

Natural Resources of Regional Significance

NATURAL RESOURCES TRENDS AND CONDITIONS

Natural Resource Summary

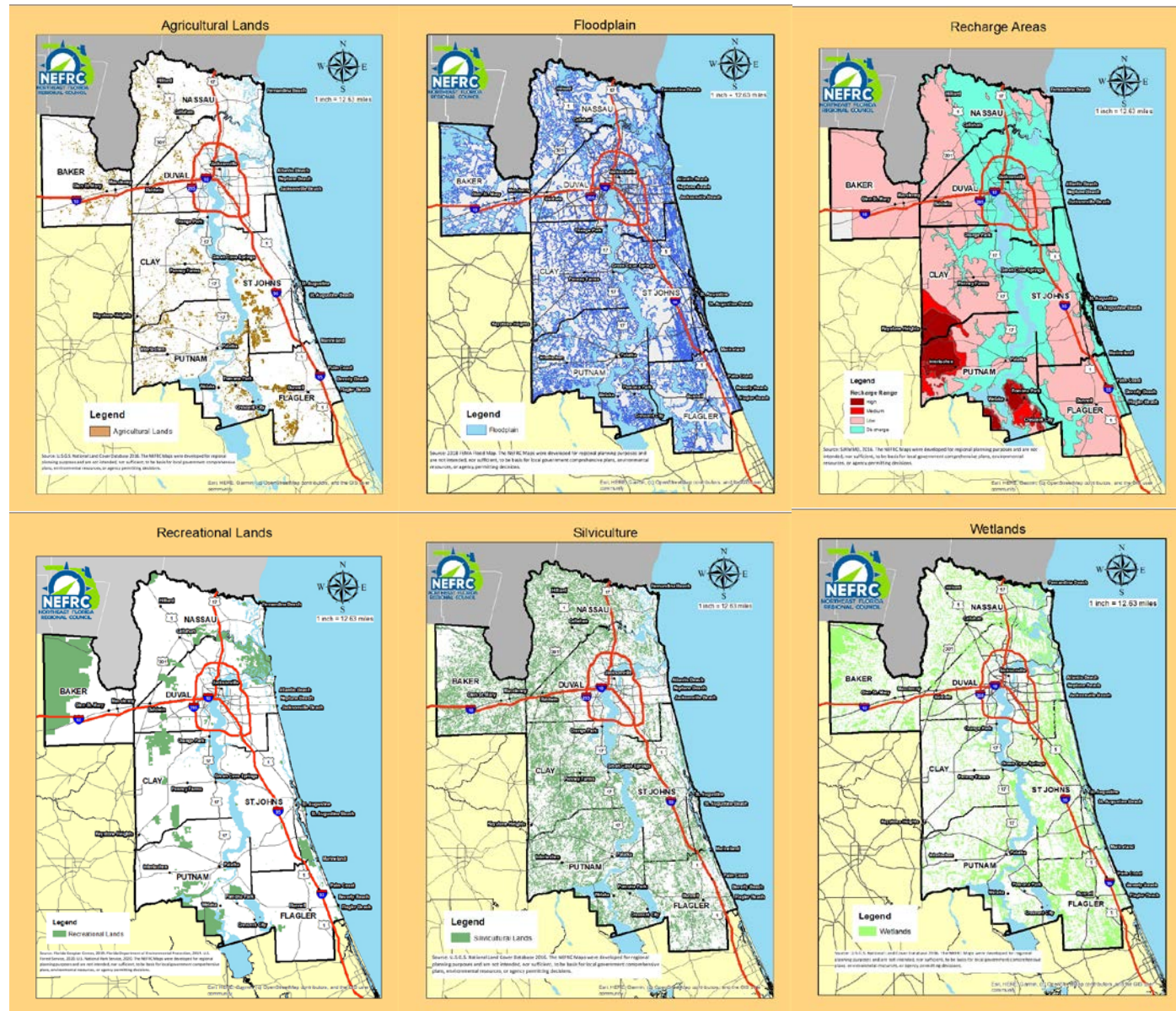
The St. Johns River flows north through the Region and empties into the Atlantic Ocean in Duval County offering beauty and economic opportunities to the entire Region. The River and its tributaries present real prospects for economic benefits such as eco-tourism. The Regional climate features moderate winters attracting new residents that are also attracted to Georgia and the Carolinas. The Region has an abundance of natural resources and has so far developed in a pattern that allows much of the land area of the Region to remain in managed forests, with a lesser amount of acreage in agriculture.

In the NEFRC Grow Smart Survey that preceded the 2009 Reality Check First Coast visioning exercise, 32% of residents thought preserving the environment should be the first priority when considering development. The same number thought that the economy should be the first consideration. These two opinions point out the close relationship between the environment and economy.

Florida allows wetlands to be permitted for development, subject to requirements for mitigation. Over time, this practice results in fragmentation of wetland systems, and the gradual but continual loss of wetland ecosystem functions and services. The cumulative effect results in Regional impacts. The loss of forested and natural areas means less water recharge from the surface to the aquifer and increased storm water runoff impacts to water bodies such as the St. Johns River, which often experiences algal blooms in the summer months. The annual State of the River Report provides an overview of conditions in the river and should be carefully monitored by the Region. The number of septic tanks permitted is a metric tracked in this report, as these systems, when they fail, have the potential for negative impacts on the River and ground water.

The Floridan Aquifer has provided drinking water of excellent quality to the entire Region for many years. The Floridan Aquifer will reach limits for withdrawal at some point, and will no longer be available as the sole source of drinking water in the Region. The 2017 North Florida Regional Water Supply Plan designated Baker, Clay, Duval, Nassau, Putnam and St. Johns Counties as Water Supply Caution Areas, adding them to the status Flagler County had received several years earlier. Each much now include Water Supply Facility Work Plans to local comprehensive plans, thereby highlighting the importance of water supply. Per capita public supply water use is tracked not to highlight the differences between Counties (and factors such as power plant location, agriculture and density make usage in Northeast Florida vary widely) but to look for trends of less usage over time.

STRATEGIC ISSUE: GREEN INFRASTRUCTURE



REGIONALLY SIGNIFICANT RESOURCES AND FACILITIES

STRATEGIC ISSUE: HEALTHY, WELL-FUNCTIONING, SUSTAINABLE NATURAL RESOURCES OF REGIONAL SIGNIFICANCE

The State has mandated identification of Natural Resources of Regional Significance. . The maps include those resources included in the 1997 and 2014 SRPP, updated to reflect best available data. They also include those resources suggested by Counties in the Region and parks greater than 20 acres identified as Florida Land Management Areas, or in the Florida State Park System. The lists are included for ease of reference. Local governments should consider impacts to these Regional resources when they plan, and NEFRC will review such impacts if it is required to review a proposal with the potential for impacts.

Section 403.061(28) of the Florida Statutes grants the Florida Department of Environmental Protection the power to establish rules that provide for a special category of water bodies within the state to be referred to as “Outstanding Florida Waters”. These resources are worthy of special protection because of their natural attributes. Several natural resources of Regional significance are also Outstanding Florida Waters, including Pellicer Creek in Flagler and St. Johns Counties, Upper Black Creek in Clay County, and the Nassau River-St. Johns Marshes in Nassau and Duval Counties. A complete list is included in Section 62-302.700 F.A.C.

The Region has a role in the protection of state and federal listed species, and its support of preservation of appropriate natural areas is just one way that species can benefit. Developments of Regional Impact are required to assess their potential impact on listed species, pursuant to Florida Statutes Section 380.06.

Natural Resources List and Maps

Water Bodies and Wetlands (including associated tributaries)

Amelia River	Georges Lake	Okefenokee Swamp
Ashley Prairie	Goodson Prairie	Oklawaha River
Atlantic Coast and Ocean	Graham Swamp	Ortega River
Big Cypress Swamp	Guana River	Pablo Creek
Big Gum Swamp	Haw Creek	Pellicer Creek
Big Island Swamp	Hull Cypress Swamp	Pinhook Swamp
Black Creek	Impassable Bay	Pottsburg Creek Swamp
Boggy/Mills Creek	Intracoastal Waterway	Putnam Prairie
Brady Branch Swamp	Julington/Durbin Creeks	Rice Creek Swamp
Broward River	Kingsley Lake	Rice/Etonia Creeks
Bulow Creek	Lake Disston	Rodman Reservoir
Cabbage Swamp	Lake Geneva	San Sebastian River
Cedar Swamp	Lake George	Six-Mile Creek
Clapboard Creek	Levy's Prairie	St. Augustine Inlet
Coastal Barrier Resource	Lofton Creek	St. Johns Inlet
System (<i>Comprised of</i>	Long Swamp	St. Johns River
<i>undeveloped coastal</i>	Lower St. Johns River	St. Johns/Nassau Valley
<i>barriers along the Atlantic.</i>	Lowry Lake	Marshes
<i>Source is FEMA, 2012)</i>	Matanzas Inlet	St. Mary's Inlets
Crescent Lake	Matanzas River	St. Marys River
Cunningham Creek	Moccasin Swamp	Thomas Creek
Deep Creek	Moses Creek	Tolomato River
Deep Creek Swamp	Moultrie Creek	Tolomato/Matanzas River
Doctors Lake	Mud Lake Marsh	Marshes
Dunns Creek (Putnam)	Nassau River	Trestle Bay Swamp
Durbin Swamp	Nassau Sound	Trout Creek
Fish Swamp	New River Swamp	Trout River
Florida East Coast Estuary	North River	Twelve-Mile Swamp
Fort George River	Ocean Pond	Yellow Water Creek

Parks and Preserves

9A Mitigation Parcels	Cecil Field Conservation	Guana River Wildlife
Alpine Groves Park	Corridor	Management Area
Amelia Island State Park	Cedar Point	Guana Tolomato Matanzas
Anastasia State Park	Cedar River Sanctuary	National Estuarine
Bayard Conservation Area	Cradle Creek Preserve	Research Reserve
Beach and Peach Preserve	Crescent Lake Conservation	Hagstrom Conservation
Belmore State Forest	Area	Easement
Betty Steflik Memorial	Deep Creek Conservation	Half Moon Island Preserve
Preserve	Area (SJRWMD)	Haw Creek Preserve
Betz Tiger Point Preserve	Deep Creek State Forest	Haw Creek Preserve State
Big Pottsburg Creek	Dunns Creek Conservation	Park
Big Talbot Island State Park	Area	Heart Island Conservation
Black Creek Ravines	Dunns Creek State Park	Area
Conservation Area	Dutton Island Park and	Horseshoe Point
Branan Field Mitigation	Preserve	Conservation Area
Park Wildlife and	E. Dale Joyner Nature	Huguenot Memorial Park
Environmental Area	Preserve at Pelotes	Intracoastal Waterway
Brandy Branch Trail Head	Island	J. A. Ginn Jr. Parcel
Bryant Skinner	Egans Creek Greenway	Jack Wright Island
Conservation Easement	Etoniah Creek State Forest	Conservation Area
Bulls Bay Preserve	Fanning Island Preserve	Jacksonville Naval Air
Bulow Creek State Park	Faver-Dykes State Park	Station
Bulow Plantation Ruins	Ferngully Preserve	Jennings State Forest
Historic State Park	Fort Caroline National	Jim Wingate Park
Camp Blanding Military	Memorial	John M. Bethea State Forest
Reservation	Fort Clinch State Park	Julington-Durbin Preserve
Camp Chowenwaw Park	Fort George Island Cultural	Kathryn Abbey Hanna Park
Camp Milton Historic	State Park	Kings Road Historical
Preserve	Fort Matanzas National	Preserve
Canopy Shores Park	Monument	Kingsley Plantation
Caravelle Ranch	Fort Mose Historic State	Lake George Conservation
Conservation Area	Park	Area
Caravelle Ranch Wildlife	Four Creeks State Forest	Lehigh Greenway
Management Area	Geiger Tract	Little Talbot Island State
Carl Duval Moore State	Goodbys Creek Preserve	Park
Forest and Park	Graham Swamp	Loblolly Mitigation
Cary State Forest	Conservation Area	Preserve
Castaway Island Preserve	GTMNERR - Guana River	Loblolly Park
Castillo de San Marcos	Site	Longbranch Crossing
National Monument		Conservation Easement

Marjorie Harris Carr Cross Florida Greenway State Recreation and Conservation Area	Princess Place Preserve Pumpkin Hill Creek Preserve State Park	St. Marys River Ranch Conservation Easement
Matanzas State Forest	Ralph E. Simmons State Forest	St. Marys Shoals Park
Mayport Naval Station	Ravine Gardens State Park	Stokes Landing Conservation Area
McGirts Creek Preserve	Reddie Point Preserve	Stone Mountain Industrial Park
Mike Roess Gold Head Branch State Park	Relay Tract Conservation Easements	Sylvan West Conservation Easement
Miller Farm	Ribault River Preserve	Theodore Roosevelt Area
Moccasin Slough	Rice Creek Conservation Area	Thomas Creek Conservation Area
Monticello Wildlands	River to Sea Preserve at Marineland	Thomas Creek Preserve
Monticello Wildlands Conservation Easement	Roberts Property	Timucuan Ecological and Historic Preserve
Moses Creek Conservation Area	Rodman Bomb Target	Turnbull Creek Regional Mitigation Area
Murphy Creek Conservation Area	Sal Taylor Creek Preserve	Twelve Mile Swamp Conservation Area
Ocala National Forest	Sample Swamp	Vaill Point Park
Okefenokee National Wildlife Refuge	San Pablo Creek Conservation Easement	Verdie Forest
Olustee Battlefield Historic State Park	Satsuma Tract	Washington Oaks Gardens State Park
Olustee Experimental Forest	Saturiwa Swamp Conservation Area	Watson Island State Forest
Ordway-Swisher Biological Station	Seven Sisters Islands	Welaka National Fish Hatchery
Osceola National Forest	Shell Bluff	Welaka State Forest
Otis Road Trail Head	Skinner-Smith Parcel	Whitehouse Naval Outlying Field
Pellicer Creek Corridor Conservation Area	Southeast Intracoastal Waterway Park	Yellow Water Branch Trail Head
Peterson Tract	St. Johns County Conservation Area	
	St. Marys River House	

Trails

Amelia Island Trail	Cross Florida Greenway North	Palatka to Lake Butler State Trail
Belle Terra Parkway Trail	Doctors Lake Drive Bike Path	Palatka to St. Augustine State Trail
Black Creek Trail	Etonia Creek Trail	Palm Coast Parkway Bike Path
309C Trail	Jacksonville Baldwin Rail Trail	Rice Creek Trail
Camp Blanding Trail	Lehigh Greenway Rail Trail	S-Line Trail
Colbert Land Bike Path		
Crescent City Trail		
Cross Florida Greenway		

State Road 121 Rail Trail

Blueways

Black Creek

Bulow Creek

Bulow River

Florida Circumnavigational

Saltwater

Guana River

Intracoastal Waterway

Julington-Durbin Creek

Lofton Creek

Middle Prong Creek

Moultrie Creek

Pellicer Creek

Pumpkin Hill Creek

Putnam County Blueway
System

San Sebastian

Simpson Creek

Six Mile Creek

Spruce Creek

St. Johns River

St. Marys River

Thomas Creek

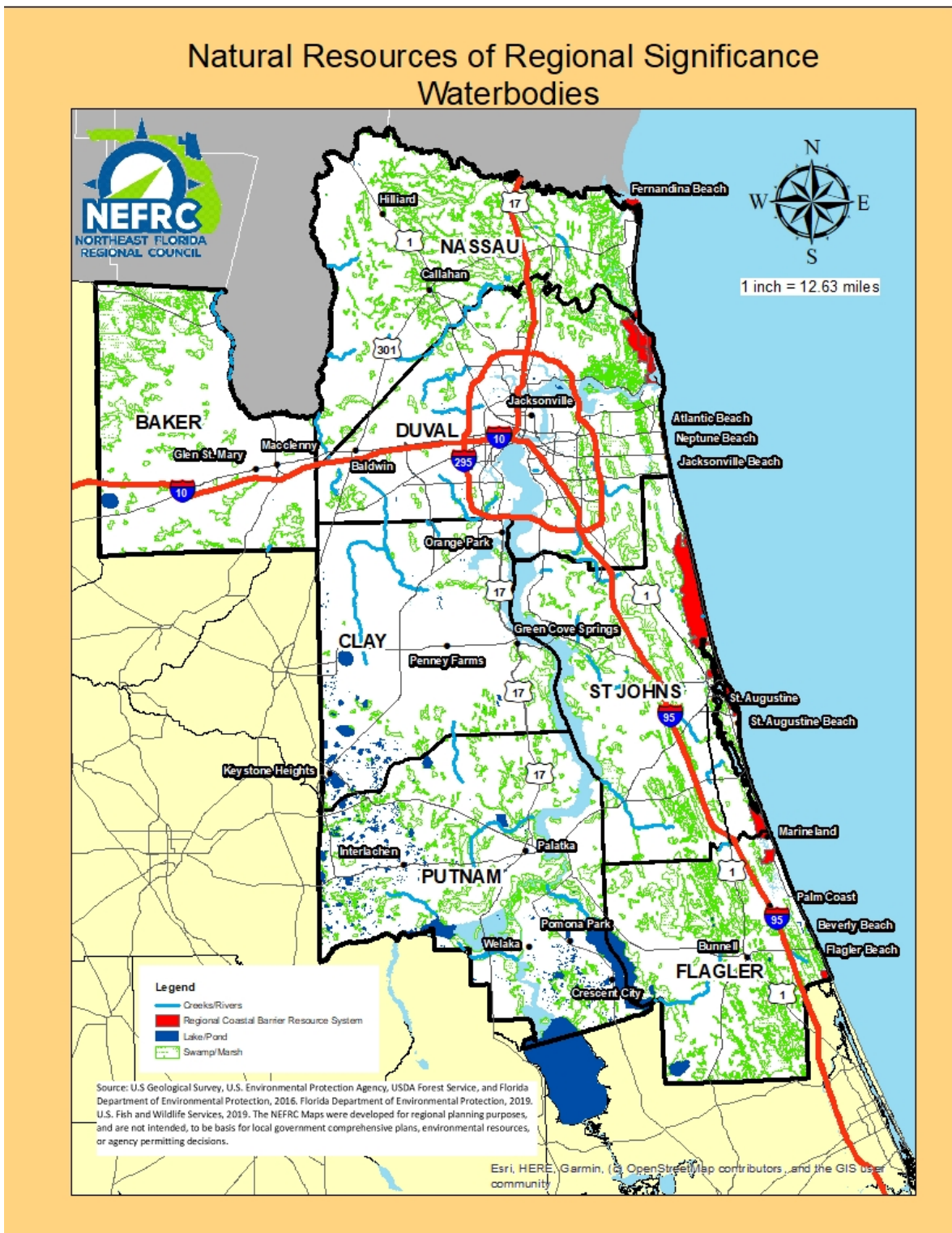
Tolomato River

Trout Creek

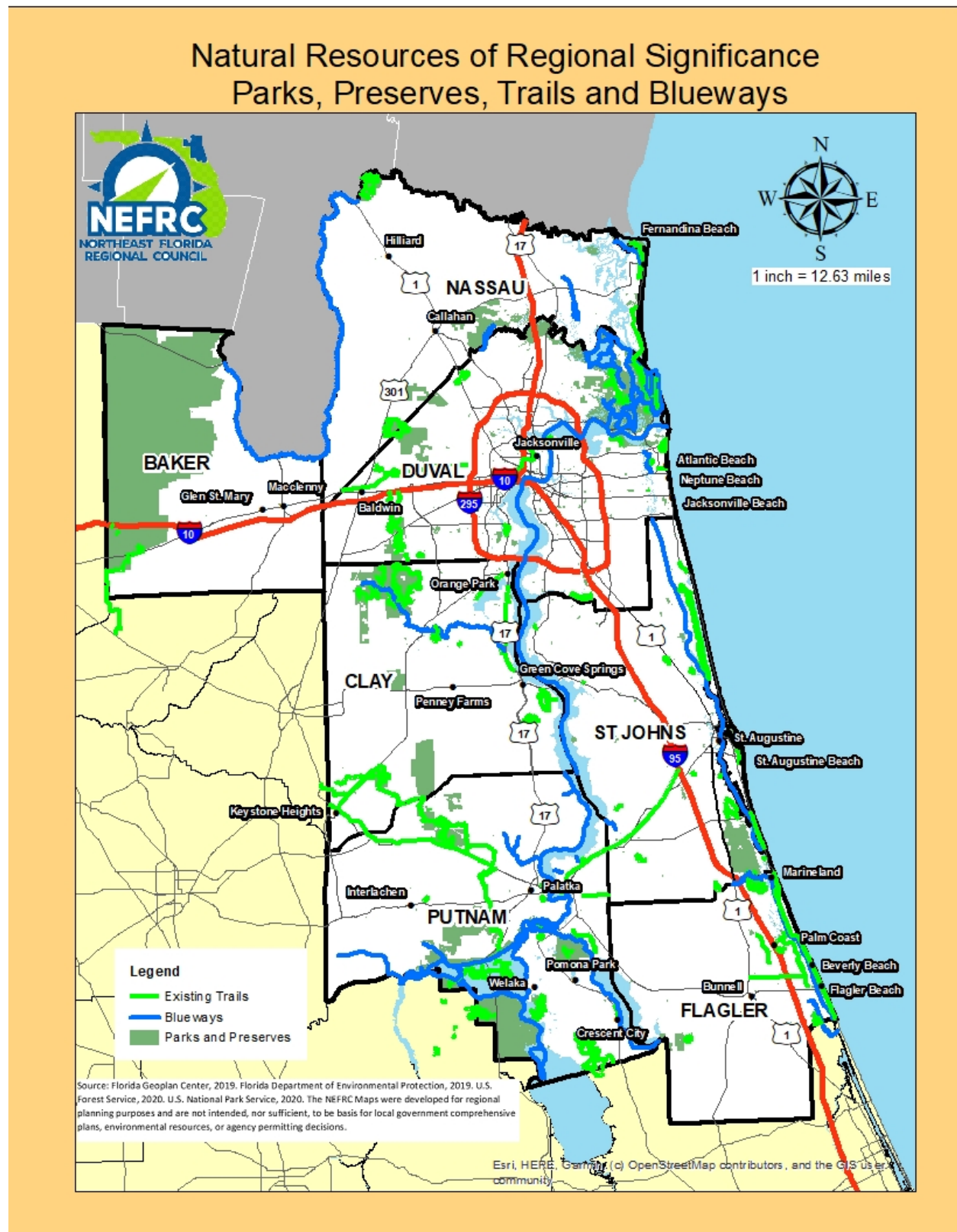
Floridan Aquifer and Recharge Areas

Features provided on Natural Resources Recharge Areas map (USGS Land Use cover, 2009)

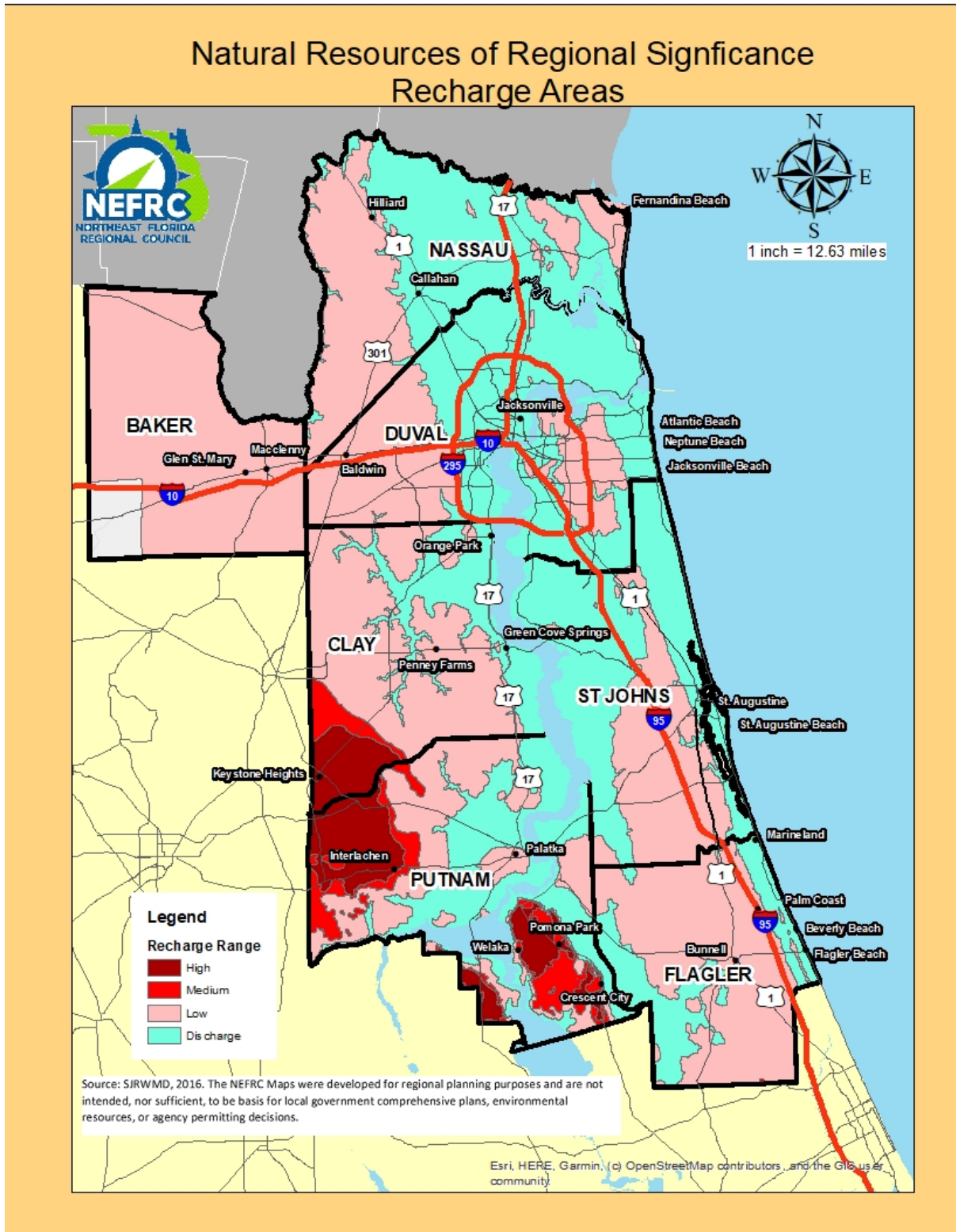
Natural Resources of Regional Significance—Water Bodies



Natural Resources of Regional Significance—Parks, Preserves, Trails & Blueways



Natural Resources of Regional Significance—Recharge Areas



GOALS, OBJECTIVES AND POLICIES

Goal: Northeast Florida recognizes that some resources have the potential to impact more than one jurisdiction, and their viability is of concern to the Region. NEFRC promotes the protection of these resources, as contained on the Natural Resources of Regional Significance list.

Pillar: Quality of Life and Quality Places

OBJECTIVE: RESOURCE ADAPTATION

Policies

Policy 1: The Region, as it determines the impact of climate change on Northeast Florida, and if needed, devises plans to mitigate and adapt, will seek to achieve a balance that supports the people, protects the resources and takes advantage of Regional assets.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S.

Policy 2: The Region supports innovation to lessen impact on resources, including utilizing alternative energy sources for power generation and transportation.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S

Policy 3: NEFRC gathers best practices and connects communities with strategies and practitioners that can help address their issues within the context of the aspirational goals of First Coast Vision. Convening to share experiences and discuss solutions is an important part of this approach.

Pillar: Quality of Life and Quality Places, SCP: 187.201(4)F.S

Policy 4: The Region supports preservation of ecosystem services for clean air, water, habitat for wildlife populations, and flood control.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S.

Policy 5: NEFRC and its partners will endeavor to educate residents about the connection between their homes, the services, forests, wildlife and habitats, and planning practices to enhance sustainability and adaptation to climate change.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S.

OBJECTIVE: HEALTHY, WELL-FUNCTIONING, AND SUSTAINABLE NATURAL RESOURCES OF REGIONAL SIGNIFICANCE

Policy 6: NEFRC promotes the protection Natural Resources of Regional Significance.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S.

Policy 7: The NEFRC will consider the long-term health of resources on the Natural Resources of Regional Significance list as it makes decisions and reviews projects that may impact them.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S.

Policy 8: NEFRC encourages local governments to consider impacts to these resources as they plan.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S.

Policy 9: Field verification, site surveys, and other detailed analyses may be used to determine the exact boundaries of Natural Resources of Regional Significance. The maps included in this plan generally depict location and connectivity.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S.

Policy 10: The Region supports protection of the populations of threatened, endangered and listed species, and will comply with the requirements of federal and state law in decision making regarding species, habitats, and natural systems.

Pillar: Quality of Life and Quality Places, SCP: 187.201(9)(a)F.S.

OBJECTIVE: ENHANCED WATER QUANTITY

Policy 11: The Region seeks to maximize water conservation by domestic, agricultural, industrial, and commercial users.

Pillar: Quality of Life and Quality Places, SCP: 187.201(7)(a)F.S.

Policy 12: The Region supports strategies identified by the Regional Community Institute as they worked on First Coast Vision, including:

- Reduction of gross and residential per capita residential water consumption.
- Development of a uniform comprehensive water consumption per capita tool to clearly and consistently track usage annually.

- Reductions of agricultural runoff by increasing the number of farms that have implemented both water table and nutrient *Best Management Practices*.
- Achieving 100% compliance with *National Pollutant Discharge Elimination System (NPDES)* permits.
- Eliminating use of potable water for lawn irrigation by 2060.
- Maximizing use of reclaimed water.
- Use of Florida Friendly and similar landscaping techniques to reduce irrigation needs and conserve water consumption.
- Diversifying sources of water.
- Tracking the percentages of water supply from each source.
- Educating the Region on water consumption and conservation.
- Protecting recharge areas.

Pillar: Quality of Life and Quality Places, SCP: 187.201(7)(a)F.S.

OBJECTIVE: ENHANCED AIR QUALITY

Policy 13: The Region supports strategies identified by the Regional Community Institute as they worked on First Coast Vision, including:

- Reducing vehicle miles travelled in the Region.
- Increasing use of public transit.
- Increasing energy efficiency.
- Efforts to create more carbon sequestration areas.
- Maintenance of air quality standards.

Pillar: Quality of Life and Quality Places, SCP: 187.201(10)(a)F.S.

OBJECTIVE: WATER QUALITY

Policy 14: The Region strives for all water bodies to meet water quality standards.

Policy 15: The Region is committed to considering the integrity of ecosystems to be as valuable to the Region as economic growth, as they are interdependent.

Pillar: Quality of Life and Quality Places, SCP: 187.201(7)(a)F.S.

Policy 16: With its partners and through the *Regional atlas* and data clearinghouse the NEFRC will provide access to information on best practices, technologies, and tools to maintain water quality standards and preserve the integrity of ecosystems.

Pillar: Quality of Life and Quality Places, SCP: 187.201(7)(a)F.S.

Policy 17: The Region supports strategies identified by the Regional Community Institute as they worked on First Coast Vision, including:

- Reduction of discharge of nutrients and pollutants into surface and groundwater.
- Elimination of failing septic tanks.
- Reduction of new septic tank installations.
- Expansion and improvement of data collection and evaluation for water quality through better coordination among agencies.
- Protection of functioning wetlands.
- Maintenance of riparian and wetland buffers.
- Purchase of land and wetlands for water conservation purposes.
- Development of a uniform wetland database to measure loss/gain of wetland function.
- Promotion of Low Impact Development in land planning and engineering design to manage stormwater runoff.

Pillar: Quality of Life and Quality Places, SCP: 187.201(7)(a)F.S.

OBJECTIVE: CONSISTENCY WITH THE STRATEGIC REGIONAL POLICY PLAN

Policy 18: NEFRC considers impacts to resources of regional significance and extra jurisdictional impacts as it reviews consistency with the SRPP. Local governments and proposers of projects should include best available data gathered using professionally acceptable methodology in support of their proposals, sufficient to determine impacts. Where mitigation is proposed, using strategies outlined in local government policies or plans, the SRPP or a combination is encouraged.

Pillar: Infrastructure and Growth Leadership, SCP: 187.201(15)(a)

NATURAL RESOURCES MEASURES

County	Public Supply Per Capita Water Use in Gallons Per Day	Public Supply Residential Per Capita Water Use in Gallons Per Day
Baker	222	172
Clay	92	68
Duval	142	94
Flagler	90	50
Nassau	200	156
Putnam	113	54
St. Johns	112	75

Source: 2018 Survey of Annual Water Use for St. Johns River Water Management District, Technical Fact Sheet SJ2019-FS1

County	Septic Tanks Permitted 2017-2018	Total Septic Tanks Permitted
Baker	67	7,953
Clay	101	32,132
Duval	272	92,907
Flagler	37	6,192
Nassau	178	21,951
Putnam	131	40,874
St. Johns	234	30,415

Source: Onsite Sewage Treatment and Disposal Systems permitting, Florida Department of Health