

Mathews	8,788	Urban	0	0.00	133	39.10	22	Low
Mecklenburg	30,728	Non-adjacent rural	0	0.00	133	28.60	58	Very high vulnerability
Middlesex	10,675	Adjacent rural	0	0.00	133	33.40	37	Moderate
Montgomery	98,140	Urban	0	0.00	133	22.00	88	Low
Nelson	14,831	Urban	0	0.00	133	22.50	86	Low
New Kent	21,686	Urban	0	0.00	133	24.70	79	Very low vulnerability
Newport News City	179,673	Urban	0	0.00	133	32.90	39	Very high vulnerability
Norfolk City	244,601	Urban	4	1.64	25	38.20	24	Very high vulnerability
Northampton	11,885	Adjacent rural	0	0.00	133	30.50	50	High
Northumberland	12,190	Non-adjacent rural	0	0.00	133	32.70	40	Moderate
Norton City	3,970	Non-adjacent rural	0	0.00	133	Suppressed	-	High
Nottoway	15,433	Adjacent rural	0	0.00	133	19.90	100	Very high vulnerability
Orange	36,010	Adjacent rural	0	0.00	133	41.40	20	High
Page	23,788	Adjacent rural	0	0.00	133	33.80	35	Moderate
Patrick	17,748	Adjacent rural	0	0.00	133	43.70	13	High
Petersburg City	31,362	Urban	1	3.19	18	42.70	16	Very high vulnerability
Pittsylvania	61,256	Adjacent rural	0	0.00	133	26.60	69	High
Poquoson City	12,090	Urban	0	0.00	133	19.50	104	Very low vulnerability
Portsmouth City	95,097	Urban	3	3.15	19	42.70	16	Very high vulnerability
Powhatan	28,815	Urban	0	0.00	133	19.10	106	Very low vulnerability
Prince Edward	22,905	Adjacent rural	0	0.00	133	21.20	93	High
Prince George	38,114	Urban	0	0.00	133	15.80	117	Moderate
Prince William	461,423	Urban	3	0.65	31	16.30	116	Moderate
Pulaski	34,182	Urban	1	2.93	20	43.50	14	Low
Radford City	17,691	Urban	0	0.00	133	27.30	65	Low
Rappahannock	7,378	Urban	0	0.00	133	29.70	53	Low
Richmond	8,884	Non-adjacent rural	0	0.00	133	27.80	63	Very high vulnerability
Richmond City	226,622	Urban	27	11.91	5	37.30	28	Very high vulnerability
Roanoke	93,823	Urban	0	0.00	133	28.40	60	Moderate
Roanoke City	99,229	Urban	12	12.09	4	52.30	4	Very high vulnerability
Rockbridge	22,570	Adjacent rural	0	0.00	133	19.70	102	Low
Rockingham	80,284	Urban	0	0.00	133	16.80	114	High
Russell	27,141	Non-adjacent rural	0	0.00	133	37.20	29	Moderate
Salem City	25,317	Urban	1	3.95	14	44.40	9	Moderate
Scott	21,902	Urban	0	0.00	133	33.70	36	High
Shenandoah	43,224	Adjacent rural	0	0.00	133	29.20	57	High
Smyth	30,767	Non-adjacent rural	0	0.00	133	38.20	24	Very high vulnerability
Southampton	17,880	Adjacent rural	0	0.00	133	18.90	108	Moderate
Spotsylvania	132,833	Urban	1	0.75	30	22.40	87	Moderate
Stafford	146,773	Urban	0	0.00	133	17.20	113	Moderate

Staunton City	24,432	Urban	0	0.00	133	38.60	23	High
Suffolk City	90,093	Urban	0	0.00	133	19.10	106	High
Surry	6,523	Adjacent rural	0	0.00	133	30.30	51	Moderate
Sussex	11,377	Urban	0	0.00	133	19.90	100	Very high vulnerability
Tazewell	41,603	Non-adjacent rural	0	0.00	133	58.70	2	High
Virginia Beach City	450,201	Urban	15	3.33	17	23.80	83	Moderate
Warren	39,492	Urban	0	0.00	133	44.00	10	Moderate
Washington	54,071	Urban	0	0.00	133	28.10	62	Moderate
Waynesboro City	22,140	Urban	0	0.00	133	33.30	38	High
Westmoreland	17,751	Adjacent rural	0	0.00	133	40.40	21	High
Williamsburg City	14,927	Urban	0	0.00	133	31.30	47	Moderate
Winchester City	27,897	Urban	17	60.94	1	43.80	12	Very high vulnerability
Wise	38,486	Non-adjacent rural	0	0.00	133	51.40	5	Very high vulnerability
Wythe	28,844	Adjacent rural	0	0.00	133	37.90	27	Moderate

¹Population data were downloaded from tables in Social Explorer's ACS five-year estimate (2015-2019). American Community Survey 5-year Estimates, 2015-2019. Social Explorer tables, ACS 2015-2019. Social Explorer.

²The Rural-Urban Continuum Code (RUCC) was used to classify each county as urban, adjacent rural, or non-adjacent rural. Urban counties are counties with codes 1 (Counties in metro areas of 1 million population or more), 2 (Counties in metro areas of 250,000 to 1 million population), and 3 (Counties in metro areas of fewer than 250,000 population). Adjacent rural counties are counties with codes 4 (Urban population of 20,000 or more, adjacent to a metro area), 6 (Urban population of 2,500 to 19,999, adjacent to a metro area), and 8 (Completely rural or less than 2,500 urban population, adjacent to a metro area). Non-adjacent rural counties are the remaining three codes - 5 (Urban population of 20,000 or more, not adjacent to a metro area), 7 (Urban population of 2,500 to 19,999, not adjacent to a metro area), and 9 (Completely rural or less than 2,500 urban population, not adjacent to a metro area). Rural-Urban Continuum Code (RUCC). <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>

³Recovery residences are from the NSTARR project and are current as of 2020.

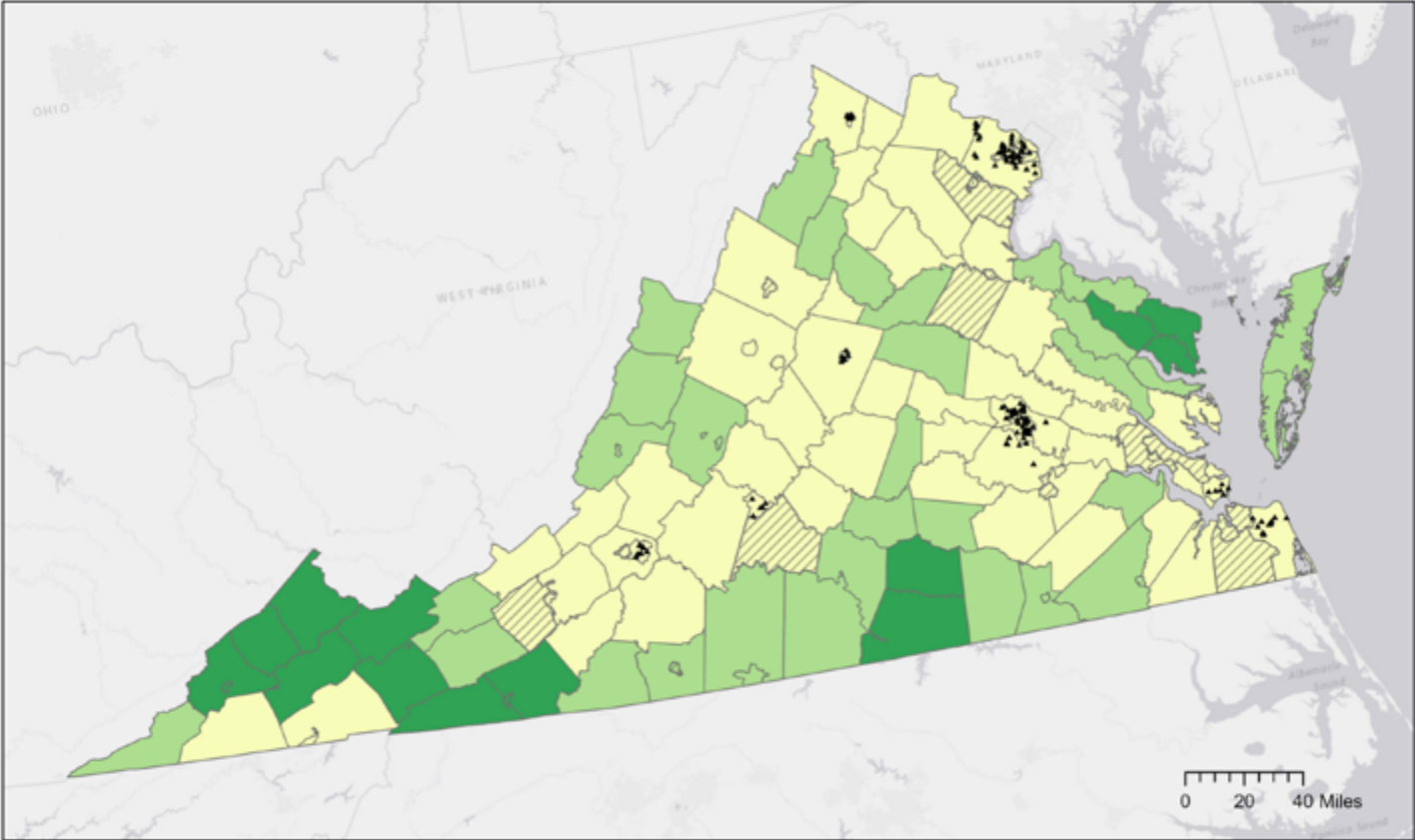
⁴Recovery residences availability per capita is ranked in order of decreasing recovery residence density per 100,000 population per county, with 1 (highest number of residences per 100,000) to 133 (lowest number of residences per 100,000 population). Counties without recovery residences were all assigned a tied rank of 133.

⁵Alcohol- and drug-involved mortality included all deaths as underlying causes of death and selected ICD-10 codes mentioning or attributed to alcohol or drugs as contributing cause of death. Data from the Centers for Disease Control and Prevention, 2020. CDC Wonder (Wide-ranging Online Data for Epidemiologic Research). U.S. Department of Health and Human Services, Atlanta, GA. Available at: <https://wonder.cdc.gov/>. For more information on coding multiple causes of death, see: Centers for Disease Control and Prevention, About Multiple Cause of Death, 1999-2019. <https://wonder.cdc.gov/mcd-icd10.html> accessed on August 9 2021.

⁶Mortality rate is ranked in order of decreasing alcohol- and drug-involved mortality from 1 (highest mortality per 100,000 population) to 124 (lowest mortality per 100,000 population).

⁷COVID-19 Community Vulnerability Index (CCVI) scores range in value from 0 – 1, with 0 being least vulnerable and 1 being the most vulnerable. Each county is ranked relative to all counties across the country, based on seven themes/domains. Each county was grouped into quintiles: very high (score of 0.8-1), high (0.6-0.8), moderate (0.4-0.6), low (0.2-0.4), and very low (0-0.2). For more information on how the CCVI is calculated, see: COVID-19 Community Vulnerability Index (CCVI) methodology. Retrieved from [https://covid-static-assets.s3.amazonaws.com/US-CCVI/COVID-19+Community+Vulnerability+Index+\(CCVI\)+Methodology.pdf](https://covid-static-assets.s3.amazonaws.com/US-CCVI/COVID-19+Community+Vulnerability+Index+(CCVI)+Methodology.pdf)

Figure 1. Distribution of Residences by Rural-Urban Classification



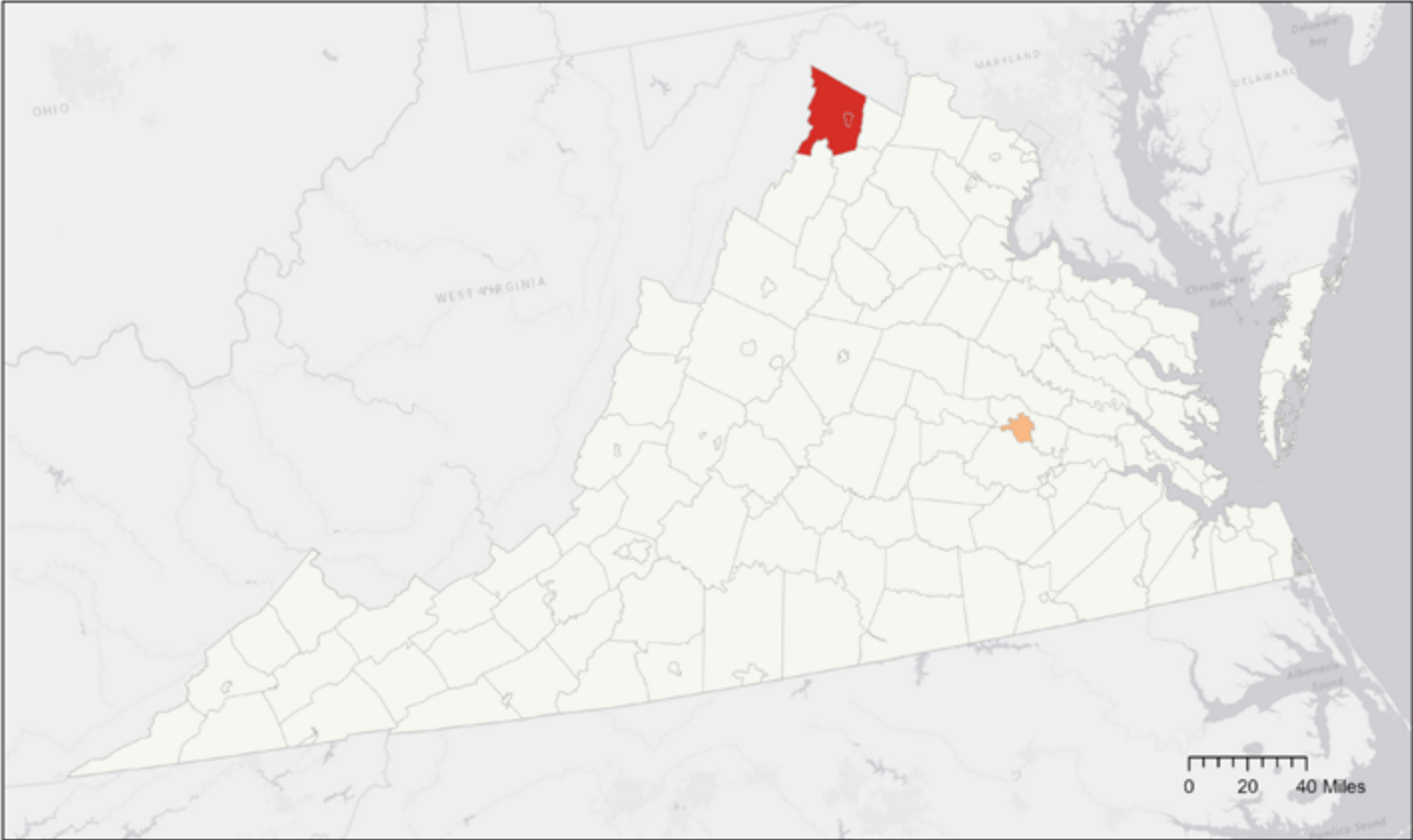
- ▲ Recovery residences
- Rural-Urban Classification Code (RUCC)
 - Urban
 - Adjacent rural
 - Non-adjacent rural
 - Counties with residence locations suppressed (1-4 residences) to protect privacy



Data Credits: Esri, HERE, Garmin, USGS, EPA, NPS
 Recovery residence locations: 2020
 Created by: NSTARR Project (May 2022)



Figure 2. Hot/Cold Spot Analysis of Recovery Residence Locations



Hot Spot Analysis (Getis-Ord GI*)

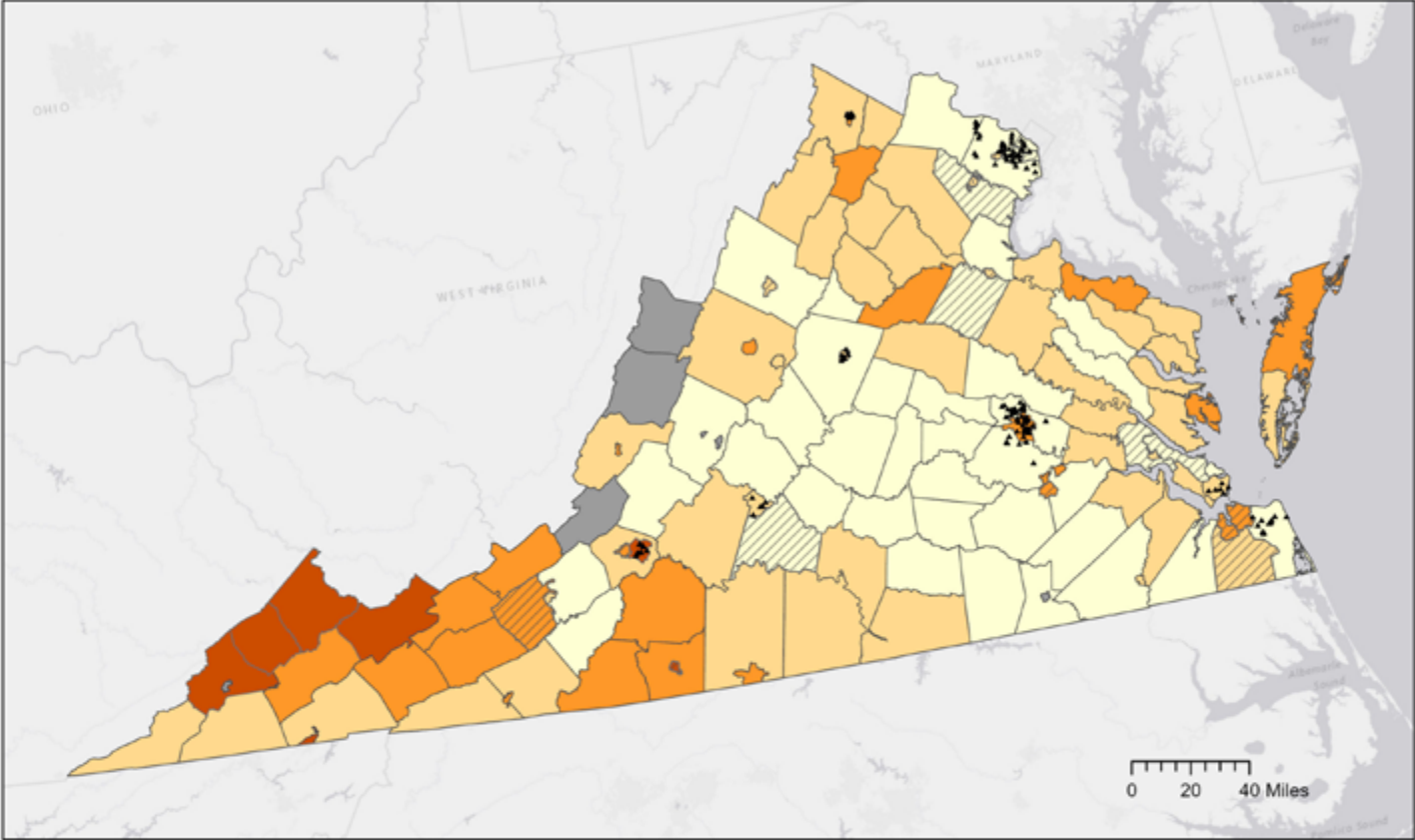
- Cold Spot with 99% Confidence
- Cold Spot with 95% Confidence
- Cold Spot with 90% Confidence
- Not Significant
- Hot Spot with 90% Confidence
- Hot Spot with 95% Confidence
- Hot Spot with 99% Confidence



Data Credits: Esri, HERE, Garmin, USGS, EPA, NPS
 Recovery residence locations: 2020
 Created by: NSTARR Project (May 2022)



Figure 3. Distribution of Residences by Age-adjusted Alcohol- and/or Drug-involved Mortality



▲ Recovery residences
 Age-adjusted alcohol and drug mortality rate per 100,000 population

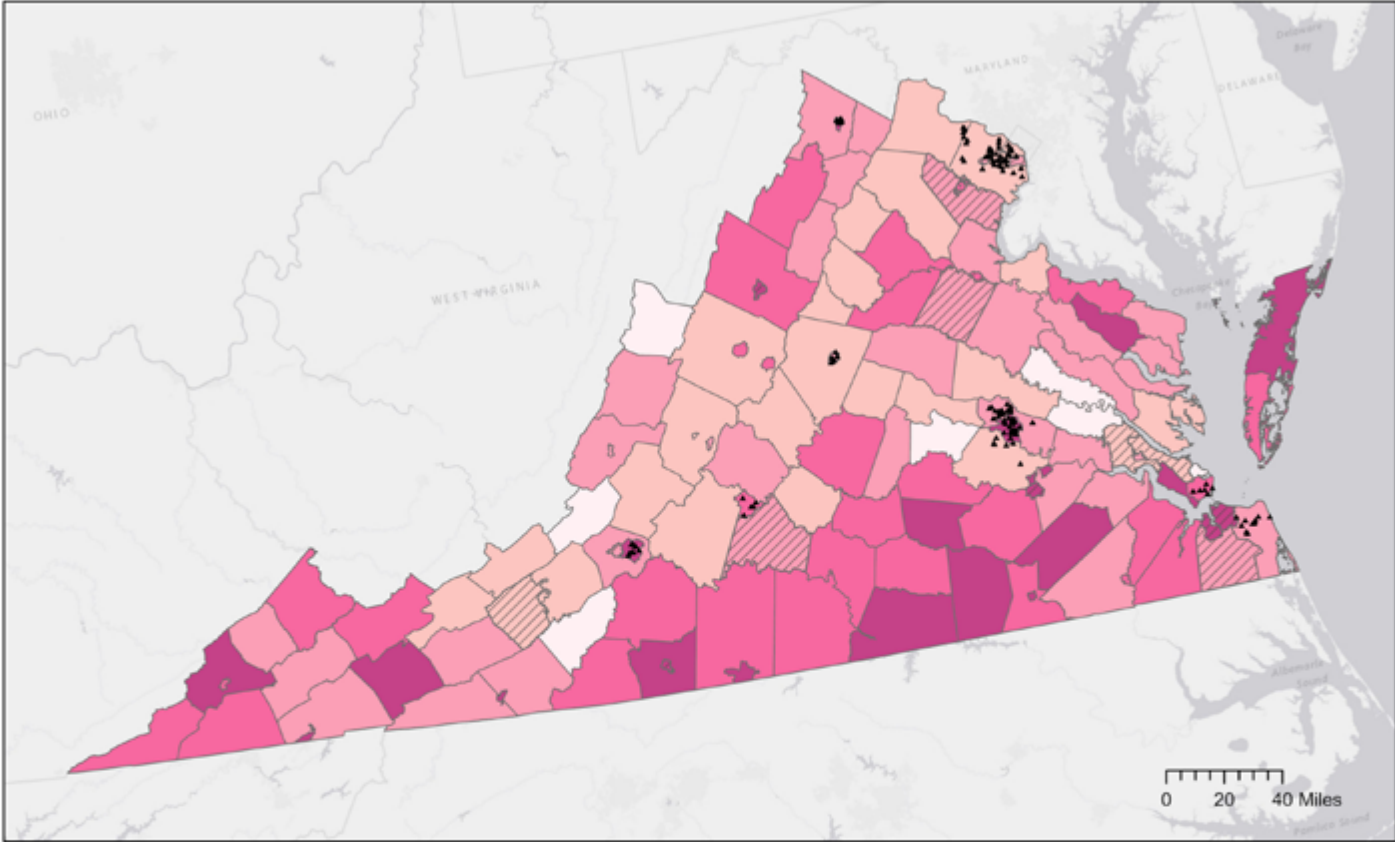
- 12 - 23
- 24 - 34
- 35 - 45
- 46 - 59
- Suppressed/Unreliable
- Counties with residence locations suppressed (1-4 residences) to protect privacy

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Data Credits: Esri, HERE, Garmin, USGS, EPA, NPS
 Recovery residence locations: 2020
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Figure 4. Distribution of Residences by COVID-19 Community Vulnerability Index



- ▲ Recovery Residences
- COVID-19 Community Vulnerability Index (CCVI)
- Very low vulnerability
- Low
- Moderate
- High
- Very high vulnerability
- Countries with residence locations suppressed (1-4 residences) to protect privacy



Data Credits: Esri, HERE, Garmin, USGS, EPA, NPS
 Recovery residence locations: 2020
 Created by: NSTARR Project (May 2022)





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