

Comprehensive Emergency Management Plan



Section 6-Operational Areas Annex
January 2023

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Annex 6 – 9 Operational Areas Annex

I. INTRODUCTION

A. General

Horry County Emergency Management will facilitate the coordination of the response and recovery to all areas of the County after a catastrophic event. While it is recognized that the damage will be widespread after such an event, the operational areas will provide a means to prioritize the coordination based on the need.

B. Purpose

1. The plan provides guidance and procedures for the response in the Horry County operational areas.
2. This plan describes how the operational areas will be used either after a major disaster or local event where it is prudent to isolate a portion of the County for life safety and incident stabilization.
3. The plan identifies the critical facilities and infrastructure in each area vital to life safety, property protection, and essential to the quality of life in Horry County.

C. Scope

1. This plan is subordinate to the Horry County Comprehensive Emergency Management Plan and is used with each relative section of the CEMP. This plan describes the operational areas that have been established in Horry County and how they relate to specific plans in the CEMP, including the Hurricane Plan, Logistics Plan, Re-entry Plan, and the Evacuation Plan. The Operational Areas Plan may also be used with other plans in the CEMP as the need arises.
2. Catastrophic disaster impacts could result in isolated areas within the County. Such conditions could effectively isolate communities within the County and make the movement of resources difficult.
3. To improve the response to isolated areas of the County, Horry County Emergency Management has coordinated with the South Carolina Emergency Management Division to develop operational areas. This allows pre-impact planning to determine the baseline amounts and types of resources needed in a specific geographical area.
4. Operational areas have been established using existing census tract borders. One or more census tracts compose the operational area. These areas also consider potential infrastructure damage, natural barriers, and population.
5. The operational areas designated in Horry County are reflected in the SCEMD State Hurricane Plan.

6. This plan is designed to accomplish immediate post-impact response and recovery efforts without outside resource support. Once such support is available, the plan coordinates that assistance.

II. Situations and Assumptions

A. Situations

1. Horry County is susceptible to both natural and man-made disasters.
2. There are significant risks from tropical cyclones as a coastal county, including major storms of category three or higher.
3. Horry County is vulnerable to the general effects of earthquakes, specifically the impacts of liquefaction or the liquefying of the sandy soil, which creates sinkholes of varying sizes. This can result in a large-scale building collapse and infrastructure failures.
4. Horry County’s population continues to increase while the transportation infrastructure has not. This limits the roadway capacity available for evacuations and, likewise, limits the routes in each operational area.
5. A subcomponent of the local population is the group of people classified as special needs. This includes those with disabilities, medical conditions, or the inability to self-evacuate due to transportation limitations. Therefore, any evacuation of an operational area must consider this group, and alternatives or options will be included.

B. Assumptions

1. Hurricanes, earthquakes, or other large-scale incidents could result in isolated areas or communities within the County. The damage will make moving resources or personnel into or out of the areas difficult and create significant delays.
2. Infrastructure, including transportation arteries, communications capabilities, critical facilities, utilities, etc., will be affected, directly or indirectly, at varying degrees, thus limiting the effectiveness of responders to render immediate aid to victims.
3. Emergency and other communications capabilities will be interrupted, and utilities like electricity and water will be interrupted. Therefore, restoration of emergency communications will be a high priority in the operational areas to maintain command and control for response and recovery.
4. It is assumed, in the event of an evacuation of any of the operational areas, the population will receive the order to evacuate and will participate to the best of its ability.

III. Concept of Operations

A. General

1. The Operational Areas can be used independently or as groups depending on the community’s needs. The areas do not split municipalities and do not cross rivers or other geographical boundaries to hamper or impede responders.

2. Implementation of this plan will coincide with the activation of the Emergency Operations Center (EOC). Response and recovery coordination for operational areas occurs through ESF 4 and ESF 13 with guidance from the EOC Manager.
3. The operational areas, Horry County Police Department precincts, and Horry County Fire / Rescue battalions are similar in the geographical response area. Therefore, the precinct Captains and the Battalion Chiefs are the designated Operational Areas Coordinators as outlined in Attachment 1, Operational Areas Descriptions.
4. Municipalities – Horry County does not have direct or indirect command or control over the local jurisdictions; however, each jurisdiction works closely with Horry County to coordinate overall response and recovery actions. Therefore, the Operational Areas Plan includes these jurisdictions, and the Operational Areas Coordinators will consist of these jurisdictions for reporting and disseminating information. However, in keeping with the Emergency Operations Plan, most of the coordination with the municipal jurisdictions will be through the EOC Municipal Liaisons.

B. Communications

1. Uninterrupted Communications

- a. When communications systems are intact, the Operational Areas Coordinators will utilize either the 800 MHz radio system, the mobile/cellular telephone systems, or the traditional land-line phone systems to communicate between the ESF 4 and ESF 13 representatives in the EOC.
- b. The coordinators will use the designated 800 MHz TAC channels for each discipline unless directed to the EMD TAC channel. Phone numbers for the ESF locations are established, and those should be used as much as possible to free up air space on the 800 MHz radio system.
- c. In the event that the EOC has not been fully activated and a portion of the Operational Areas Plan is implemented, then the Emergency Management representative and the Police and Fire/Rescue representatives will establish the contact numbers at that time. The 800 MHz radio channels should not change and could be the primary communication means.

2. Interrupted Communications or Total System Failure

- a. During or immediately after a major disaster, Horry County may find the critical communications infrastructure has been damaged to the point of sporadic availability or total system failure.
- b. Horry County has access to the Palmetto 800 radio system; however, if the Horry County system is inoperable, most likely, the local Palmetto 800 system will not be operational. If this system is operating, channels will be assigned for each Coordinator through their ESF representative.
- c. Horry County utilizes the amateur radio network for communications between the EOC and the local evacuations shelters, hospitals, and municipal jurisdictions. The network can also contact the SEOC.
- d. The Operational Area Coordinators do not have portable amateur radio; however, information and updates can be processed at the closest shelter or municipal emergency operations center until a more suitable communications system is restored.

IV. Organization and Assignment of Responsibilities

A. Emergency Management Organization

The Emergency Operations Plan established the emergency management organization within the County. The emergency management organization comprises all departments, agencies, and organizations that have Emergency Support Function (ESF) responsibilities. Each is responsible for developing and maintaining emergency procedures in accordance with the EOP. Specific responsibilities are outlined in separate annexes in the EOP; however, each department is responsible for determining any implied obligations it may have. The EOP includes the organizational structure, which delineates the command and control for all plans and actions within the Comprehensive Emergency Management Plan (CEMP).

B. Roles And Responsibilities

Responsibilities for the emergency management organization are found in the Emergency Operations Plan. However, due to the nature and complexity of the Operational Areas operations, specific responsibilities for key departments are included in this plan.

1. Horry County Emergency Management

- a. Compile loss estimates for the County.
- b. Develop or update baseline logistical and infrastructure information based on the loss estimates.
- c. Coordinate operational areas procedures with Police and Fire/Rescue personnel and other agency officials as needed.
- d. Provide training and plan reviews to all agencies included in the plan.

2. Horry County Police Department

- a. Provide support for the Operational Areas Coordinator positions.
- b. Assist with coordination of re-entry points and evacuation process.
- c. Participate in training and plans review.
- d. Other duties as needed to support the successful implementation of the plan.

3. Horry County Fire / Rescue

- a. Provide support for the Operational Areas Coordinator positions.
- b. Assist with coordination of re-entry points and evacuation process.
- c. Participate in training and plans review.
- d. Other duties as needed to support the successful implementation of the plan.

4. Operational Areas Coordinators

- a. Use the National Incident Management System (NIMS) and Incident Command System (ICS) to establish an organizational structure.
- b. Assume command as the Incident Commander (IC) for that area.
- c. Establish contact with the Emergency Operations Center through the appropriate ESF using the communications pathways listed in this plan.
- d. Gather information and provide operational updates to the EOC
- e. Coordinate the response and recovery efforts for that area using the information from the EOC.
- f. Communicate with the municipalities within the operational area to share information.

V. Annex Maintenance

Horry County Emergency Management is responsible for coordinating, developing, and maintaining the Operational Areas Annex and is the designated Lead Agency. The Operational Areas Annex will be updated with the CEMP as stated in Section VII, Plan Development and Maintenance.

VI. ATTACHMENTS

- A. Operational Areas Descriptions
- B. Population Descriptions
- C. Estimated Damage
- D. Air Support Locations
- E. Operational Areas Highest Priority Critical Facilities / Infrastructure Listing
- F. Operational Areas Map 5101
- G. Operational Areas Map 5102
- H. Operational Areas Map 5103
- I. Operational Areas Map 5104
- J. Operational Areas Map 5105
- K. Horry County Operational Area Whole Map with Population and Zip Codes

Attachment A

Operational Areas Descriptions

ID	Code	Location Name	Area Coordinators	Communications	Boundaries
Horr 1	5101	Aynor	Battalion Chief Horry County Fire/Rescue	800 MHz 1 - Fire/Rescue TA 2 – EMD TA Satellite Phone - Number TBD Amateur Radio	West boundary is the county line at the Little Pee Dee River; the north boundary is the state line. East and south boundary is a line from the state line south following Fairview Bluff Hwy, Barnhill Road, Mill Pond Road, Louisville Road, Valley Forge Road, Good Luck Road, Horry Road, and Enoch Road to the county line.
Horr 2	5102	Loris	Battalion Chief Horry County Fire/Rescue	800 MHz 1 - Fire/Rescue TA 2 – EMD TA Satellite Phone - Number TBD Amateur Radio	West from the state line following Fairview Bluff Hwy, Barnhill Road, Mill Pond Road, Louisville Road, Valley Forge Road. South from White Oak Swamp to the east of the Waccamaw River.
Horr 3	5103	Red Bluff	North Precinct Captain Horry County Police Department	800 MHz 1 - NPC TA 2 – EMD TA Satellite Phone - Number TBD Amateur Radio	North boundary the state line. West boundary is the Waccamaw River, northeast to the state line and south following the ICW.
Horr 4	5104	Myrtle Beach	South Precinct Captain Horry County Police Department	800 MHz 1 - SPC TA 2 – EMD TA Satellite Phone - Number TBD Amateur Radio	Bounded by the state line to the north, south by the county line, east by the Atlantic Ocean, and west by the ICW.
Horr 5	5105	Conway	Central Precinct Captain Horry County Police Department	800 MHz 1 - CPC TA 2 – EMD TA Satellite Phone - Number TBD Amateur Radio	Bounded on the west by a line established by Good Luck Road, Horry Road, and Enoch Road to the county line, on the east by the Waccamaw River, the south by the County line, and the north by White Oak Swamp.

Attachment B

**Population Descriptions
(Based on 2019 Estimated Census Data*)**

Operational Area	5101	5102	5103	5104	5105	Totals
Population (% of population)	15,565 6%	25,942 10%	59,667 23%	114,146 44%	44,102 17%	354,081 100%
65 and above	2,475	4,125	9,487	18,149	7,012	88,488
English not first language	981	1,634	3,759	1,141	441	16,344
Report a disability	3,455	5,759	13,246	25,340	9,791	57,592
Medical Needs Electricity Dependent	198	395	1,258	1,435	555	3,841
Immediate Emergency Sheltering (80% of population)	12,452	20,754	47,734	91,317	35,282	207,538
Long-term Sheltering (40% of Population)	6,226	10,377	23,867	45,659	17,641	103,769
Total Households	6,582	10,546	24,115	47,364	18,249	106,856
Domestic Animal Sheltering (15% of Households)	988	1,582	3,618	7,105	2,738	16,209

*The data included in this table is based on data from the US Census Bureau 2019 Estimated Totals and includes the estimation of population percentages of Zip Codes that fall into multiple Operational Areas. The Medical Needs-Electricity Dependent data is from the US Department of Health and Human Services. The data contained in the table is not intended to constitute advice, nor is it to be used as a substitute for specific advice from a professional. Users should not act (or refrain from acting) based upon information in the data without independently verifying the information and obtaining any necessary professional advice. Users are solely responsible for ensuring the accuracy, currency, and other qualities of any products derived from or in connection with this data. The data is collected from various sources and may be modified over time without notice to improve spatial and attribute accuracy. Horry County disclaims responsibility for the spatial accuracy and attribution of GIS features and makes no warranty concerning it.

Attachment C

**Estimated Damage
(Based on 2019 HAZUS Data*)**

Operational Area	5101	5102	5103	5104	5105	Totals
Residential Damage						
# of Residential Structures	5,938	9,715	32,391	63,030	16,083	127,157
Minor Damaged	1,016	2,239	9,090	18,841	3,623	34,809
Moderate (25%) Damaged	211	538	3,133	8,763	898	13,543
Severe (50%) Damaged	12	40	231	816	63	1,162
Destroyed (>50%) Damaged	28	64	165	545	82	884
Damage Subtotal	1,267	2,881	12,619	28,965	4,666	50,398
Debris - Total Weight (tons)						
Brick / Wood	2,778	6,634	45,638	149,789	12,049	216,888
Concrete / Steel	4	29	145	684	56	918
Trees	226,921	259,006	232,848	126,446	248,099	1,093,320
Total Estimated Debris (Tons)	229,703	265,669	278,631	276,919	260,204	1,311,126

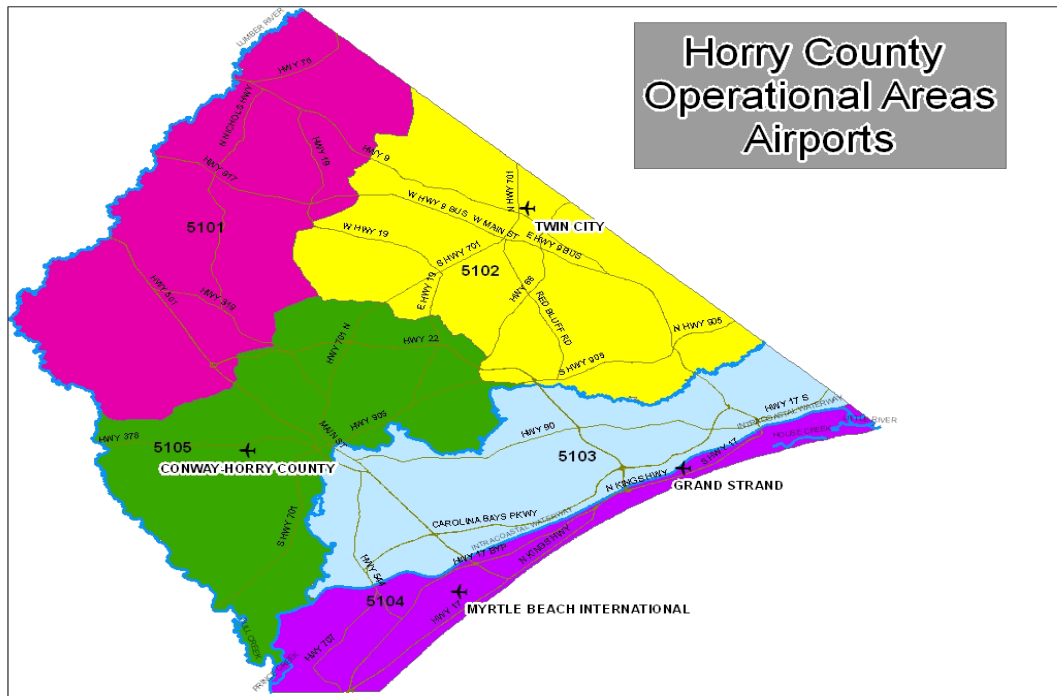
*The data in this table is developed using probabilistic analyses. Probabilistic analyses are used to develop estimates of long-term average losses (“annualized losses”) as well as the expected distribution of losses (“return period losses”). These estimates reflect the full spectrum of 100,000 year simulations of hurricane tracks and intensities that are likely to occur in Horry County. This data is not tied directly to just one category of storm, but the potential of a storm to hit this area. The data contained in this table is not intended to constitute advice nor is it to be used as a substitute for specific advice from a professional. Users should not act (or refrain from acting) based upon information in the data without independently verifying the information and obtaining any necessary professional advice. Users are solely responsible for ensuring the accuracy, currency and other qualities of any products derived from or in connection with this data. The data is collected from various sources, and may be modified over time without notice to improve spatial and attribute accuracy. Horry County disclaims responsibility for the spatial accuracy and attribution of GIS features and makes no warranty concerning it.

Attachment D

Air Support Locations

In the event of a catastrophic disaster, relief supplies and resources may need to be airlifted into the County. There are four operational airfields in Horry County, which are known as the Myrtle Beach International Airport (MYR), Grand Strand Airport (CRE), Conway/Horry County (HYW), and Loris-Twin City Airport (5J9). These locations are shown on the chart below. Additional details are included on the maps that follow.

Operational Area	Location	Lat/Long
5104	Myrtle Beach International (MYR) 1100 Jetport Road Myrtle Beach, SC 29577	33 41' N – 078 56' W
5104/5103	Grand Strand (CRE) 2800 Terminal Street North Myrtle Beach, SC 29582	33 48' N – 078 43' W
5105/5101	Conway/Horry County Airport (HYW) 1700 Airport Road Conway, SC 29527	33 49' N – 079 07' W
5102/5101	Loris-Twin City Airport (5J9) Airport Road Loris, SC 29569	34 05' N – 078 51' W



Attachment E

Operational Areas Highest Priority Critical Facilities / Infrastructure Listing

I. INTRODUCTION

A. General

1. Critical infrastructure is defined as systems and assets so vital to the County that the incapacity or destruction of such systems and assets would have a debilitating impact on the ability of the County to respond to an emergency, security, the local economy, public health, safety of the local population, or any combination of those. The critical facilities/infrastructure inventory aims to provide information and location data vital to the County's response and recovery.
2. In the event of a catastrophic incident, many, if not all, of the critical facilities located throughout Horry County, may be damaged, destroyed, or rendered temporarily isolated and unavailable for use. Therefore, a separate database is maintained and lists all critical facilities and infrastructure updated annually and submitted to SCEMD.

B. Specific

1. The following list represents the highest priority of each area's critical facilities and infrastructure for the operational areas. The lists are in priority order for each operational area and include the overall county-wide top ten in the highest priority ranking.
2. Following the SCEMD Operational Areas Plan, the lists also include the critical facilities and infrastructure identification using Level 1 – 4 to describe the level of priority for each type of infrastructure.
 - a. Level One – Vital to the Operational Area or County, must stay operational at all times or receive the highest priority for an immediate restoration.
 - b. Level Two – Any infrastructure necessary to support initial recovery/rescue operations or maintain public safety within an Operational Area. Must be operational or have restored capacity within twenty-four hours following a disaster.
 - c. Level Three – Any infrastructure that enhances long-term recovery operations. The goal is to begin the repair process within 48 hours following a disaster. These are high-priority facilities or services that provide the capability for evacuees to return to an Operational Area.
 - d. Level Four – All other infrastructure or systems deemed critical by local authorities

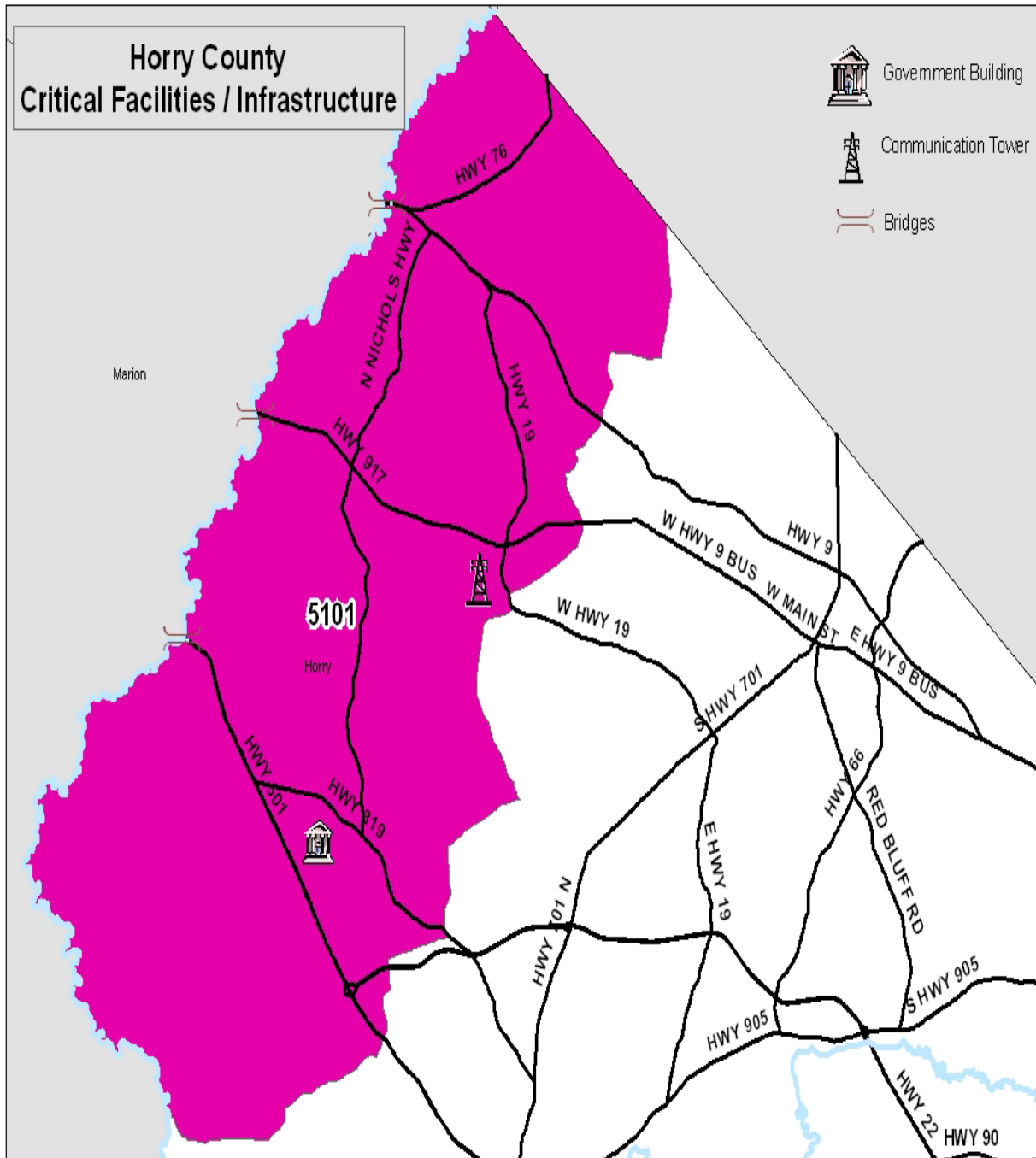
Highest Priority Critical Facilities List

Operational Area	Facility Name	Operational Area Priority	County Priority	Identification Level
5101	Town of Aynor - Town Hall/EOC	1		1
5102	Loris Community Hospital	1		2
	Town of Loris - Town Hall/EOC	2		1
	Loris-Twin Cities Airport	3		3
5103	Conway Medical Center	1	10	2
	Grand Strand W&S Sewer Treatment Facility	2		3
5104	Myrtle Beach International Airport	1	5	3
	City of Myrtle Beach Ted Collins Law Enforcement Center / Police Dispatch / EOC	2		1
	City of North Myrtle Beach EOC / Police Dispatch	3		1
	Verizon Central Communications Facility	4	4	2
	Grand Strand Regional Medical Center	5	9	2
	Grand Strand Airport –NMB	6		3
	Grand Strand W&S Sewer Treatment Facility	7		3
	Myrtle Beach Sewer Treatment Facility	8		3
	North Myrtle Beach Sewer Treatment Facility	9		3
5105	Horry County Technology Center / E-911 Dispatch /Alt. EOC	1	1	1
	Horry County M. L. Brown Public Safety Facility / EOC	2	2	1
	Grand Strand W&S Water Treatment Plant	4	7	3
	City of Conway EOC	6		1
	Horry County Government and Justice Center	7		2
	J. Ruben Long Detention Center	8		2
	Horry Electric Co-op Facility	9		2
	Horry Telephone Co-op Facility	10	6	2

Highest Priority Critical Infrastructure List

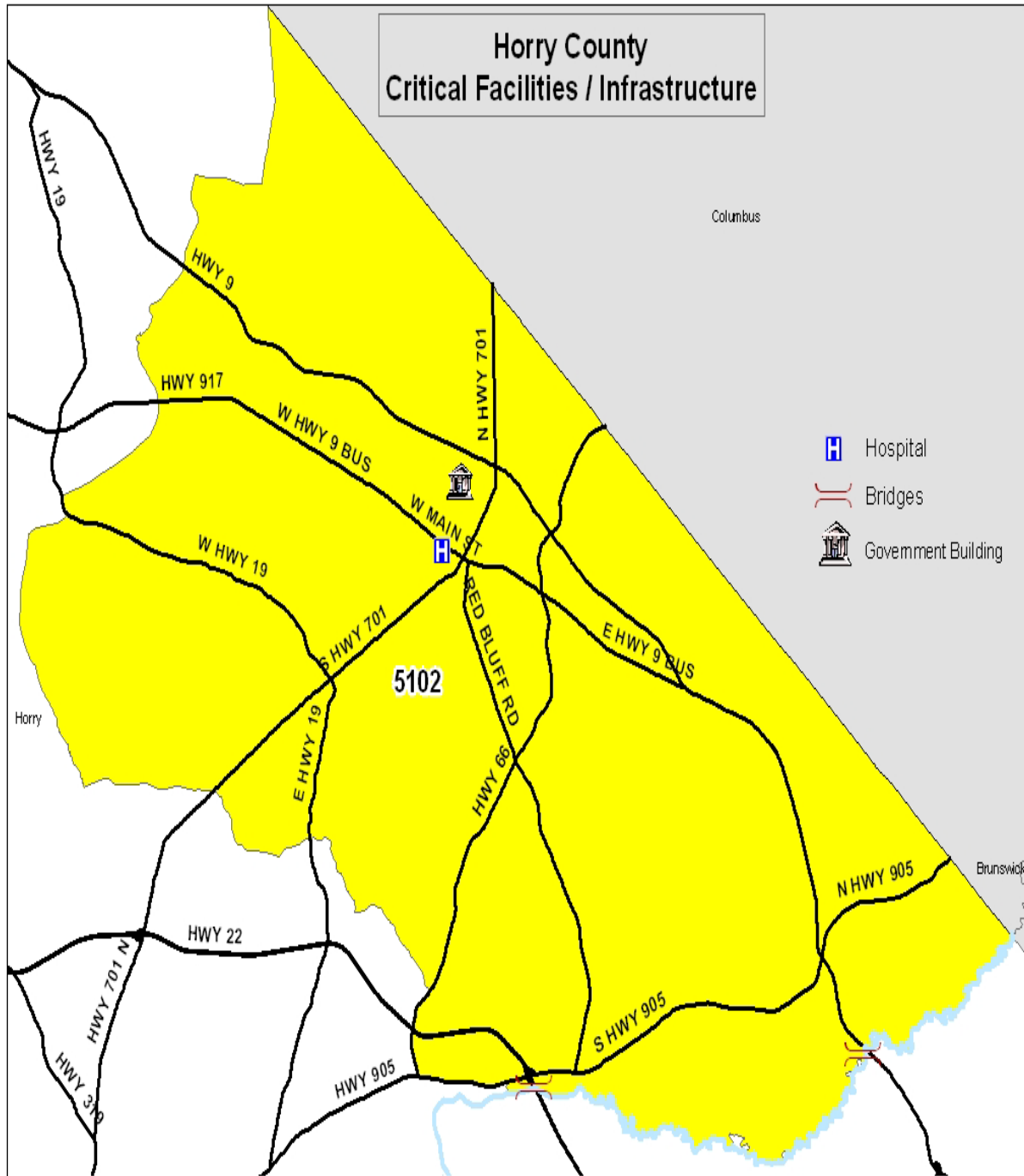
Operational Area	Infrastructure Type	Operational Area Priority	County Priority	Identification Level
5101	Bridge Hwy 501 @ Little Pee Dee River	1		3
	Pleasant View Tower 800 MHz	2	3	2
	Bridge Hwy 9/76 @ Lumber River	3		3
	Bridge Hwy 917 @ Little Pee Dee River	4		3
5102	Bridge Hwy 9 @ Waccamaw River	1		3
	Bridge Hwy 22 @ Waccamaw River	2		3
5103	Bridge Hwy 501 @ Waccamaw River	1		3
	IP Tower 800 MHz	2	8	2
	Bridge Hwy 22 @ Intracoastal Waterway	3		3
	Bridge Hwy 9 @ Waccamaw River	4		3
	Bridge Hwy 544 @ Intracoastal Waterway	5		3
	Bridge Hwy 17 @ Intracoastal Waterway	6		3
	Bridge Hwy 501 @ Intracoastal Waterway	7		3
	North Strand 800 MHz Tower	8		2
	Bridge Hwy 22 @ Waccamaw River	9		3
	Bridge Hwy 501 Business @ Waccamaw River	10		3
	Railroad Bridge @ Waccamaw River	11		4
5104	Bridge Hwy 544 @ Intracoastal Waterway	1		3
	Bridge Hwy 17 @ Intracoastal Waterway	2		3
	Bridge Hwy 22 @ Intracoastal Waterway	3		3
	Bridge Hwy 501 @ Intracoastal Waterway	4		3
	Railroad Bridge @ Intracoastal Waterway	5		4
5105	800 MHz Tower – E-911	1		2
	Bridge Hwy 701 @ Great Pee Dee River	2		3
	Bridge Hwy 501 @ Waccamaw River	3		3
	Bridge Hwy 501 Business @ Waccamaw River	4		3
	Railroad Bridge @ Waccamaw River	5		4

5101

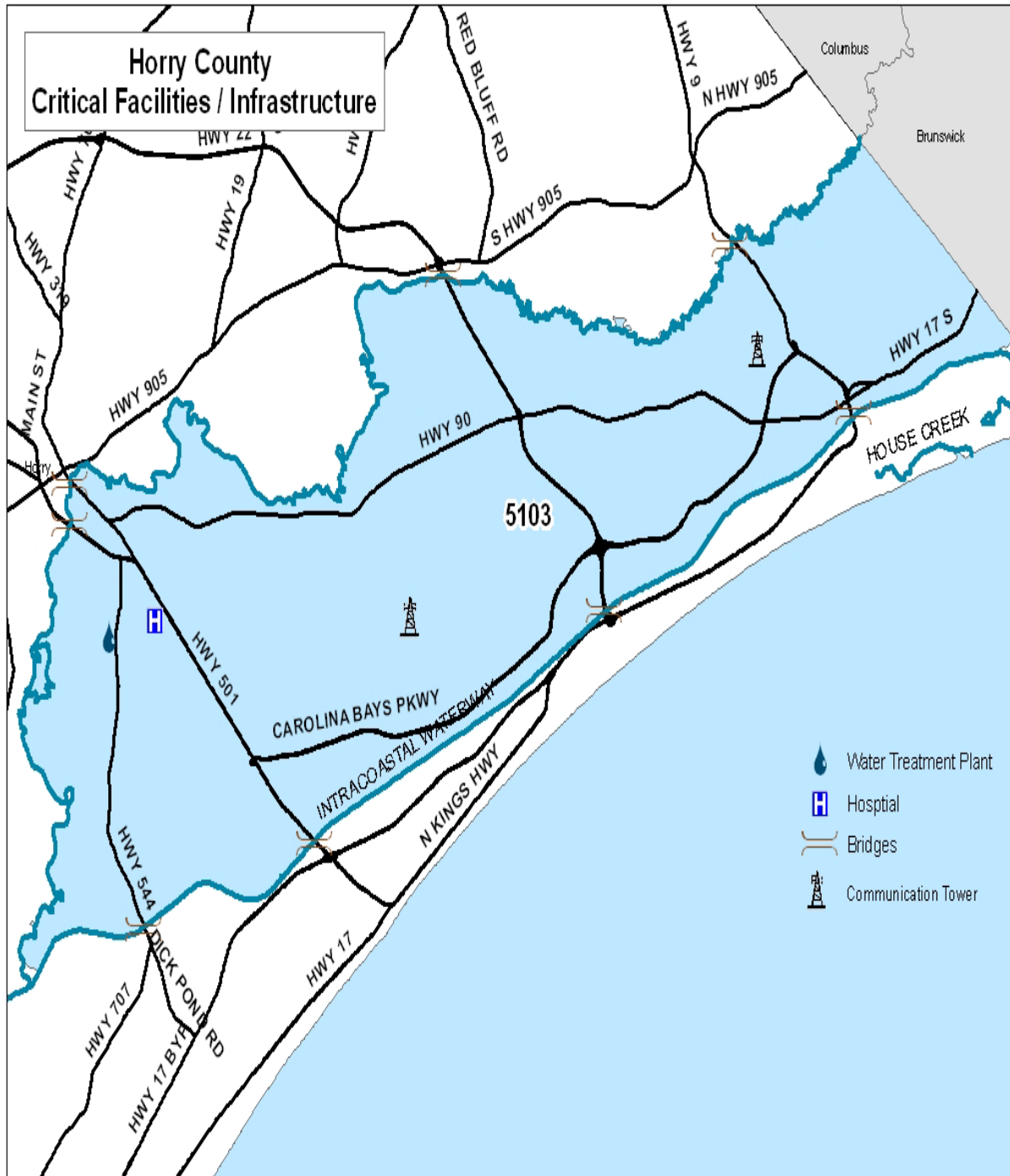


Attachment G

5102

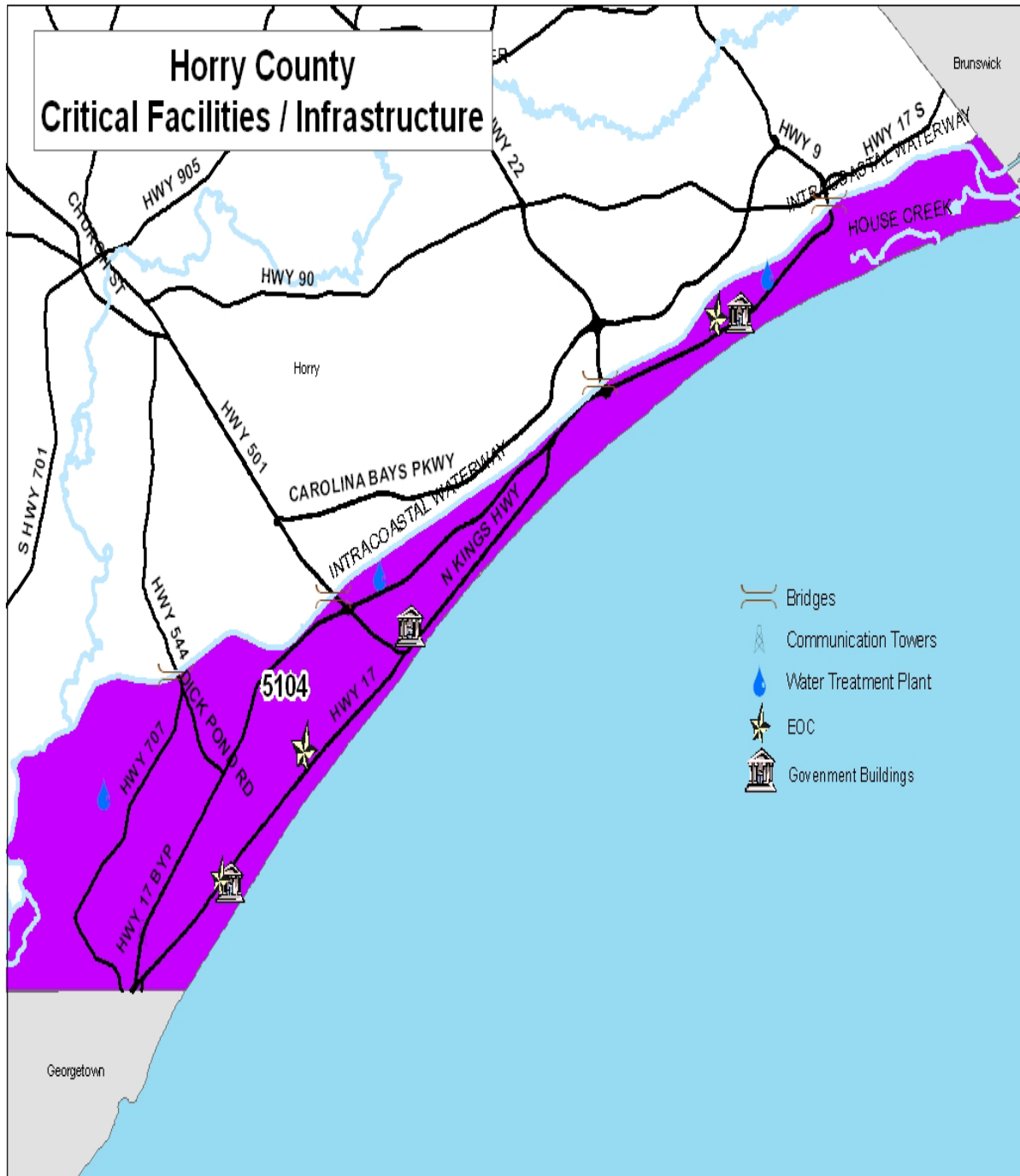


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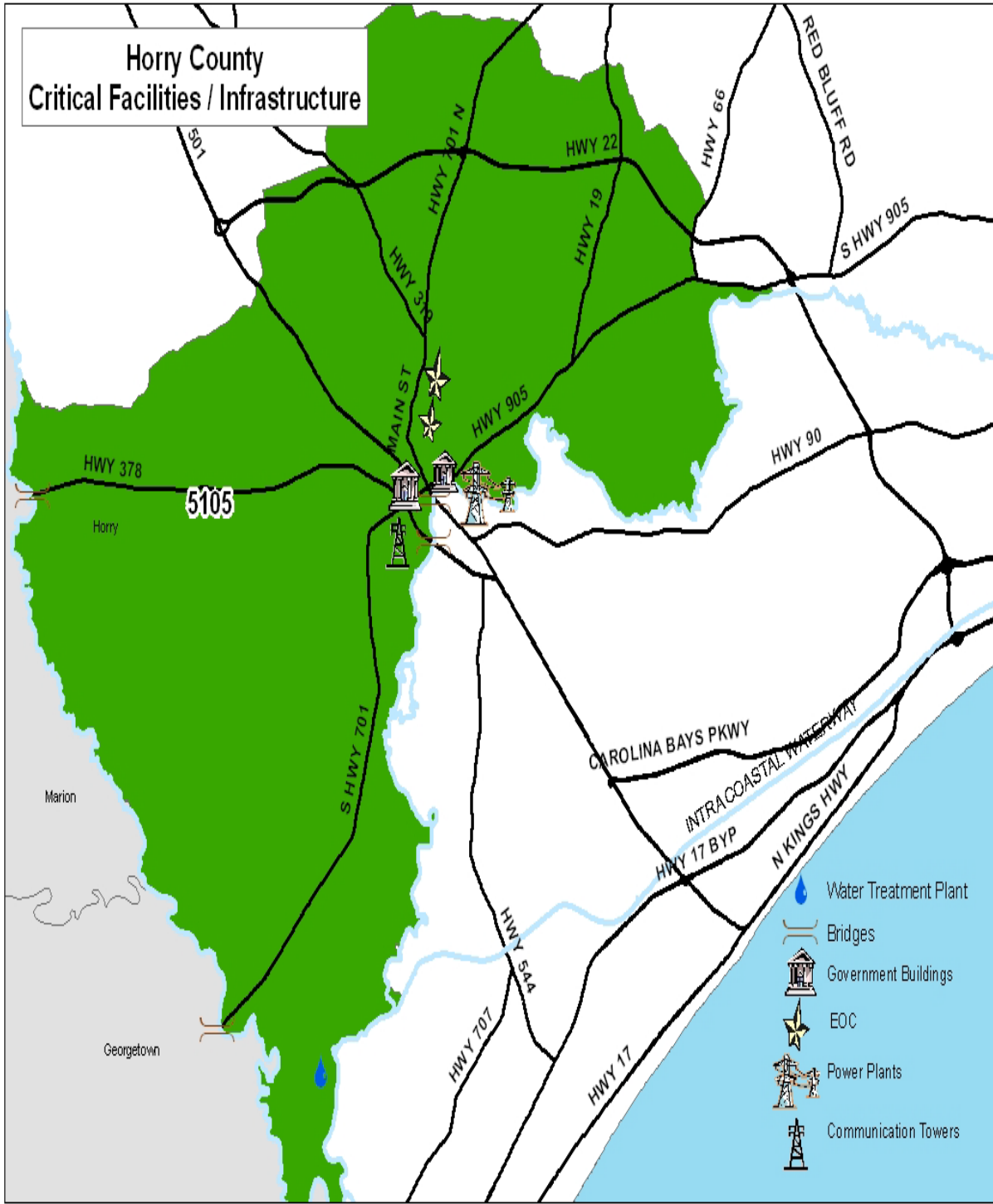
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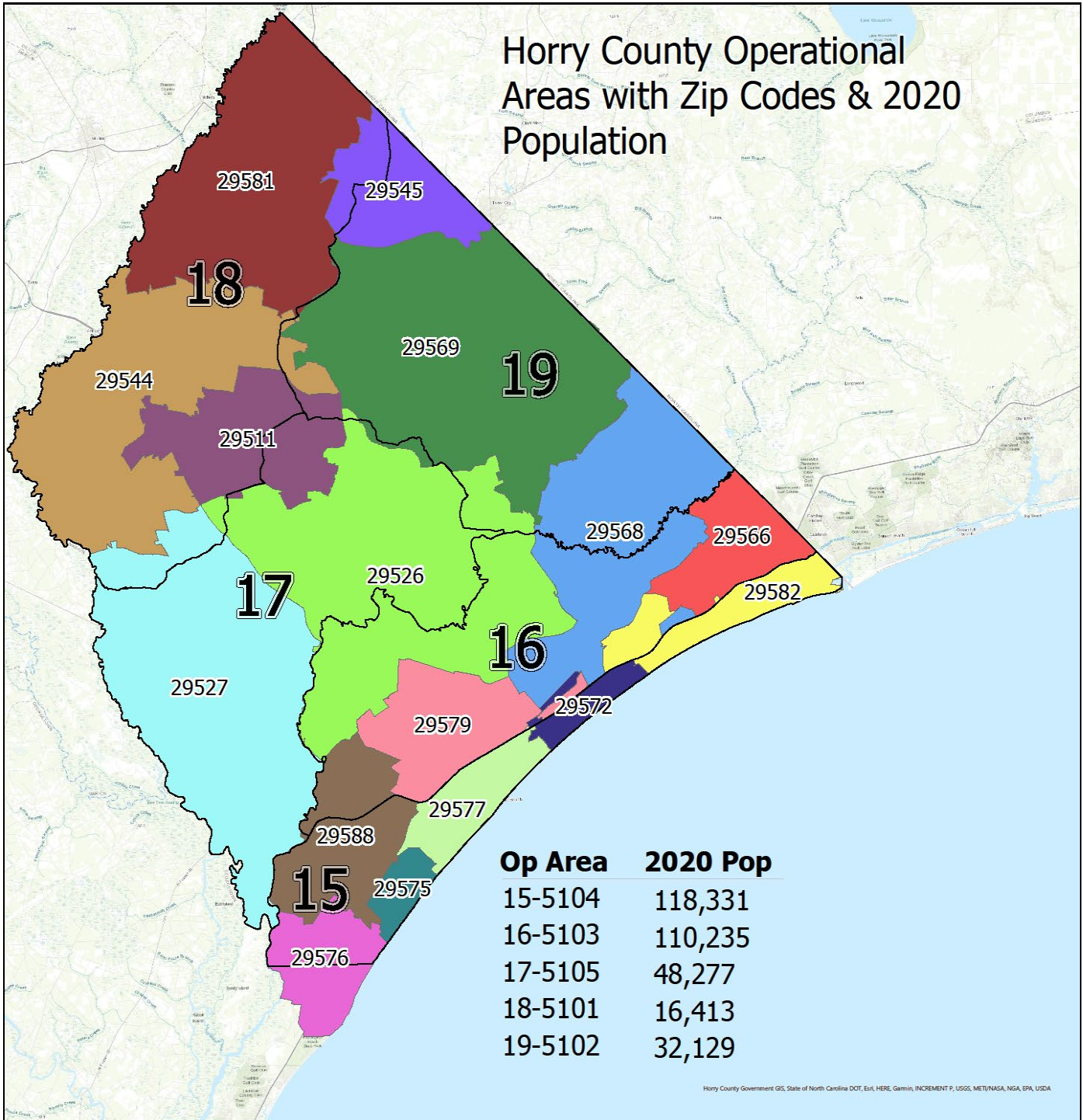
5104



Attachment J

5105





*The population data included in this map is based on data from the US Census Bureau 2019 Estimated Totals and also includes estimation of population percentages of Zip Codes that fall into multiple Operational Areas. The data contained on this map is not intended to constitute advice nor is it to be used as a substitute for specific advice from a professional. Users should not act (or refrain from acting) based upon information in the data without independently verifying the information and obtaining any necessary professional advice. Users are solely responsible for ensuring the accuracy, currency and other qualities of any products derived from or in connection with this data. The data is collected from various sources, and may be modified over time without notice to improve spatial and attribute accuracy. Horry County disclaims responsibility for the spatial accuracy and attribution of GIS features and makes no warranty concerning it.