

## CHAPTER 6: ANALYSIS OF COMMUNITY FACILITIES

The CAMA planning guidelines state that the jurisdiction should evaluate existing and planned capacity, location and adequacy of community facilities that serve the community's existing and planned population and economic base; that protect important environmental factors such as water quality; and that attract land development in the coastal area. The facilities typically found in coastal communities include:

- water supply systems;
- wastewater systems;
- transportation systems;
- public access facilities.

Since the 2010 land use plan was adopted, significant changes have occurred in the Town regarding community facilities. Most notably, the Town has transferred ownership and operation of its water supply system to Brunswick County, completed construction of a Town-wide wastewater system that is also operated by the County, and developed a new Town Park on the banks of the Intracoastal Waterway. The NC Department of Transportation also completed an elevated two-lane bridge that replaced the one-lane swing bridge that crossed the Intracoastal Waterway and the construction of a roundabout.

### WATER SUPPLY SYSTEM STATUS AND TRENDS

#### *WATER SUPPLY SYSTEM*

As of 2016, Sunset Beach residents purchase water directly from the Brunswick County Utility Department. Water infrastructure is available to all areas in the Town Limits. There are limited water wells in use by the Town. The public water supply is conveyed from the Brunswick County water system (see Map 6.1 displaying the Water Supply System Infrastructure). The county obtains its water from the Cape Fear River at the Northwest Water Treatment Plant (Northwest WTP) and from groundwater wells at the 211 Water Treatment Plant (211 WTP). Water supplied to the Northwest WTP is purchased from the Lower Cape Fear Water and Sewer Authority, which pumps surface water from the King's Bluff Reservoir, located up river from Lock and Dam No. 1 on the Cape Fear River. The 211 WTP obtains raw groundwater from 15 wells that tap into the Castle Hayne Aquifer.

The Cape Fear River basin, the state's largest river basin, extends from near Greensboro and High Point in the Piedmont to the Wilmington area on the coast. The area includes all or part of 27 counties. More than 21 percent of the state's population lives in the more than 9,000-square-mile basin area. A state law passed in 2015 authorized the N.C. Department of Environmental Quality to study all uses of ground and surface water in the Cape Fear River Basin, including public water systems, industrial facilities and agricultural operations. The study is supposed to identify potential conflicts among the various users

and offer recommendations for developing and enhancing coordination in order to avoid or minimize those conflicts. A final report is due in 2017.

In Sunset Beach, Town staff has estimated that approximately 85% existing structures (residential, commercial, and institutional) are connected to the water supply system. There were approximately 4,300 water connections as of December 2015. The number of water customers in the Town has increased from 3,750 in 2006 to 4,300 as of December 2015, an increase of 15%.

In the past, the Town has been responsible for producing a Local Water Supply Plan, but now that responsibility lies with the County. The Town's existing and future water demand is now analyzed as part of the Brunswick County Local Water Supply Plan. The Water Supply Plan is reviewed by the North Carolina Division of Water Resources to ensure adequate supplies are being maintained to avoid shortages and to be available during emergencies (i.e. fires). According to the 2014 Local Water Supply Plan, Brunswick County has the capacity to meet the anticipated demand through the year 2060 for all its existing and future customers – including residents of Sunset Beach. This calculation includes estimated population projections for seasonal and permanent residents. The Water Supply Plan anticipates that by the year 2060, future water demand (27.61 Million Gallons a Day (MGD)) will only account for 59% of the available supply (47.18 MGD). Future supply sources are yet to be determined, but may include a purchase agreement from the Lower Cape Fear River Water and Sewer Authority. The Brunswick County Utility Department plans to add an additional 12 MGD of supply to the Northwest WTP by the year 2020. Current capacity is 24 MGD at the Northwest WTP and 6.0 MGD at the 211 WTP. Improvements to the Northwest WTP are expected to be phased over a number of years.

For planning purposes, the Brunswick County Utility Department must also account for peak day usage. Over the last few years, peak day usage has never exceeded more than 90% of plant capacity. In 2015, the peak day usage occurred on July 10, 2015, with a total flow of 26.24 MGD – approximately 87% of total capacity. However, demand capacity did not exceed 80% for more than three consecutive days.

The County is also pursuing the feasibility of aquifer storage and recovery. Aquifer storage and recovery is used by utilities nationwide to reduce peak demand for water treatment plant capacity and to provide redundancy in the case of a raw water emergency. By storing the water underground, it stays clean and drinkable so it can be used during times of high water use or in case of emergency. The County is currently in phase 2 of the project, which includes the actual testing of wells and their recovery. The project includes four total phases, which must be approved by the Brunswick County Board of Commissioners. Phase 3 includes the drilling of wells for storage followed by phase 4, which will require a year of continuous testing before a permit can be granted from the state for operation.

## *WATER DEMAND*

According to the Town's 2002 Water Supply Plan and a 2006 Brunswick County Water Systems Master Plan, it was estimated that the Town would have an annual average day demand of 0.86 to 0.93 Million Gallons per Day (MGD) between the years of 2010 and 2020. However, water consumption data from the Brunswick County Utility Department for the year 2015 shows that water demand ranged from a low of 0.20 MGD to a high of 0.96 MGD. The annual average day demand for 2015 was 0.48 MGD, much lower than forecasted in the 2006 Brunswick County Water Systems Master Plan. In 2015, the highest water usage occurred in July. While the total water consumption has remained relatively stable over the last ten years, staff with Brunswick County Utilities note that potable water usage per capita is declining and irrigation consumption is increasing.

Table 6.1 displays water consumption figures for 2015. According to data obtained from the Brunswick County Utility Department, February accounted for the lowest total water demand at 0.20 MGD and July the greatest at 0.96 MGD. Potable water demand is also the highest in July and the lowest in February. Demand for irrigation peaks in August at nearly ten million gallons. Over the course of 2015, irrigation demand accounted for nearly 30% of the Town's total water. It should be noted that water utilized for irrigation purposes is also considered potable water, but is measured by a separate meter in the majority of housing units.

To establish the Town's per capita usage, water consumption is divided by total population. Seasonal fluctuations in population are accounted for to estimate demand per capita over the course of the year. In the off-season, only permanent residents are included in the calculation, whereas the "shoulder" season (months on either side of peak season) includes half of the estimated peak season increase, and during the peak season the full seasonal population increase is included. In 2015, on average, Sunset Beach residents used approximately 53 gallons per capita per day. This figure is similar to the one used by the Brunswick County Utility Department to calculate future demand and supply needs. In the Brunswick County Water Supply Plan, future water demand is calculated based upon 64 gallons per capita per day.

**Table 6.1: Water Consumption (2015)**

Source: Brunswick County Utility Department, Cape Fear Council of Governments

Season	Month-Year	Potable Water Usage (gallons)	Irrigation Usage (gallons)	Total Water Consumption (gallons)	Million Gallons per Day (MGD)	Estimated Population	Estimated Gallons Per Capita Per Day (GPCD)
Off-Season	Jan-15	6,628,225	298,460	6,926,685	0.23	3,752	61.54
Off-Season	Feb-15	5,954,841	165,324	6,120,165	0.20	3,752	52.62
Shoulder Season	Mar-15	7,313,437	292,215	7,605,652	0.25	8,603	29.47
Shoulder Season	Apr-15	9,399,498	2,610,379	12,009,877	0.39	8,603	45.03
Peak Season	May-15	11,673,992	5,180,733	16,854,725	0.56	13,454	41.76
Peak Season	Jun-15	15,307,230	7,657,096	22,964,326	0.74	13,454	55.06
Peak Season	Jul-15	19,749,442	9,005,257	28,754,699	0.96	13,454	71.24
Peak Season	Aug-15	16,573,937	9,570,124	26,144,061	0.84	13,454	62.68
Shoulder Season	Sep-15	11,674,858	7,588,056	19,262,914	0.64	8,603	74.64
Shoulder Season	Oct-15	8,867,869	3,570,649	12,438,518	0.40	8,603	46.64
Shoulder Season	Nov-15	8,304,717	1,996,129	10,300,846	0.34	8,603	39.91
Off-Season	Dec-15	5,943,208	689,904	6,633,112	0.21	3,752	57.03
<b>Average Usage Statistics</b>	<b>N/A</b>	<b>10,615,938</b>	<b>4,052,027</b>	<b>14,667,965</b>	<b>0.48</b>	<b>N/A</b>	<b>53.14</b>

Note: Seasonal designations are based upon water consumption figures.

In Sunset Beach, it is anticipated that an additional 7,557 residents (permanent and seasonal combined) will occupy the Town in the summer months of 2035. Based on this estimated increase in population, an additional 0.40 MGD of water demand will be necessary to serve all users. According to the Brunswick County Local Water Supply Plan, this additional demand only accounts for 1.7% of the available supply. As a result, the Town should not expect to encounter water capacity issues over the next twenty years and beyond. As stated previously, the County water supply is expected to meet the anticipated demand for all users through the year 2060. Further, by 2060, more than 40% of additional capacity will remain in the system or 19.57 MGD of excess capacity.

NOTE: The purpose of this Land Use Plan is not necessarily to identify and secure an exact future water supply amount based on estimates. As the main water supply distributor in the area, Brunswick County is the primary source for securing future water capacity to

meet expected demand. Encouraging the County the county to increase its water supply capacity and infrastructure to meet future demands should be a policy of the Town to ensure that its own water needs are met.

#### *WATER SUPPLY SYSTEM EXPANSION*

To prepare for future water supply demand, Brunswick County contracted with the engineering firm Hazen & Sawyer, P.C. in 2005 to create a Water System Master Plan. According to the Master Plan, the water treatment plants currently have a combined rated capacity of 30 million gallons per day (MGD), with about 8 MGD of excess capacity for the current Maximum Day demand. The “Maximum Day” means the highest daily demand in a year. The Master Plan incorrectly forecasted that by 2015, the projected Maximum Day demand could have a production supply shortfall of 8 MGD. In fact, in 2015, on the maximum day or peak usage only 87% of total capacity (26.24 MGD) was used. Water supply system improvements identified in the master plan were still completed however. Several capital improvement projects were completed in the Sunset Beach area. Please see the following.

##### Item I-2 (Phase I Improvement)

The Master Plan identified inadequate fire flows and low pressures in the water system in the Calabash area, which also includes portions of the Sunset Beach ETJ along Beach Drive. The Master Plan attributed the low pressure to the distance the water has to travel to reach this region and the undersized lines along Beach Drive. To increase pressure in this area, the Master Plan recommended that the 8-inch pipeline along Beach Road be paralleled with a 12-inch line from the Clariday Road/Old GeorgeTown Road intersection to the Sunset Beach meter vault on Shoreline Road. The Master Plan states that piping across the waterway would not be necessary and the total project amounts to approximately 8,300 LF of 12-inch pipeline.

Status: Complete

##### Item I-6 (Phase I Improvement)

Item I-6 is not in the planning jurisdiction of Sunset Beach but is located immediately adjacent to it in the Sandpiper Bay Development just across Old GeorgeTown Road (Hwy. 179) from Sea Trail and Angel’s Trace. According to the Master Plan, Sandpiper Bay is a residential development supplied from a single 8-inch pipe causing poor fire flows. The recommended improvement is approximately 1,300 LF of 12-inch pipeline to complete a loop of the system in the area. According to the Brunswick County Utility Department, this improvement has been completed.

Status: Complete

### IIB-5 (Phase II Improvement)

The Master Plan recommends additional elevated storage in the southwest region of Brunswick County. A lack of storage in this area is identified in the Master Plan as placing greater dependency on the Bell Swamp Pump Station to supply the demand required during Peak Hours and the addition of this new tank will help ensure Brunswick County's ability to supply future Maximum Day and Peak Hour demand. The tank will also help buffer Brunswick County's system against any lack of adequate storage found in the individual wholesale user systems in the area.

Status: Complete – The elevated storage tank was constructed in Shallotte.

## WASTEWATER SYSTEM STATUS AND TRENDS

### WASTEWATER SYSTEM

Sewer systems are generally required in areas where development density, the proximity to surface waters, or soil conditions prevent the proper function of septic systems, such as in Sunset Beach. In recent decades there has been a greater need for sewer service in Brunswick County due to its abundance of surface waters, marginal soil conditions, and ever-increasing housing density. In 2012, the Brunswick County Utility Department completed installation of a sewer collection system for Sunset Beach residents (see Map 6.2 displaying the Wastewater Infrastructure). As of December 2015, there were a total of 3,718 sewer customers compared with 4,298 water customers.

Most areas within the Town Limits were previously serviced by individual on-site septic systems. Sewer service was previously available to portions of the Sea Trail development, the commercial area along Sunset Boulevard North, and in the multi-family units along Shoreline Drive West. These areas are still serviced by a wastewater treatment plant (WWTP) located in Sea Trail. In 2007, Brunswick County expanded treatment capacity of this plant from 200,000 gallons per day to 300,000 gallons per day. Wastewater is pumped through this station to the West Brunswick Regional WWTP, which also serves Sunset Beach residents. The West Brunswick Regional WWTP is the largest of the county's sewer treatment facilities. The West Brunswick plant has a capacity of 6.0 MGD. Due to subsequent piping improvements constructed by the County, excess flows can be diverted to any number of other county-operated sewer treatment plants. In total, the Brunswick County Utility Department operates six wastewater treatment plants with a treatment capacity of 10.85 MGD.

In 2015, the peak day occurred in October due to a significant rainfall event. The peak flow was 7.7 MGD or 71% of total capacity. Significant rainfall events can increase wastewater flows due to rainwater infiltration of manholes, faulty connections, and broken or leaky pipes.

**Table 6.2: Wastewater Treatment Plants serving Sunset Beach (2/18/2016)**

Source: Brunswick County Utility Department, Cape Fear Council of Governments

Facility	Capacity	Annual Average Daily Flow (2014)	Maximum Daily Flow/Date (2014)
<b>Sea Trail WWTP</b>	0.3 MGD	0.134 MGD	0.292 MGD – 7/4/14
<b>West Brunswick Regional WWTP</b>	6.0 MGD	2.92 MGD	5.27 MGD – 8/10/14

*WASTEWATER DEMAND*

According to the Brunswick County Utility Department, over the next ten years, capacity will need to be expanded at the West Brunswick Regional WWTP and/or the Ocean Isle WWTP. Currently, demand does not exceed capacity. Should capacity be expanded at the Ocean Isle WWTP, then this would allow for the decommissioning of the Sea Trail WWTP. In addition, flow from Sunset Beach to the West Brunswick Regional WWTP would then be diverted to the Ocean Isle WWTP. The Ocean Isle facility is currently permitted to treat 1.05 MGD. In 2015, a diversion pump station and force main was constructed that allows for additional flow to be diverted into the regional transmission system for treatment at another facility.

*TREATED WASTEWATER AS A RESOURCE*

The Sea Trail WWTP, Ocean Isle WWTP, and the West Brunswick Regional WWTP are non-discharge plants. Historically, once treated wastewater leaves a wastewater treatment plant it is discharged into a stream or river. Brunswick County's older WWTPs do operate this way, but all newer WWTPs have been permitted as non-discharge facilities. Rather than discharging treated wastewater to a stream or river, a non-discharge WWTP uses the highly treated wastewater for large-scale irrigation. The highly treated wastewater is termed "Reuse Water." Brunswick County operates over 25 miles of reuse force mains that supply reuse water for irrigation to eleven golf courses and 1,040 acres of dedicated tree farms and turf farms at four different locations. Using reuse water for irrigation has several advantages. One major advantage is that reuse water replaces potable water from the County's water system that would have been used for irrigation. This reduces the peak loading on the water system. Additionally, using reuse water for irrigation allows golf courses to reduce the amount of fertilizer spread on the golf course. Golf courses using reuse water for irrigation include those in Sea Trail, Ocean Ridge, Winding River, and St. James.

## TRANSPORTATION SYSTEMS

### TRAFFIC COUNTS

To evaluate transportation and roadway deficiencies, Annual Average Daily Traffic Counts (AADT) are typically compared to a road's design capacity. Traffic on key segments of various roadways is counted and calculated annually and compared to a standard road design capacity based on that roadway's individual type. For example, a two-lane roadway has a different design capacity than a roadway that has two-lanes with a center turn lane.

The annual traffic count used for the comparison is called the Annual Average Daily Traffic Count (AADT). The AADT is the number of vehicles passing in both directions over a single point on a roadway over the course of a year divided by the 365 days in a year. For example, if 50,000 vehicles pass a single point on the road in a year, the AADT is 137 vehicles per day ( $50,000 / 365 = 137$ ). It must be noted that these annual traffic counts are averages, and certain peak season days may produce traffic counts well in excess of the AADT count. Seasonal traffic counts are of particular concern in Sunset Beach. However, in 2008, the NCDOT Traffic Survey Group suspended standalone seasonal traffic counts. As a result, only AADT counts are available. Peak volumes are included in the AADT, but are not available separately for comparison purposes.

**Table 6.3: 2014 Annual Average Daily Traffic (AADT) and Level of Service (LOS)**

Source: GSATS LRTP & DOT Transportation Planning Branch and DOT Traffic Survey Unit.

Count Location	2014 AADT Count	2014 Roadway Capacity	Volume to Capacity Ratio	Roadway Selected for Improvement*
<b>Sunset Boulevard North at Seaside Station</b>	11,000	15,800	69%	Yes
<b>Shoreline Drive West near intersection with Sunset Boulevard North</b>	6,200	15,800	39%	No
<b>Main Street east of intersection with Sunset Boulevard South</b>	2,100	15,500	13%	No
<b>Highway 904 south of intersection with Highway 179</b>	14,000	15,800	89%	Yes

\*Roadways selected for improvement in the Grand Strand Area Transportation Study (GSATS) 2035 Long Range Transportation Plan.

In Sunset Beach, the highest AADT counts are found on Hwy. 904 (Seaside Road), Hwy. 179 (Old Georgetown Road) and Sunset Boulevard North. Annual average daily traffic counts on these roadways range from 11,000 to 14,000 vehicles per day. Traffic counts on Hwy. 17

are in excess of 20,000 vehicles per day, which is the highest traffic count in the area (see Map 6.3 for more information).

None of the roadways within Sunset Beach have an AADT which exceeds the current capacity. However, if accounting for seasonal increases in population and traffic, then both Sunset Boulevard North and Hwy. 904 may exceed capacity or approach it during the summer months. It should be noted that NCDOT designs roadways for AADT, not peak traffic counts.

Comparing traffic counts to roadway capacity can help identify roadways in need of future improvements. Based on AADT counts and roadway capacity, Hwy. 904 is nearing capacity with a volume to capacity ratio of 89%. Sunset Boulevard North also has volume to capacity ratio that is nearly 70%. As a result, future improvements to these roadways may be warranted. In fact, both roadways are identified for improvement as part of the Grand Strand Area Transportation Study (GSATS) 2035 Long Range Transportation Plan. More information about the long range transportation plan follows.

#### *2035 LONG RANGE TRANSPORTATION PLAN*

In 2012, Sunset Beach became a member of the Grand Strand Area Transportation Study (GSATS). The 2010 Census reported continued growth for the area and, for the first time, the Myrtle Beach UZA (renamed the Myrtle Beach-Socastee SC/NC Urbanized Area) extended into the southern portions of Brunswick County. As a result, in 2012, Sunset Beach became a member of GSATS. The North Carolina Department of Transportation (NCDOT), South Carolina Department of Transportation (SCDOT), Brunswick County, and the Towns of Calabash, Carolina Shores, Holden Beach, Ocean Isle Beach, Shallotte, Sunset Beach, and Varnamtown have all entered into a memorandum of understanding with GSATS to create a bi-state Metropolitan Planning Organization (MPO). GSATS is responsible for the development of the area's Long Range Transportation Plan (LRTP) and the identification and ranking of projects for funding through an adopted Transportation Improvement Program (TIP). The North Carolina portion of the GSATS Study Area extends from the South Carolina state line northward to the Lockwood Folly River and from the Atlantic Ocean westward to just beyond US 17 to include the Town of Shallotte.

The development of the GSATS LRTP coincides with and complements NCDOT's prioritization process. The Strategic Transportation Investments (STI) law created a process to determine how the North Carolina Department of Transportation, in partnership with local governments, will fund and prioritize transportation projects in the state of North Carolina. Under STI, all modes compete for the same funding. This means that roadway projects compete with ferry projects which will compete with public transportation projects, bicycle/pedestrian, aviation, and rail.

The Strategic Prioritization Office of Transportation (SPOT) develops quantitative scores for all projects. Only the highest scoring projects are selected to be included in the NCDOT Statewide Transportation Improvement Plan (STIP). The STIP, which identifies the

transportation projects that will receive funding during a 10-year period, is a state and federal requirement. Federal law requires it to be updated at least every four years. NCDOT, however, updates it every two years. Sunset Beach has no projects included in the 2016-2025 STIP. However, several projects are identified in the GSATS 2035 Long Range Transportation Plan. Those projects are described in Table 6.4.

**Table 6.4: Sunset Beach GSATS 2035 Long Range Transportation Plan Projects**

Source: GSATS LRTP

Roadway	Description	Improvement	Cost Estimate
Seaside Rd	NC 904: Widen to a multi-lane facility from US 17 to NC 179 (Beach Drive); and sidewalk.	Widen to 4-Lane W/Median & Sidewalk	\$21,969,110
Old GeorgeTown Rd	NC 179: Widen to a multi-lane facility from NC 904 (Seaside Road) to Beach Drive (179B), and sidewalk.	Widen to 4-Lane W/Median & Sidewalk	\$22,865,949
Sunset Blvd	NC 179 BUS: Widen to a multi-lane facility from NC 904 (Seaside Road) to the Sunset Blvd Bridge.	Widen to 4-Lane W/Median	\$11,238,16
Sunset Blvd North/ Shoreline Dr West/Beach Drive SW	Multipurpose Path from Seaside Road (SR 1162) to Old GeorgeTown Rd	Multipurpose Path	\$1,642,850

### *NON-MOTORIZED TRANSPORTATION*

Non-motorized transportation is increasingly important nationwide. Non-motorized transportation refers to alternative travel choices such as cycling or walking. While non-motorized transportation is often considered a leisure travel mode, it can also be utilized to travel from point A to B for utilitarian purposes. In the past, residents have expressed interest in expanding options for cycling and pedestrian travel in the Town. In 2009, the Town completed a bicycle and pedestrian plan update that outlined proposed facilities. Grant funds are being pursued to complete some of the improvements outlined within the 2009 Bike Plan.

While not formally adopted, the 2013 Sunset Boulevard Vision Plan recommended several non-motorized transportation improvements. The most significant improvement recommended was the installation of a multi-use path along the south boundary of Sunset Boulevard North, which is also included in the LRTP. The Town is currently participating in a county-wide blueway and greenway plan that will identify cycling and paddling networks throughout Brunswick County. The Cape Fear Regional Bicycle Plan is also being developed to address bicycle routes throughout an eight county region.

## TOWN MANAGEMENT OF THE TRANSPORTATION SYSTEM

### *UNIFIED DEVELOPMENT ORDINANCE*

Article 13 of the Unified Development Ordinance (UDO) contains standards for providing marginal access streets to limit driveway cuts along major thoroughfares. This section of the ordinance states:

Where a tract of land to be subdivided adjoins an existing major thoroughfare, the developer will be required to provide a marginal access street parallel to the major thoroughfare, or reverse frontage on a subdivision street to be developed adjacent to the major thoroughfare. Where reverse frontage is established, private driveways shall be prevented from having direct access to the major thoroughfare. If it is demonstrated that a marginal access or reverse frontage is not feasible, lots fronting on a major thoroughfare must be a minimum of 100 feet wide with a turning circle or a driveway with a three-point turn.

### *STREET MAINTENANCE*

The Town has a Public Works Department that conducts minor maintenance and repair (i.e. pot-holes) of town-maintained streets. The Town receives around \$100,000 annually in Powell Bill funds which are intended for street maintenance. The amount of Powell Bill funds the Town receives from the state are based on population and mileage of Town maintained roads in the Town Limits.

More substantial road maintenance projects such as surfacing and resurfacing roadways are contracted-out by the Town. The paving of roads is the responsibility of citizens. Residents must petition the Town and pay for initial paving to required standards before a street can be accepted by the Town. A list of the unpaved Town maintained streets is included for future consideration:

- Hickory Street (Mainland)
- Bartlett Lane (Mainland)
- 31st Street (Island)
- 28th Street (Island)
- 1st, 2nd, 3rd, 4th, and 5th Streets (Island)
- Marlin, Sailfish, Dolphin and Cobia Streets (Island)
- North Shore Drive (Island)
- 16th, 17th, 18th, and 19th Streets (Island)

Cedar Point Drive on the island has a platted right of way for a road, but no improvements (i.e. grading or paving) have been made at this time.

## PUBLIC ACCESS FACILITIES

The Coastal Area Management Act (CAMA) considers public access facilities to be one of the key components of a coastal community's infrastructure. This Section of the Land Use Plan inventories public access facilities and identifies potential public access sights, so that the Town may discuss and establish policies and objectives to further the goal of maximizing and maintaining public access.

### *EXISTING PUBLIC ACCESS SITES*

There are 33 existing public access sites along the approximately 2.3 miles of oceanfront beach in the Town Limits. That averages out to a public access site every 368 feet. There is one regional beach access site in Sunset Beach located near the Pier. Regional sites are designated by having 25+ parking spaces, and having additional facilities like restrooms, picnic tables and showers. The regional access Site in Sunset Beach is handicapped accessible and has 52 Town parking spaces with additional pay-parking available at the pier. There are two restrooms at this site and two outdoor showers. The remaining 32 public access sites on the island are considered local sites used primarily as dune crossovers and have limited, if any, on-site parking or other facilities. See Map 6.4 for more information.

As mentioned in Section 4, the state owns the estuarine and nature reserve of Bird Island in the southwest corner of the Town's ETJ. Bird Island is currently accessible by boat from the public trust waters adjacent to it, or by the public beach strand connecting Bird Island to the primary beach strand in the Town Limits.

There are no formally-designated public access sites on the marsh side of the island. On the mainland, there is a NC Wildlife Resources Commission boat launch. That was completed after construction of the high-rise bridge. The boat launch is located at the site of the old bridge. The boat launch site has public parking and a pier available to users.

Potential public access sites, which have limited use only at high tide have been periodically used as informal boat access, include the street ends of Park Road (eastern portion of Town Limits) and Beach Drive/Bonaparte Landing (western portion of Town Limits). Property, right-of-way and/or easement acquisition would need to be obtained to improve the access sites at these locations.

The new Town Park will soon be outfitted with a restroom. Determining the park's status as an active versus passive recreation area is an important goal of residents and Town officials.

# Town of Sunset Beach



## Comprehensive CAMA Land Use Plan Update

Map 6.1 Brunswick County  
Water Supply System

### Legend

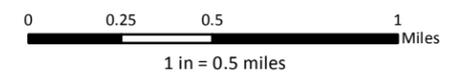
- Sunset Beach City
- Sunset Beach ETJ
- Waterbody
- Swamp/Marsh
- Water Tank

### Brunswick Co. Water Main

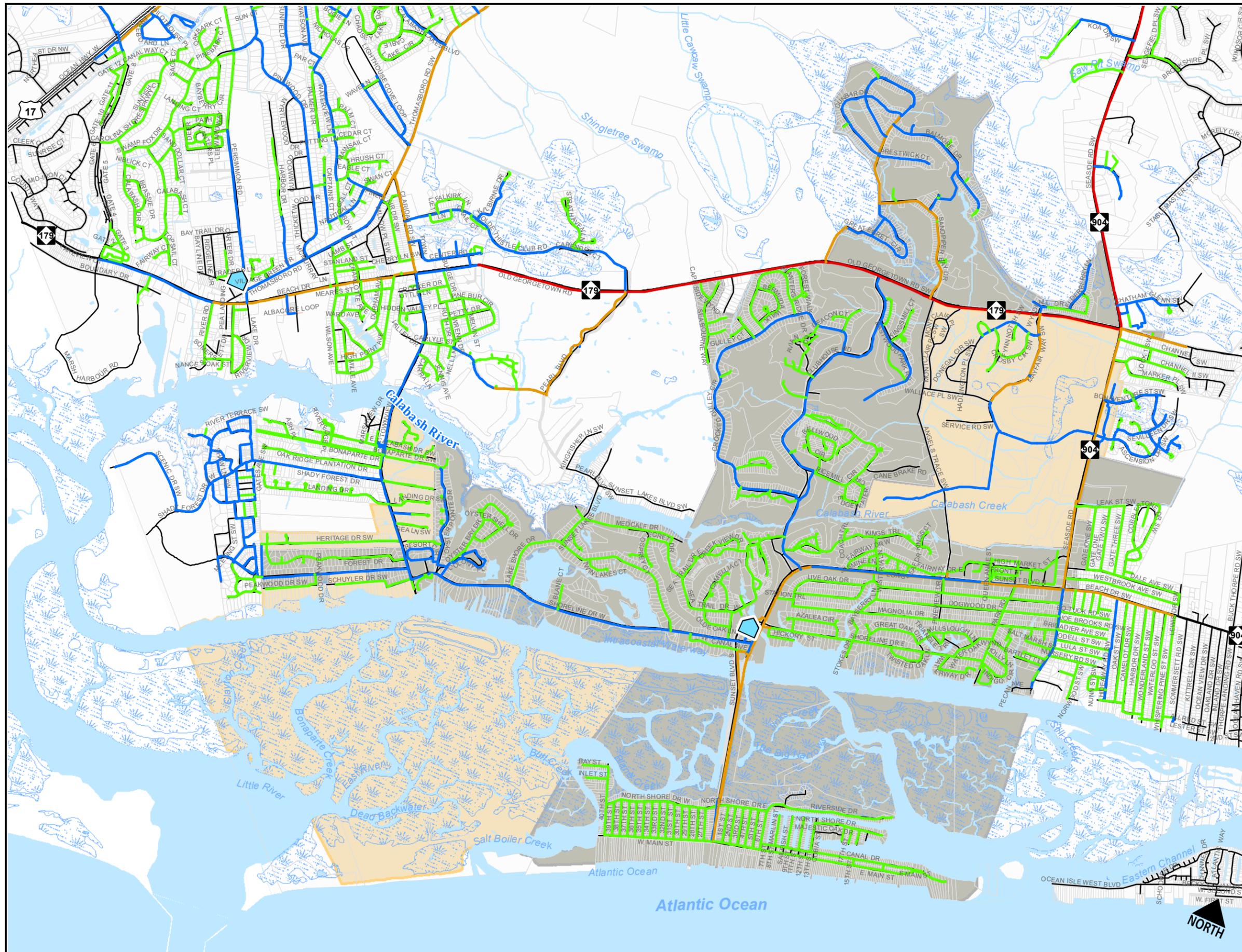
#### Diameter

- 2" - 6"
- 8" and 10"
- 12"
- 16"

Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



Map prepared by Cape Fear Council of Governments. Data sources: Brunswick Co. Utilities, NCDOT, USGS.

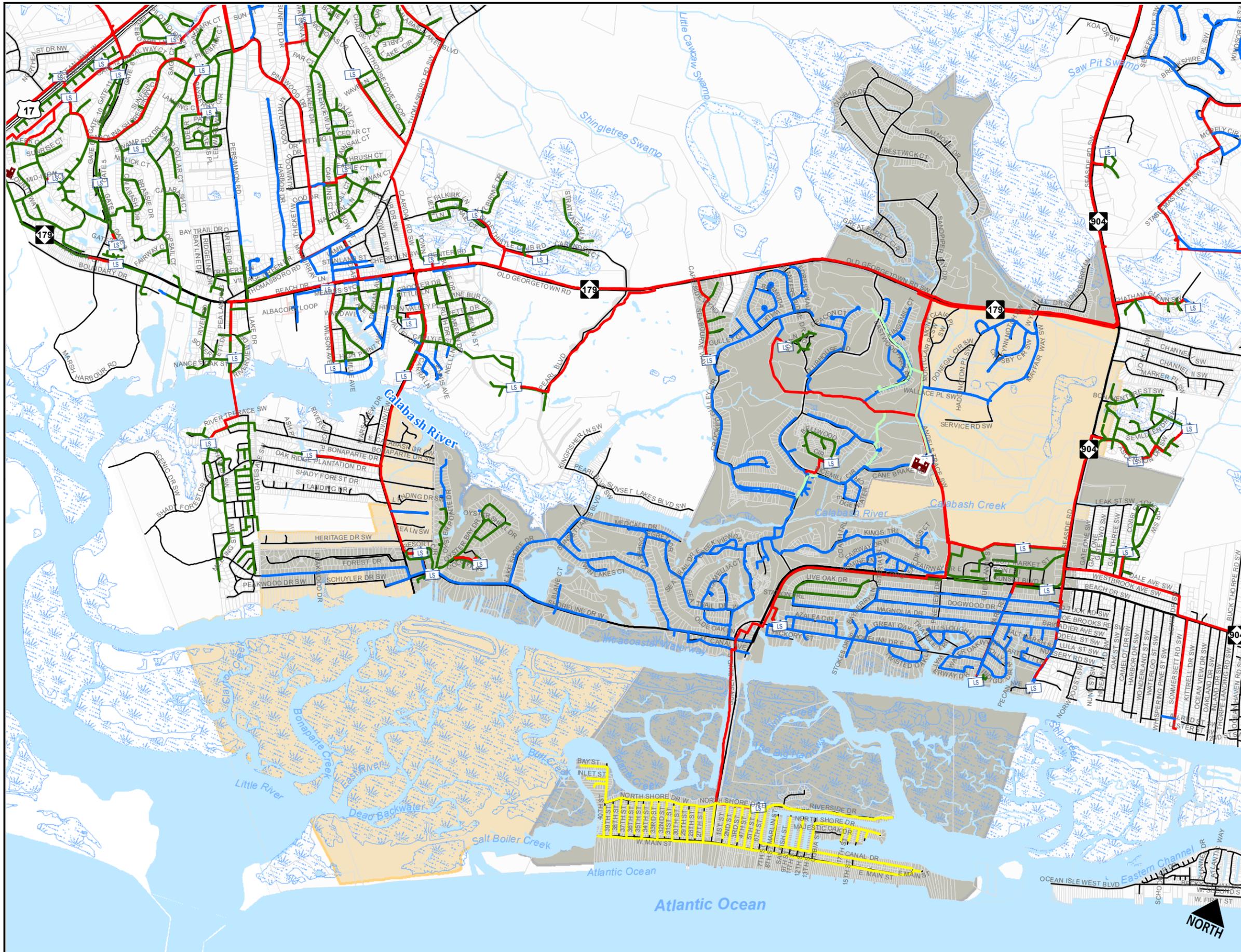


# Town of Sunset Beach



## Comprehensive CAMA Land Use Plan Update

Map 6.2 Brunswick County Wastewater System



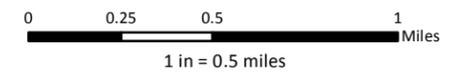
### Legend

- Sunset Beach City
- Sunset Beach ETJ
- Waterbody
- Swamp/Marsh
- Sea Trail WWTP
- Lift Station

### Brunswick Co. Wastewater Line

- Force Main
- Gravity Line
- Low Pressure Line
- Reuse Line
- Vacuum Line

Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



Map prepared by Cape Fear Council of Governments. Data sources: Brunswick Co. Utilities, NCDOT, USGS.



# Town of Sunset Beach



## Comprehensive CAMA Land Use Plan Update

Map 6.3 Annual Average Daily Traffic Counts (2014)

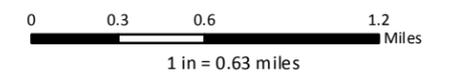
### Legend

- Sunset Beach City
- Sunset Beach ETJ
- Waterbody
- Swamp/Marsh

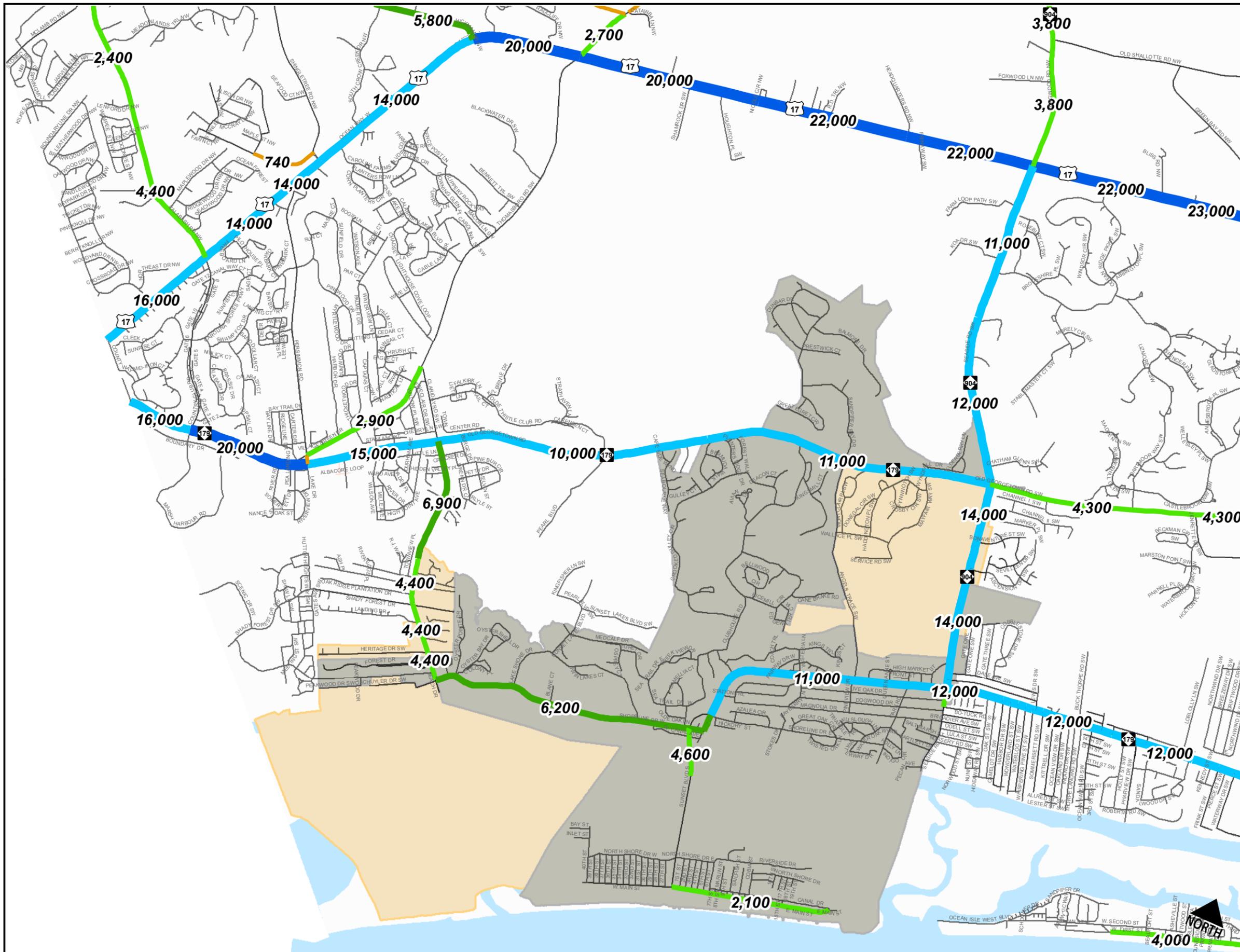
### 2014 NCDOT Traffic Data

- 9 - 1,999
- 2,000 - 4,999
- 5,000 - 9,999
- 10,000 - 19,999
- 20,000 - 34,999

Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



Map prepared by Cape Fear Council of Governments. Data sources: Brunswick Co., NCDOT, USGS.



# Town of Sunset Beach



## Comprehensive CAMA Land Use Plan Update

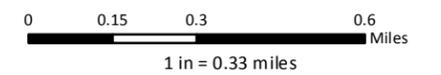
Map 6.4 Public Access Sites



### Legend

- Sunset Beach City
- Sunset Beach ETJ
- Waterbody
- Swamp/Marsh
- CAMA Public Access Site
- WRC Boat Launch
- Bonaparte Landing Informal Access
- Park Road Informal Access

Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



Map prepared by Cape Fear Council of Governments. Data sources: Brunswick Co., NCDEQ, DCM, NCDOT, USGS.

