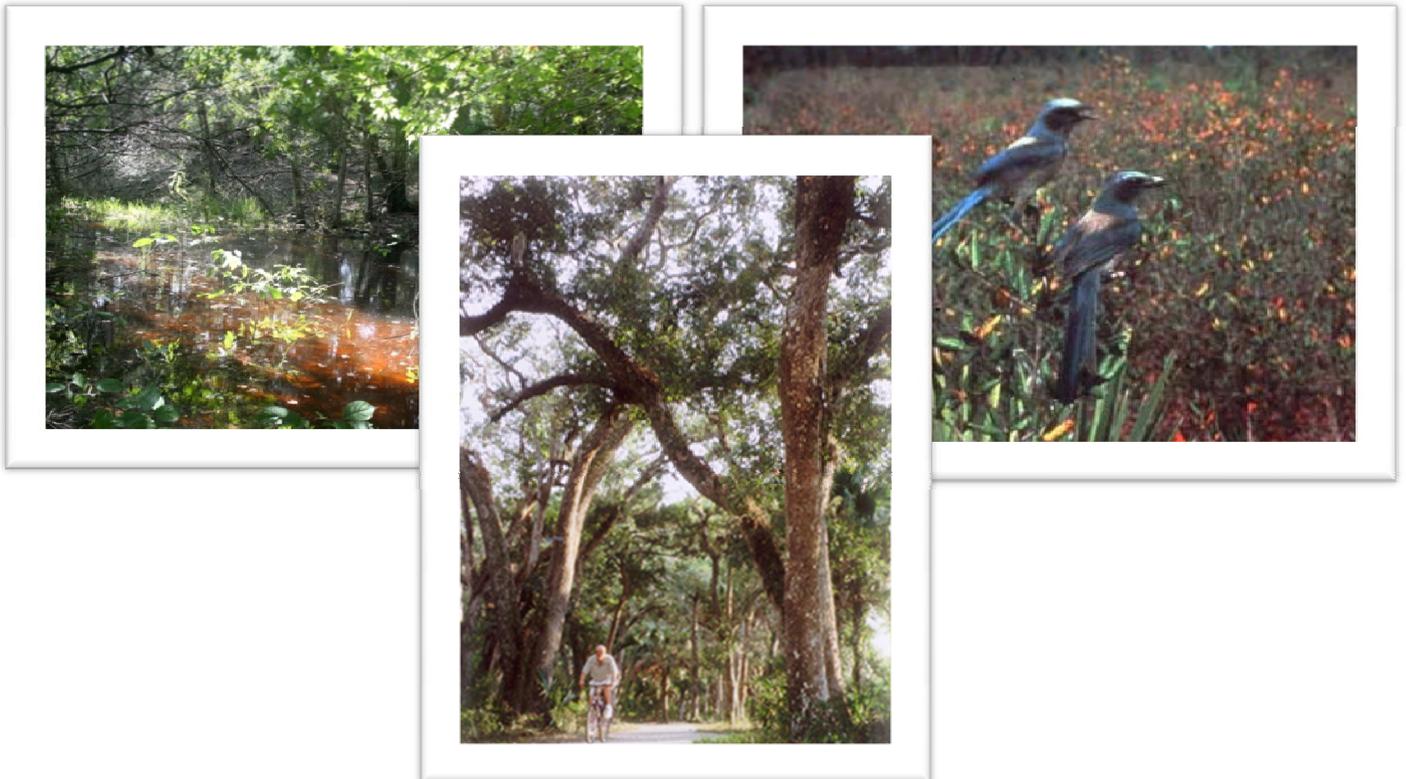




Flagler County Comprehensive Plan 2010-2035
Flagler County, Florida

Conservation Element



Adopted July 6, 2011

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**CONSERVATION ELEMENT
GOALS, OBJECTIVES, AND POLICIES**

Item	Page Number
i. INTRODUCTION	F-1
ii. GOALS, OBJECTIVES, AND POLICIES	F-2
GOAL F.1	F-2
Air Quality Sub-Element	F-2
Objective F.1.1	F-2
Policy F.1.1.1	F-2
Policy F.1.1.2	F-2
Policy F.1.1.3	F-2
Surface Water Sub-Element	F-4
Objective F.1.2	F-4
Policy F.1.2.1	F-4
Policy F.1.2.2	F-4
Policy F.1.2.3	F-5
Policy F.1.2.4	F-5
Policy F.1.2.5	F-6
Policy F.1.2.6	F-6
Policy F.1.2.7	F-6
Policy F.1.2.8	F-6
Policy F.1.2.9	F-7
Policy F.1.2.10	F-7
Objective F.1.3	F-7
Policy F.1.3.1	F-7
Policy F.1.3.2	F-8
Policy F.1.3.3	F-8
Objective F.1.4	F-9
Policy F.1.4.1	F-9
Policy F.1.4.2	F-9

Flagler County Comprehensive Plan 2010-2035

Item	Page Number
Policy F.1.4.3	F-9
Groundwater Sub-Element	F-10
Objective F.1.5	F-10
Policy F.1.5.1	F-10
Policy F.1.5.2	F-10
Policy F.1.5.3	F-10
Policy F.1.5.4	F-11
Policy F.1.5.5	F-12
Policy F.1.5.6	F-12
Policy F.1.5.7	F-13
Policy F.1.5.8	F-13
Water Conservation Sub-Element	F-14
Objective F.1.6	F-14
Policy F.1.6.1	F-14
Policy F.1.6.2	F-14
Policy F.1.6.3	F-14
Policy F.1.6.4	F-14
Policy F.1.6.5	F-15
Policy F.1.6.6	F-15
Policy F.1.6.7	F-15
Policy F.1.6.8	F-15
Policy F.1.6.9	F-16
Policy F.1.6.10	F-16
Policy F.1.6.11	F-16
Policy F.1.6.12	F-16
Policy F.1.6.13	F-16
Soil Erosion Sub-Element	F-17
Objective F.1.7	F-17

Flagler County Comprehensive Plan 2010-2035

Item	Page Number
Policy F.1.7.1	F-17
Policy F.1.7.2	F-17
Policy F.1.7.3	F-17
Mineral Resources Sub-Element	F-18
Objective F.1.8	F-18
Policy F.1.8.1	F-18
Policy F.1.8.2	F-18
Policy F.1.8.3	F-18
Policy F.1.8.4	F-18
Policy F.1.8.5	F-18
Flora and Fauna Sub-Element	F-19
Objective F.1.9	F-19
Policy F.1.9.1	F-19
Policy F.1.9.2	F-19
Policy F.1.9.3	F-21
Policy F.1.9.4	F-21
Policy F.1.9.5	F-21
Policy F.1.9.6	F-21
Policy F.1.9.7	F-21
Objective F.10	F-21
Policy F.1.10.1	F-22
Policy F.1.10.2	F-22
Natural Area Reservations Sub-Element	F-23
Objective F.1.11	F-23
Policy F.1.11.1	F-23
Policy F.1.11.2	F-23
Policy F.1.11.3	F-24
Policy F.1.11.4	F-24

Flagler County Comprehensive Plan 2010-2035

Item	Page Number
Policy F.1.11.5	F-25
Policy F.1.11.6	F-26
Policy F.1.11.7	F-26
Hazardous Waste Sub-Element	F-27
Objective F.1.12	F-27
Policy F.1.12.1	F-27
Policy F.1.12.2	F-27
Policy F.1.12.3	F-27
Policy F.1.12.4	F-27
Policy F.1.12.5	F-27
Policy F.1.12.6	F-28
Policy F.1.12.7	F-28
Policy F.1.12.8	F-28
Historic Preservation Sub-Element	F-29
Objective F.1.13	F-29
Policy F.1.13.1	F-29
Policy F.1.13.2	F-29
Policy F.1.13.3	F-29
Policy F.1.13.4	F-29
Policy F.1.13.5	F-29
Policy F.1.13.6	F-30
Policy F.1.13.7	F-30
Policy F.1.13.8	F-31
Maintaining Scenic Byways Sub-Element	F-32
Objective F.1.14	F-32
Policy F.1.14.1	F-32
Policy F.1.14.2	F-32
Policy F.1.14.3	F-32

Flagler County Comprehensive Plan 2010-2035

Item	Page Number
Policy F.1.14.4	F-32
Policy F.1.14.5	F-32
Shoreline Pedestrian Access Sub-Element	F-33
Objective F.1.15	F-33
Policy F.1.15.1	F-33
Policy F.1.15.2	F-33
Policy F.1.15.3	F-33
Policy F.1.15.4	F-33
Policy F.1.15.5	F-33

List of Maps

Map F.1: Surface Waters & Surface Water Basins	F-37
Map F.2: National Wetlands Inventory Wetland Systems	F-39
Map F.3: Priority Wetlands for Listed Species	F-41
Map F.4: Priority Water Resource Caution Areas 2006	F-43
Map F.5: Floridan Aquifer Prime Recharge 2005	F-45
Map F.6: Public Supply Wells 2007	F-47
Map F.7: 100 Year Floodplain Map	F-49
Map F.8: General Soil Map	F-51
Map F.9: Rock and Mineral Resources Stratigraphy	F-53
Map F.10: Rock and Mineral Resources Surficial Materials	F-55
Map F.11: Rock and Mineral Resources Coquina	F-57
Map F.12: Ecological Communities 2004 Habitat & Land Cover	F-59
Map F.13: Coastal Greenways	F-61
Map F.14: Existing Recreation and Open Parks Space	F-63

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I. Introduction

The Conservation Element is one of the required elements of the Comprehensive Plan, as specified by Section 163.3177, Florida Statutes. This Element provides the goals, objectives, and policies for programs used by the County for the conservation, use, and protection of natural resources in the area. The Future Land Use, Infrastructure and Conservation Elements need to be coordinated with the goals, objectives, and policies contained in the Conservation Element in order to facilitate the preservation and protection of valuable natural resources in Flagler County. The Conservation Element has a primary focus is on the following:

1. Existing and planned water wells and cones of influence, where applicable.
2. Beaches and shores, including estuarine systems.
3. Rivers, bays, lakes, flood plains, and harbors.
4. Wetlands.
5. Minerals and soils.
6. Energy conservation.

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III. Goals, Objectives, and Policies

THE GOAL F.1: Conserve, protect, and appropriately manage the natural resources of Flagler County to ensure the highest environmental quality possible.

A. Air Quality Sub-Element Objectives and Policies

Objective F.1.1: ~~Through the year 2010,~~ Flagler County shall meet or exceed the minimum air quality levels established by the Florida Department of Environmental Protection (FDEP) through ~~via~~ the management of land use patterns.

Policy F.1.1.-1: Flagler County shall cooperate with the State in monitoring Air Pollution Inventory System (APIS) facilities in Flagler County if and when they exist.

Policy F.1.1.-2: New ~~Industrial~~ land uses shall be located where they minimize the impact on current air quality standards consistent with Flagler County's performance-based Land Development Regulations (LDRs) for the development of industrially-zoned parcels.

Policy F.1.1.-3: ~~The~~ Flagler County shall reduce the potential for the emission of greenhouse gases (GHG) ~~automobile emissions pollution~~ by through the following means:

- (a.1) encouraging developments such as Planned Unit Developments (PUDs) and multi-use centers;
- (b.2) requiring vegetative buffer strips between arterial roadways and residential development; and
- (c.3) promoting alternative transportation modes such as car pooling, public transit, and bicycle and pedestrian paths.

- (4) developing Land Development Regulations that serve as incentives for “Green” development and redevelopment.
- (5) conserving and protecting natural resources that effect energy conservation through regulation and land acquisition.

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B. Surface Water Sub-Element Objectives and Policies

Objective F.1.2: ~~Through the year 2010, the~~ Flagler County shall endeavor to protect the quality of all surface waters by conducting or cooperating with monitoring evaluations and study efforts.

Policy F.1.2.-1: ~~The~~ Flagler County, ~~consistent with its~~ Water Supply Facilities Work Plan (WSFWP), shall work towards the enhancement of the Florida Department of Environmental Protection's (FDEP's) and the St. Johns River Water Management District's (SJRWMD's) surface water quality testing program ~~results~~ by supporting ~~aiming for~~ the development, operation, and maintenance of cost-effective and efficient potable water and wastewater systems that promote timely, orderly, and efficient land development patterns while protecting the public health and the environment.

Policy F.1.2.2: ~~The~~ Flagler County shall work towards protecting the water quality and quantity of the known problem areas of Crescent Lake, Dead Lake, and Lake Disston, along with the enhancement of the St. Johns River Water Management District's (SJRWMD's) ~~s~~Surface w~~Water i~~mprovement and m~~Management (SWIM) program,~~ results by promoting (~~through~~ via the County's Agricultural Extension Service) the use of U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) and Florida Department of Agriculture and Consumer Services (DACCS) best management practices (BMPs) concerning agricultural runoff, and golf course management and ~~shall have specific septic tank guidelines in the Land Development Code and shall also conform to the requirements established in Chapter 10D-6 of the Florida Administrative Code (F.A.C.) or its successor.~~

Policy F.1.2.3: Flagler County shall adopt a septic tank maintenance program and specific septic tank guidelines for unique environmental conditions in the Land Development Regulations (LDRs). These Land Development Regulations (LDRs) shall also conform to the requirements established in applicable sections of the Florida Administrative Code (FAC).

Policy F.1.2.4-3: The Flagler County shall periodically review the adopted stormwater management regulations (~~Article V, Land Development Code~~) and update these as needed, particularly to incorporate best management practices (BMPs), as appropriate. to mirror those adopted and enforced by the St. Johns River Water Management District (SJRWMD). The regulations shall require:

- ~~a) — buffer zones adjacent to surface water bodies to preserve natural vegetation which provides filtration of stormwater runoff. Where buffer zones (vegetative measures) are not feasible, alternate methodologies (vegetative and/or quality as covered by policies 2-3b, 2-3c and 2-3d will be considered;~~
- ~~b) — general design and construction standards for on-site stormwater management systems for new development to ensure that post-development runoff rates, volumes and pollutant loads do not exceed pre-development conditions;~~
- ~~c) — best management practices for agricultural and silvicultural land uses, as defined by the U.S. Department of Agriculture's Soil Conservation Service and the Florida Department of Agriculture;~~
- ~~d) — treatment practices for all new developments as defined and adopted by the St. Johns River Water Management District and appropriate rules and regulations.~~

~~Policy 2-4: In order to protect water quality and quantity of the known problem areas of the lower Dunn Creek, Crescent Lake, Dead Lake and Lake Disston, the County's Agricultural Extension Service shall promote the use of U.S.~~

~~Department of Agriculture's Natural Resources Conservation Service and the Florida Department of Agriculture's best management practices concerning agricultural runoff. Concerning septic tanks, specific septic tank criteria shall be governed by the Flagler County land development regulations as well as requirements established in 10D-6 of the Florida Administrative Code or its successor.~~

Policy F.1.2.-5: ~~The Flagler County shall prohibit any point source pollution discharges into surface waters, including, but not limited to, lakes, estuaries, oceanic waters, creeks, inlets, the Intracoastal Waterway, and wetlands.~~

Policy F.1.2.6: Flagler County shall within its jurisdiction monitor construction sites and vacant lots to prevent or abate illegal dumping activities.

Policy F.1.2.7: In applicable areas, Flagler County shall work with the appropriate Federal and State agencies in authorizing and erecting signage along the Intracoastal Waterway at appropriate locations stating that boaters have entered shellfish harvesting areas and that any overboard sewage disposal is illegal.

Policy F.1.2.8: Flagler County shall continue to coordinate with the appropriate governmental agencies on the St. Johns River Surface Water Improvement and Management (SWIM) program, the Northern Coastal Basin Reconnaissance Report, the Guana Tolomato Matanzas National Estuarine Research Reserve (GTMNERR) Management Plan, the Pellicer Creek Aquatic Preserve Management Plan, the Guana River Marsh Aquatic Preserve Management Plan, the Guana Tolomato Matanzas Task Force Progress Report, and any future Management Plans, Habitat Conservation Plans, Florida Fish and Wildlife Conservation Commission (FWC) Manatee Protection Management Plan, and Estuarine Sanctuary Plans to ensure that the County's resource protection

measures are implemented in conjunction with the existing resource protection plans.

Policy F.1.2.9: Flagler County shall enhance and/or restore the degraded natural areas in conjunction with the appropriate Federal and State agencies on County-owned properties adjacent to major waterways through the removal of non-native vegetation, reforestation, shoreline or dune restoration, and/or the restoration of the natural hydrology as funding permits.

Policy F.1.2.10: To improve surface water quality, Flagler County shall work with the Florida Department of Environmental Protection (FDEP) and the St. Johns River Water Management District (SJRWMD) to develop native vegetative restoration plans for waterfront park sites within the County. All plans will include the removal of non-native vegetative plant materials, i.e., brazilian pepper, exotic bamboo, bayberry, and similar species. The non-native vegetative plant materials shall be replaced with the appropriate native species as resources permit.

Objective F.1.3: ~~Through the year 2010, the~~ Flagler County shall protect the natural functions of the one hundred year (100-year) floodplain so that the flood-carrying and flood storage capacity are maintained by continuing to implement and enforce floodplain ordinances and reviewing development proposals for the presence of impacts on floodplains.

Policy F.1.3-1: ~~The~~ Flagler County, ~~in addition to the AStatement of Purpose=~~ ~~in Flood Damage Prevention Ordinance (85-10)~~ shall work towards maintaining water quality through its ~~the~~ stormwater management regulations ~~ordinance~~ and protecting wetlands to ~~values through the wetlands protection ordinance which~~ ensures that there are ~~be~~ no net loss of wetlands function. ~~This will be~~

~~accomplished by requiring that proposed developments of one-half (1/2) acre or more:~~

- ~~1) identify wetlands on site plans and provide measures to assure that the normal flow and quality of water will be maintained after development,~~
- ~~2) submit a wetland management plan for staff to evaluate the criteria for a variance, the environmental characteristics of the wetlands, the potential and predicted impacts of the proposed activities on wetlands and the effectiveness and acceptability of those measures proposed by the applicant for reducing adverse impacts, and~~
- ~~3) if determined acceptable, provide mitigation if it takes place on site, in close proximity to the site or in areas designated by the county.~~

Policy F.1.3-2: The Flagler County shall identify and recommend to the State and the St. Johns River Water Management District (SJRWMD) environmentally sensitive lands (i.e.: floodplains) that would warrant acquisition under the Conservation and Recreation Lands (CARL) Program, the Save Our Rivers (SOR) Program, and the Preservation 2000 (P2000) Program or its successor, “Forever Florida Forever”. The Flagler County shall also pursue ~~make every effort to secure fundings~~, as available, through the above programs for fixed capital outlay for development and management of facilities associated with such acquisitions, provided that Flagler County is ultimately selected for or assumes management of the acquired lands or facilities.

Policy F.1.3-43: The Flagler County shall also continue to pursue acquisitions recommended by the Land Acquisition Plan funded by the Environmentally Sensitive Lands (ESL) program, which finances the acquisition of environmentally sensitive lands, including, but not limited to, water recharge areas and lands for parks and recreation. Such funding may be matched with funding from other acquisition programs whenever possible.

Flagler County Comprehensive Plan 2010-2035

Objective F.1.4: ~~Through the year 2010, the Flagler County's viable wetlands shall be conserved and protected from permanent physical and hydrologic alterations via the Flagler County wetlands protection regulations (Article VI, Land Development Code).~~

Policy F.1.4-1: ~~The Flagler County shall review sit and potentially update as necessary the adopted wetlands protection ordinance in 1999-2000 regulations to determine the viability of providing for enhanced mitigation, an in depth permitting process and a determination if the timberlands and agricultural uses exemptions are too broad effectiveness of the ordinance to include seeking direct enforcement by the U.S. Army Corps of Engineers (USACE) and/or the St. Johns River Water Management District (SJRWMD), as applicable.~~

Policy F.1.4-2: ~~Flagler County shall assure compliance to the extent possible with the sState's dredge and fill permitting process by assuring compliance with all current fFederal, sState, regional regulations, and Flagler County Ordinances.~~

Policy F.1.4-3: ~~The Flagler County shall prohibit the permitting of water management and development projects that adversely impact the natural wet and dry cycles or cause permanent functional disruption of wetlands. Violators or responsible parties will be liable for any functional degradation, loss or damages that may occur to the wetlands, and for the restoration thereof. In the event that any state or regional agency takes any action contrary to this ordinance, the County shall appeal or take other approximate legal action to protect the integrity of the County's wetlands.~~

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C. Groundwater Sub-Element Objectives and Policies

Objective E.1.5: Recognizing that Flagler County is in a Priority Water Resource Caution Area (PWRCA) and depends on the Volusia-Floridan aquifer, ≡ designated as a Sole Source Aquifer, ≡ the quality and quantity of Flagler County groundwater resources shall not be degraded.

Policy E.1.5-1: The Flagler County shall continue consistent with its Water Supply Facilities Work Plan (WSFWP) to cooperate with the Florida Department of Environmental Protection (FDEP) and the St. Johns River Water Management District (SJRWMD), in their groundwater quality monitoring programs by implementing land use controls around public water supply wellfields and working to provide additional water quality protection for water recharging the wellfields.

Policy E.1.5-2: The Flagler County shall review the location of new waste disposal sites and transfer stations in order to ensure compliance with Florida Department of Environmental Protection (FDEP) standards for groundwater protection, (i.e., monitoring wells).

Policy E.1.5-3: The Flagler County shall biennially review the Land Development Regulations (LDRs) related to ~~revisit the adopted interim~~ wellfield protection ordinance in 1999-2000 to determine any necessary changes based on the Florida Administrative Code's (FAC) applicable rule for Florida Department of Environmental Protection (FDEP) regulated facilities and the State of Florida's Source Water Assessment Program (SWAP) as required by the Federal Safe Drinking Water Act (SWDA) and Aamendments of 1996. The County ~~will also revise the ordinance to be consistent with the applicable rule for DEP regulated facilities, while maintaining the 200' zone for non-DEP regulated facilities in accordance with the current ordinance. Furthermore, the County may include the following additional restricted land uses:~~

Flagler County Comprehensive Plan 2010-2035

- ~~1. All regulated industries by DEP as defined in Florida Administrative Code 62-521.~~
- ~~2. Facilities for the bulk storage, handling or processing of materials on the Florida Substance list (F.A.C. 38 1-30).~~
- ~~3. Activities that require the storage, use or transportation of restricted substances, agricultural chemicals, hazardous toxic waste, medical waste, and petroleum products.~~
- ~~4. Commercial animal facilities, including Veterinarian clinics.~~
- ~~5. Mines.~~
- ~~6. Industrial land uses.~~
- ~~7. Wastewater treatment plants.~~
- ~~8. Commercial activities that involve the use of hazardous chemicals such as, but not limited to dry cleaning operations, auto repair and servicing, pool supply, gas stations, junkyards and machine shops.~~
- ~~9. Injection wells, irrigation wells, domestic and commercial wells less than 6 inches in diameter that do not meet the special construction criteria of DEP (F.A.C. 62-524.550).~~
- ~~10. The use of drainage wells or sinkholes for stormwater disposal where recharge is into a potable water aquifer.~~
- ~~11. Human or animal cemeteries.~~

The Flagler County's Land Development Regulations (LDRs) related to wellfield protection ordinance shall continue to address, but not be limited to, the following: wellfield protection zones; location and protection of future planned wellfields (as soon as locations are known); and monitoring and restrictions within the wellfield protection zones.

Policy F.1.5-4: The Flagler County, in cooperation with the St. Johns River Water Management District's (SJRWMD's) well-plugging program, shall ensure that active abandoned free-flowing artesian wells are properly sealed by

requesting the annual report of uncontrolled free-flowing artesian wells and conducting field inspections, within its regulatory authority.

Policy F.1.5.5: Flagler County shall encourage the St. Johns River Water Management District (SJRWMD), the Florida Department of Environmental Protection (FDEP), and other applicable regulatory agencies to pursue additional groundwater monitoring studies on the quality of the Surficial and Floridan water resources within Flagler County.

Policy F.1.5.6: Flagler County shall utilize the best available information from technical reports, studies, computer models, and guidance from State and Federal agencies to establish regulations within the Land Development Regulations (LDRs), as needed, for wellfield and aquifer recharge protection which regulations may include, but are not limited to, the following:

- (1) Requiring development projects, where appropriate, to submit data approved by the St. Johns River Water Management District (SJRWMD) or licensed professional engineer or geologist that provide assurances that post-development quantity and quality of recharge, at minimum, shall be at least equivalent to pre-development conditions.
- (2) Providing for a minimum percentage of open space and limitation on the percentage of impervious surface.
- (3) Establishing stormwater management practices.
- (4) Requiring application of best management practices (BMPs), where appropriate, as a proactive procedure for handling and using potential polluting materials, and managing stormwater runoff and construction activities.
- (5) Protecting environmentally sensitive waterways and wetlands through the establishment of policies limiting development and encouraging enhancement in these areas.

Policy F.1.5.7: Flagler County shall make all reasonable efforts to initiate and coordinate with adjacent municipalities in an attempt to facilitate measures to protect the quality and quantity of groundwater resources.

Policy F.1.5.8: By December 2012, Flagler County shall request that the St. Johns River Water Management District (SJRWMD) identify and prepare a three-dimensional potentiometric map of the Surficial aquifer recharge areas in the County.

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D. Water Conservation Sub-Element Objectives and Policies

Objective F.1.6: Flagler County shall promote and encourage water conservation measures to reduce demand for potable water. ~~Per capita water use of potable water shall be decreased to 121 gallons per capita per day by 2010 via water conservation programs, and adoption of improved water conservation techniques and technology.~~

Policy F.1.6.1: Flagler County shall, through conservation measures included in its Water Supply Facilities Work Plan (WSFWP), reduce demand for potable water.

Policy F.1.6.2: Recognizing that Flagler County at the time of plan adoption is not a water supplier, the County will coordinate with water suppliers within Flagler County to attempt to achieve a per capita potable water use demand reduction to one hundred twenty one (121) gallons per capita per day by 2013 through conservation measures including, but not limited to, water conservation programs and improved water conservation techniques and technology.

Policy F.1.6.3-4: The Flagler County shall cooperate with the St. Johns River Water Management District (SJRWMD) in making sure to ensure that abandoned free-flowing artesian wells are plugged by reporting any requesting the annual report of uncontrolled free-flowing artesian wells and conducting field inspections.

Policy F.1.6.4-2: In order to encourage all potential occupants of industrial parks to have an approved wastewater reuse plan, the Flagler County shall, during the development review process, refer these potential occupants either to the Florida Department of Environmental Protection (FDEP) or the St. Johns River Water Management District (SJRWMD) depending on the ultimate use.

Policy F.1.6.5-3: ~~The Flagler County shall further the efforts of promote water conservation coordination with the St. Johns River Water Management District (SJRWMD) in the adoption and enforcement of local water conservation measures programs by the development of an active water conservation program in 2000, including, if applicable, those recommendations made by the final *Water 2020 Water Supply Plan for Flagler County*, which will be submitted by the SJRWMD to the State for approval at the end of 1999. These measures shall be accompanied by the dissemination of public information on water conservation techniques and advertisement of watering restrictions.~~

Policy F.1.6.6-4: By ~~December 2012~~ 2000, the Flagler County shall, as part of its Water Supply Facilities Work Plan (WSFWP) ~~prepare and through its Land Development Regulations (LDRs),~~ adopt an emergency water management conservation plan. Interim water conservation measures based on the St. Johns River Water Management District's (SJRWMD's) Florida Water Star and the U.S. Environmental Protection Agency's (EPA's) WaterSense programs, ~~to be undertaken~~ including but are not limited to: low water use plumbing fixtures; low-irrigation xeriscape landscape techniques (referred to in various programs as Xeriscape, Right Plant Right Place, and Florida Friendly landscaping); ~~and spreading~~ reuse of treated wastewater effluent; and the dissemination of information to the public.

Policy F.1.6.7-5: The Flagler County may request periodic reports from the various utilities which supply water from within Flagler County updating the effectiveness of their water conservation programs.

Policy F.1.6.8: Flagler County within its area of legal jurisdiction shall require, consistent with the rules of the St. Johns River Water Management District (SJRWMD), that wastewater be reused where practical. New wastewater treatment plants shall be required to provide for the reuse and/or disposal of

wastewater by best available technology, including for agricultural or landscaping irrigation, percolation, or other permitted measures.

Policy F.1.6.9: Recognizing that Flagler County at the time of plan adoption is not a water supplier, Flagler County shall, to the extent allowed by law, withhold development rights to future land development unless infrastructure (which includes water supply capacity and facilities) is available concurrent with the impacts of development.

Policy F.1.6.10: Flagler County shall, consistent with the Florida Building Code, enforce building codes that require water conserving plumbing fixtures and devices in new construction.

Policy F.1.6.11: Flagler County shall consider alternate means and incentives to conserve water including, but not limited to, irrigation meters, reuse of stormwater, cisterns, surface water pumps, and identifying other alternative potable water resources.

Policy F.1.6.12: Flagler County shall partner with the St. Johns River Water Management District (SJRWMD) in the dissemination of public information related to water conservation.

Policy F.1.6.13: Flagler County shall appropriately engage in enforcement actions pertaining to non-compliance with the County's Code provisions related to water conservation.

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E. Soil Erosion Sub-Element Objectives and Policies

Objective E.1.7: ~~Through the year 2010, the~~ Flagler County shall strive to reduce the rate of soil erosion caused by land development, agriculture, ~~land development~~ and other human activities by promoting the use of best management practices (BMPs) which control and limit the amount of sediment reaching surface waters.

Policy E.1.7.1: ~~The~~ Flagler County shall through its Land Development Regulations (LDRs) request that ~~include~~ topographic, hydrologic, and vegetative information be submitted with land use amendments and rezoning applications for ~~cover factors of proposed developments~~ for consideration as a part of its ~~and~~ shall ~~incorporate this information in the decision~~ development review process.

Policy E.1.7.2: ~~The~~ Flagler County shall ~~promote~~ the use of its agricultural extension service to promote and educate agricultural producers on the proper methods of ~~assist the Natural Resources Conservation Service in those activities~~ directed at controlling soil erosion.

Policy F.1.7.3: Flagler County shall require the installation and use of best management practices (BMPs) at all development sites to include, but not be limited to: silt screening; ditch blocks; and rapid cover of exposed surfaces.

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F. Mineral Resources Sub-Element Objectives and Policies

Objective F.1.8: ~~Through the year 2010, m~~Mining activities shall be regulated through the Flagler County's existing ~~l~~Land dDevelopment ~~r~~Regulations (LDRs) so that said activities shall not adversely affect the quality of air, groundwater, surface water, and land and wildlife.

Policy F.1.8-1: A mining operation water use plan must be prepared and approved before new mining operations are permitted.

Policy F.1.8-2: Phasing of extractive activities shall be used as a device to assure that only small areas are affected by such activities at one time.

Policy F.1.8-3: Buffers shall be established and maintained between mining activities and adjacent existing and future uses to achieve an aesthetically pleasing landscape compatible with those land uses.

Policy F.1.8-4: A reclamation plan shall be approved by ~~the~~ Flagler County or appropriate ~~s~~State environmental agency before mining activities are permitted.

Policy F.1.8-5: Mining shall be prohibited in areas where listed species are known to inhabit and in areas where hardwood and cypress/gum swamps exist.

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G.—Flora and Fauna Sub-Element Objectives and Policies

Objective F.1.9: ~~Through the year 2010~~ By 2014, all ecological communities and wildlife, especially endangered and rare species, shall be identified, managed, and protected through ~~via~~ monitoring and evaluation programs based on data provided to the Flagler County from the applicable State ~~and~~ Federal agencies such as, but not limited to, the Florida Department of Environmental Protection (FDEP), the Florida Fish and Wildlife Conservation Commission (FWCG), and the U.S. Fish and Wildlife Service (USFWS).

Policy F.1.9-1: ~~The~~ Flagler County shall maintain a comprehensive inventory of ecological communities based on data provided to the County from the applicable State ~~and~~ Federal agencies such as, but not limited to, the Florida Department of Environmental Protection (FDEP), the Florida Fish and Wildlife Conservation Commission (FWCG), and the U.S. Fish and Wildlife Service (USFWS), which shall include species, habitat conditions, occurrences and disturbances; and shall recommend acquisition through the Conservation and Recreation Lands (CARL) Program, the Save Our Rivers (SOR) Program, and the Preservation 2000 (P2000) Program, and the Forever Florida Program, or its their successors, of the most vulnerable communities.

Policy F.1.9-2: By March 2012 or other date as specified below, ~~The~~ Flagler County's shall ~~revise and/or update, as needed, the~~ Land dDevelopment rRegulations which ~~include provisions to protect the communities shown in map~~ #[sic] titled Ecological Communities in Flagler County to include coverage of the following: (LDRs) shall include incentives so that new development to be designed in accordance with the limitations of the natural environment and the conservation of water resources including the use of clustered development, attached dwelling units and other innovative land development techniques to

decrease water use. Standards within the Land Development Regulations (LDRs) shall include, but not be limited to, the following:

- (1)a) preservation of existing native vegetation standards shall be five percent (5%) of the net lot area for single-family lots; ten percent (10%) of the net site area for industrial uses; and fifteen percent (15%) of the net site area for multifamily, commercial, and common/open space areas of single-family residential subdivisions clustering of dwelling units away from sensitive portions of the ecological community;
- (2)b) use of a minimum of fifty percent (50%) low-irrigation (referred to in various programs as Xeriscape, Right Plant Right Place, and Florida Friendly) landscaping and/or drought resistant plant materials (including preservation of existing native vegetation) within open space and common areas for all new development discouraging of fragmentation of large community associations; and
- (3)e) construction limitations within the one hundred year (100-year) floodplain, Environmentally Sensitive Lands and St. Johns River Water Management District (SJRWMD) designated significant Surficial and Floridan recharge areas by December 2012 buffering of sensitive ecological areas;
- (4) limitation of the amount of impervious surface (such as parking areas) within St. Johns River Water Management District (SJRWMD) designated significant recharge areas;
- (5) water reuse for irrigation of golf courses and, when possible, for other landscape areas;
- (6) St. Johns River Water Management District's (SJRWMD) Florida Water Star and the U.S. Environmental Protection Agency's (EPA) WaterSense certification, as applicable; and
- (7) implementation of water loss prevention programs.

Policy ~~F.1.9-3~~: Flagler County, its adjacent counties, and the St. Johns River Water Management District (SJRWMD) should develop joint planning and management programs which include controlling water levels and enforcement of the respective county floodplain ordinances in order to protect the swamp hardwood communities along Flagler County's borders.

Policy ~~F.1.9-4~~: Concerning development ~~and~~ or ~~permitted~~ activities, the Flagler County shall require compliance with ~~s~~State and ~~f~~Federal regulations pertaining to endangered and rare species.

Policy ~~F.1.9-5~~: The Flagler County shall consult with the Florida Fish and Wildlife Conservation Commission (FWCG) where development, or permitting activities will affect endangered or rare species and shall incorporate their comments into the decision-making process.

Policy ~~F.1.9-6~~: ~~By the end of the year 2000, the~~ Flagler County shall establish and maintain a program with private landowners to use good management practices to protect the most desirable habitats of threatened, endangered, or species of special concern, ~~most desirable habitats beginning with~~ including the dissemination of information showing those desirable habitats.

Policy ~~F.1.9-7~~: ~~The~~ By December 2014, Flagler County shall assist the Florida Department of Environmental Protection (FDEP) and the Florida Fish and Wildlife Conservation Commission (FWCG) in developing an education program to promote the preservation of endangered and rare species.

Objective ~~F.1.10~~: ~~Through the year 2010, d~~During development review processes, the Flagler County shall promote the conservation and/or appropriate use, and ~~or~~ protection of fisheries, wildlife, wildlife habitat, and marine habitat.

Policy F.1.10-1: During the development review process, care shall be taken to protect, ~~and/or,~~ adequately use, ~~and/or~~ conserve fisheries, wildlife, wildlife habitat, and marine habitat. Resource data shall include: data from the Florida Fish and Wildlife Conservation Commission (FWCG); Florida Natural Areas Inventory (FNAI) records; U.S. Geological Survey (USGS) topographic maps; and site specific field information, if available.

Policy F.1.10-2: ~~The~~ Flagler County shall protect habitat of viable populations of threatened, endangered, or species of special concern of plants or animals by use of such available measures including, ~~(but not limited to) as:~~ conservation easements; transfer of development rights; fee simple acquisition; and zoning. Animal species shall be referenced from the lists of the U.S. Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FWCG) as published in the FWCG Official List of Endangered and potentially Endangered Flora and Fauna in Florida. Plant species shall be referenced from the USFWS, to include Categories C1 and C3, and from the Florida Department of Agriculture and Consumer Services (DACS) ratings to include Threatened, Endangered, and Commercially Exploited.

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H. Natural Area Reservations Sub-Element Objectives and Policies

Objective E.1.11: The Flagler County shall promote the protection of natural area reservations to lessen the adverse effects which adjacent developments might have on the managed conservation areas through implementation of various Land and Development Regulations (LDRs) including transfer of development rights, clustering, Planned Unit Development (PUD) standards, permitting, and wetlands protection.

Policy E.1.11.-1: Flagler County's environmentally sensitive lands shall include creeks, streams, rivers, major drainage ways, beaches, shorelines, viable wetlands, floodplains, poor soil areas not suitable for development, wellhead protection areas, prime groundwater recharge areas, and natural systems that contribute to greenway corridors. The prime groundwater recharge areas are determined by the St. Johns River Water Management District (SJRWMD) as provided for in Florida Statutes.

~~The County shall cooperate with the FWCC in their management program of the Relay Wildlife Management Area by approving only those immediately surrounding land use activities which are compatible.~~

Policy E.1.11.-2: During the development review process, ~~the~~ Flagler County shall strive to obtain at least a one hundred foot (100-foot) wide buffer area surrounding its state parks, which would include design criteria for any allowable development, that would render its land use activities compatible to the parks.

~~Policy 11-3: Flagler County's environmentally sensitive lands shall include creek, stream or river banks, major drainage ways, beaches, shorelines, viable wetlands, floodplains, poor soil areas not suitable for development, wellhead protection areas, prime groundwater recharge areas, and natural systems that~~

~~contribute to greenway corridors. The prime groundwater recharge areas are to be determined by the SJRWMD per Chapter 373.0395 (3) Florida Statutes.~~

Policy F.1.11.3-4: Through the year 2010, the Flagler County shall continue the process of collecting available environmental data for assessment of proposed natural area reservations, used to establish a data baseline, including data useful for Geographical Information System (GIS) application.

Policy F.1.11.4: By July 2013, Flagler County will create and adopt a Westside Greenways Plan. This Greenways Plan will seek to provide corridors of open space to include and connect State and County owned lands, water bodies, major and high quality wetland systems and their appropriate upland buffers, conservation easements, parks, and Development of Regional Impact (DRI) set-asides. Areas of the Greenway may differ in form and function as some sections will be intended to provide wildlife habitat with other sections intended to provide recreation opportunities. The Greenway corridor will be initially identified broadly; however, over time as land use change or other development applications are received or other similar opportunities arise, the Greenway will be identified more precisely in form and function.

To create the Greenways, the County will examine the best available data to identify the final configuration. Prior to Greenway implementation the data sources utilized will be field verified at a parcel scale to the extent possible. Examples of this data used to identify the final configuration may include, but are not limited to:

- (1) Florida Ecological Greenways Network (University of Florida GeoPlan Center and Florida Department of Environmental Protection (FDEP));
- (2) High quality wetlands and their appropriate upland buffer areas;
- (3) Strategic Habitat Conservation Areas (Florida Fish and Wildlife Conservation Commission (FWC));

- (4) Biological Hotspots (Florida Fish and Wildlife Conservation Commission (FWC));
- (5) Rare Species Habitat Conservation Priorities (Florida Natural Areas Inventory (FNAI));
- (6) Under Protected Natural Communities (Florida Natural Areas Inventory (FNAI)); and
- (7) Critical Lands and Waters Identification Project (CLIP) High Priority Areas (Florida Natural Areas Inventory (FNAI)).

Flagler County will determine the best data for site analysis. The Greenway lands may be protected by Development of Regional Impact (DRI) regulations, DRI land dedications, regulatory management programs, zoning and Land Development Regulations (LDRs), easements, and fee simple acquisition.

Policy F.1.11.5: The primary purpose of the Westside Greenways Plan will be to provide open space connectivity. The Greenways dual secondary goal will be to balance ecological integrity and public recreation opportunities.

- (1) The ecological integrity objectives include:
 - (a) conserving critical elements of Florida's native ecosystems and landscapes;
 - (b) restoring and maintaining connectivity among native ecological systems and processes;
 - (c) facilitating the ability of these ecosystems and landscapes to function as dynamic systems; and
 - (d) maintaining the evolutionary potential of the components of these ecosystems to adapt to future environmental changes.

- (2) Recreation opportunity objectives include:
 - (a) providing opportunities for the attainment and maintenance of physical health;
 - (b) providing access to natural areas;

- (c) connecting trail systems;
- (d) providing camping, ecotourism, and other nature-based recreational opportunities;
- (e) reducing greenhouse gas emissions; and
- (f) promoting ecological education opportunities.

Policy F.1.11.6: Land management is critical to the long term ecological viability of the Westside Greenways Plan. The Greenways will be planned and managed in consideration of the long-term ecological health and biological productivity. Developments within the Greenway will acknowledge that land management, including possible controlled burning, are critical to the long-term health of the Greenway system. To accomplish this, Flagler County will consider a variety of funding sources to implement the land management objectives/obligations.

Policy F.1.11.7: By 2012 Flagler County shall amend its Land Development Regulations (LDRs) to include an updated list of prohibited aquatic plants, noxious weeds, and an invasive plant list as defined by the Florida Department of Environmental Protection (FDEP), the Florida Exotic Pest Council, the Institute for Food and Agricultural Sciences (IFAS), the Division of Forestry, and the Florida Administrative Code (FAC).

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I. Hazardous Wastes Sub-Element Objectives and Policies

Objective F.1.12: The Flagler County shall continue to develop and/or improve the hazardous waste management program for the proper storage, recycling, collection, and disposal of hazardous wastes.

Policy F.1.12-1: The Flagler County's Emergency Management Division Services Department shall continue to update the emergency response plan for handling accidents involving hazardous wastes on an annual basis and shall coordinate these updates with the Northeast Florida Regional Planning Council (NEFRC).

Policy F.1.12-2: The Flagler County shall promote the recycling of hazardous wastes by publicizing lists of approved recyclers.

Policy F.1.12-3: The Flagler County shall continue hosting annual Amnesty Days to collect hazardous wastes in the County.

Policy F.1.12-4: The Flagler County shall, in cooperation with any contracted private solid waste collection provider, maintain and update as needed the employee training program to properly identify and inspect wastes before they enter the any County landfill or transfer station, as applicable.

Policy F.1.12-5: The Flagler County, in cooperation with the Florida Department of Environmental Protection (FDEP) and the Northeast Florida Regional Council (NEFPRC), shall maintain and keep up to established standards for the transfer/storage facility and collection network and any transfer/storage facility, if required in the future.

Policy F.1.12.6: The Flagler County shall seek funding from the Florida Department of Environmental Protection's (FDEP's) Local Hazardous Waste Collection Center Grants Program to manage hazardous wastes.

Policy F.1.12.7: The Flagler County shall approve the waste generation and management techniques of twenty 20 percent (20%) of the hazardous waste generators on the County Master List annually, (~~in a 5 year period it cannot be the same twenty percent (20%) sample and any new generators must be added to the list for approval.~~) and ensure that all hazardous waste generators receive materials, such as the Florida Department of Environmental Protection's (FDEP's) Florida's Handbook for Small Quantity Generators of Hazardous Waste, 1997 ~~from the DEP~~, designed to inform them of their responsibilities for proper hazardous waste management.

Policy F.1.12.8: Flagler County shall seek administrative inspection warrants, pursue code enforcement proceedings, initiate nuisance abatement actions, and pursue other appropriate remedies to protect the public against illegal dumping, hazardous spills, and contaminated sites, when appropriate.

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Historic Preservation Sub-Element

Objective F.1.13: There shall be no loss of historic resources on Flagler County owned property. Efforts will be made for historic resources on private property to be protected, preserved, or used in a manner that will allow their continued existence.

Policy F.1.13.1: Historic and archaeological sites shall be incorporated into required setbacks, buffer strips, or open spaces up to the maximum area required by the Land Development Regulations (LDRs). Flagler County shall establish waivers for non-safety related setback requirements and site planning requirements in order to accommodate historic structures or sites within a proposed development.

Policy F.1.13.2: As an alternative to preserving historic and archaeological sites, a site may be scientifically excavated, then development may proceed without preserving the site providing that it occurs in accordance with other State and Federal regulations governing historic and archaeological sites.

Policy F.1.13.3: Flagler County shall accept donations of historic and archaeological sites, whenever legally and financially feasible.

Policy F.1.13.4: Historically significant resources shall be identified by qualified consultants or other historic preservation professionals using Florida Department of State Division of Historical Resources guidelines to determine improvement and/or sensitive reuse of historical properties.

Policy F.1.13.5: By December 2013, Flagler County shall adopt historic/archeological preservation Land Development Regulations (LDRs) and, if necessary, establish a Historic Resources Review Board to provide for the identification, protection, preservation, and maintenance of significant

historic/archeological resources, including those within the coastal zone. At a minimum, the Land Development Regulations (LDRs) shall, as necessary or appropriate, address or establish criteria, standards, or procedures:

- (1) to provide protection for resources listed on the Florida Master Site File and/or National Register of Historic Places or any existing or future local register of historic places;
- (2) outline standards for the identification and evaluation of historic and archeological resources;
- (3) establish procedures for evaluating development proposals for their impact upon historic and archeological resources;
- (4) establish procedures to require that all public and private development and redevelopment proposals, including those for infrastructure, should be reviewed for their impact upon designated historic resources; and
- (5) establish procedures to require that all public and private development and redevelopment activities, including those for infrastructure, shall cease for the minimum time necessary when historic or archaeological artifacts are discovered to allow for an evaluation of the find's historic significance, except that in instances where burial sites or human remains are discovered during development/redevelopment activities, that the provisions of Chapter 872, Florida Statutes, shall be followed.

Policy F.1.13.6: By December 2013, Flagler County shall apply for a Florida Department of State Division of Historical Resources grant to update the existing Master Site File Surveys.

Policy F.1.13.7: Upon the completion of any update to the Master Site File Survey, Flagler County will propose specific sites for nomination to the National Register of Historic Places, as applicable.

Policy F.1.13.8: Utilize, as feasible and to the extent that such provisions are included within Flagler County's Code or Land Development Regulations (LDRs), incentive-based techniques for historic and archaeological preservation such as Transfer of Development Rights (TDRs), grants, tax abatement, and waiving certain zoning requirements (setbacks, lot coverage, and parking, etc.)

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Maintaining Scenic Byways Sub-Element

Objective F.1.14: Flagler County will establish and maintain a scenic road system in order to help preserve the area's natural beauty.

Policy F.1.14.1: U.S. Highway 1 north of Old Kings Road to the St. Johns County line and County Road 201 (also known as John Anderson Highway) from the Volusia County line to State Road 100 shall be designated as scenic roads.

Policy F.1.14.2: Flagler County's Recreation and Open Space Element shall designate the scenic roads and the Future Land Use Map shall establish land uses that are consistent with the goal of preserving the natural beauty and scenic vistas along these routes.

Policy F.1.14.3: Flagler County shall establish in the Land Development Regulations (LDRs) minimum buffering/conservation requirements for scenic roadways. The standards shall be based on site conditions including, but not limited to, the following: lot depth/width; existing grade; and land use/zoning. The goal is to ensure reasonable use of the property with sufficient provisions for the preservation of existing vegetation, protection of vistas, and implementation of appropriate design requirements to protect the scenic value of the roadway.

Policy F.1.14.4: Properties located between designated scenic roads and wetlands or open water shall be zoned for the lowest intensity allowed for their respective Future Land Use categories.

Policy F.1.14.5: Flagler County shall support the efforts of the A1A Scenic & Historic Coastal Byway and Heritage Crossroads: Miles of History Heritage Highway Corridor Management Entities (CMEs).

Shoreline Pedestrian Access Sub-Element

Objective F.1.15: Pursue and provide the availability of public access for open surface waters including, but not limited to, estuarine systems, lakes, and the Intracoastal Waterway.

Policy F.1.15.1: Where appropriate, Flagler County shall participate in intergovernmental agreements with State and Federal agencies regarding the use of land and access to government-owned land for public use.

Policy F.1.15.2: Flagler County shall expand the availability of public access, fishing facilities, and provide adequate parking facilities adjacent to surface water bodies where appropriate and feasible.

Policy F.1.15.3: Flagler County shall enforce the Federally-mandated public access requirements of the Coastal Zone Protection Act of 1985, as appropriate.

Policy F.1.15.4: Flagler County will consistently review opportunities that may be available to provide the public with reasonable and safe access to: wetland areas; lakes; lands abutting the Intracoastal Waterway, canals, and other lands; water bodies; and natural resource areas for the purpose of providing public recreational opportunities consistent with the type of natural resource and its environmental sensitivity.

Policy F.1.15.5: Flagler County will, when practicable and feasible, seek to preserve and protect: wetland areas; lakes; lands abutting the Intracoastal Waterway, canals, and other lands; water bodies; and natural resource areas by endeavoring, as appropriate in each case, to obtain the legal right to use such land and water resources and to obtain public ownership interests in such land

and water resources by means of dedication, purchase, the granting of easements, leases, cooperative private/public agreements, and other legal mechanisms serving the public interest.

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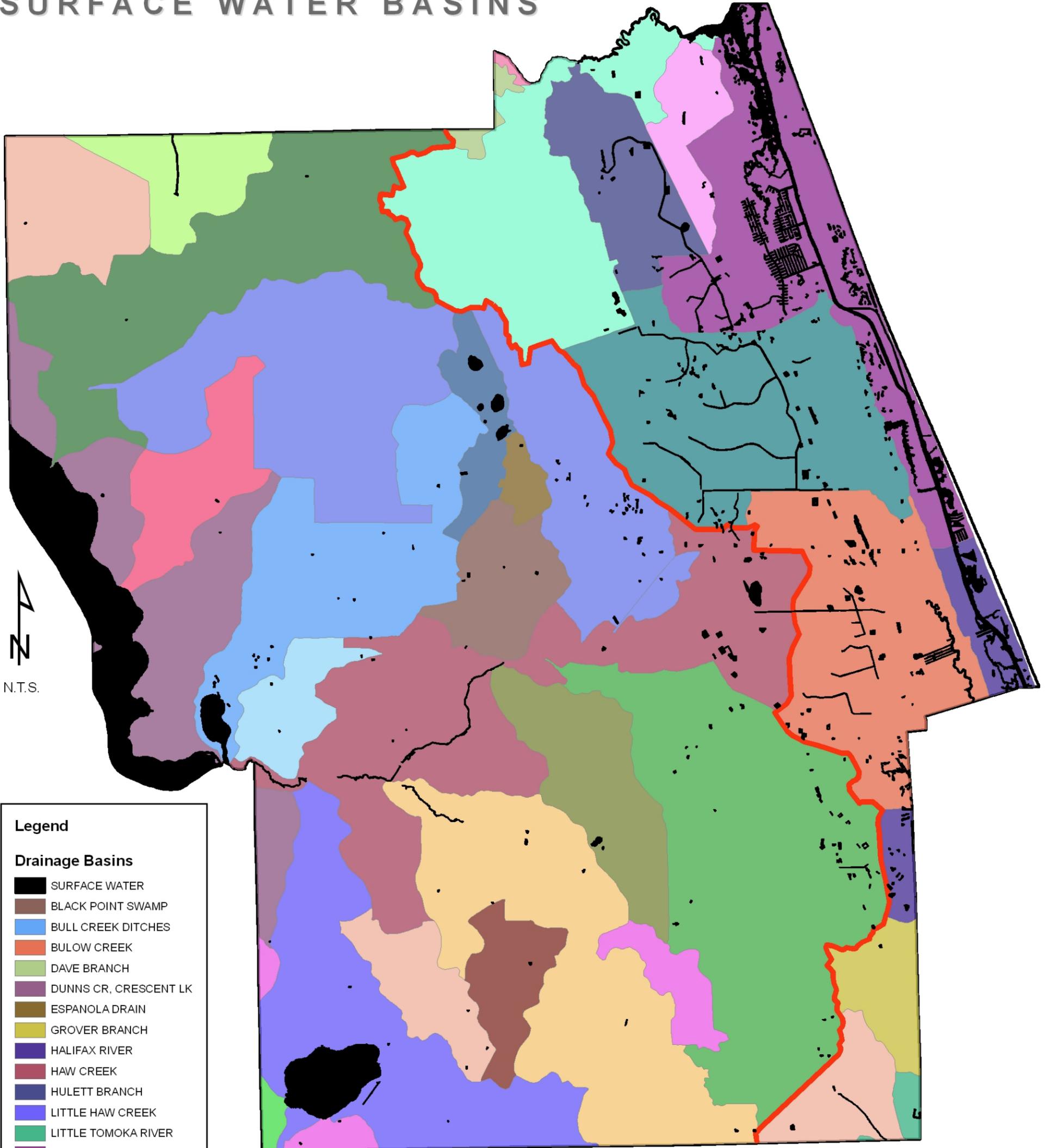
Flagler County Conservation Element Map Series

Item	Page Number
<u>List of Maps</u>	
Map F.1: Surface Waters & Surface Water Basins	F-37
Map F.2: National Wetlands Inventory Wetland Systems	F-39
Map F.3: Priority Wetlands for Listed Species	F-41
Map F.4: Priority Water Resource Caution Areas 2006	F-43
Map F.5: Floridan Aquifer Prime Recharge 2005	F-45
Map F.6: Public Supply Wells 2007	F-47
Map F.7: 100 Year Floodplain Map	F-49
Map F.8: General Soil Map	F-51
Map F.9: Rock and Mineral Resources Stratigraphy	F-53
Map F.10: Rock and Mineral Resources Surficial Materials	F-55
Map F.11: Rock and Mineral Resources Coquina	F-57
Map F.12: Ecological Communities 2004 Habitat & Land Cover	F-59
Map F.13: Coastal Greenways	F-61
Map F.14: Existing Recreation and Open Parks Space	F-63

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SURFACE WATERS & SURFACE WATER BASINS



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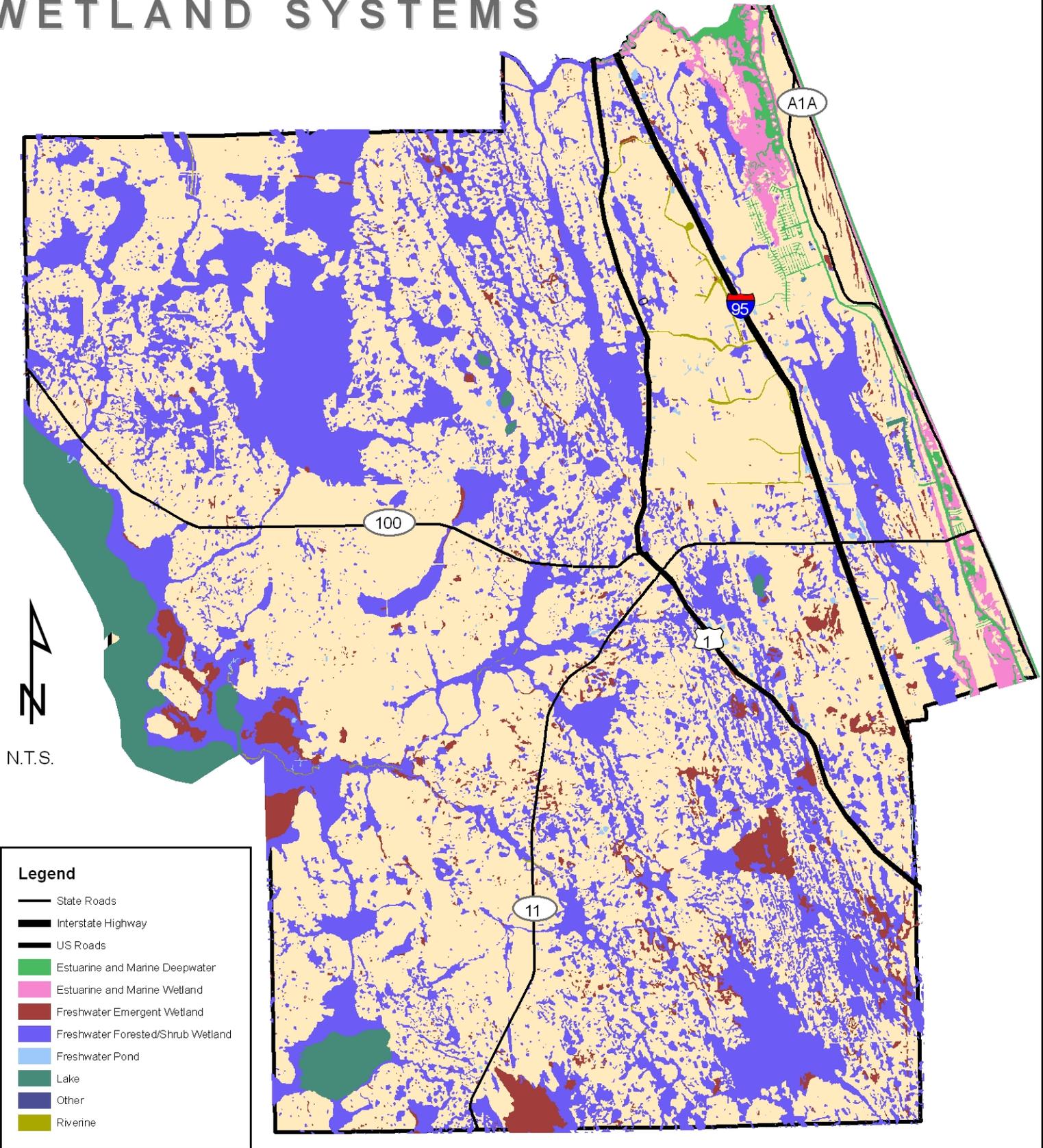
Drainage Basins

- SURFACE WATER
- BLACK POINT SWAMP
- BULL CREEK DITCHES
- BULOW CREEK
- DAVE BRANCH
- DUNNS CR, CRESCENT LK
- ESPANOLA DRAIN
- GROVER BRANCH
- HALIFAX RIVER
- HAW CREEK
- HULETT BRANCH
- LITTLE HAW CREEK
- LITTLE TOMOKA RIVER
- MATANZAS RIVER
- MIDDLE HAW CREEK
- MUD LAKE OUTLET
- PARKER CANAL
- PELLICER CREEK
- SALT CREEK DITCHES
- SAW GRASS BAY
- SIXTEENMILE CREEK
- ST. JOE CANAL
- STEVENS BRANCH
- STYLES CREEK
- SWEETWATER BRANCH
- TANK LAKE OUTLET
- UNNAMED BRANCH
- UNNAMED CANAL
- UNNAMED DITCHES
- UNNAMED SLOUGH
- WHITE OAK SWAMP

Regions to the West of the red line are in the Lower St. Johns River Basin.
Regions to the East of the red line are in the North Coastal Basin.

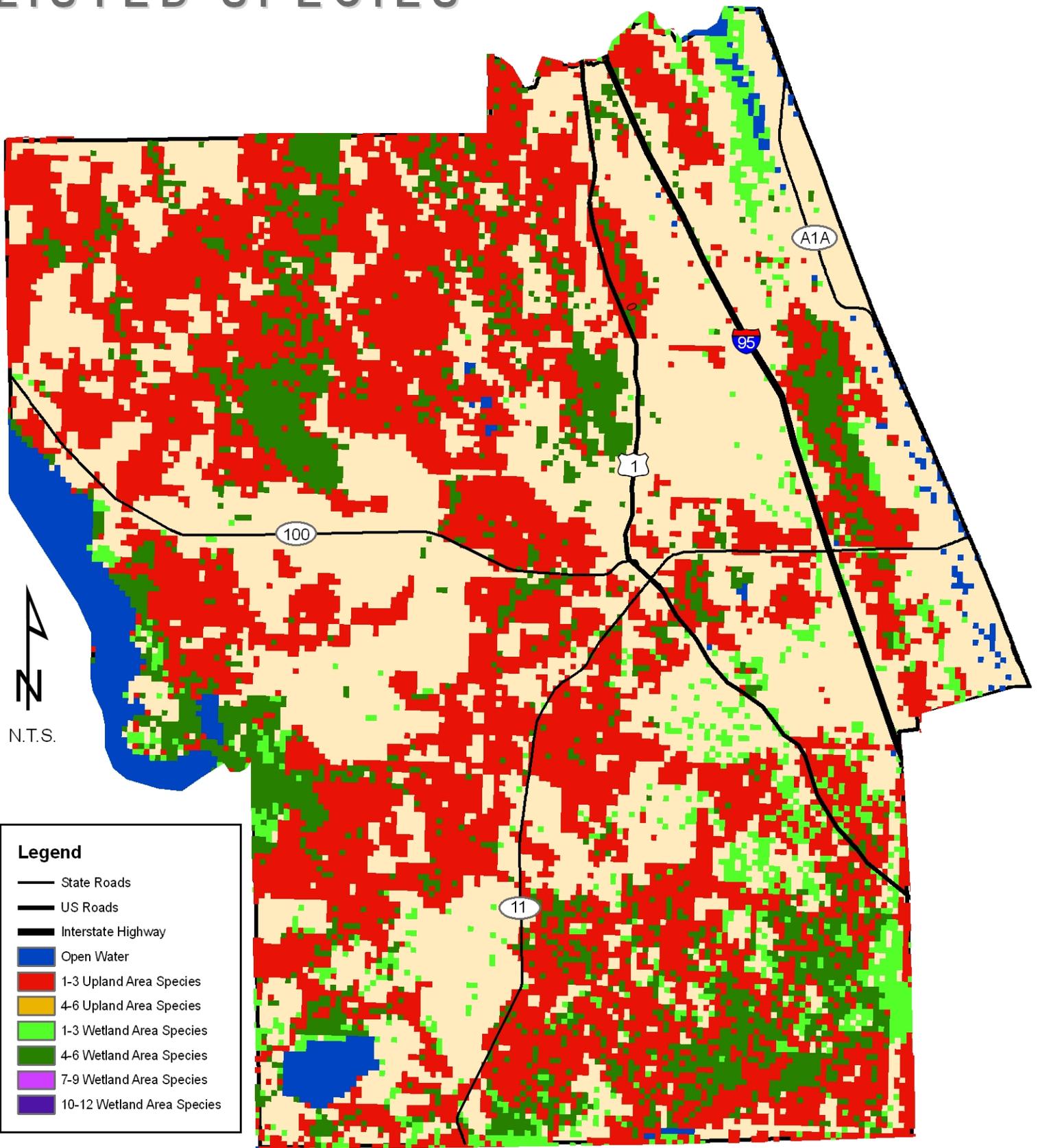
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NATIONAL WETLANDS INVENTORY WETLAND SYSTEMS



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PRIORITY WETLANDS FOR LISTED SPECIES



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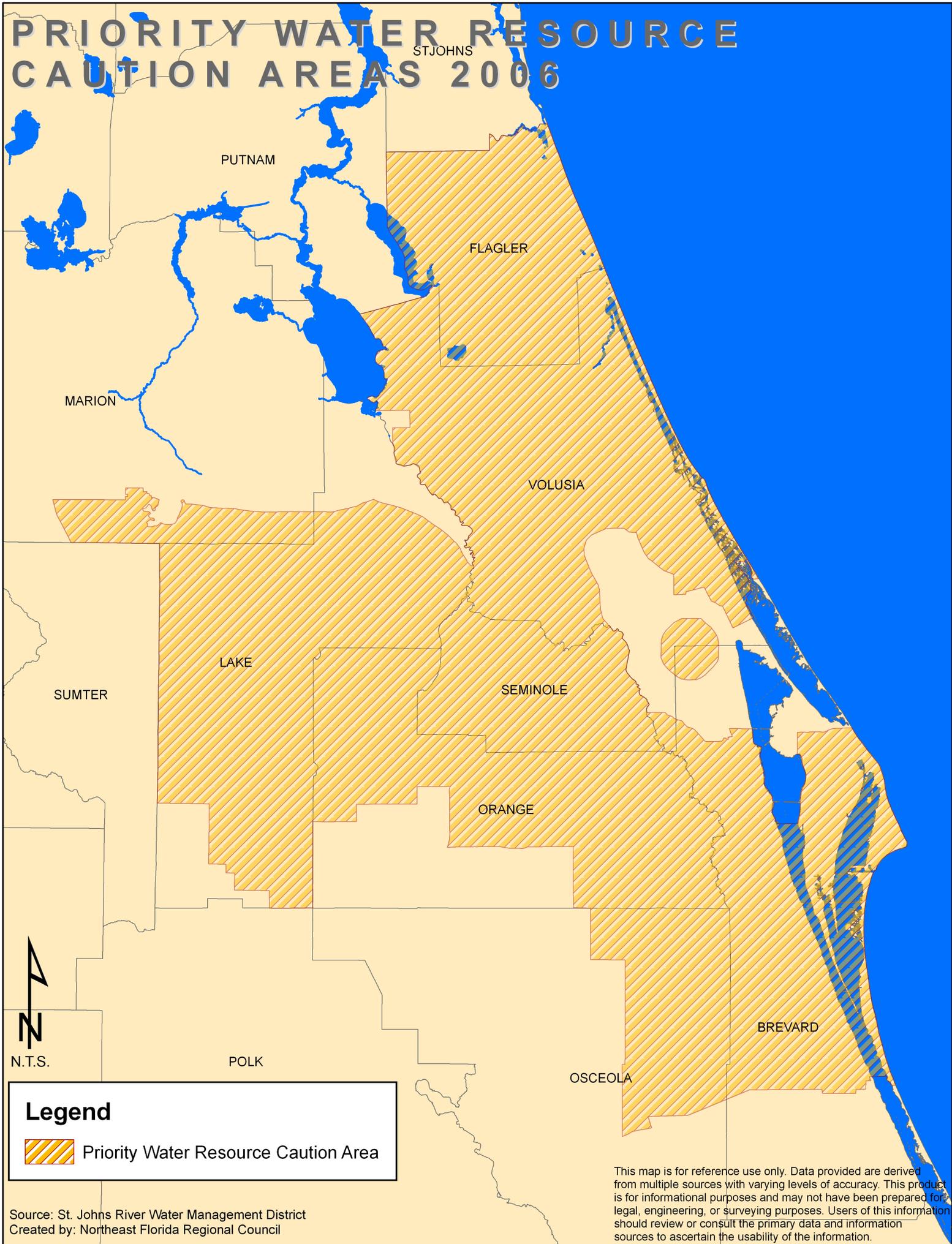
-  State Roads
-  US Roads
-  Interstate Highway
-  Open Water
-  1-3 Upland Area Species
-  4-6 Upland Area Species
-  1-3 Wetland Area Species
-  4-6 Wetland Area Species
-  7-9 Wetland Area Species
-  10-12 Wetland Area Species

Source: Florida Geographic Data Library
 Florida Fish and Wildlife Conservation Commission
 Created by: Northeast Florida Regional Council

This map is for reference use only. Data provided are derived from multiple sources with varying levels of accuracy. This product is for informational purposes and may not have been prepared for, legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

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PRIORITY WATER RESOURCE CAUTION AREAS 2006



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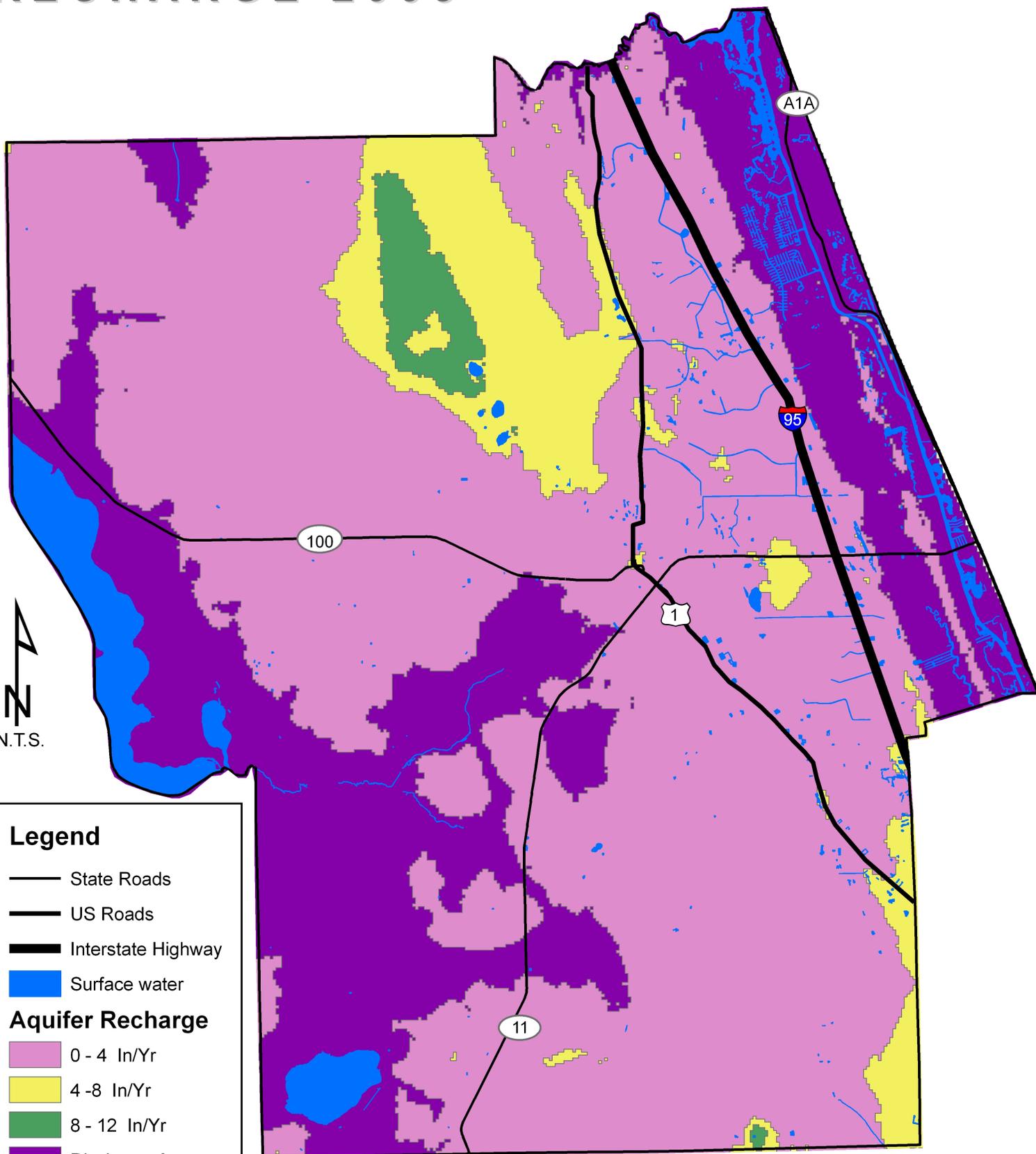
 Priority Water Resource Caution Area

Source: St. Johns River Water Management District
Created by: Northeast Florida Regional Council

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FLORIDAN AQUIFER PRIME RECHARGE 2005



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- State Roads
- US Roads
- Interstate Highway
- Surface water

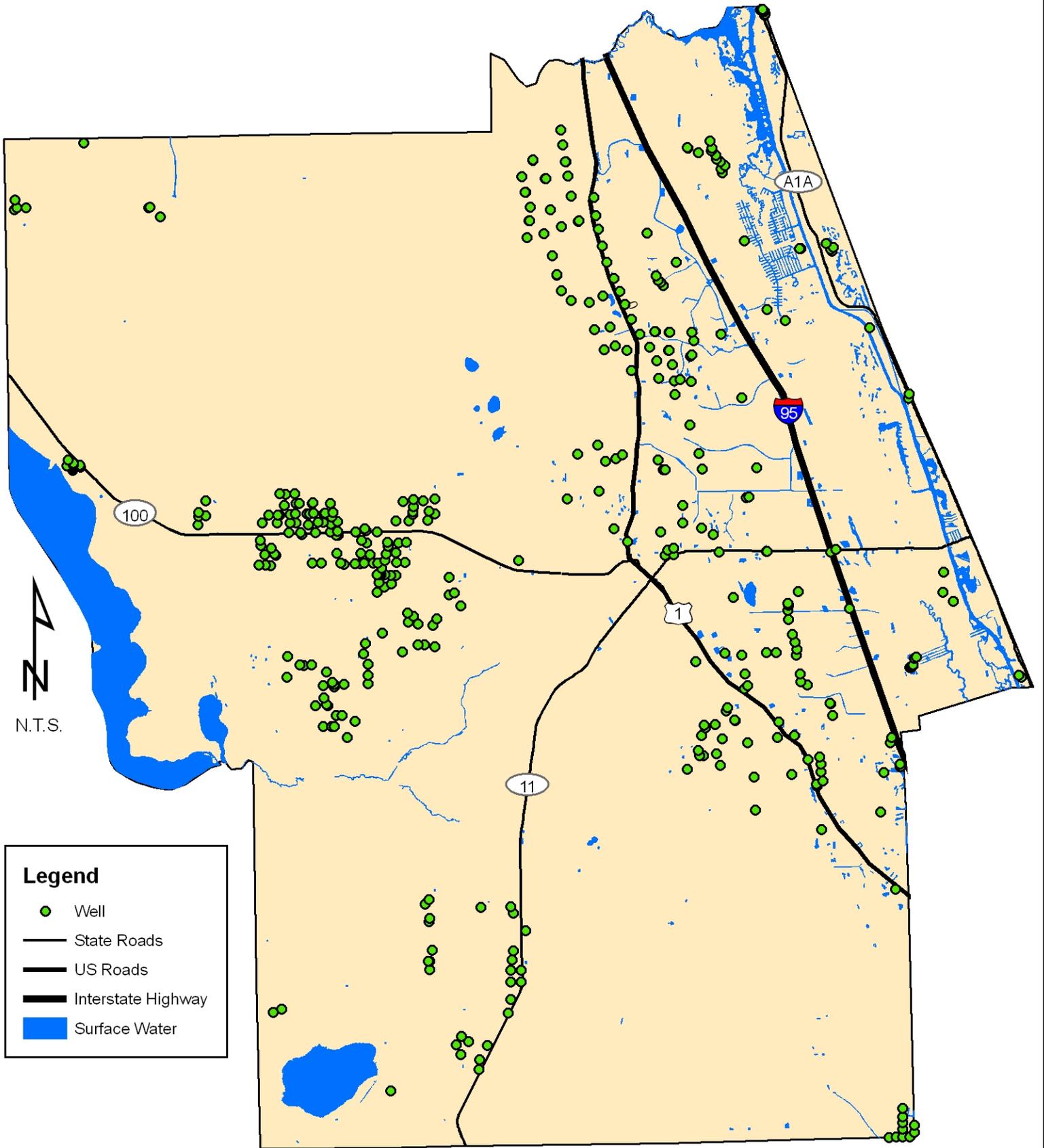
Aquifer Recharge

- 0 - 4 In/Yr
- 4 - 8 In/Yr
- 8 - 12 In/Yr
- Discharge Area

All of Flager County is located within a Priority Water Resource Caution Area

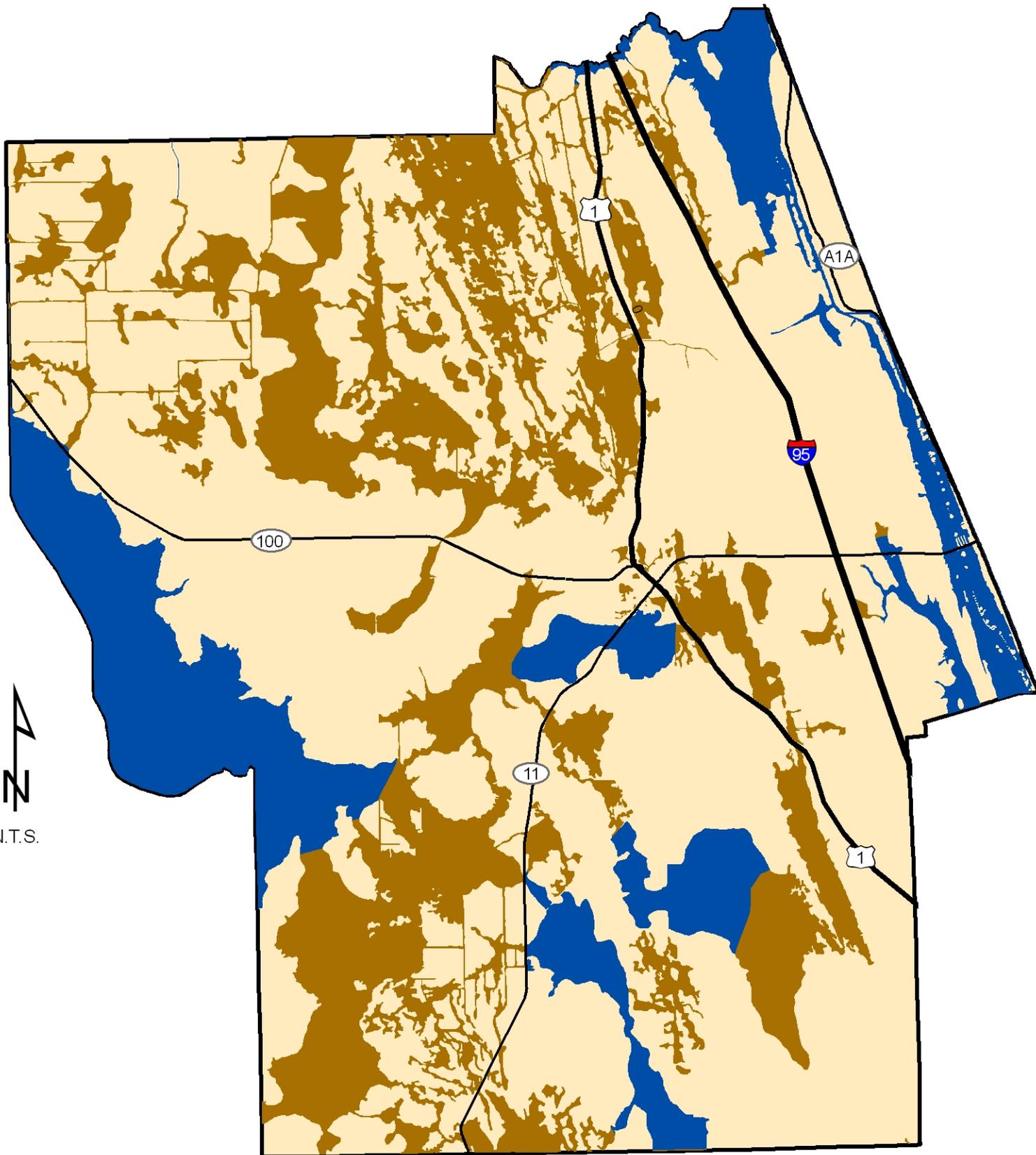
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PUBLIC SUPPLY WELLS 2007



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100 YEAR FLOODPLAIN MAP



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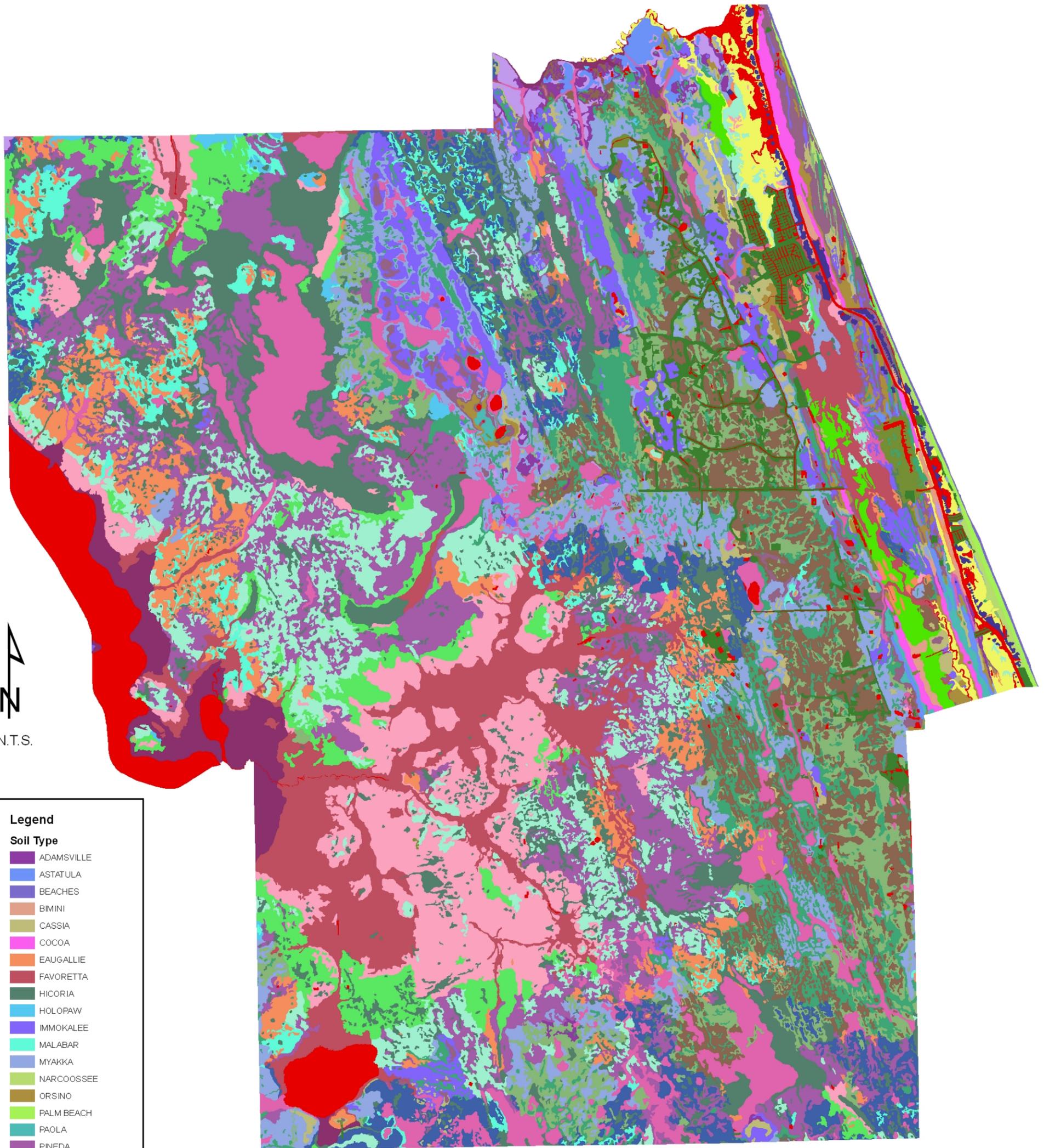
-  Determined Base Flood Elevations
-  No Base Flood Elevations Determined

Source: Federal Emergency Management Agency
Created by: Northeast Florida Regional Council

This map is for reference use only. Data provided are derived from multiple sources with varying levels of accuracy. This product is for informational purposes and may not have been prepared for, legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

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GENERAL SOIL MAP



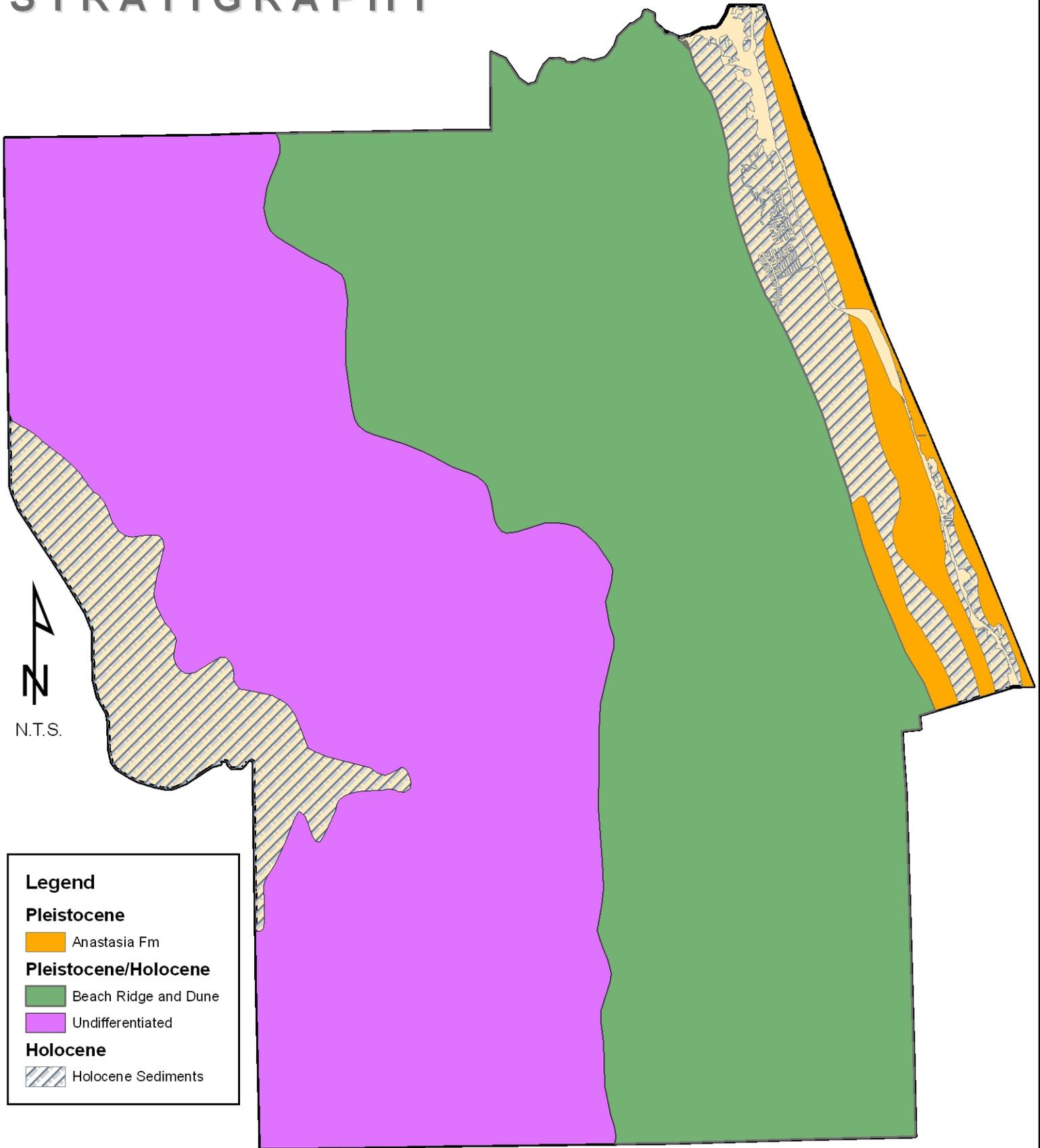
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Soil Type

- ADAMSVILLE
- ASTATULA
- BEACHES
- BIMINI
- CASSIA
- COCOA
- EAUGALLIE
- FAVORETTA
- HICORIA
- HOLOPAW
- IMMOKALEE
- MALABAR
- MYAKKA
- NARCOOSSEE
- ORSINO
- PALM BEACH
- PAOLA
- PINEDA
- PITS
- PLACID
- POMELLO
- POMONA
- QUARTZIPSAMMENTS
- RIVIERA
- SAMSULA
- SMYRNA
- TAVARES
- TERRA CEIA
- TURNBULL
- TUSCAWILLA
- UDARENTS
- VALKARIA
- WABASSO
- WATER
- WINDER

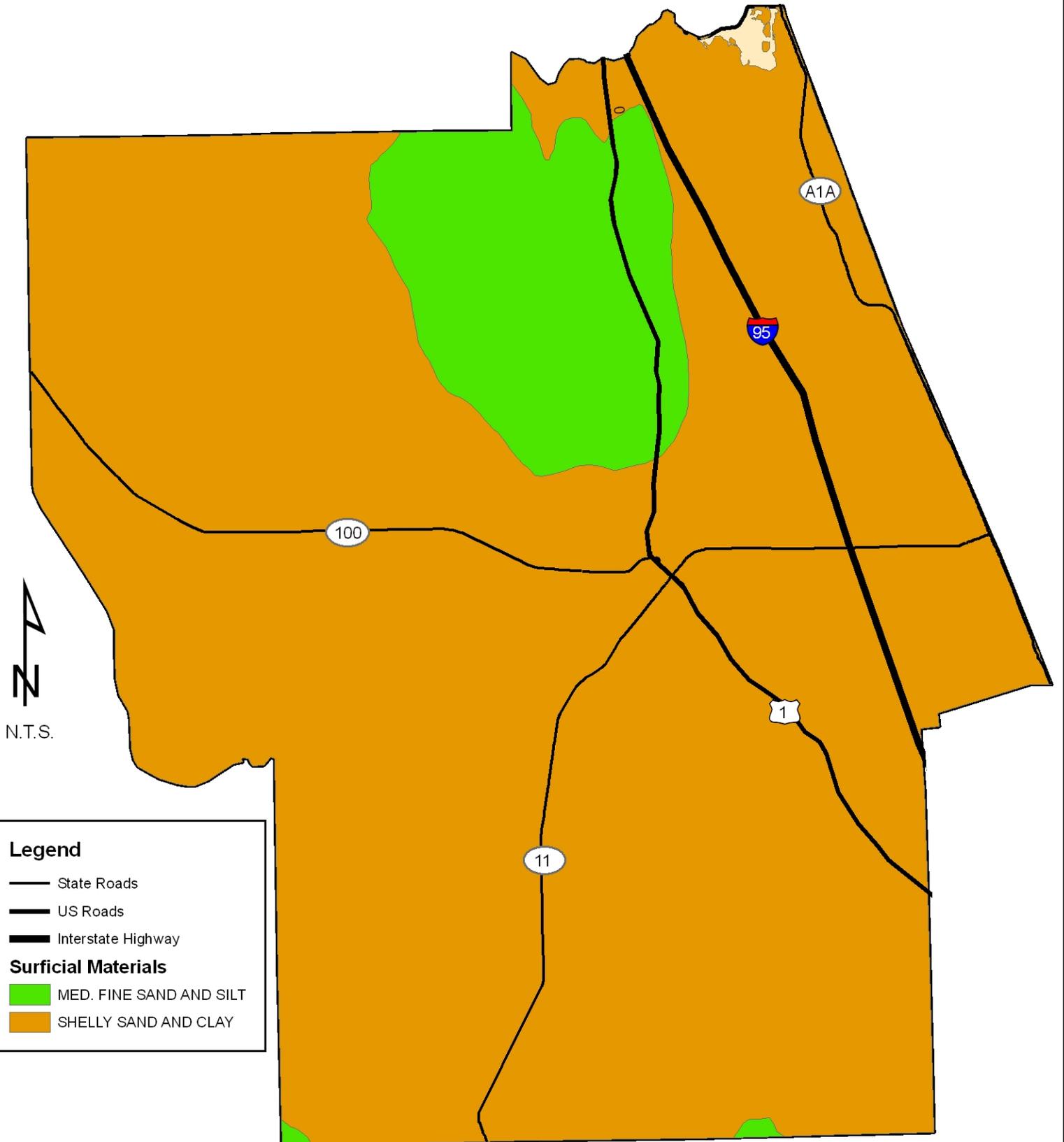
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ROCK AND MINERAL RESOURCES STRATIGRAPHY



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ROCK AND MINERAL RESOURCES SURFICIAL MATERIALS



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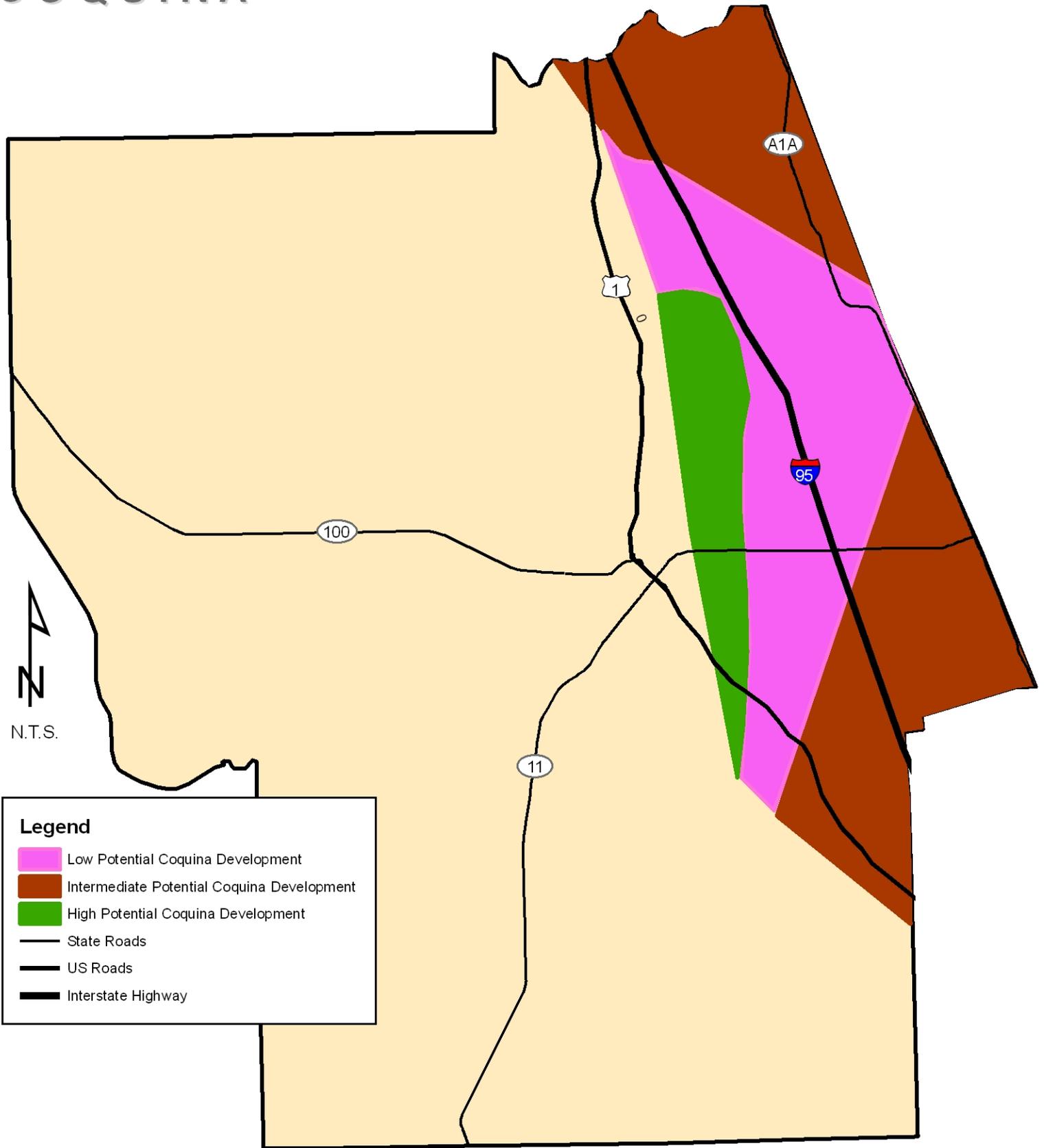
- State Roads
- US Roads
- Interstate Highway

Surficial Materials

- MED. FINE SAND AND SILT
- SHELLY SAND AND CLAY

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ROCK AND MINERAL RESOURCES COQUINA

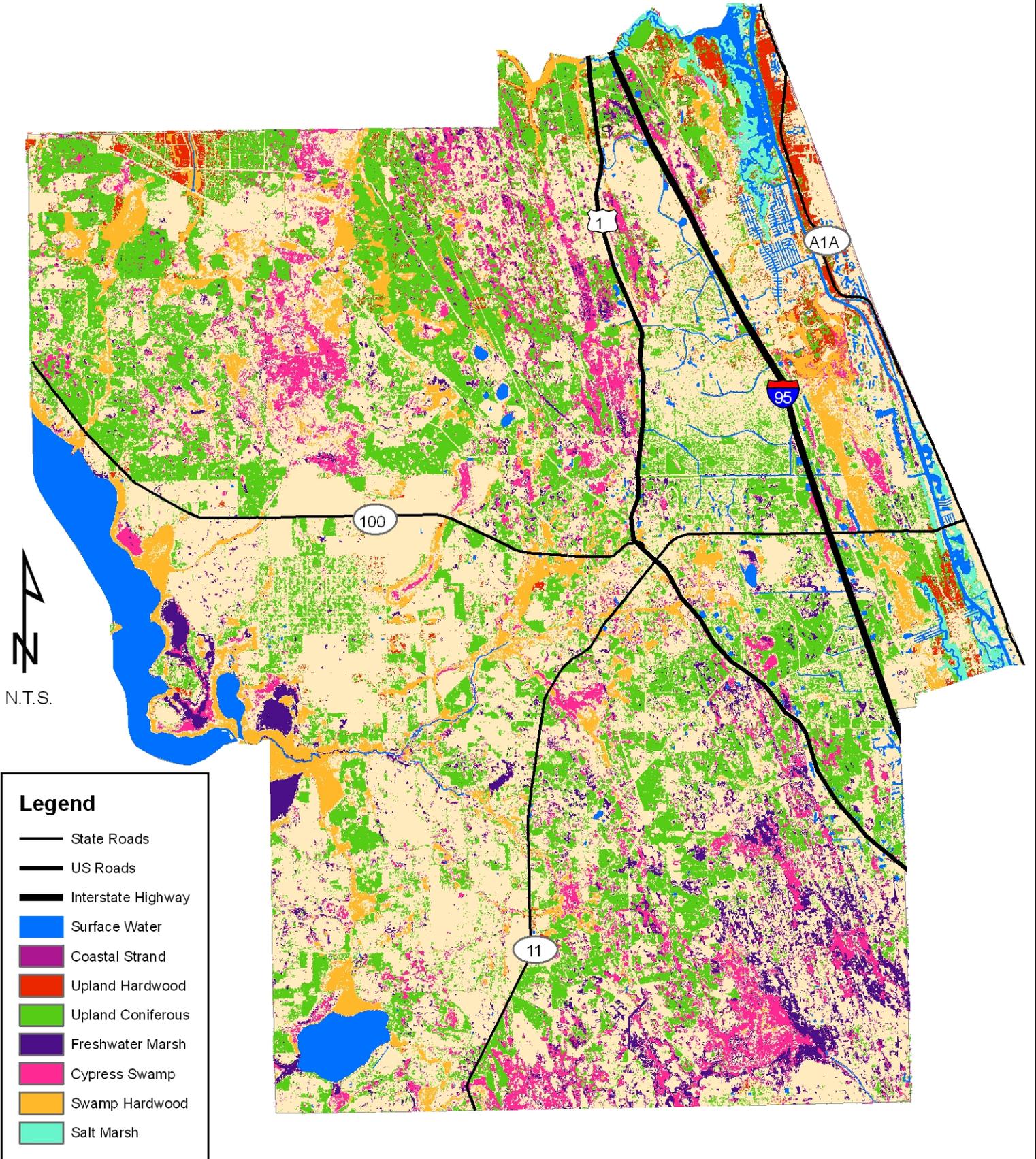


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- Low Potential Coquina Development
- Intermediate Potential Coquina Development
- High Potential Coquina Development
- State Roads
- US Roads
- Interstate Highway

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ECOLOGICAL COMMUNITIES 2004 HABITAT & LANDCOVER

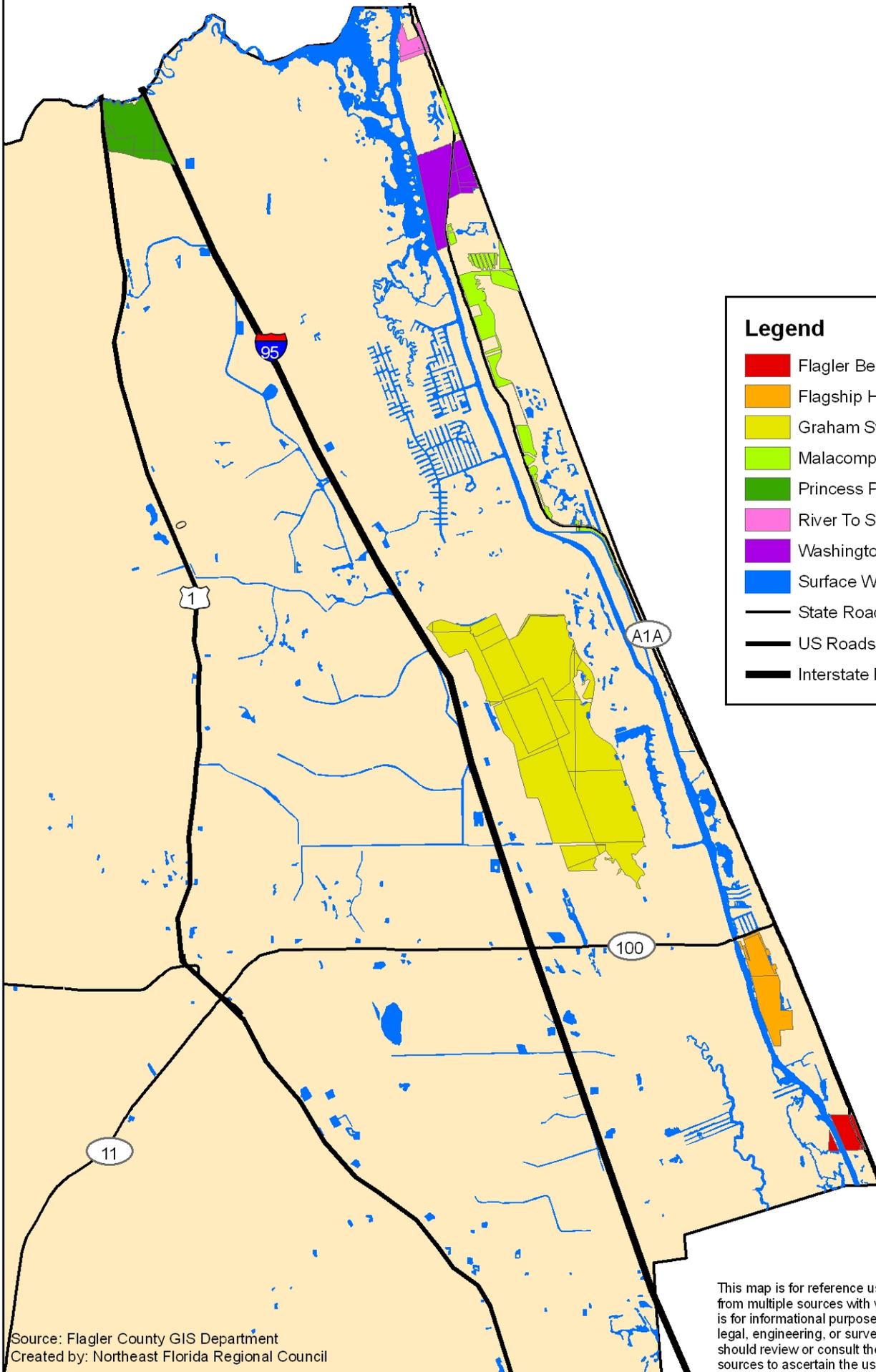


Legend

-  State Roads
-  US Roads
-  Interstate Highway
-  Surface Water
-  Coastal Strand
-  Upland Hardwood
-  Upland Coniferous
-  Freshwater Marsh
-  Cypress Swamp
-  Swamp Hardwood
-  Salt Marsh

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COASTAL GREENWAYS

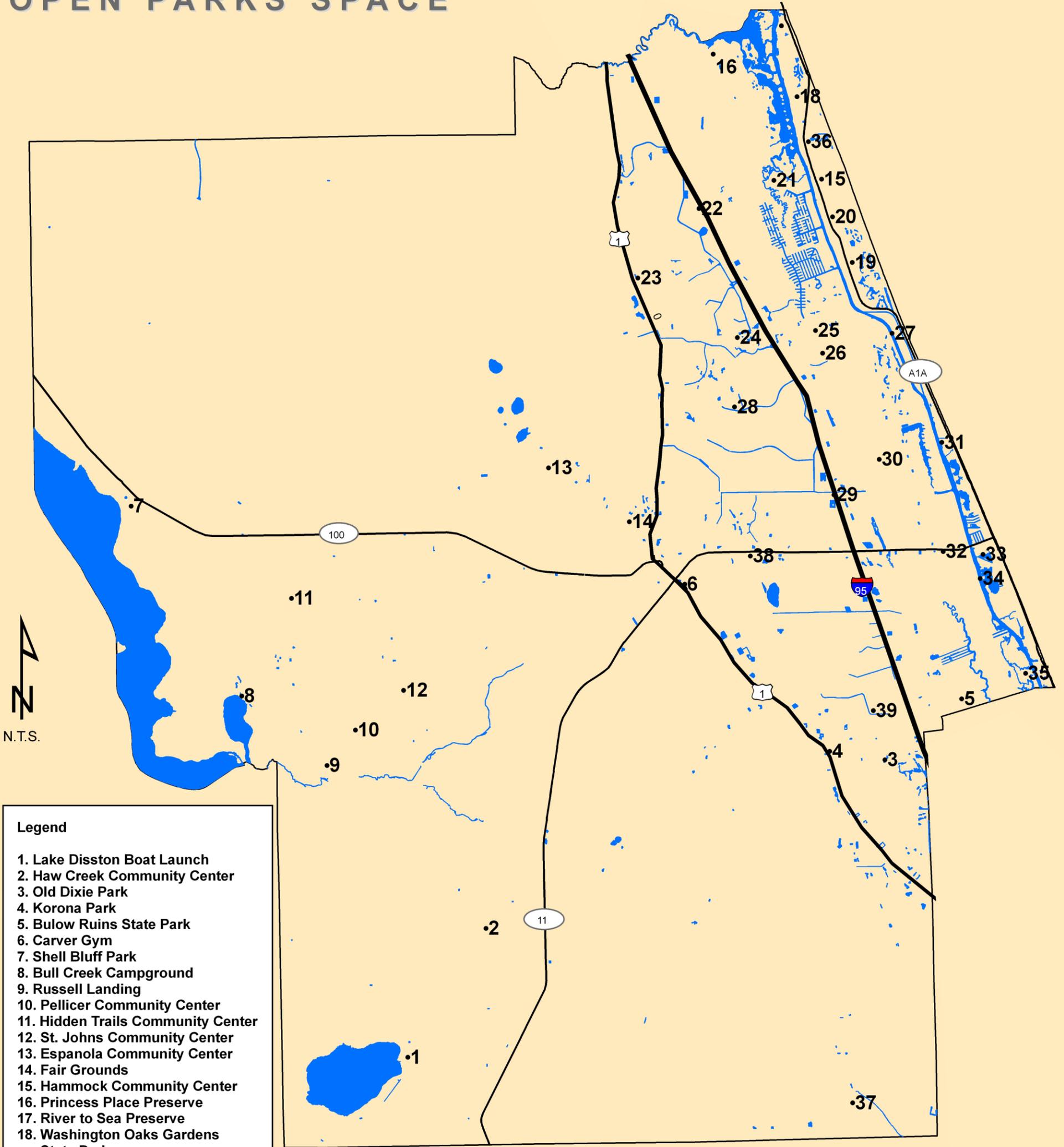


Legend

- Flagler Beach State Park
- Flagship Harbor Conservation Area
- Graham Swamp
- Malacompra Greenway
- Princess Place
- River To Sea
- Washington Oaks State Park
- Surface Water
- State Roads
- US Roads
- Interstate Highway

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EXISTING RECREATION AND OPEN PARKS SPACE



Legend

1. Lake Disston Boat Launch
2. Haw Creek Community Center
3. Old Dixie Park
4. Korona Park
5. Bulow Ruins State Park
6. Carver Gym
7. Shell Bluff Park
8. Bull Creek Campground
9. Russell Landing
10. Pellicer Community Center
11. Hidden Trails Community Center
12. St. Johns Community Center
13. Espanola Community Center
14. Fair Grounds
15. Hammock Community Center
16. Princess Place Preserve
17. River to Sea Preserve
18. Washington Oaks Gardens State Park
19. Jungle Hut Park
20. Old Salt Road Park
21. Bings Landing
22. Bird of Paradise
23. Indian Trails Sports Complex
24. James F. Holland Memorial Park
25. Palm Coast Community Center
26. Palm Coast Linear Park
27. Varn Park
28. Belle Terre Park
29. Lehigh Rail Trail
30. Graham Swamp
31. Herschel King Park
32. Wadsworth Park
33. Betty Stefflick Park
34. Moody Boat Launch
35. Gamble Rogers Memorial State Recreation Area
36. Mala Compra Park
37. Relay Wildlife Management Area
38. Moody Homestead
39. Seminole Woods Park

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