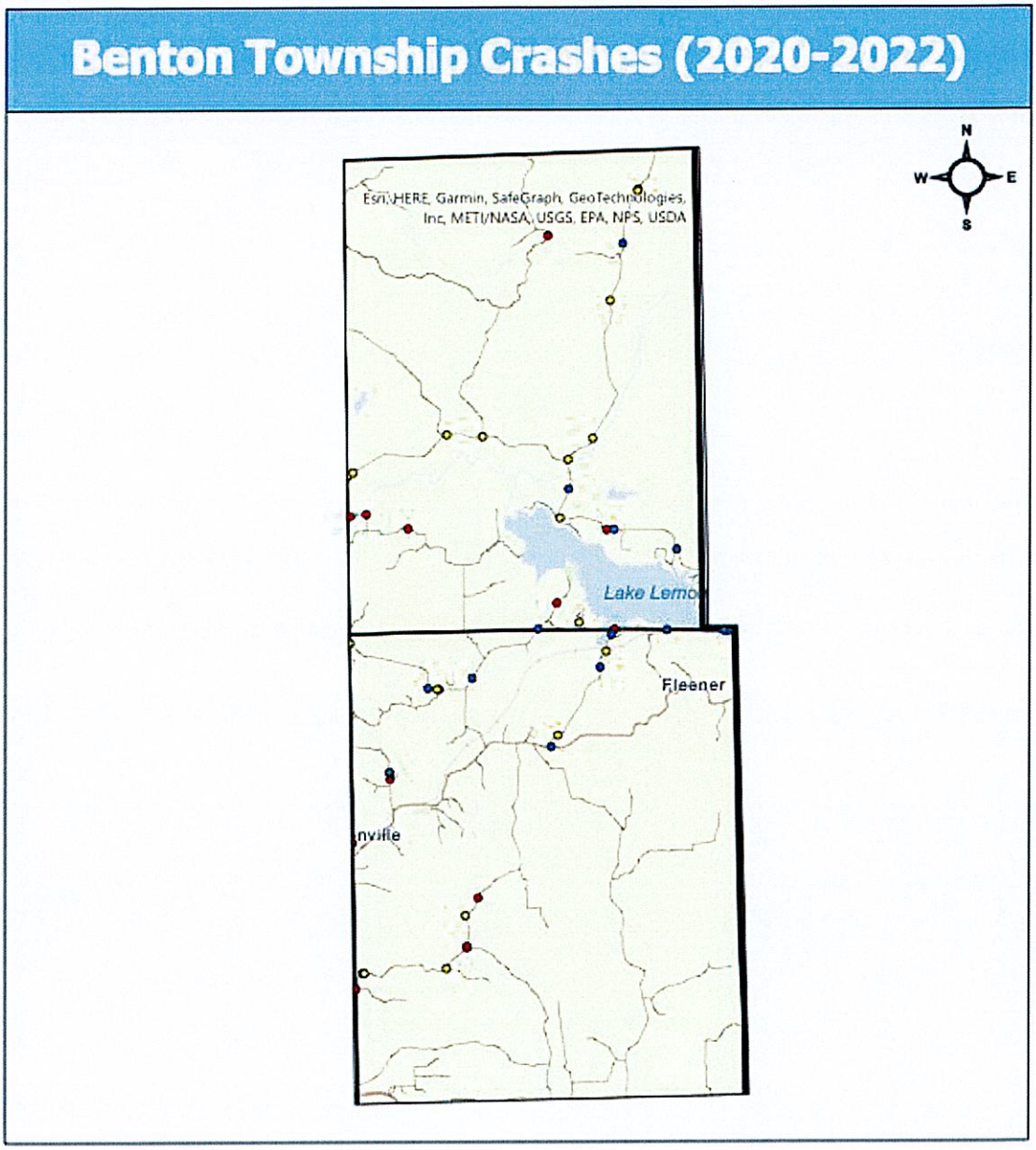

Van Buren Township Crashes (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Monroe County Airport
W State Road 45
Elwren
Stanford
45
Garden Ac
0 0.5 1 2 Miles
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary

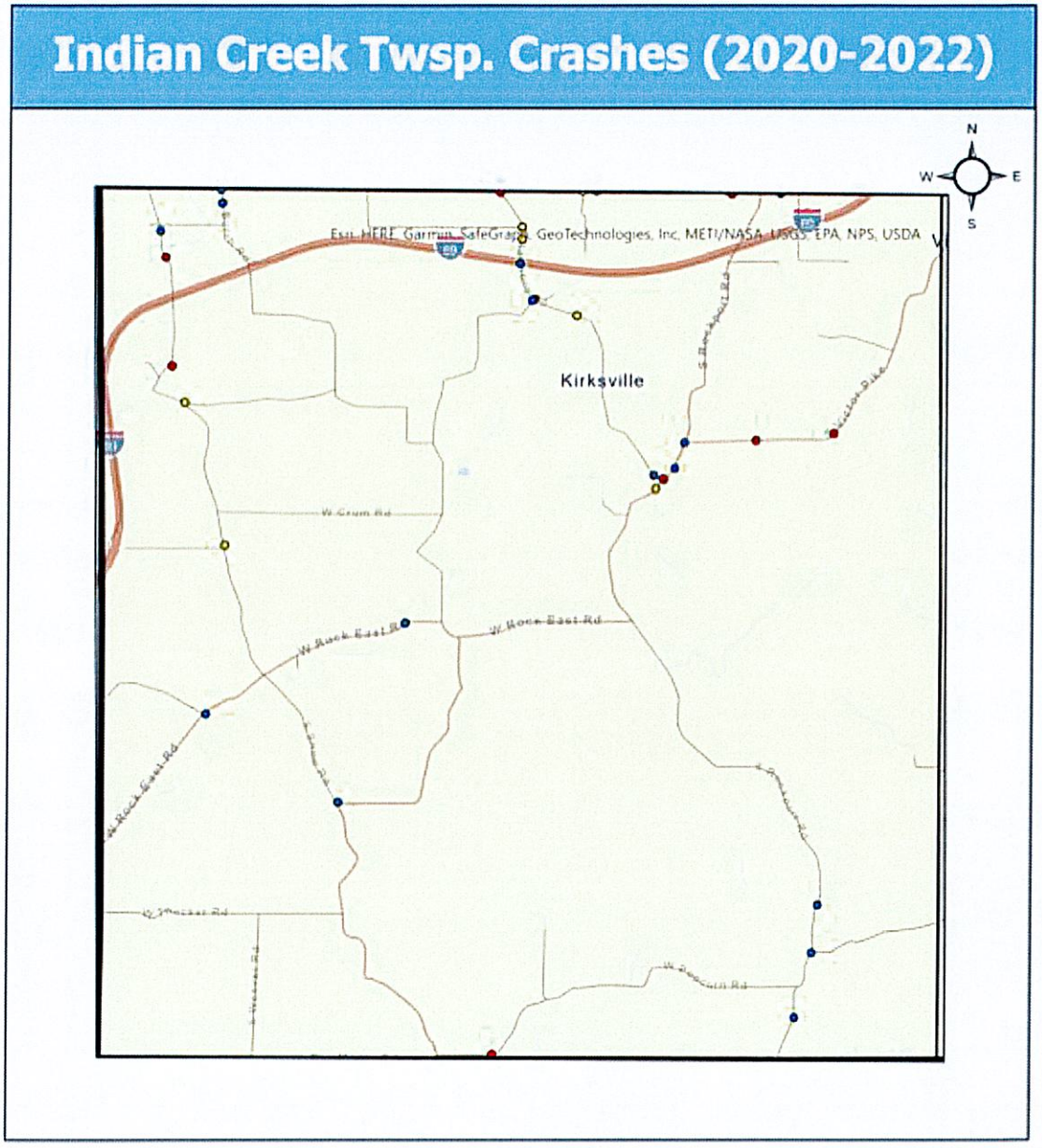

Bloomington Twsp. Crashes (2020-2022)
N
W
E
S
GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Dolan
Lancaster Pa
0 0.5 1 2 Miles
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary

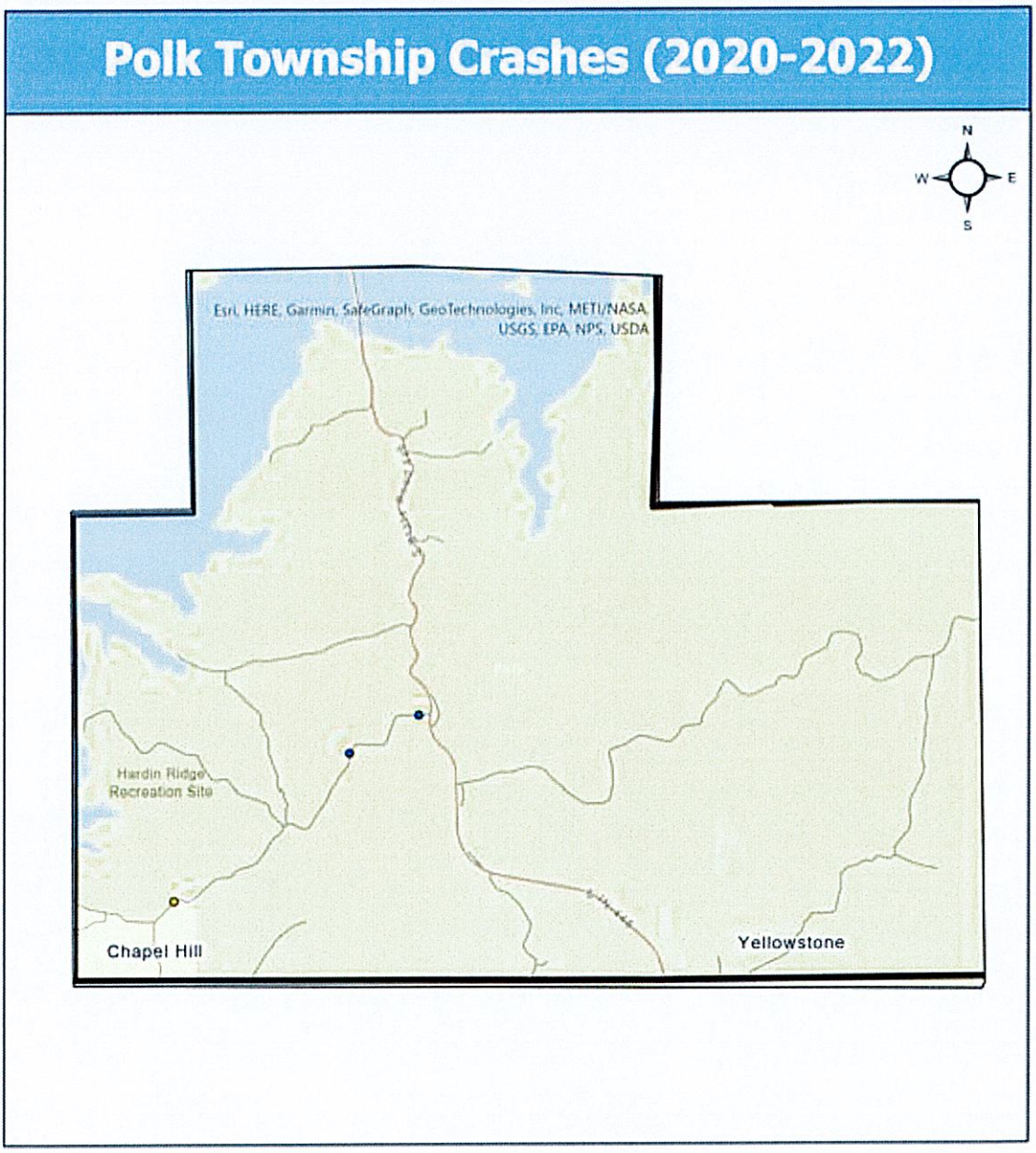

Clear Creek Township Crashes (2020-2022)
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Smithville
Rusty Steele Memorial Hwy
Monroe Lake State Park
Fairfax State Recreation Area
Harrodsburg
N
W
E
S
0 0.5 1 2 Miles
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary

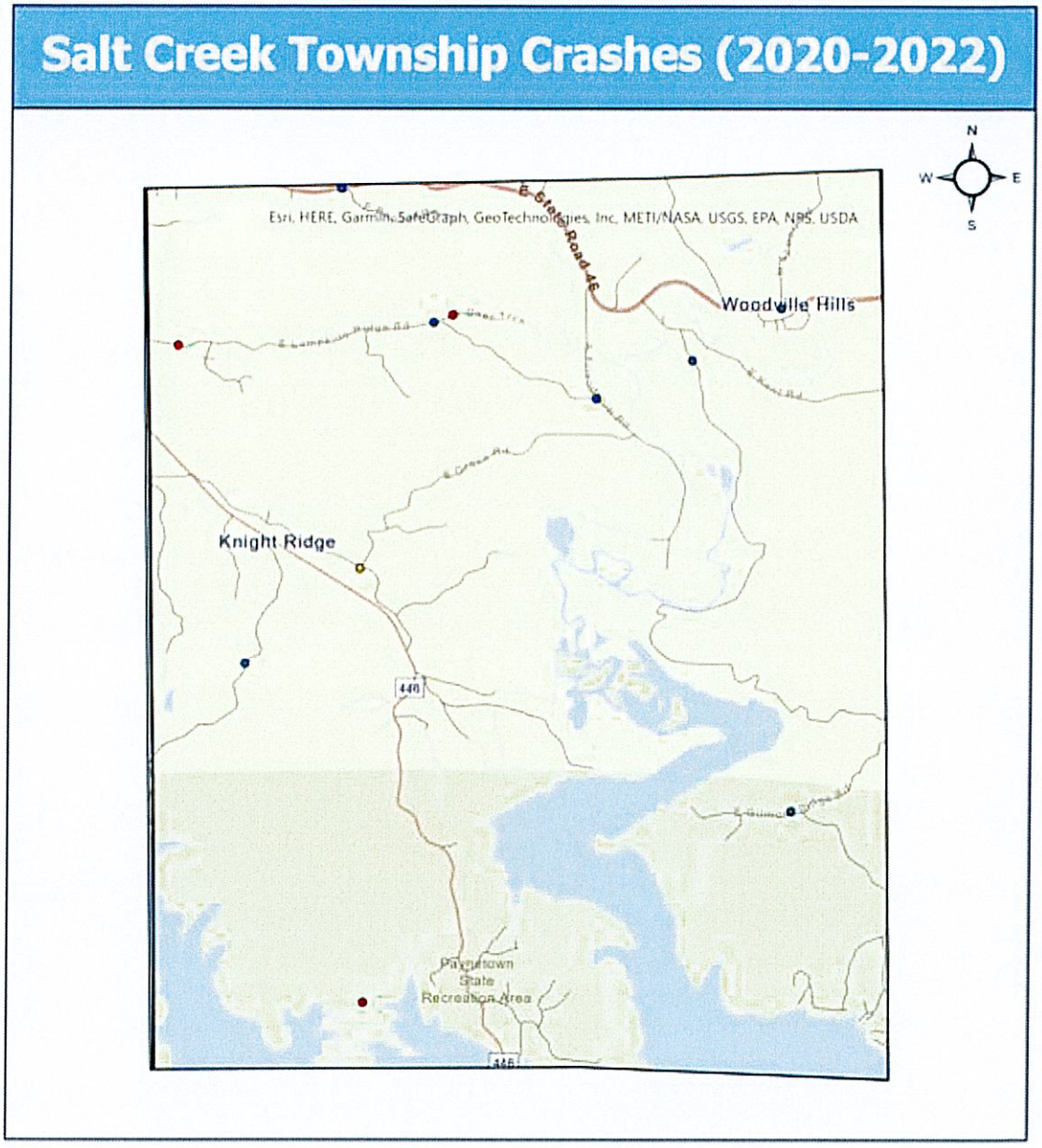

Bean Blossom Twsp. Crashes (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Big Creek
Mt Tabor
Stinesville
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary
0 0.5 1 2 Miles


Washington Township Crashes (2020-2022)
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
N State Road 99
Hindustan
Modesto
N State Road 99
N
W
E
S
0
0.5
1
2 Miles
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary


Benton Township Crashes (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Lake Lemo
Fleener
nville
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary
0
1
2
4 Miles


Indian Creek Twsp. Crashes (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Kirksville
W Crum Rd
W Rock East Rd
W Rock East Rd
W Rock East Rd
W Rock East Rd
0
0.5
1
2 Miles
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary


Polk Township Crashes (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Hardin Ridge Recreation Site
Chapel Hill
Yellowstone
0
0.75
1.5
3 Miles
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary


Salt Creek Township Crashes (2020-2022)
N
W
E
S
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
E State Road 4E
Woodville Hills
Knight Ridge
446
Paynetown State Recreation Area
446
Legend
2020
2021
2022
Road
County Boundary
Corporate Boundary
0
0.5
1
2 Miles