Hurricane Ian Advisory #29

US Army Corps of Engineers
BUILDING STRONG®

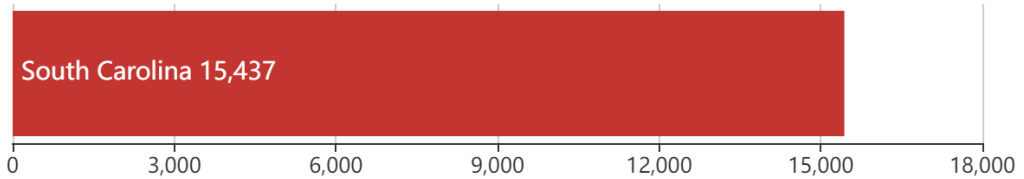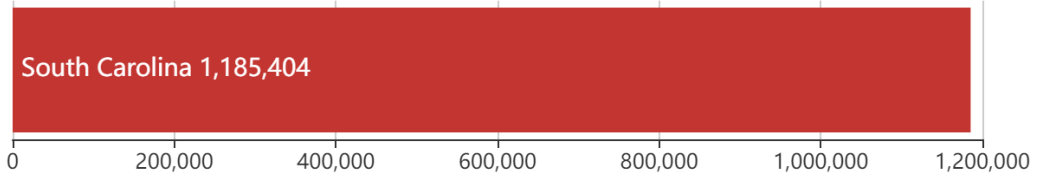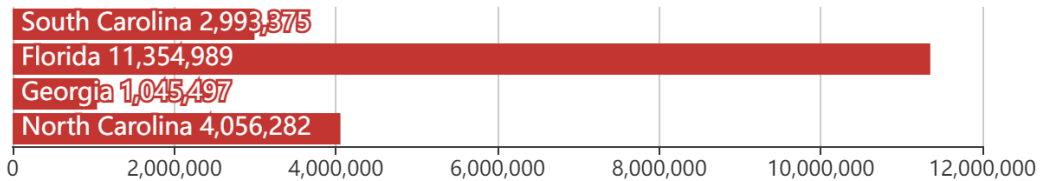| WASHINGTON, DC	CHICAGO	LOS ANGELES
17:37:03	16:37:03	14:37:03
29 Sep 2022	29 Sep 2022	29 Sep 2022

https://simsuite.usace.army.mil/wab/v2.15/MissionModels/#advid=277&oid=84&name=Hurricane%20Ian&advisory=Advisory%20%2329&advlf=A

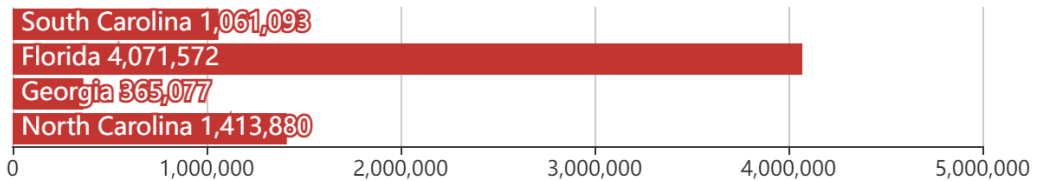Updated as of 29 Sep 2022 (4:37 PM Central Daylight Time)

Debris

1.2M cu. yd.

South Carolina 1,185,404

0 · 200,000 · 400,000 · 600,000 · 800,000 · 1,000,000 · 1,200,000

Est. Temp. Roofing

15.4K units

South Carolina 15,437

0 · 3,000 · 6,000 · 9,000 · 12,000 · 15,000 · 18,000

Act. Temp. Roofing

3.7K units

South Carolina 3,705

0 · 1,000 · 2,000 · 3,000 · 4,000

Population

19.5M people

South Carolina 2,993,375
Florida 11,354,989
Georgia 1,045,497
North Carolina 4,056,282

0 · 2,000,000 · 4,000,000 · 6,000,000 · 8,000,000 · 10,000,000 · 12,000,000

Households

6.9M households

South Carolina 1,061,093
Florida 4,071,572
Georgia 365,077
North Carolina 1,413,880

0 · 1,000,000 · 2,000,000 · 3,000,000 · 4,000,000 · 5,000,000

Mission Model Summary

Debris By USACE District

cu. yd.

SAC	1.2M

Axis: 200,000 400,000 600,000 800,000 1,000,000
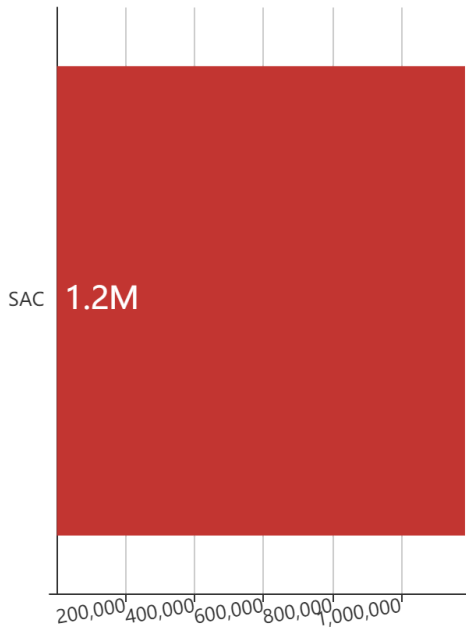
Est. Temp. Roofing By USACE District

units

SAC	15.4K

Axis: 0 3,000 6,000 9,000 12,000 15,000 18,000
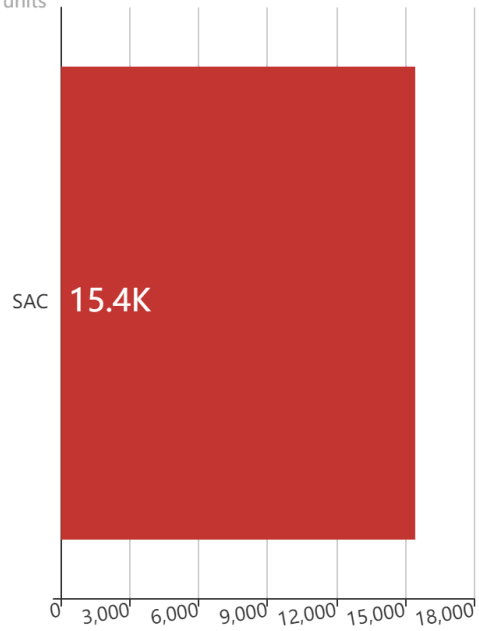
Population By USACE District

SAJ	11.3M
SAW	4.1M
SAC	3M
SAS	1.1M

Axis: 2,000,000 4,000,000 6,000,000 8,000,000 10,000,000
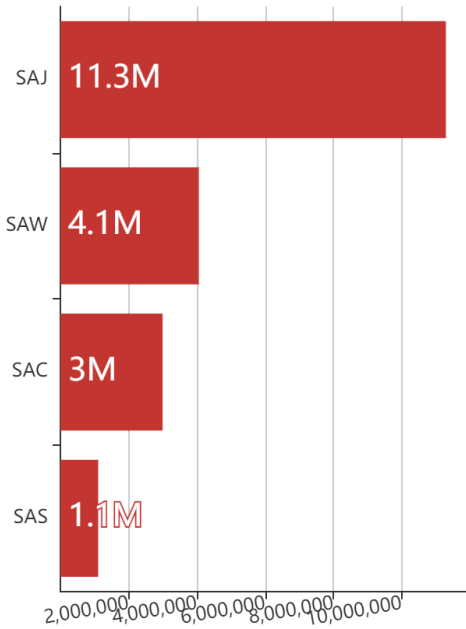
Households By USACE District

SAJ	4.1M
SAW	1.4M
SAC	1.1M
SAS	385.1K

Axis: 1,000,000 2,000,000 3,000,000 4,000,000

Critical Infrastructure Summary

Total

914
critical facilities

Power Requirements

26.1
MW
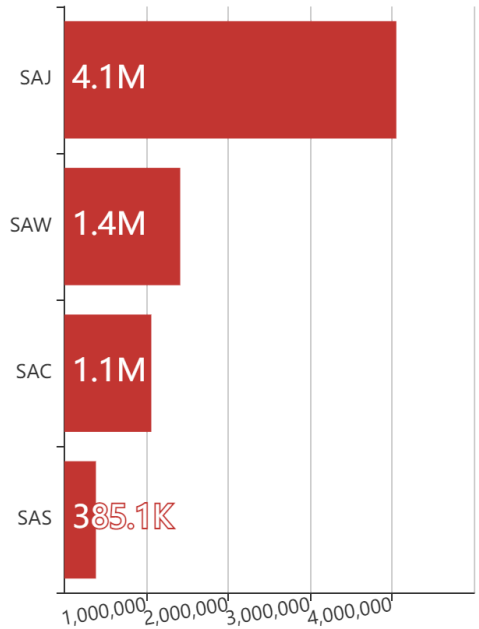
Generators
By Generator Count

Category	Value
Public Schools	54
Cellular Towers	52.8
Fire Stations	15.2
Nursing Homes	11.5
Emergency Medical Service	7.8
Wastewater Treatment Plants	5.4
All Others	9.3
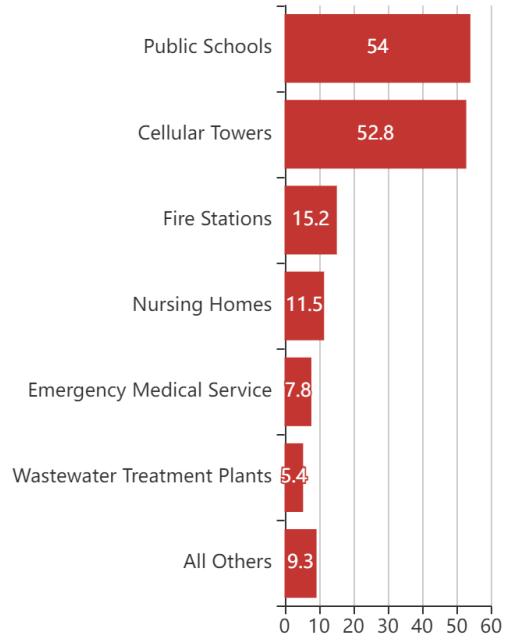
Generators
By Power Requirement

Category	Value
Urgent Care Facilities	900
Nursing Homes	779.6
Fire Stations	380
Wastewater Treatment Plants	283.5
Emergency Medical Service	195
Public-Use Airports	134.4
All Others	143.5

Generators
By Range

Range	Value
200 - 300	57.9
35 - 75	55.2
15 - 35	26.6
35 - 100	11.5
35 - 70	5.4
800 - 2000	4.8
All Others	0

Structures
By County

County	Structures
Charleston County, South Carolina	391
Georgetown County, South Carolina	202
Berkeley County, South Carolina	186
Villiamsburg County, South Carolina	75
Dorchester County, South Carolina	57
Florence County, South Carolina	1

Structures
By USACE District

District	Structures
SAC	914
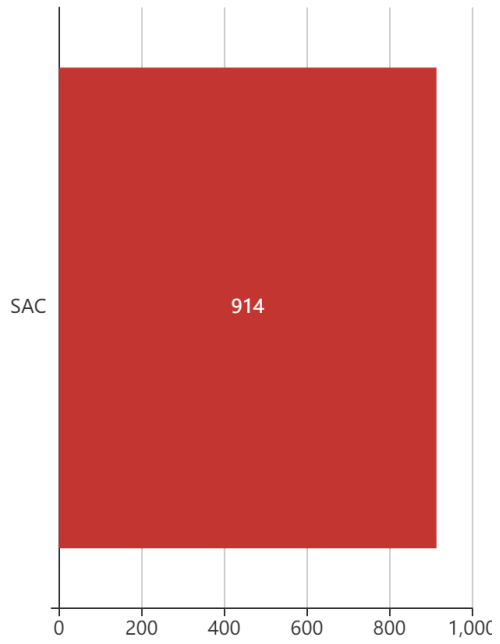
Structures
By Intensity

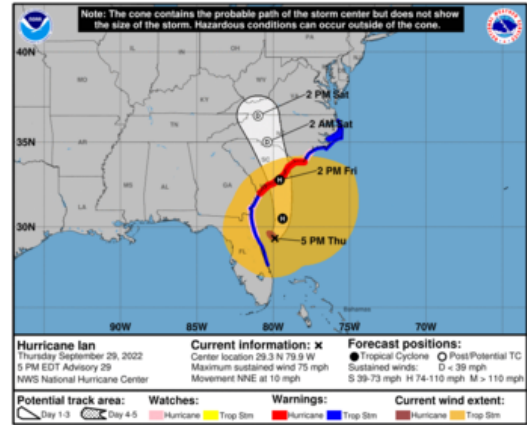| Intensity	Structures
Cat 1	914
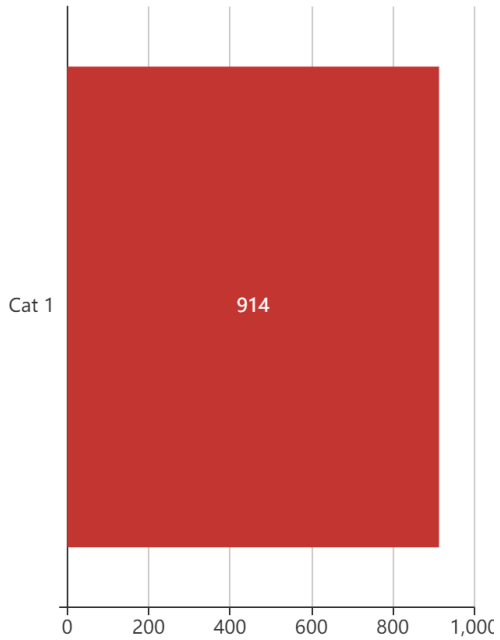
Key Messages for Hurricane Ian
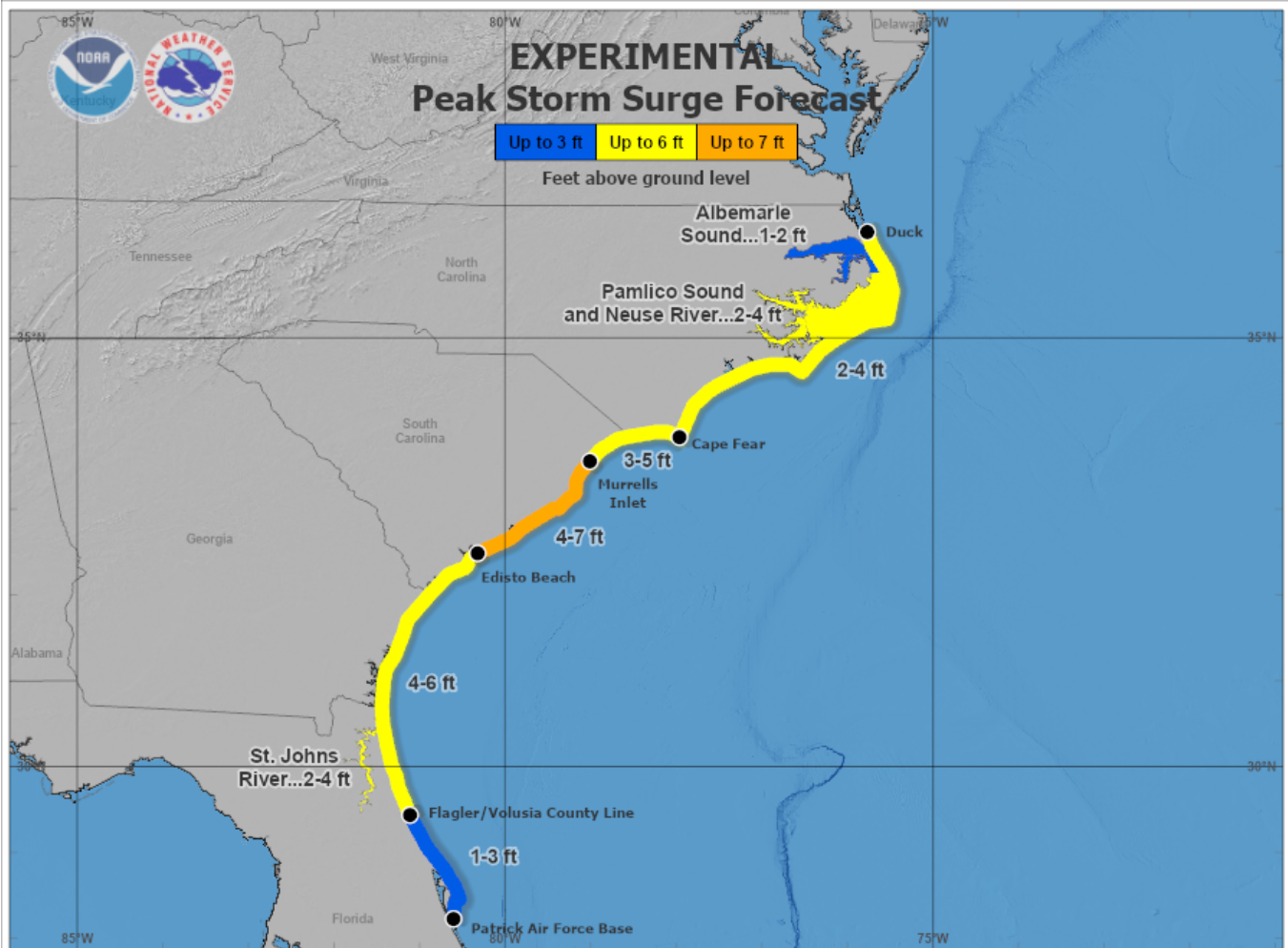## Advisory 29: 5:00 PM EDT Thu Sep 29, 2022

1. There is a danger of life-threatening storm surge through Friday along the coasts of northeast Florida, Georgia, and South Carolina. Residents in these areas should follow any advice given by local officials.

2. Hurricane-force winds are expected across coasts of South Carolina and southeastern North Carolina beginning early Friday, where a Hurricane Warning is in effect. Hurricane conditions are possible by tonight along the coasts of northeastern Florida, Georgia, and North Carolina where a Hurricane Watch is in effect. Preparations should be rushed to completion since tropical-storm-force winds will begin well before the center approaches the coast.

3. Ongoing major-to-record river flooding will continue across portions of central Florida, with considerable flooding in northern Florida. Considerable flash and urban flooding is expected across coastal portions of northeast Florida through Friday. Local significant flooding in southeastern Georgia and eastern South Carolina is expected through the end of the week.

For more information go to hurricanes.gov

EXPERIMENTAL
Peak Storm Surge Forecast

| Up to 3 ft | Up to 6 ft | Up to 7 ft |

Feet above ground level

Albemarle
Sound...1-2 ft

Duck

Pamlico Sound
and Neuse River...2-4 ft

2-4 ft

Cape Fear

3-5 ft

Murrells
Inlet

4-7 ft

Edisto Beach

4-6 ft

St. Johns
River...2-4 ft

Flagler/Volusia County Line

1-3 ft

Patrick Air Force Base

Hurricane Ian
Thursday September 29, 2022
05 PM EDT Advisory 29
NWS National Hurricane Center

User Notes: Water levels along the immediate coast could reach the following heights above ground level within the indicated areas. Elevated water levels will likely be accompanied by large and destructive waves. Colors are determined by the highest values in the associated forecast peak surge range. Values shown on this graphic are inclusive of tide.

Letter ANSI A Portrait
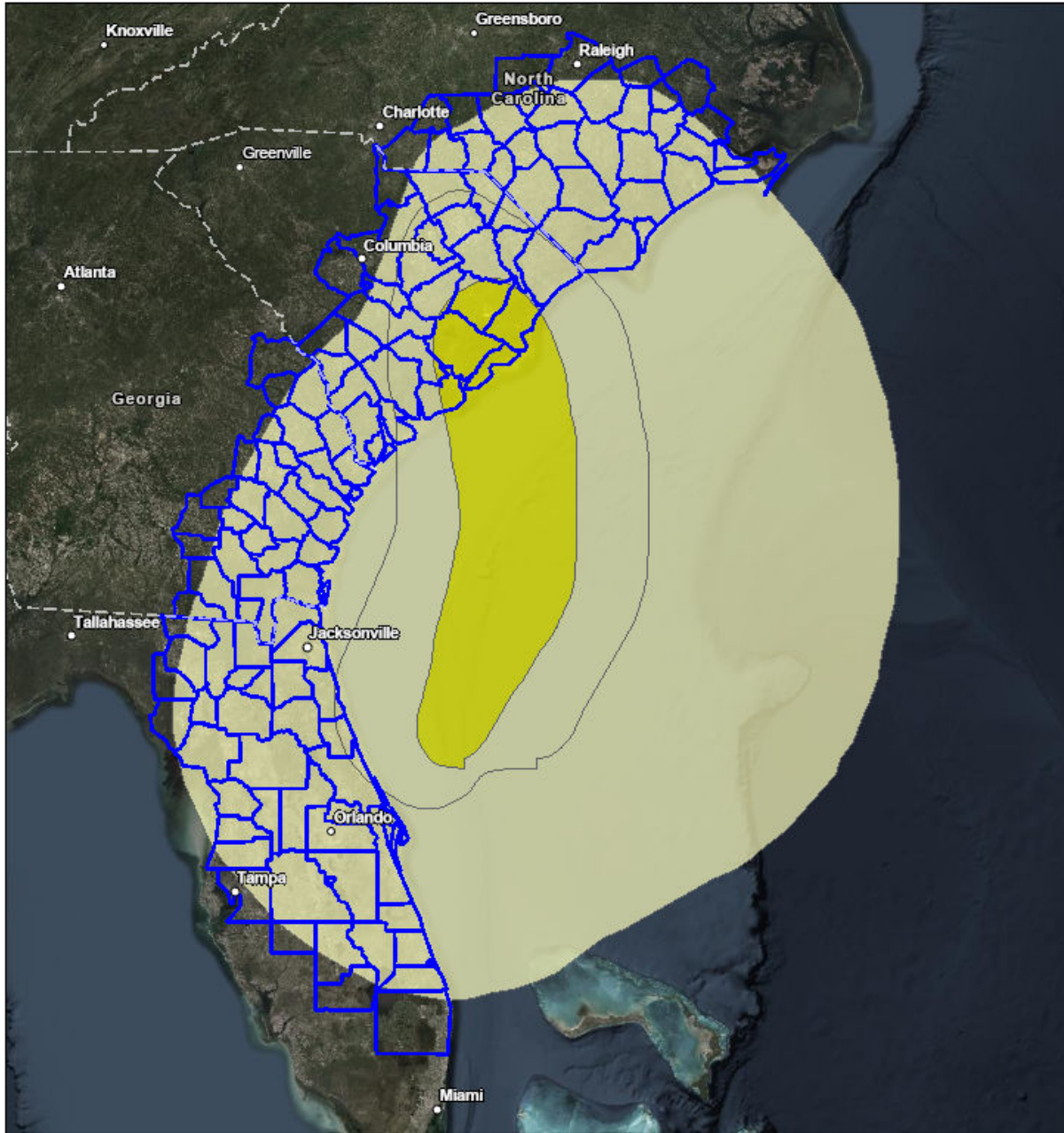
Counties

Mission Model Swaths

TS

Cat 1

1:6,920,661

| 0 | 50 | 100 | | 200 mi |
| 0 | 80 | 160 | | 320 km |
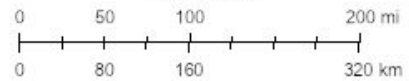
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Created by SimSuite

Debris
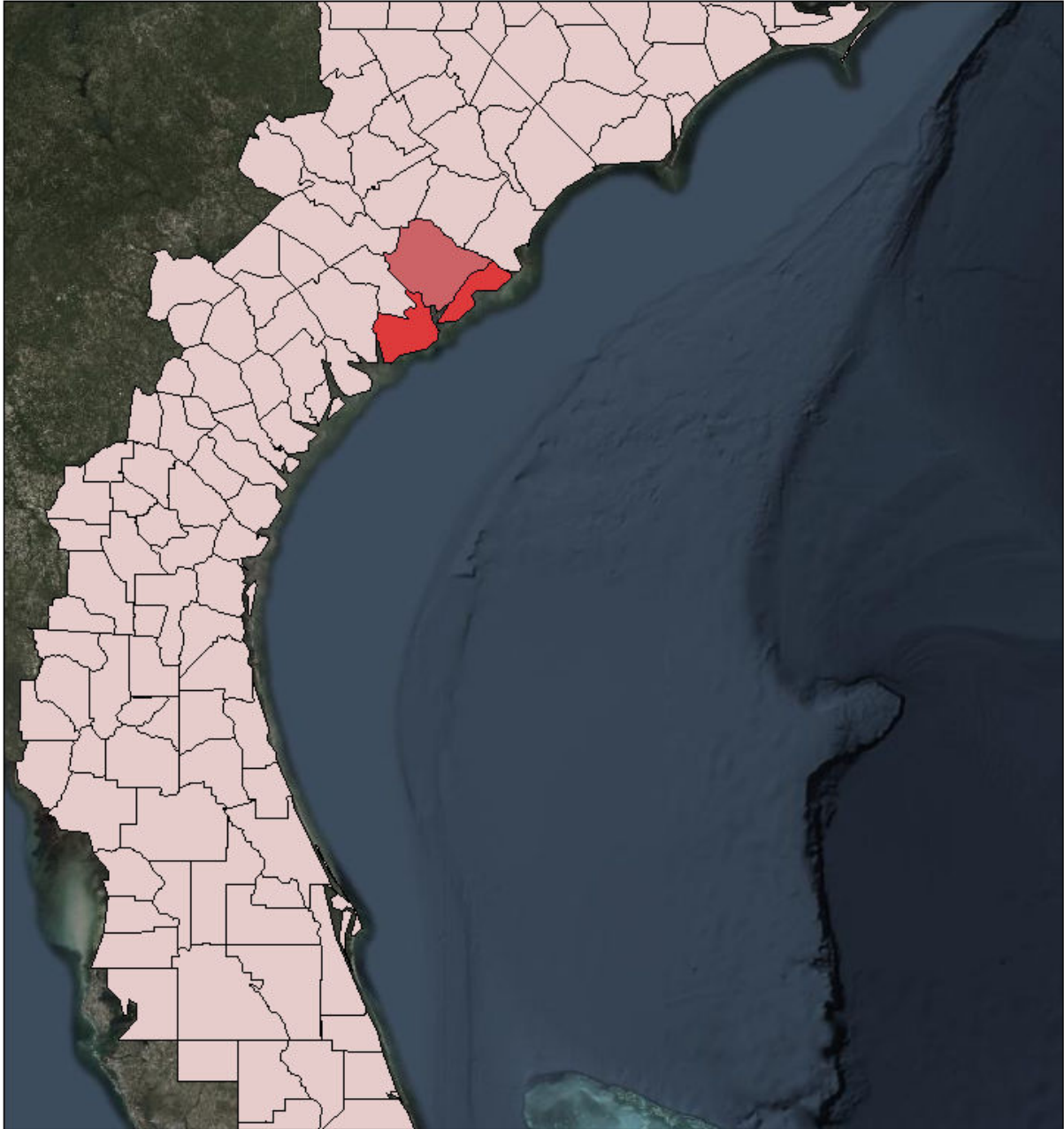
Debris

- ☐ < 100,000 cubic yards
- ☐ 250,000 - 499,999 cubic yards
- ☐ 500,000 - 999,999 cubic yards
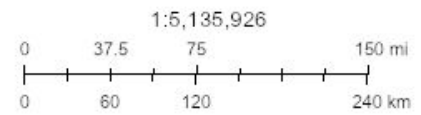
1:5,135,926

0	37.5	75	150 mi
0	60	120	240 km
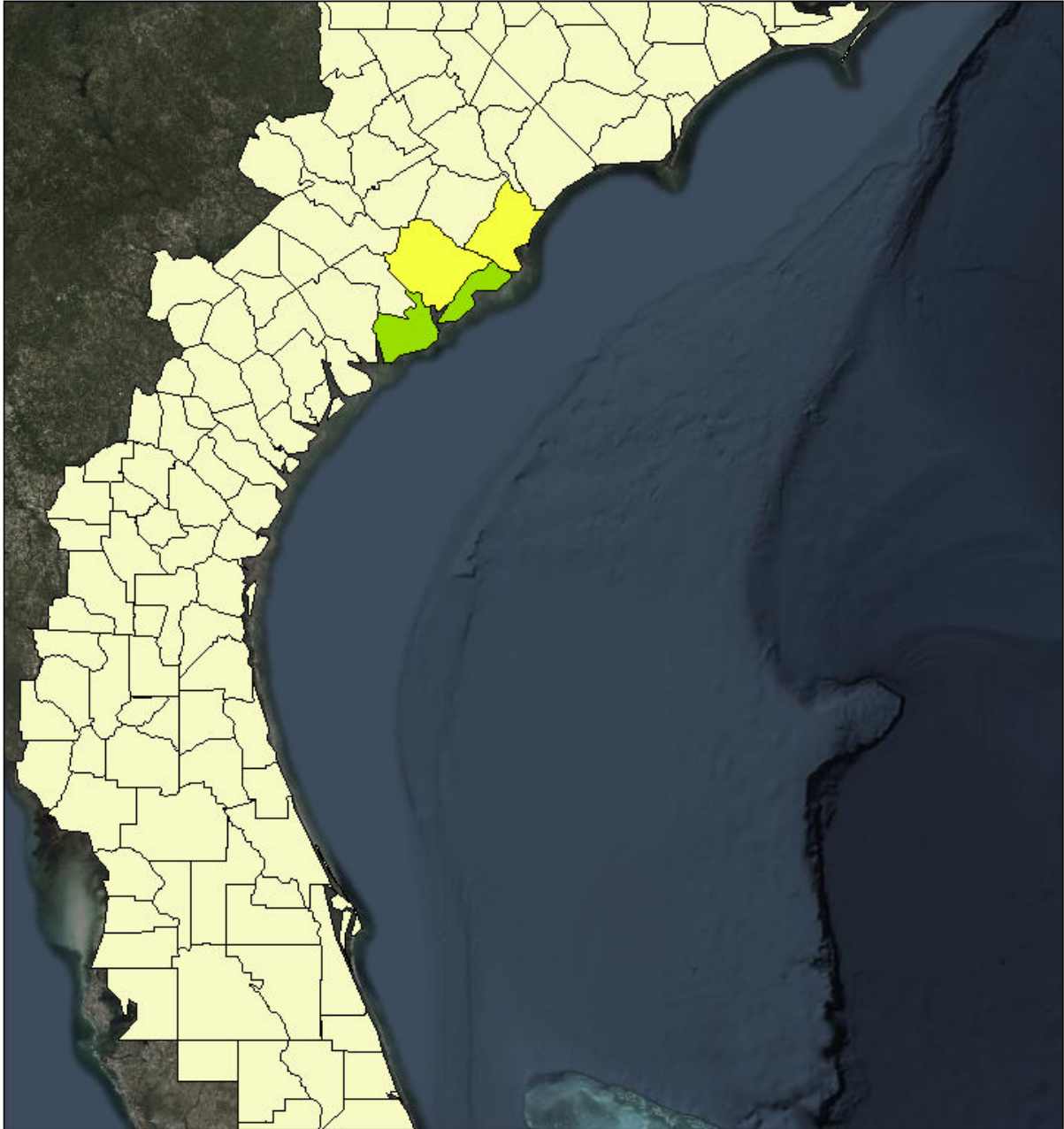
Est. Temp. Roofing

Est. Temp. Roofing

▢ < 1000 units

▢ 1000 - 4999 units

▢ 5000 - 9999 units
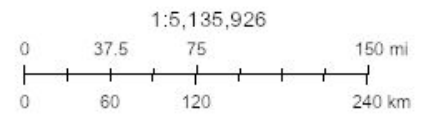
1:5,135,926

| 0 | 37.5 | 75 | | 150 mi |

| 0 | 60 | 120 | | 240 km |

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus
DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Created by SimSuite

Population
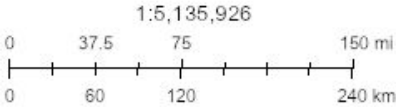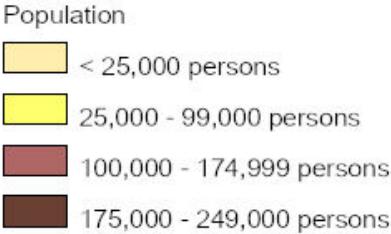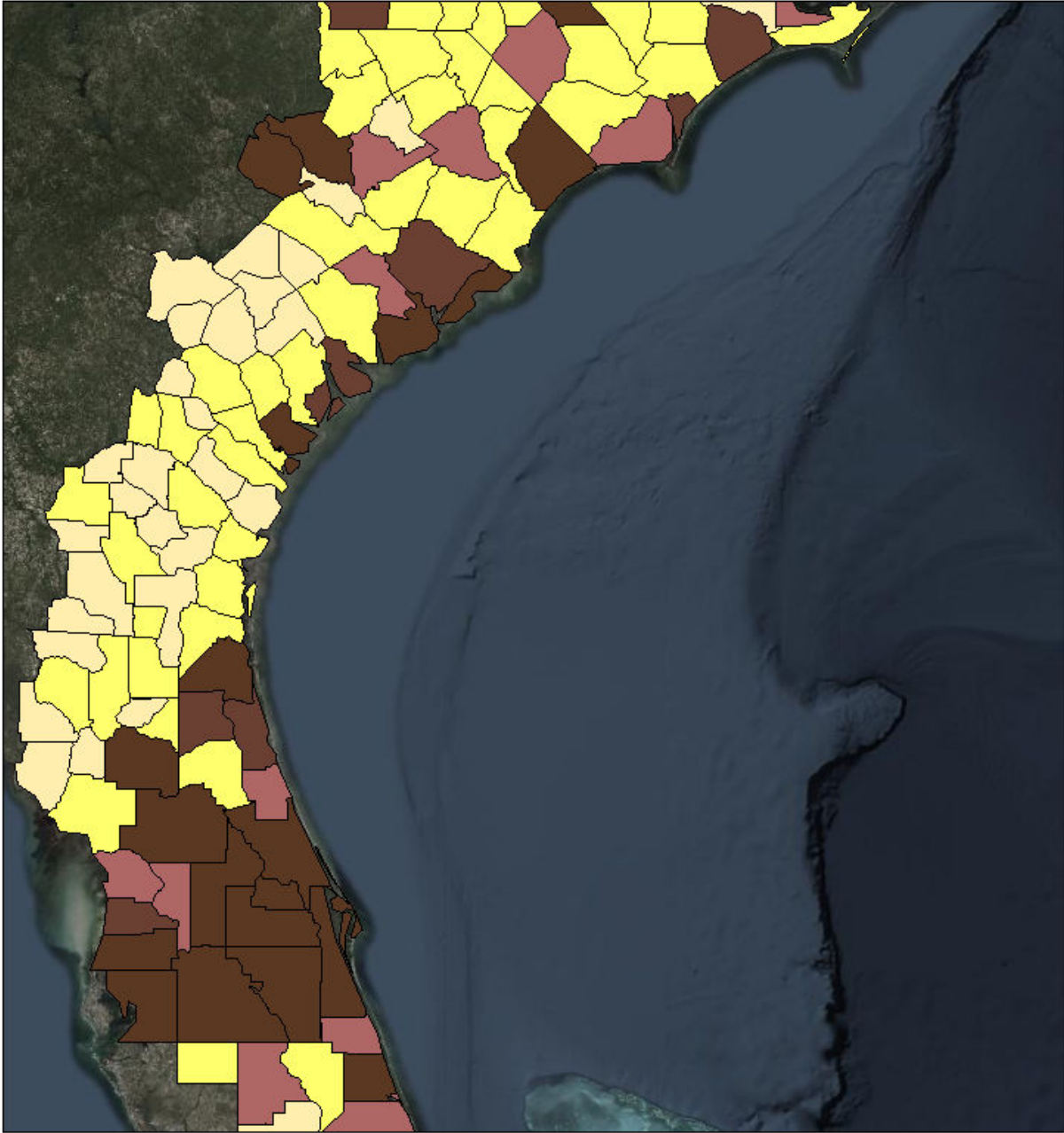
Population

▮	< 25,000 persons
▮	25,000 - 99,000 persons
▮	100,000 - 174,999 persons
▮	175,000 - 249,000 persons

1:5,135,926

0	37.5	75	150 mi
0	60	120	240 km
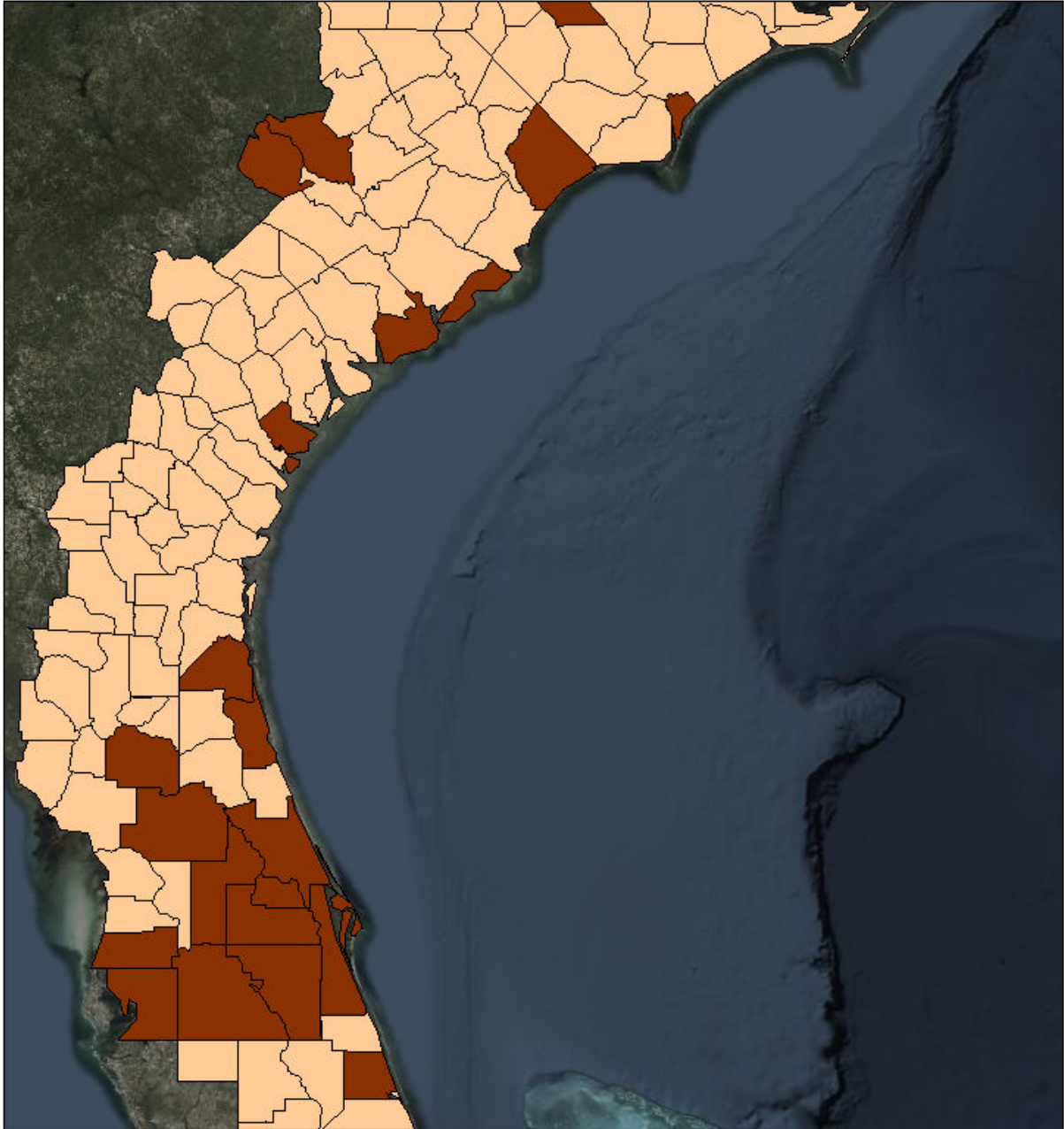
Households

Households

- ☐ < 7,500 Households
- ☐ 15,000 - 24,999 Households
- ☐ 25,000 - 49,999 Households
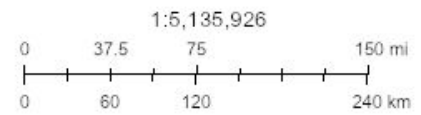
1:5,135,926

| 0 | 37.5 | 75 | 150 mi |
| 0 | 60 | 120 | 240 km |

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Created by SimSuite

Mission Summary

The mission models account for storm surge and wind damage only, but do not account for other related storm hazards that may affect the mission estimates.

Mission Summary	
Total Counties	7
Debris (cu. yd.)	1,185,404
Est. Temp. Roofing (units)	15,437
Act. Temp. Roofing (units)	3,705
Population	19,450,143
Households	6,911,622

Population Distribution	
Tropical Storm	15,672,956
Category 1	592,326

FLORIDA	Yds of Debris (0)	Est. Roof Units (0)	Act. Roof Units (0)	Population (11,354,989)	Households (4,071,572)
Alachua	0	0	0	262,216	100,516
Baker	0	0	0	28,042	8,772
Bradford	0	0	0	26,996	9,479
Brevard	0	0	0	578,927	229,692
Citrus	0	0	0	144,825	63,304
Clay	0	0	0	209,524	68,792
Columbia	0	0	0	69,419	24,941
Dixie	0	0	0	16,299	6,316
Duval	0	0	0	932,755	342,450
Flagler	0	0	0	108,166	39,186
Gilchrist	0	0	0	17,436	6,121
Glades	0	0	0	13,588	4,533
Hamilton	0	0	0	14,344	4,617
Hardee	0	0	0	28,518	8,245
Hernando	0	0	0	182,273	71,745
Highlands	0	0	0	102,012	42,604
Hillsborough	0	0	0	1,382,695	474,030
Indian River	0	0	0	149,718	60,176
Lafayette	0	0	0	8,476	2,580
Lake	0	0	0	339,742	121,289
Levy	0	0	0	41,097	16,404
Marion	0	0	0	350,915	137,726
Martin	0	0	0	156,333	63,899
Nassau	0	0	0	80,628	28,794
Okeechobee	0	0	0	39,837	14,013
Orange	0	0	0	1,332,714	421,847
Osceola	0	0	0	333,980	90,603
Palm Beach	0	0	0	1,441,728	544,227
Pasco	0	0	0	512,082	189,612
Polk	0	0	0	662,431	227,485
Putnam	0	0	0	74,098	29,409
Seminole	0	0	0	457,650	164,706
St. Johns	0	0	0	238,439	75,338
St. Lucie	0	0	0	302,601	108,523
Sumter	0	0	0	125,329	41,361
Suwannee	0	0	0	44,733	15,953
Union	0	0	0	15,704	4,048
Volusia	0	0	0	528,719	208,236

GEORGIA	Yds of Debris (0)	Est. Roof Units (0)	Act. Roof Units (0)	Population (1,045,497)	Households (365,077)
Appling	0	0	0	18,451	6,969
Atkinson	0	0	0	9,278	2,983
Bacon	0	0	0	11,414	4,214
Brantley	0	0	0	18,729	6,885
Bryan	0	0	0	37,469	10,738
Bulloch	0	0	0	73,263	25,575
Burke	0	0	0	22,837	8,533
Camden	0	0	0	53,037	18,047
Candler	0	0	0	10,868	4,041
Charlton	0	0	0	13,121	3,927
Chatham	0	0	0	292,686	103,038
Clinch	0	0	0	6,915	2,572
Coffee	0	0	0	44,088	14,817
Echols	0	0	0	4,137	1,329
Effingham	0	0	0	60,602	18,092
Evans	0	0	0	11,202	4,033
Glynn	0	0	0	84,625	31,774
Jeff Davis	0	0	0	15,280	5,689
Jenkins	0	0	0	9,170	3,192
Liberty	0	0	0	64,510	22,155
Long	0	0	0	18,728	5,023
McIntosh	0	0	0	13,862	5,971
Pierce	0	0	0	19,286	7,083
Screven	0	0	0	14,427	5,596
Tattnall	0	0	0	25,147	8,210
Toombs	0	0	0	27,659	10,375
Ware	0	0	0	35,094	13,654
Wayne	0	0	0	29,612	10,562

NORTH CAROLINA	Yds of Debris (0)	Est. Roof Units (0)	Act. Roof Units (0)	Population (4,056,282)	Households (1,413,880)
Anson	0	0	0	26,294	9,755
Bladen	0	0	0	35,031	14,430
Brunswick	0	0	0	129,300	46,297
Carteret	0	0	0	71,014	28,870
Chatham	0	0	0	74,307	25,845
Columbus	0	0	0	57,071	22,489
Craven	0	0	0	105,595	40,299
Cumberland	0	0	0	329,248	122,431
Duplin	0	0	0	60,130	22,495
Greene	0	0	0	21,226	7,313
Harnett	0	0	0	133,215	41,594
Hoke	0	0	0	53,518	16,532
Johnston	0	0	0	192,615	61,909
Jones	0	0	0	10,345	4,167
Lee	0	0	0	60,024	22,058
Lenoir	0	0	0	58,621	24,327
Montgomery	0	0	0	27,607	10,544
Moore	0	0	0	97,517	37,540
New Hanover	0	0	0	225,895	86,046
Onslow	0	0	0	201,435	60,092
Pender	0	0	0	59,850	20,333
Pitt	0	0	0	177,895	67,577
Richmond	0	0	0	46,534	18,430
Robeson	0	0	0	136,600	47,997
Sampson	0	0	0	65,148	24,005
Scotland	0	0	0	36,435	13,614
Stanly	0	0	0	61,870	23,589
Union	0	0	0	230,722	67,864
Wake	0	0	0	1,061,504	345,645
Wayne	0	0	0	126,520	47,831
Wilson	0	0	0	83,196	31,962

SOUTH CAROLINA	Yds of Debris (1,185,404)	Est. Roof Units (15,437)	Act. Roof Units (3,705)	Population (2,993,375)	Households (1,061,093)
Allendale	0	0	0	9,774	3,706
Bamberg	0	0	0	15,050	6,048
Barnwell	0	0	0	21,937	8,937
Beaufort	0	0	0	187,450	64,945
Berkeley	325,642	4,676	1,122	207,154	65,419
Calhoun	0	0	0	14,883	6,080
Charleston	718,340	7,565	1,815	403,176	144,309
Chesterfield	0	0	0	46,695	18,173
Clarendon	2,473	56	13	34,844	13,132
Colleton	0	0	0	38,408	15,131
Darlington	0	0	0	67,941	26,531
Dillon	0	0	0	31,456	11,923
Dorchester	21,535	487	117	157,283	50,259
Florence	4,299	97	23	140,540	52,653
Georgetown	75,471	1,706	409	62,847	24,524
Hampton	0	0	0	21,006	7,598
Horry	0	0	0	327,500	112,225
Jasper	0	0	0	30,101	8,517
Kershaw	0	0	0	64,654	23,928
Lancaster	0	0	0	90,715	29,697
Lee	0	0	0	18,136	6,797
Lexington	0	0	0	291,357	102,733
Marion	0	0	0	32,432	13,058
Marlboro	0	0	0	28,023	10,383
Orangeburg	0	0	0	91,282	35,788
Richland	0	0	0	416,367	145,194
Sumter	0	0	0	109,033	40,398
Williamsburg	37,644	851	204	33,331	13,007

Critical Infrastructure

Summary	
Total Critical Facilities	914
Power Requirements (kW)	26,138.3

Range (kW)	

Communications	# FED Gen Req	Range (kW)	Req kW
Cellular Towers (88)	52.8	35 - 75	2,904.0
FM Antennas (47)	2.4	35 - 75	129.3

Education	# FED Gen Req	Range (kW)	Req kW
Private Schools (58)	0.0	200 - 300	0.0
Public Schools (180)	54.0	200 - 300	13,500.0
Colleges and Universities (16)	0.3	200 - 300	80.0

Emergency Services	# FED Gen Req	Range (kW)	Req kW
911 Call Centers (0)	0.0	15 - 35	0.0
Emergency Medical Service (78)	7.8	15 - 35	195.0
Fire Stations (152)	15.2	15 - 35	380.0

Healthcare	# FED Gen Req	Range (kW)	Req kW
Nursing Homes (77)	11.5	35 - 100	779.6
Hospitals (16)	4.8	800 - 2000	6,720.0
Urgent Care Facilities (18)	3.6	200 - 300	900.0

Law Enforcement	# FED Gen Req	Range (kW)	Req kW
Local Police (36)	3.6	15 - 35	90.0
Correctional Facilities (0)	0.0	400 - 600	0.0

State and Local EOCs	# FED Gen Req	Range (kW)	Req kW
Local Emergency Operations Centers (5)	1.0	15 - 40	27.5
State Emergency Operation Centers (EOCs) (0)	0.0	15 - 35	0.0

State Facilities	# FED Gen Req	Range (kW)	Req kW
Governors Mansions (0)	0.0	100 - 200	0.0
Major State Government Buildings (1)	0.1	100 - 200	15.0

Transportation	# FED Gen Req	Range (kW)	Req kW
Amtrack Stations (2)	0.0	100 - 300	0.0
Bus Stations (0)	0.0	100 - 300	0.0
Intermodal Terminal Facilities (14)	0.0	100 - 300	0.0
Railroad Stations (2)	0.0	100 - 300	0.0
Public-Use Airports (16)	1.9	40 - 100	134.4

Water and Wastewater	# FED Gen Req	Range (kW)	Req kW
Wastewater Treatment Plants (108)	5.4	35 - 70	283.5

Poverty Level

#	County	Cat	Pop. below Federal poverty line	% Population
1	Lee County	4	88,294	12
2	Manatee County	4	42,675	11
3	Sarasota County	4	36,496	9
4	Charlotte County	4	19,302	11
5	DeSoto County	4	9,200	26
6	Hardee County	4	6,189	25
7	Polk County	3	104,509	15
8	Highlands County	3	16,511	16
9	Hillsborough County	2	200,179	14
10	Osceola County	2	48,325	13
11	Hendry County	2	10,958	27
12	Glades County	2	2,127	17
13	Orange County	1	190,145	14
14	Collier County	1	41,222	11

Social Vulnerability Index

Possible scores range from **0** (lowest vulnerability) to **1** (highest vulnerability).

#	Location	Cat	Overall SVI Score
1	Hardee County, Florida	4	0.983
2	DeSoto County, Florida	4	0.962
3	Lee County, Florida	4	0.552
4	Manatee County, Florida	4	0.52
5	Charlotte County, Florida	4	0.489
6	Sarasota County, Florida	4	0.254
7	Polk County, Florida	3	0.903
8	Highlands County, Florida	3	0.873
9	Hendry County, Florida	2	0.994
10	Glades County, Florida	2	0.905
11	Osceola County, Florida	2	0.818
12	Hillsborough County, Florida	2	0.67
13	Orange County, Florida	1	0.669
14	Collier County, Florida	1	0.462

COVID-19

#	County	Cases
1	Charleston	130,875
2	Dorchester	65,958
3	Berkeley	62,117
4	Florence	47,805
5	Georgetown	18,459
6	Clarendon	10,169
7	Williamsburg	9,677