Village of Indiantown
Conservation Element
Data, Inventory and Analysis

This analysis does not establish new regulatory requirements or conditions of approval.

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INTRODUCTION

The Conservation Element identifies natural and environmental resources within the Village of Indiantown along with any known vulnerabilities or pollution problems. It also outlines potential opportunities for appropriate forms of conservation, mitigation, and protection of essential environmental components to promote greater sustainability and resiliency of the Village's natural systems.

STATUTORY REQUIREMENTS

Section 163.3177, Florida Statutes, requires the Conservation Element reflect the data, analysis, and associated principles, guidelines, and standards relating to:

- Protecting air quality
- Conserving, appropriately using, and protecting the quality and quantity of current and projected water sources (Also see **Infrastructure and Water Resources Element**).
- Protecting waters that flow into estuarine waters.
- Providing emergency conservation of water sources (Also see **Infrastructure and Water Resources Element**).
- Conserving and protecting minerals, soils, and native vegetative communities from destruction by development activities.
- Conserving and protecting wildlife and wildlife habitat and restricting activities known to adversely affect endangered and threatened wildlife.
- Protecting existing natural reservations (Also see **Recreation and Open Space Element).**
- Designating environmentally sensitive lands for protection.
- Managing hazardous waste to protect natural resources.
- Protecting and conserving wetlands and the natural function of wetlands.
- Directing future land uses that are incompatible with the protection and conservation of wetlands away from wetlands.

Florida statues also require analysis of the current and projected water needs and sources for industrial, agricultural, and potable water use for at least a 10-year period. This information is discussed at length in the **Infrastructure and Water Resources Element** and its **Water Supply Facilities Work Plan**.

The following natural resources, where present, shall be identified and analyzed, including their recreational or conservation uses, known pollution problems, and the potential for conservation, recreation, use, or protection of:

- Rivers, bays, lakes, wetlands including estuarine marshes, groundwaters, and springs.
- Floodplains
- Known sources of commercially valuable minerals
- Areas known to have experienced soil erosion problems.
- Land that is recreationally and commercially important wildlife, marine habitats, and vegetative communities, indicating known dominant species present and species listed by federal, state, or local government agencies as endangered, threatened, or species of special concern.

COMMUNITY WORKSHOPPING AND PUBLIC PARTICIPATION

An important consideration during data collection for the Comprehensive Plan is public input. The Village hosted two public workshops to inform this Comprehensive Plan update. In recognition of the Village's diverse community, for many of whom Spanish is a first language, the Village facilitated one meeting in Spanish, held on October 30th,

2025, at Holy Cross Catholic Church; and one meeting in English (with certified interpreter available for any Spanish speaking attendees) on November 18th, 2025, at the Elisabeth Lahti Library.

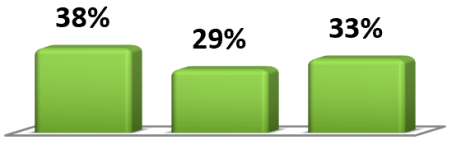
The Workshops included live polling of survey questions with real-time results. For anyone unable to attend a workshop, the Village website included links to online surveys comprised of the same questions posed at the live meetings, in English and Spanish. To provide even more opportunities to engage residents, businesses, and stakeholders throughout the update, the Village posted meeting dates, draft documents, and project updates on the Village's website and social media platforms.

Community participation was notably low. Staff observed that participation levels may have been affected by broader community concerns and other external factors during the outreach period. As a result, workshop and survey results should be interpreted as informative but not statistically representative of the Village as a whole.

Across both workshops and online surveys, over 60% of respondents self-identified as Village residents, and 43% indicated they had previously participated in the inaugural Comprehensive Plan workshops. As shown in the graphed results below, a plurality of respondents indicated support for continued prioritization of eco-tourism initiatives, while a portion of respondents indicated no opinion. A majority of respondents also supported continued prioritization of a local wetland mitigation bank program. The Village will continue to evaluate and expand outreach methods in future planning efforts to improve participation levels.

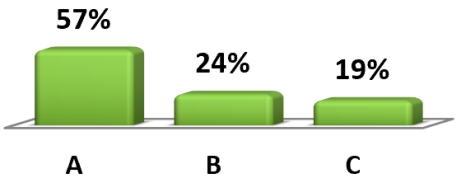
14) The Village Comprehensive Plan currently seeks to prioritize funding to develop eco-tourism. This should continue to be a priority.

A	True	38%
B	False	29%
C	I'm not sure / no opinion	33%
		100%



15) The Village Comprehensive Plan currently seeks to develop a local wetland mitigation bank program, where payments made for impacting local wetlands are reserved for local wetland restoration projects. This should continue to be a priority.

A	True	57%
B	False	24%
C	I'm not sure / no opinion	19%
		100%



AIR QUALITY

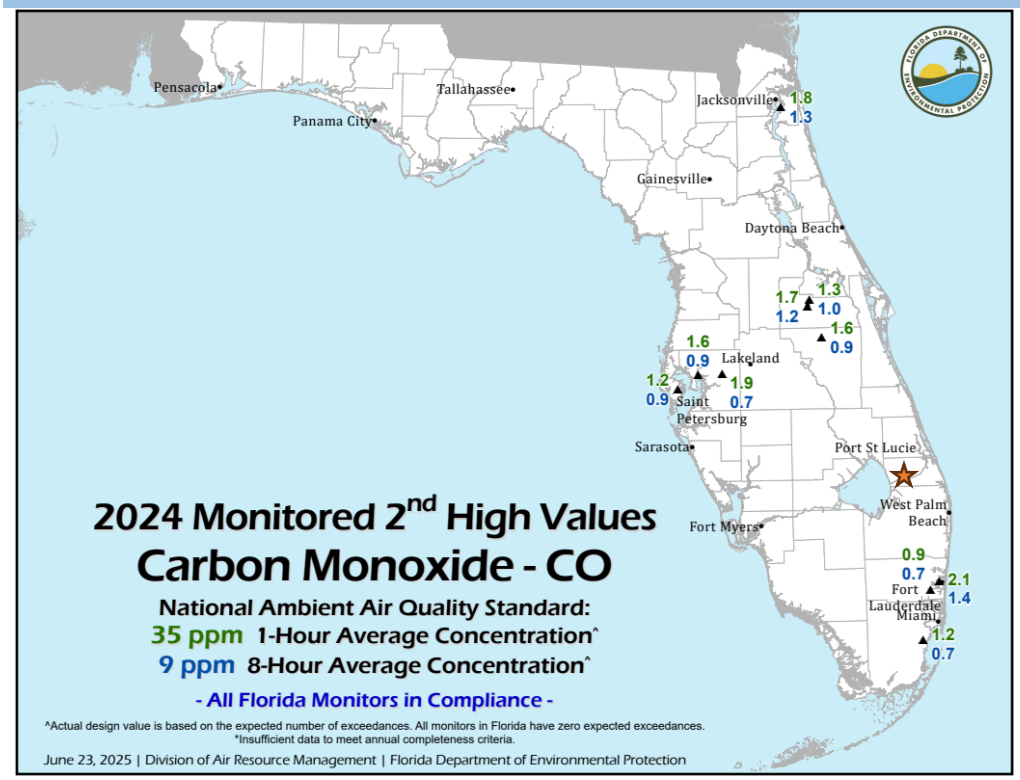
Air quality is a regional issue, requiring the participation and cooperation of all levels of government. The Air Quality Index (AQI) was developed by the Environmental Protection Agency (EPA) to provide accurate and easily understandable information to communities about daily air pollution levels. The AQI provides EPA with a uniform system of measuring pollution levels for the major air pollutants regulated under the Clean Air Act (CAA). The Clean Air Act of 1970 defined six criteria pollutants and established ambient concentration limits to protect public health and welfare. The pollutants regulated for air emissions are ozone, carbon monoxide, nitrogen dioxide, particulates (PM 10 and 2.5), sulfur dioxide and lead.

Air quality in Florida is measured by the Florida Department of Environmental Protection (DEP) Office of Air Monitoring, which currently assesses the air quality for over 90 percent of the 22 million people living in Florida. The DEP monitoring network consists of more than 180 monitors at 90 sites strategically positioned across the state, concentrated in areas of higher population density, along the coast and near interstate highways.

The nearest monitoring stations to the Village are the Stuart and Belle Glade stations, located roughly 17 miles northeast and 24 miles southwest of the Village, respectively. The Stuart station monitors ozone, PM 10 and PM 2.5, and the Belle Glade station monitors only PM 2.5. There are several other stations in the south Florida area measuring other pollutants. The state's only lead monitoring stations are in the Tampa Bay area, due to the types of industries located there.

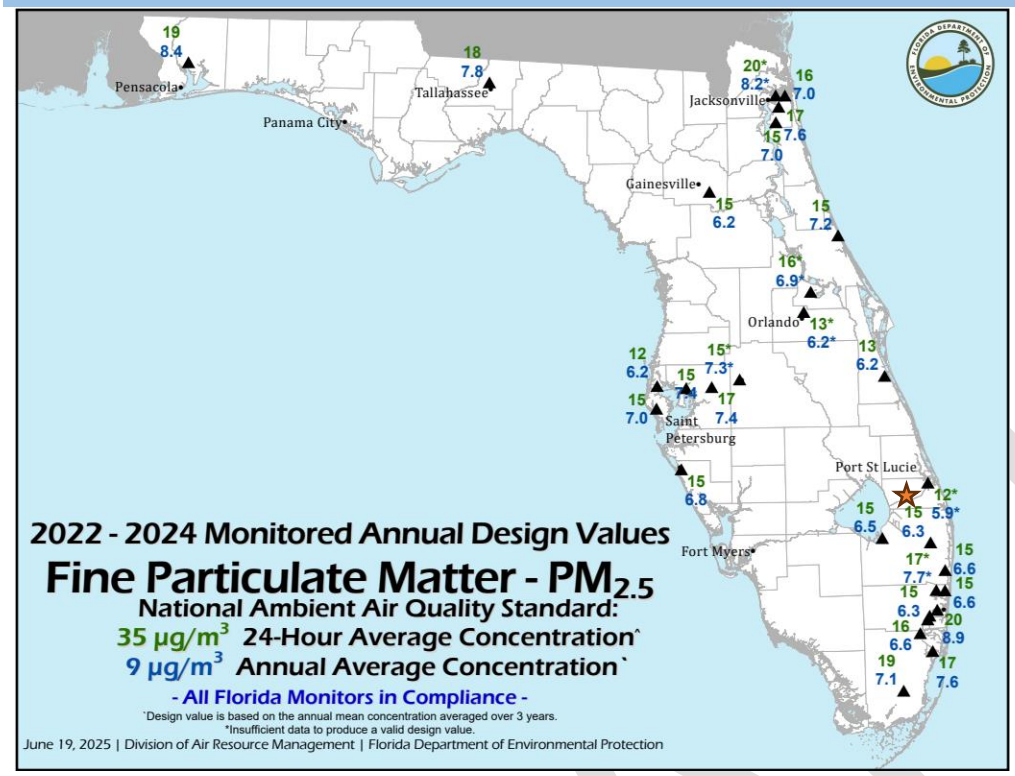
According to the most recent 2024 DEP reporting, regulated pollutants regionally are within regulatory limits. Other pollutants not measured locally are kept within limits due to broader regulation including vehicle emissions controls, elimination of lead from fuels, and controls at power plants and other industrial facilities.

FIGURE CON-1 2024 MONITORED AIR QUALITY DESIGN VALUES – CARBON MONOXIDE



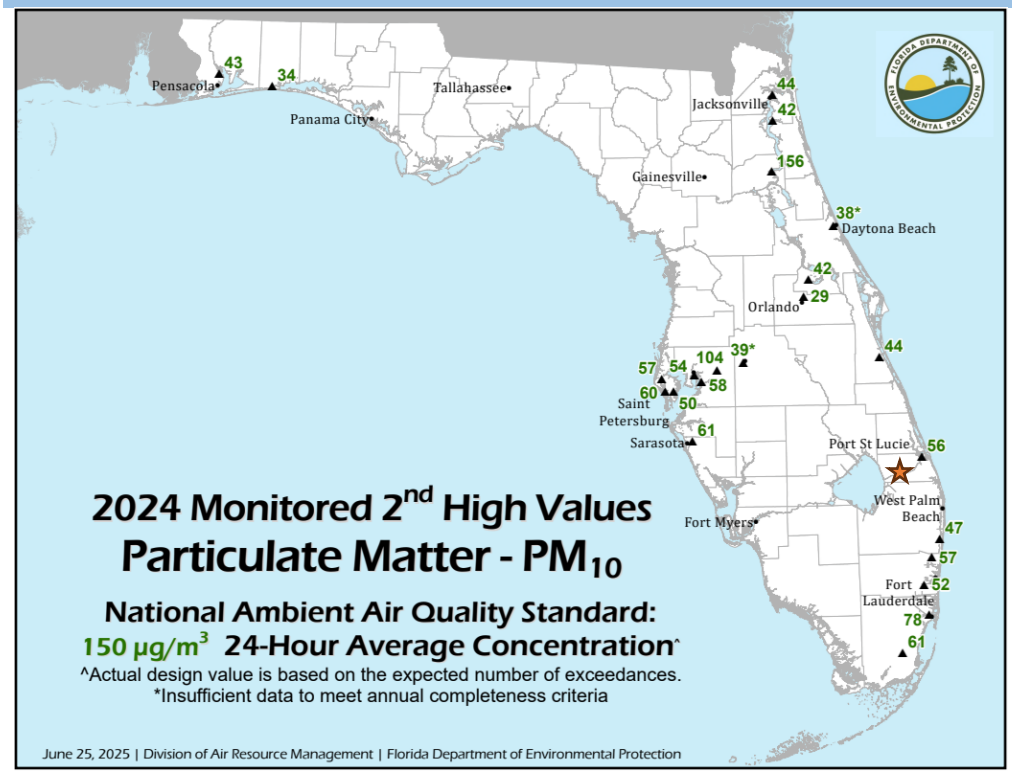
Source: Florida Department of Environmental Protection

FIGURE CON-2 2022-2024 MONITORED AIR QUALITY DESIGN VALUES – PM2.5



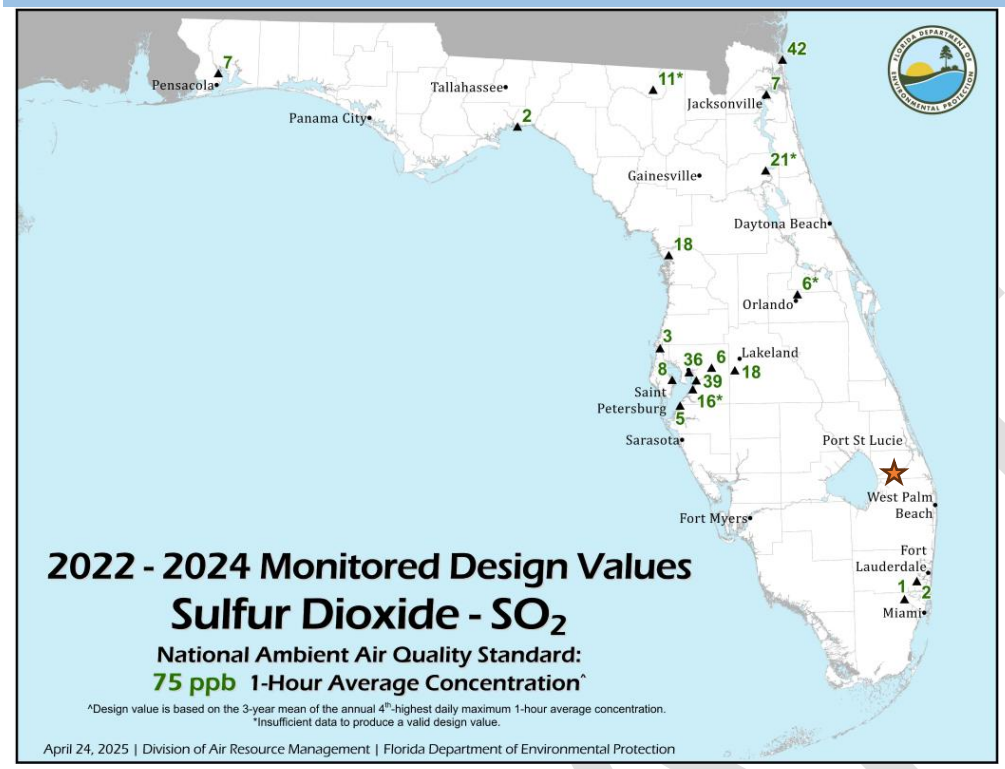
Source: Florida Department of Environmental Protection

FIGURE CON-3 2024 MONITORED AIR QUALITY DESIGN VALUES – PM10



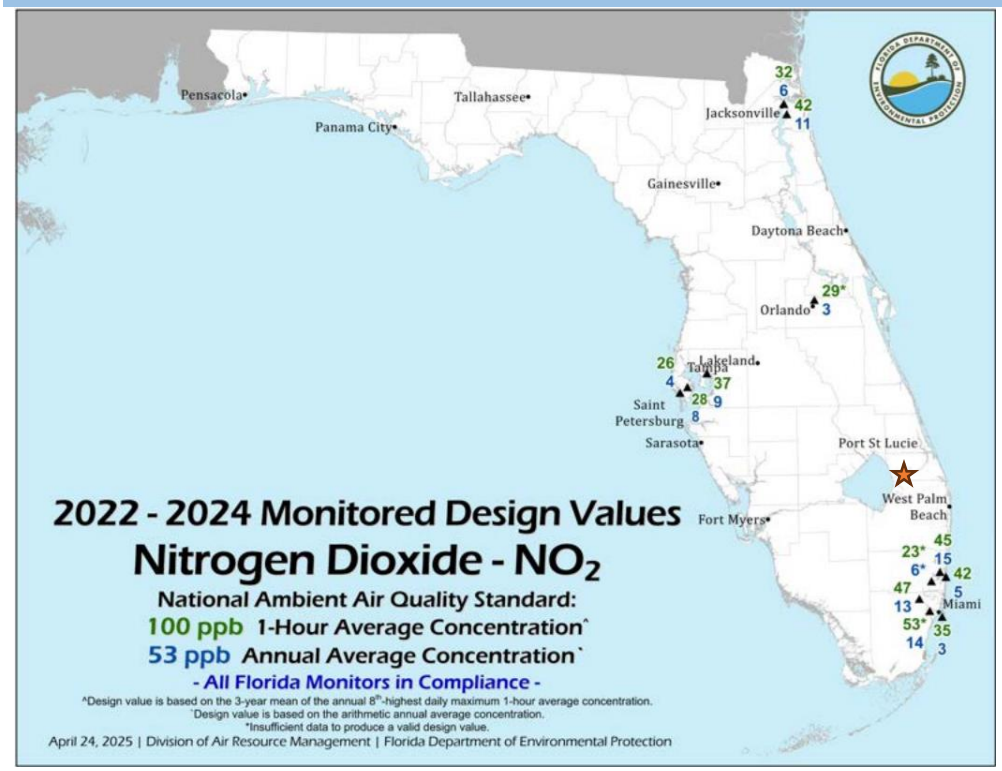
Source: Florida Department of Environmental Protection

FIGURE CON-4 2022-2024 MONITORED AIR QUALITY DESIGN VALUES – SULFUR DIOXIDE



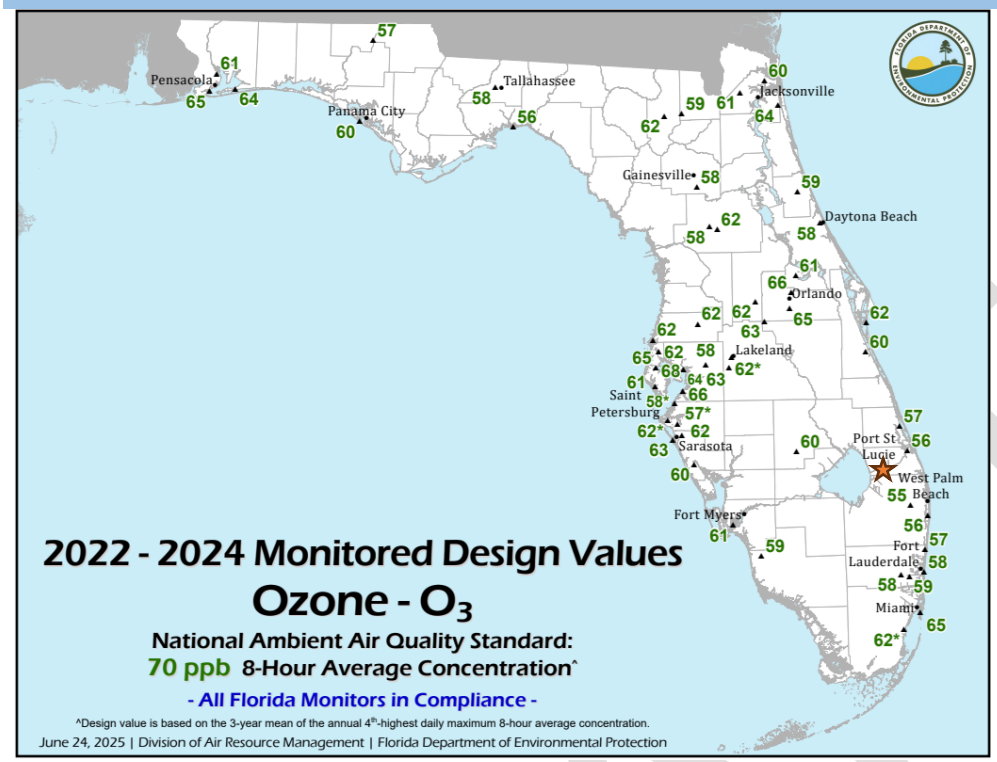
Source: Florida Department of Environmental Protection

FIGURE CON-5 2022-2024 MONITORED AIR QUALITY DESIGN VALUES – NITROGEN DIOXIDE



Source: Florida Department of Environmental Protection

FIGURE CON-6 2022-2024 MONITORED AIR QUALITY DESIGN VALUES – OZONE



Source: Florida Department of Environmental Protection

SOILS

According to the U.S. Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) soils maps, there are a variety of soil types within the Village, mostly poor to very poor draining. Along the St. Lucie (C-44) Canal are some well drained soils. The generalized soil types are shown on Map 1.

Although NRCS does not identify any Prime Farmland in the Village, there are some areas of the Village identified as Farmland of Unique Importance, based on soil type overlaid with agricultural land use classification assigned by SFWMD, as shown in Map 2. These areas correspond to land that was formerly utilized for citrus groves, row crops and pastures. From NRCS:

***Prime farmland**, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses.*

***Unique farmland** is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate.*

VEGETATION

The community comprising the Village of Indiantown was founded among mostly agricultural uses including citrus groves, row crops and pasture. Some of these agricultural areas continue today within the Village.

According to the most recent South Florida Water Management District (SFWMD) Florida Land Use and Cover Classification System (FLUCCS) mapping (2016) in addition to agriculture, there are areas in the Village comprised of various categories of upland forest, rangeland and wetlands as shown on Map 3.

SFWMD FLUCCS Categories within the Village:

- Upland Forests
  - Cabbage palm
  - Live oak
  - Pine flatwoods
  - Mixed coniferous - hardwood
- Rangeland
  - Palmetto prairie
  - Herbaceous dry prairie
  - Shrub and brushland
  - Mixed rangeland
- Wetlands
  - Mixed forested wetland
  - Mixed hardwood and shrub wetland
  - Cabbage palm wetland
  - Freshwater marsh

WETLANDS

Wetlands are generally classified as areas where the water table is near or above the surface, except during extended dry periods. Wetlands are typically adjacent to natural water bodies and man-made lakes, and in low-lying depressions, and have poorly drained, level, organic, or marl soils. Wetlands are critical natural resources, providing needed habitat for aquatic and land species, including migrating birds.

Wetlands serve many important hydrological and ecological values and functions:

- Recharge and filter groundwater in the shallow aquifer
- Reduce the impact of flooding by acting as storage basins.
- Act as uniquely productive biological systems, providing home and food for several of Florida's threatened and endangered species.

Regardless of location, wetlands ultimately fall under the jurisdiction of state and/or federal agencies. Proposed development with an impact to wetlands may trigger additional requirements of South Florida Water Management District or the U.S. Army Corps of Engineers.

Although formal wetland determination and delineation typically occurs during the development application process, Martin County has prepared a countywide Wetland Probability Map to assist in identifying areas where wetlands are likely to be present. This information, zoomed in to the Village area, is shown on Map 4. According to this and SFWMD FLUCCS mapping, high probability wetland areas are located primarily within the western industrial areas and northeastern low-density residential areas of the Village.

The Village maintains wetlands protection policies under Objectives C1.2, C1.3 and C2.1 of the Conservation Element, including:

- **Policy C1.2.11**: The Village of Indiantown shall include policies in the Transportation Element of the Comprehensive Plan that require that roadway projects to be constructed in a manner that protects waterbodies, wetlands, and flood plains. Corridor alignments shall be designed to avoid environmentally sensitive areas.
- **Policy C1.3.1**: The Village of Indiantown shall protect and conserve the natural function of wetlands by including provisions in the Land Development Regulations that aim to avoid destruction and adverse impacts to wetlands.
- **Policy C1.3.2**: The Village of Indiantown shall require that all applications for development approval include an identification/inventory of all wetland areas on-site.
- **Policy C1.3.3**: The Village of Indiantown shall require that all development in the Village of Indiantown comply with all state and federal regulations related to wetland protection.
- **Policy C1.3.4**: The Village shall notify and coordinate with adjacent municipalities if development applications include wetlands that cross jurisdictional lines.
- **Policy C1.3.5**: The Village of Indiantown's Future Land Use Map shall direct development away from uses that are incompatible with the protection and conservation of wetlands.
- **Policy C2.1.5**: In an effort to encourage future developments and promote the conservation of sensitive lands, the Village of Indiantown desires to establish a mitigation bank in accordance with the Mitigation Bank F.S. § 373.4136, and Mitigation Bank Rule, 62-342, in order to provide the framework for permitting a wetlands mitigation in the Village of Indiantown. The Village will work with the appropriate state permitting agency, water management district, and the U.S. Army Corps of Engineers per the required Mitigation Bank Instrument (MBI).

The Village's Land Development Regulations include provisions for delineating preserved wetlands on site plans, encouraging and incentivizing wetland protection through clustering allowances and protecting wetlands from stormwater/wastewater impacts from industrial uses.

INVASIVE PLANTS

Non-native invasive plants in Florida are identified and monitored by various organizations, including the Florida Invasive Species Council (FISC), formerly known as the Florida Exotic Pest Plant Council (FLEPPC), and the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS). Non-native plants may be considered invasive when they escape cultivation and increase in abundance or frequency; those that cause agricultural or ecological harm by displacing native species, changing community structures or ecological functions, or hybridizing with natives are highlighted as Category I invasives and/or noxious, prohibited plants.

State and federal listed noxious plant species are regulated largely through commercial sale and transport by the Florida Department of Agriculture and Consumer Services (FDACS). Category I invasive species lists, as maintained FISC, are not necessarily regulated by any agency, but are commonly used as a basis for local regulations for landscaping, open space management, and preserve area management planning.

FISC Category I invasive species for the South Florida region, which includes the Village of Indiantown, as of June 2025 (latest update) are shown below:

TABLE CON-1 FISC CATEGORY I PLANT SPECIES IN MARTIN COUNTY

Scientific Name	Common Name
Abrus precatorius	rosary pea
Acacia auriculiformis	earleaf acacia
Albizia lebbeck	woman's tongue
Ardisia crenata	coral ardisia; scratchthroat
Ardisia elliptica	shoebutton ardisia
Asparagus aethiopicus	Sprenger's asparagus-fern
Bauhinia variegata	orchid tree; mountain ebony
Bischofia javanica	Javanese bishopwood
Calophyllum antillanum	santa maria; galba; Antilles calophyllum
Casuarina equisetifolia	Australian-pine; horsetail casuarina
Casuarina glauca	gray sheoak; suckering Australian-pine
Cenchrus purpureus (Pennisetum purpureum)	elephantgrass; napiergrass
Cinnamomum camphora	camphortree
Colocasia esculenta	wild taro; dasheen; coco yam
Colubrina asiatica	latherleaf; Asian nakedwood
Cupaniopsis anacardioides	carrotwood
Cyperus blepharoleptos[1]	Cuban bulrush
Dioscorea alata	white yam; winged yam; water yam
Dioscorea bulbifera	air-potato
Dolichandra unguis-cati (Macfadyena unguis-cati)	catclaw vine
Eichhornia crassipes	common water-hyacinth
Eugenia uniflora	Surinam cherry
Ficus microcarpa[2]	Indian laurel fig
Heptapleurum actinophyllum (Schefflera actinophylla)	Australian umbrella tree; octopus tree
Hydrilla verticillata	waterthyme; hydrilla
Hygrophila polysperma	Indian swampweed; green hygro
Hymenachne amplexicaulis	trompetilla; West Indian marshgrass
Imperata cylindrica	cogongrass
Ipomoea aquatica	water-spinach
Jasminum dichotomum	Gold Coast jasmine
Jasminum fluminense	Brazilian jasmine; jazmin de trapo; corky-stemmed jasmine
Lantana strigocamara (Lantana camara)	lantana; shrubverbena
Ligustrum sinense	Chinese privet
Lonicera japonica	Japanese honeysuckle
Ludwigia peruviana	Peruvian primrosewillow
Lumnitzera racemosa	lumitzera
Luziola subintegra	tropical American watergrass

Scientific Name	Common Name
Lygodium japonicum	Japanese climbing fern
Lygodium microphyllum	small-leaf climbing fern; Old World climbing fern
Manilkara zapota	sapodilla
Melaleuca quinquenervia	punktree; melaleuca
Melinis repens	rose natalgrass
Microsorum grossum (Phymatosorus scolopendria)	serpent fern; wart fern
Mimosa pigra	black mimosa; catclaw mimosa
Nephrolepis brownii	Asian sword fern
Nephrolepis cordifolia	tuberous sword fern
Neyraudia reynaudiana	Burma reed; silkreed
Nymphoides cristata	crested floatingheart
Paederia cruddasiana	sewervine
Paederia foetida	skunkvine
Panicum repens	torpedograss
Pistia stratiotes	water-lettuce
Psidium cattleianum	strawberry guava
Psidium guajava	guava
Pueraria montana var. lobata	kudzu
Rhodomyrtus tomentosa	rose myrtle; downy rose-myrtle
Ruellia simplex	Britton's wild petunia; Mexican petunia
Salvinia minima	water spangles
Scaevola taccada	beach naupaka
Schinus terebinthifolia	Brazilian pepper
Scleria lacustris	Wright's nutrush; lakeshore nutrush
Scleria microcarpa	tropical nutrush
Senna pendula var. *glabrata*	Christmas cassia; valamuerto
Solanum tampicense	wetland nightshade; aquatic soda apple
Solanum viarum	tropical soda apple
Sporobolus jacquemontii	West Indian dropseed; giant smutgrass
Syngonium podophyllum	arrowhead vine; American evergreen
Syzygium cumini	Java plum
Thespesia populnea	portia tree; seaside mahoe
Tradescantia fluminensis	small-leaf spiderwort
Tradescantia spathacea[1]	Moses-in-the-cradle; oyster-plant; boatlily
Triadica sebifera (Sapium sebiferum)	popcorntree; Chinese tallow tree
Urena lobata	caesarweed
Urochloa mutica	paragrass

Notes: [1]Plants added to the FISC List of Invasive Plant Species in 2025; [2]Does not include *Ficus microcarpa* subsp. *fuyuensis*, which is sold as “green island Ficus”

The Village of Indiantown maintains Comprehensive Plan policies and regulations to control and eliminate invasive exotic plant species, including

- Requiring removal of exotic plant species from development sites and maintenance of landscapes to remain free of exotics
- Removal of invasive plants from conservation and preserve areas
- Permit exemption for removal of invasive plant species

The Village may consider updating its policies and regulations to designate the appropriate organizations (FISC and/or UF/IFAS) as the authority of record for invasive plant species, clarify which categories (noxious/prohibited, Category I, Category II) of listed species are to be regulated, and clarify terminology (exotic vs. invasive).

ENDANGERED AND THREATENED PLANT SPECIES

FDACS maintains the Regulated Plant Index, outlined in section 581.185, F.S., which is an inventory of state and federally regulated plant species, including known range by county and/or region and typical habitat. Index plants include those which are considered endangered or threatened by the State of Florida or the federal government, as well as those which are considered "commercially exploited" by the state.

As provided in section 581.185, F.S., regulated plants are statutorily protected from destruction or harvest on public property or on private property without the approval of the property owner, and in some cases a permit from the department, depending on status and quantity. Statutory protections do not extend to clearing for construction or other land alteration activities, including agriculture, silviculture, fire control, mining assessment, right-of-way work, or land clearing by a public agency or public utility.

According to the FDACS index accessed on 8/20/25, there are a total of 78 listed plant species whose ranges may include Martin County, including 28 endangered (SE), 41 threatened (ST), and 9 commercially exploited (CE). Four species are federally endangered (FE), and one is federally threatened (FT).

TABLE CON-2 FDACS INDEX LISTED PLANT SPECIES IN MARTIN COUNTY

Status	Species	Common Name	Habitat
SE	*Asclepias curtissii*	Curtiss's milkweed	dry hammocks, scrub, flatwoods
SE, FE	*Asimina tetramera*	four-petal pawpaw	scrub
SE	*Caesalpinia major*	yellow nicker	coastal strands, hammocks
SE	*Centrosema arenicola*	sand butterfly-pea	mixed woodlands, pine thickets
SE	*Chamaesyce cumulicola*	sand dune spurge	coastal dunes, coastal scrub
SE, FE	*Cladonia perforata*	Florida perforate lichen	sandhills
SE	*Epidendrum anceps*	dingy-flowered epidendrum	on trees in rockland hammocks, dune swamps
SE	*Epidendrum nocturnum*	night-scented epidendrum	on trees in rockland hammocks, strand swamps
SE	*Eugenia confusa*	redberry Eugenia	rockland hammocks
SE, FT	*Halophila johnsonii*	Johnson's seagrass	sandy substrates of marine waters
SE, FE	*Jacquemontia reclinata*	beach clustervine	beach dunes, strand openings
SE	*Lantana depressa*	pineland lantana	pine rockland, coastal strand, marl prairies
SE	*Lechea divaricata*	spreading pinweed	scrubby flatwoods
SE	*Nemastylis floridana*	celestial lily	marshes, wet flatwoods

Status	Species	Common Name	Habitat
SE	*Oncidium bahamense*	dancing-lady orchid	rosemary scrub
SE	*Ophioglossum palmatum*	hand fern	on cabbage palms in hydric hammocks, strand swamps
SE	*Peperomia humilis*	low peperomia	maritime hammocks, upland hardwood forests, swamps
SE, FE	*Polygala smallii*	tiny polygala	pine rocklands, rosemary scrub, sandhills
SE	*Polypodium dispersum*	widespread polypody	hammocks
SE	*Polypodium plumula*	plume polypody	hammocks
SE	*Polypodium ptilodon*	swamp plume polypody	hammocks, swamps
SE	*Polystachya concreta*	pale-flowered polystachya	on trees in strand swamps
SE	*Remirea maritima*	beach-star	coastal dunes
SE	*Spiranthes polyantha*	Ft. George ladies'-tresses	rockland hammocks
SE	*Tillandsia fasciculata*	common wild-pine	on trees in cypress swamps, hammocks, pinelands
SE	*Tillandsia utriculata*	giant wild-pine	on trees in hammocks, cypress swamps, pinelands
SE	*Vanilla mexicana*	unscented vanilla	bayheads, baygalls
SE	*Verbena maritima*	coastal vervain	coastal dunes, coastal strand, pine rocklands
ST	*Acanthocereus pentagonus*	barbed-wire cactus	maritime hammocks, beaches
ST	*Andropogon arctatus*	pinewoods bluestem	flatwoods
ST	*Calopogon multiflorus*	many-flowered grass pink	fire maintained damp pinelands and meadows
ST	*Carex chapmannii*	Chapman's sedge	hammocks, woodlands
ST	*Chrysophyllum oliviforme*	satin-leaf	hammocks, pinelands
ST	*Coelorachis tuberculosa*	piedmont joint grass	marshes, pond margins
ST	*Conradina grandiflora*	large-flowered rosemary	scrub, scrubby flatwoods
ST	*Drypetes lateriflora*	Guiana plum	hammocks
ST	*Erithalis fruticosa*	blacktorch	sand dunes, coastal hammocks
ST	*Eulophia ecristata*	non-crested eulophia	sand pine scrub, sandhills, pine rocklands
ST	*Garberia heterophylla*	garberia	dry, sandy scrub, prairies
ST	*Harrisella porrecta*	threadroot orchid	on trees in strand swamps, hardwood swamps, hammocks
ST	*Jacquemontia curtissii*	pineland jacquemontia	pine rocklands, marl prairies, mesic flatwoods
ST	*Lechea cernua*	scrub pinweed	fire-maintained scrub
ST	*Lilium catesbaei*	Catesby's lily	wet flatwoods, bogs
ST	*Lobelia cardinalis*	cardinal flower	riverbanks, moist hammocks
ST	*Myrcianthes fragrans*	Simpson's stopper	hammocks
ST	*Nephrolepis biserrata*	giant sword fern	mesic hammocks, swamps
ST	*Opuntia stricta*	shell mound prickly-pear	shell mounds, coastal areas

Status	Species	Common Name	Habitat
ST	*Pinguicula caerulea*	blue-flowered butterwort	flatwoods, ditches, roadsides
ST	*Pinguicula lutea*	yellow-flowered butterwort	flatwoods, seepage bogs, ditches, roadsides
ST	*Pithecellobium keyense*	Keys blackbead	hammocks, pinelands, coastal dunes
ST	*Platanthera blephariglottis*	white-fringed orchid	marshes, meadows, bogs
ST	*Platanthera ciliaris*	yellow-fringed orchid	bogs, marshes, flatwoods, savannas
ST	*Platanthera cristata*	crested fringed orchid	bogs, meadows, flatwoods, savannas
ST	*Platanthera flava*	gypsy-spikes	mud flats, floodplain swamps, meadows
ST	*Platanthera nivea*	snowy orchid	Bogs, flatwoods, savannas
ST	*Pogonia ophioglossoides*	rose pogonia	bogs, meadow, flatwoods, savannas
ST	*Sarracenia minor*	hooded pitcher-plant	flatwoods, bogs, ditches
ST	*Scaevola plumieri*	inkberry	beaches, coastal strand
ST	*Spermacoce neoterminalis*	false buttonweed	pinelands, coastal areas
ST	*Spiranthes laciniata*	lace-lip ladies' tresses	lake shores, flatwoods, marshes
ST	*Spiranthes longilabris*	long-lip ladies' tresses	prairies, flatwoods, marshes
ST	*Spiranthes tuberosa*	little pearl-twist	flatwoods
ST	*Stenorrhynchus lanceolatus*	beaked orchid	pastures, wet flatwoods, sandhills
ST	*Tectaria heracliefolia*	broad halberd fern	rockland hammocks
ST	*Tillandsia balbisiana*	inflated and reflexed wild-pine	on trees in hammocks, cypress swamps, pinelands
ST	*Tillandsia flexuosa*	twisted air-plant	on trees in hammocks, cypress swamps, mangroves, scrub
ST	*Tillandsia valenzuelana*	soft-leaved wild-pine	on trees in hammocks, swamps
ST	*Zephyranthes simpsonii*	Simpson's zephyr-lily	wet pinelands and pastures, wet roadsides
ST	*Zephyranthes treatiae*	Treat's zephyr-lily	flatwoods, roadsides
CE	*Encyclia tampensis*	butterfly orchid	on trees in hammocks, hardwood swamps, cypress swamps
CE	*Epidendrum conopseum*	green-fly orchid	on trees in moist hammocks, cypress and hardwood swamps
CE	*Lycopodium cernuum*	nodding club-moss	wet depressions, ditches
CE	*Osmunda cinnamomea*	cinnamon fern	swamps, wetlands
CE	*Osmunda regalis*	royal fern	swamps, wetlands
CE	*Rhapidophyllum hystrix*	needle palm	river bluffs, hammocks, bottomlands
CE	*Rhododendron canescens*	pink azalea	wet to well-drained woodlands
CE	*Serenoa repens*	saw palmetto	wet to dry flatwoods and hammocks
CE	*Zamia* spp. (all native species)	coontie	oak hammocks, pinelands

Source: FDACS

KEY ANIMAL SPECIES OF CONCERN

The Florida Fish and Wildlife Conservation Commission (FWC) maintains an inventory of "imperiled" species: those that are federally listed as endangered (FE) or threatened (FT) by the U.S. Fish and Wildlife Service or National Marine Fisheries Service, or are state designated as threatened (ST). Florida's imperiled species management system no longer maintains a Species of Special Concern (SSC) category, as the species formerly so listed have been reclassified as federally listed, state-listed, or found to not meet any of the state's listing criteria.

According to FWC species-specific range and distribution maps, there are 24 listed imperiled species that may be found within the Village: 14 federally listed and 10 state listed, as shown in Table CON-3.

TABLE CON-3 FWC LISTED IMPERILED SPECIES WITH HABITATS OR RANGES INCLUDING THE VILLAGE

Category	Common Name	Scientific Name	Status
Mammals	Florida panther	*Puma (Felis) concolor coryi*	FE
Mammals	West Indian (Florida) manatee	*Trichechus manatus (latirostris)*	FT
Birds	Audubon's crested caracara	*Caracara plancus audubonii*	FT
Birds	Black skimmer	*Rynchops niger*	ST
Birds	Eastern black rail	*Laterallus jamaicensis jamaicensis*	FT
Birds	Everglade snail kite	*Rostrhamus sociabilis plumbeus*	FE
Birds	Florida burrowing owl	*Athene cunicularia floridana*	ST
Birds	Florida sandhill crane	*Antigone canadensis pratensis*	ST
Birds	Florida scrub-jay	*Aphelocoma coerulescens*	FT
Birds	Ivory-billed woodpecker	*Campephilus principalis*	FE[1]
Birds	Kirtland's warbler	*Dendroica kirtlandii*	FE[2]
Birds	Least tern	*Sternula antillarum*	ST
Birds	Little blue heron	*Egretta caerulea*	ST
Birds	Piping plover	*Charadrius melodus*	FT
Birds	Red-cockaded woodpecker	*Picoides borealis*	FT
Birds	Roseate spoonbill	Platalea ajaja	ST
Birds	Rufa red knot	*Calidris canutus rufa*	FT
Birds	Southeastern American kestrel	*Falco sparverius paulus*	ST
Birds	Tricolored heron	*Egretta tricolor*	ST
Birds	Whooping crane	*Grus americana*	FXN[3]
Birds	Wood stork	*Mycteria americana*	FT
Reptiles	Eastern indigo snake	*Drymarchon couperi*	FT
Reptiles	Florida pine snake	*Pituophis melanoleucus mugitus*	ST
Reptiles	Gopher tortoise	*Gopherus polyphemus*	ST

Notes: [1]Presumed extinct; [2]Delisted in 2019 but remains on state index; [3]Federally-designated threatened nonessential experimental population
Source: FWC

GIS mapping data compiled by FWC and the Florida Natural Areas Inventory (FNAI) as part of the Critical Lands and Waters Identification Project (CLIP) identifies areas likely to include suitable habitat for one or more rare or vulnerable species known to occur in the vicinity. These are called Rare Species Habitat Priorities. Priority rankings indicate a single species with very high conservation need, or multiple species with high conservation need. As shown on Map 6, there are some areas of Priority 6 (lowest priority) scattered throughout the Village, likely representing key wetland and rangeland or forested habitats. Some areas within the newly annexed eastern area adjacent to the C-44 canal Priority 5 habitats. The Village may utilize this mapping in the review of development applications.

The Village maintains policies under Conservation Element Goal C3 that seek to protect imperiled species and their associated habitats:

- **Policy C3.1.1**: The Village of Indiantown shall protect the natural diversity and abundance of wildlife, and the structure, function, and integrity of marine and terrestrial ecosystems that enable long-term survival of marine and terrestrial species that are rare, endangered, threatened or of special concern. This policy may be satisfied through methods specified in the Land Development Regulations, subject to approval by Village Staff which may include, but not be limited to, conservation easements, dedication of land or increased preservation of existing native habitats.
- **Policy C3.1.2**: The Village of Indiantown shall establish minimum protection standards in the Land Development Regulations and aid the public and developers in identifying sensitive habitats and methods to protect biodiversity where endangered species or their habitats have been identified.
- **Policy C3.1.3**: The Village of Indiantown recognizes the State's expertise and resources in protecting marine and wildlife habitats, as described in the State Wildlife Action Plan and shall utilize this as a resource for best management practices to follow in order to protecting marine and wildlife habitats. (Reference Florida Fish and Wildlife Conservation Commission)
- **Policy C3.1.4**: The Village of Indiantown shall protect, preserve, conserve and enhance those areas known to contain natural communities or habitat for species included in the List of Endangered Florida Fish and Wildlife Conservation Commission.
- **Policy C3.1.5**: The Village of Indiantown shall seek out state and federal funding to fund programs that address conservation needs.
- **Policy C3.1.6**: The Land Development Regulations shall detail the following components related to site assessment regulations for all development applications with the intention to protect endangered and threatened animal and plant species and native habitats:
    - a. Endangered and Threatened Terrestrial Species Assessment
    - b. Endangered and Threatened Marine Species Assessment
    - c. Endangered and Threatened Plant Species Assessment

WATERBODIES AND SURFACE WATER QUALITY

There are a series of natural and artificial lakes and ponds within the Village, and the St. Lucie (C-44) Canal runs through the length of the Village. These water bodies link Lake Okeechobee to the St. Lucie and Indian Rivers, and ultimately the Atlantic Ocean.

The Village falls within two intersecting Basin Management Action Plans (BMAPs): the Lake Okeechobee BMAP and the St. Lucie – Loxahatchee BMAP. According to FDEP, a BMAP is a framework for water quality restoration. Local governments and state agencies are committed to implement strategies and projects that reduce pollutant loading. BMAPs contain a comprehensive set of solutions, such as permit limits on wastewater facilities, urban and agricultural best management practices, and conservation programs designed to achieve pollutant reductions established by a Total Maximum Daily Load (TMDL).

According to the FDEP BMAP Storymap, the St. Lucie River and Estuary BMAP was first adopted in June 2013 to implement the total nitrogen (TN) and total phosphorus (TP) TMDLs in the watershed. Executive Order 19-12 required an update to this BMAP in 2020. In 2023, House Bill 1379 added the additional requirement that BMAPs be assessed and updated every five years. The most recent 5-Year Review was completed in 2023. The BMAP includes management strategies or projects to be implemented by the responsible stakeholders that aim to reduce elevated levels of nitrogen and phosphorus in the estuary. Based on the most recent 2024 trend analysis, the total nitrogen (TN) and total phosphorus (TP) reductions are not on track to meet the next respective milestone for the overall St. Lucie BMAP, however there is a statistically significant decreasing trend of TN and no trending change in TP in the C-44 sub-basin.

According to the FDEP BMAP Storymap, the Lake Okeechobee BMAP was first adopted in December 2014 to implement the total phosphorus (TP) TMDL in the watershed, and Executive Order 19-12 required an update to this BMAP in 2020. The updated BMAP, adopted in February 2020, replaced the original BMAP and also included the statutorily required 5-Year Review. The BMAP includes management strategies or projects to be implemented by the responsible stakeholders that aim to reduce elevated levels of phosphorus in the lake. Based on the most recent 2024 trend analysis, TP reductions are not on track to meet the next milestone, nor the total reductions required to meet the TMDL. This is likely due to increases in urban land uses which that generate additional loading, agricultural uses without BMPs, and lagging septic-to-sewer conversion projects. It is important to note that the Village has a vanishingly smaller impact on nutrient loading compared to the Lake's extensive northern basin system. The C-44 sub-basin shows no significant trend for either TN or TP.

In addition to BMAP reporting requirements, House Bill 1379 (2023) also created new requirements for sewer connections and onsite sewage treatment and disposal systems (OSTDS) within BMAPs. Effective July 1, 2023, where sewer is available to serve a property, connection to the sewer is required, and new OSTDS permits may not be issued. Where sewer is unavailable, only enhanced nutrient reducing OSTDS (statutorily defined as removing at least 65% of total nitrogen) may be permitted for new construction on lots 1 acre or less in size. This law and its impacts on utility planning are also discussed in the Infrastructure and Water Resources Element DIA.

WATER SOURCES

Potable water is available to properties in the Village by a variety of sources: private well systems, a small community water system, and/or the public potable water utility owned and operated by the Village. The Village also generates reclaimed water for non-potable use.

The Village's utility is currently permitted (#43-00041) by the South Florida Water Management District (SFWMD) to withdraw a maximum of 428.68 million gallons of water per year, or 1.17 million gallons per day (MGD), with a maximum monthly allocation not to exceed 42.84 million gallons. Water is drawn from the surficial aquifer system from eight wells located in proximity to the water treatment facility, where it is aerated, filtered, and disinfected for distribution to utility customers. The Village's treatment system, distribution system, and water quality are monitored to comply with all federal, State and local drinking water standards.

A significant area of the Village outside the urban core provides for its own potable water via private well systems, including small residential and large industrial and institutional properties, which operate under their own permits directly with SFWMD. These systems also withdraw from the surficial aquifer system, and in the case of the FPL power plant, storage ponds in combination with the surficial aquifer system.

Water supply and conservation analysis is provided in the Infrastructure and Water Resources Element DIA and the Water Supply Facilities Work Plan.

AQUIFER PROTECTION

In natural systems, aquifers are recharged via percolation of rainfall through the soil strata and are depleted by evaporation and transpiration. Not all soil and topography types are conducive to recharge. Land development, primarily via impervious surface coverage and use of compacted fill on native recharge soils, can negatively impact recharge. Additionally, incompatible polluting land uses located within wellfield influence areas may compromise water quality and therefore may also be carefully regulated.

According to the most recent FNAI CLIP mapping in 2016, the Village encompasses aquifer recharge areas with values ranging from Priority 2 to Priority 6, out of a scale of 1 (highest) to 6 (lowest), with most of the Village in Priority 4 areas. High priority areas indicate the greatest potential for recharge to an underlying aquifer system, with the highest to those recharging springs or public water systems. This ranking was originally created to inform the Florida Forever environmental land acquisition program, but it can be useful for analyzing local conditions for planning purposes.

The Village considers protection of aquifer recharge areas and wellfields via policies in the Conservation and Infrastructure and Water Resources Elements:

- **Policy C2.1.13**: The Village of Indiantown shall aim to expand the Village's stock of open and permeable green space to maximize aquifer recharge areas. This will also improve stormwater ground filtration, oxygen production, visual buffer and wildlife habitat. This can be accomplished by implementing innovative stormwater systems such as rain gardens, tree boxes and pervious paving surfaces.
- **Policy IWR2.1.1**: The Village of Indiantown Land Development Regulations shall include requirements for land use which assist in the protection of groundwater aquifer recharge and protection of existing and future groundwater supplies. For example, hazardous waste treatment facilities should not be constructed above or near wellhead protection areas or highly effective aquifer recharge areas.
- **Policy IWR2.1.2**: The Village's Land Development Regulations (LDR) shall support and comply with the South Florida Water Management District's (SFWMD) regulations regarding high aquifer recharge areas. To ensure continued compliance with these, the Village of Indiantown will review the SFWMD regulations on an annual basis and update the LDRs as needed.
- **Policy IWR2.1.3**: The Village of Indiantown shall construct projects in a way that preserves the predevelopment conditions of the highly effective aquifer recharge with regard to soil type, drainage rates, and grade elevation, in order to minimize the reduction in the recharge of the surficial aquifer.
- **Policy IWR2.1.4**: The Village's Land Development Regulations shall require that development applications include a field analysis that delineates the area enveloped by the highly effective aquifer recharge area and demonstrate that the groundwater level, quality and fluctuations shall not be worse after construction than under predevelopment conditions.
- **Policy IWR2.2.3**: The Village of Indiantown shall establish wellfield protection areas. The intent of wellfield protection areas is to protect potable water wells from contamination, and to prevent the need for their replacement or restoration due to contamination. Land uses and construction within the wellfield protection zone shall not create a threat to groundwater quality resulting from contamination entering the ground. Use and activities within the wellfield protection areas shall be consistent with the requirements and prohibitions stipulated within the Ground Water Protection Measures in Wellhead Protection Areas section of the Land Development Regulations.

The Village may consider additional aquifer recharge protections by adding policies in its comprehensive plan or other local regulations. The Village could consider stricter pervious requirements on higher-priority recharge soils, and prioritizing low-impact development design on public projects in those higher-priority areas.

FLOODPLAINS

According to Federal Emergency Management Agency (FEMA) mapping, there are two flood zone areas within the Village, Zone AE and Zone X, as shown on Map 7.

The Zone AE flood area is mapped along the Rowland Canal up toward the Village's wastewater treatment center, across Warfield Boulevard east of Indianwood Drive surrounding the Holy Cross Catholic Church and north of SW 150th Street. Zone AE is considered a Special Flood Hazard Area (SFHA). SFHAs are defined as areas that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

The Zone X flood area is mapped along the banks of the C-44 canal and the Indiantown Marina pocket. Zone X is a "moderate flood hazard area", corresponding to 0.2% annual chance flood hazard, or areas of 1% annual chance of flood with an average depth of less than one foot or with drainage areas of less than one square mile.

Additionally, FNAI CLIP (2016) "natural floodplain" mapping shows likely 100-year floodplains (1% annual chance) based on wetlands and soils that are in relatively natural conditions. As shown on Map 7, these estimated floodplains largely coincide with wetlands areas in the Village, but also include additional areas along the bank of the C-44 canal and the eastern portion of the Village to the west of the airport.

The Village maintains floodplain protection policies in the Conservation element:

- **Policy C1.2.4**: The Village shall conserve, appropriately use and protect the quality and quantity of floodplains, drainage, all current and projected water sources and waters.
- **Policy C1.2.5**: The Village of Indiantown shall coordinate with the South Florida Water Management District for the minimization of flooding problems within the Village, while preserving groundwater quality through planned growth, implementation of drainage and stormwater best management practices, and adoption of appropriate Land Development Regulations.
- **Policy C1.2.11**: The Village of Indiantown shall include policies in the Transportation Element of the Comprehensive Plan that require that roadway projects to be constructed in a manner that protects waterbodies, wetlands, and flood plains. Corridor alignments shall be designed to avoid environmentally sensitive areas.

HAZARDOUS WASTE

Hazardous wastes have the potential to contaminate environmental resources and harm wildlife and human health if improperly used, stored, or discarded. The Village's residential solid waste collection and disposal is managed by an agreement between Martin County and its private waste management providers. Commercial and industrial waste is managed directly through private waste management organizations.

Household hazardous waste may be brought to the county's Household Hazardous Waste Collection Center location in Palm City for free disposal. In addition, the Martin County HazMobile accepts household hazardous waste directly in the Village on the 4th Friday of each month at the Indiantown fire station. These free services, in addition to extensive educational programming by Martin County, are in place to reduce the likelihood of hazardous waste contamination.

The Village contemplates hazardous waste in **Policy IWR5.1.4** of the Infrastructure and Water Resources Element: *The Village of Indiantown shall provide education on the proper management and disposal of hazardous household wastes, medications, batteries and electronic devices. The Village shall seek out grants and technical assistance programs such as the Department of Economic Opportunity's Household Hazardous Waste Collection Center to provide implementation of solid waste management programs and local household hazardous waste collection programs*.

CONSERVATION ANALYSIS

The Conservation Element identifies the natural resources within the Village of Indiantown along with any known vulnerabilities or pollution problems. Data is provided by a variety of local, state, and federal agencies.

- According to regional air quality monitoring by DEP, the Village's air quality falls within regulatory guidelines for measured pollutants.
- Soils within the Village are generally poorly drained. There are no prime farmland soils critical for preservation according to NRCS data, although some areas with previous agricultural uses are considered farmlands of unique importance.
- The Village likely contains significant wetland areas according to Martin County mapping, located mostly within the western industrial areas and to the east between Indianwood and the airport. The Village maintains policies and LDRs that seek to protect and preserve wetlands from incompatible development. The Village requires any proposed wetland impacts and/or mitigation to be permitted by SFWMD.
- There are dozens of Category I invasive plant species which have been mapped in Martin County, and which may be present in the Village. However, state and federal laws do not regulate invasive plants on private or public property, only their commercial sale or transport. The Village may consider updating its policies and regulations to designate the appropriate organizations (FISC and/or UF/IFAS) as the authority of record for invasive plant species, clarify which categories (noxious/prohibited, Category I, Category II) of listed species are to be regulated, and clarify terminology (exotic vs. invasive).
- There are a total of 78 FDACS listed plant species whose ranges may include Martin County and therefore the Village, including 28 endangered, 41 threatened, and 9 commercially exploited. Four species are federally endangered, and one is federally threatened. Regulated plants are statutorily protected from destruction or harvest on public property or on private property without the approval of the property owner, and in some cases a permit from the department, depending on status and quantity.
- There are some potential imperiled species habitat areas scattered throughout the Village, likely representing key wetland and rangeland or forested habitats. Most of these areas are relatively low-priority, but they could represent conservation opportunities for the Village. Priority area mapping may be useful for the Village during development review to ensure habitat protection.
- The Village is located within two overlapping BMAPs, the St. Lucie River and Estuary, and Lake Okeechobee. Recent state laws provide new requirements for sewer hookup and enhanced nutrient-reducing septic systems within BMAPS. As discussed in the Infrastructure and Water Resources Element analysis, these requirements may impact future expansion planning of the Village's wastewater utility.
- The Village may consider adding aquifer recharge protections in policy or regulation, such as increased pervious requirements on higher-priority recharge soils and prioritizing low-impact development design on public projects in those higher-priority areas.
- The Village provides for wellfield protection via regulations promulgated by Martin County.

- FEMA flood maps show a Zone AE SFHA along the Rowland Canal through to north of 150th Street. Some additional likely floodplain areas mapped by FNAI CLIP correspond to wetland areas in the Village. The Village maintains policies to protect the floodplain including coordinating with SFWMD.
- The Village's solid and hazardous waste collection and disposal is managed by Martin County and its contract with private waste management organizations. The Village coordinates with the County on hazardous waste education. Household hazardous waste is collected by Martin County at various locations in and near the Village.

DEFINITIONS AND ACRONYMS

Basin Management Action Plan (BMAP) - A framework for water quality restoration that includes local and state commitments to reduce pollutant loading through current and future projects and strategies. BMAPs are adopted by Secretarial Order of the DEP and are legally enforceable.

Department of Environmental Protection (FDEP) – State agency which regulates environmental issues, including surface and groundwater quality, BMAPs, and wastewater management including OSTDS.

Hazardous Materials - Materials which are identified by the federal and state agencies as posing a substantial health, safety, or environmental threat if not properly stored or disposed of.

Low Impact Development - The systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater to protect water quality and associated aquatic habitat.

Onsite Sewage Treatment and Disposal Systems (OSTDS) – Commonly referred to as septic systems or septic tanks, these systems typically provide wastewater management for individual properties. Wastewater flows to a centralized tank where solids settle out and are anaerobically digested, and the liquid portion flows into a specially designed drain field to leach into the soil.

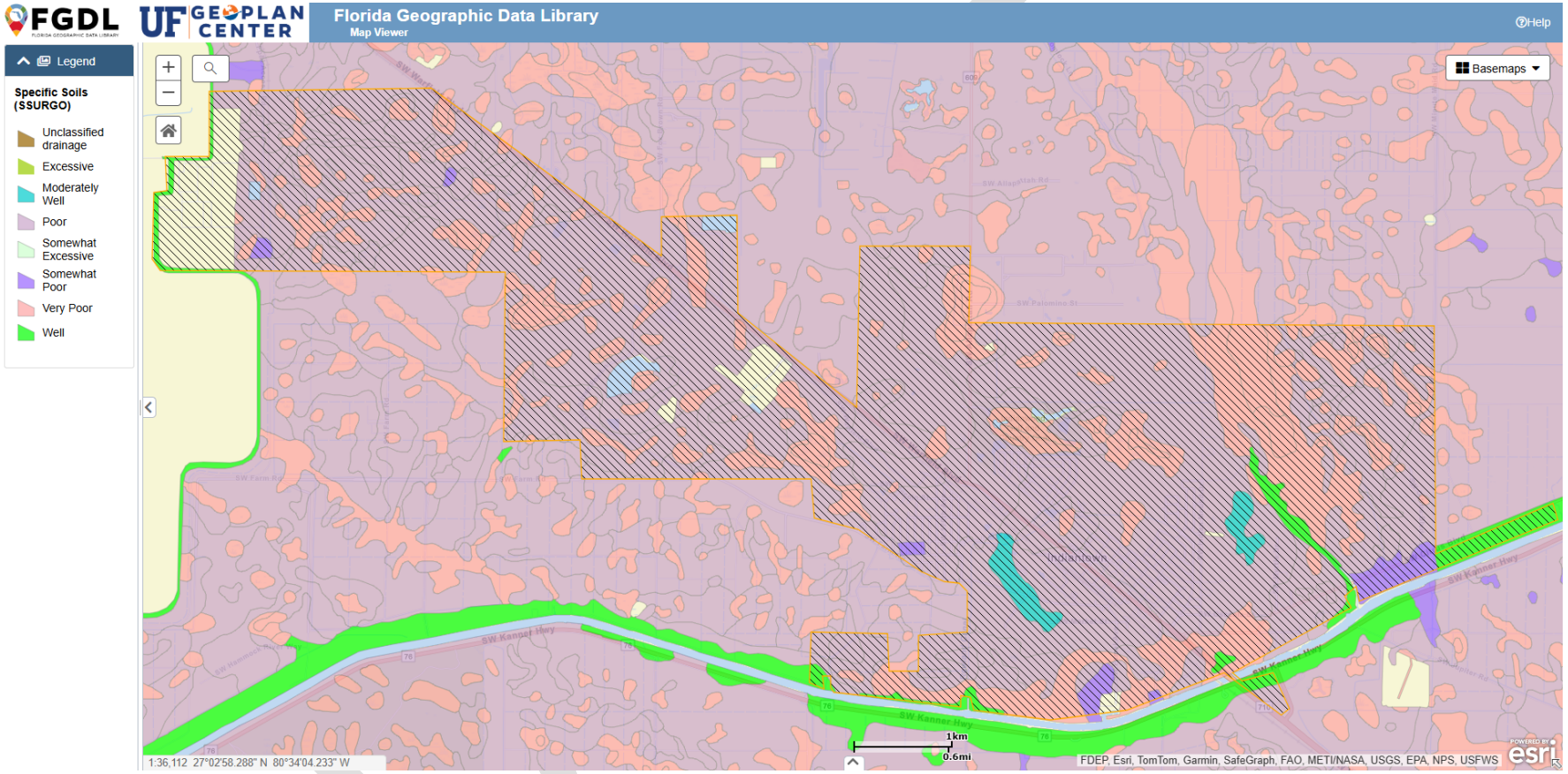
Enhanced OSTDS – Specially-designed Onsite Sewage Treatment and Disposal Systems which achieve a measurable reduction in nitrogen. As currently defined in Section 381.0065, F.S., enhanced OSTDS must achieve at least a 50% reduction in nitrogen before disposal of wastewater into the drain field, or at least a 65% total nitrogen reduction combined from the sewage tank(s) and drain field.

South Florida Water Management District (SFWMD) - Regional governmental agency that manages the water resources in the southern portion of the state.

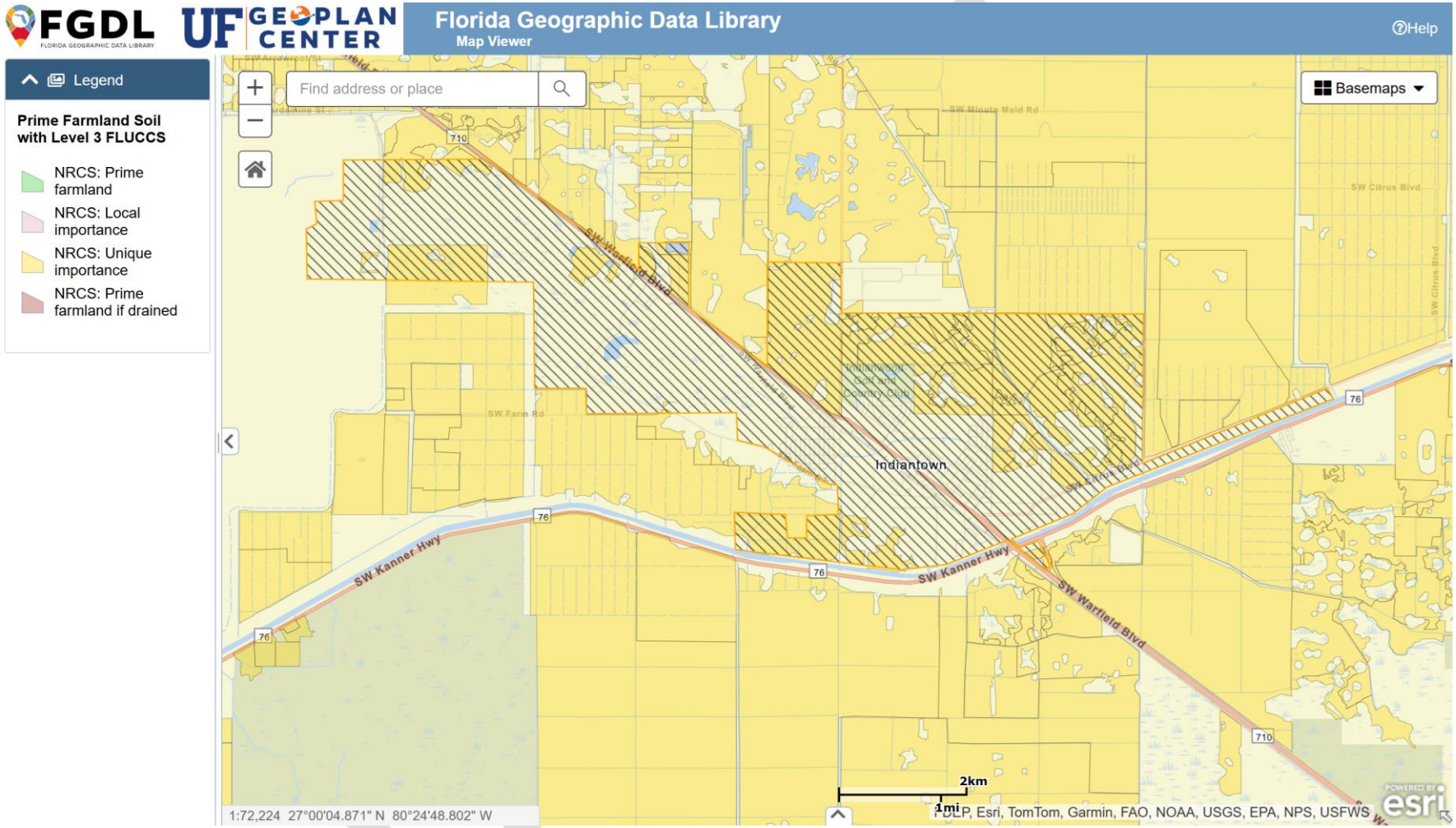
State-Listed Species - Those species listed on Florida's Endangered and Threatened Species List as state-designated Threatened or state Species of Special Concern.

State Threatened Species – Any species of fish and wildlife naturally occurring in Florida which may not be in immediate danger of extinction, but which exists in such small populations as to become endangered if it is subjected to increased stress as a result of further modification of its environment - F.S. 379.2291(3)(c)

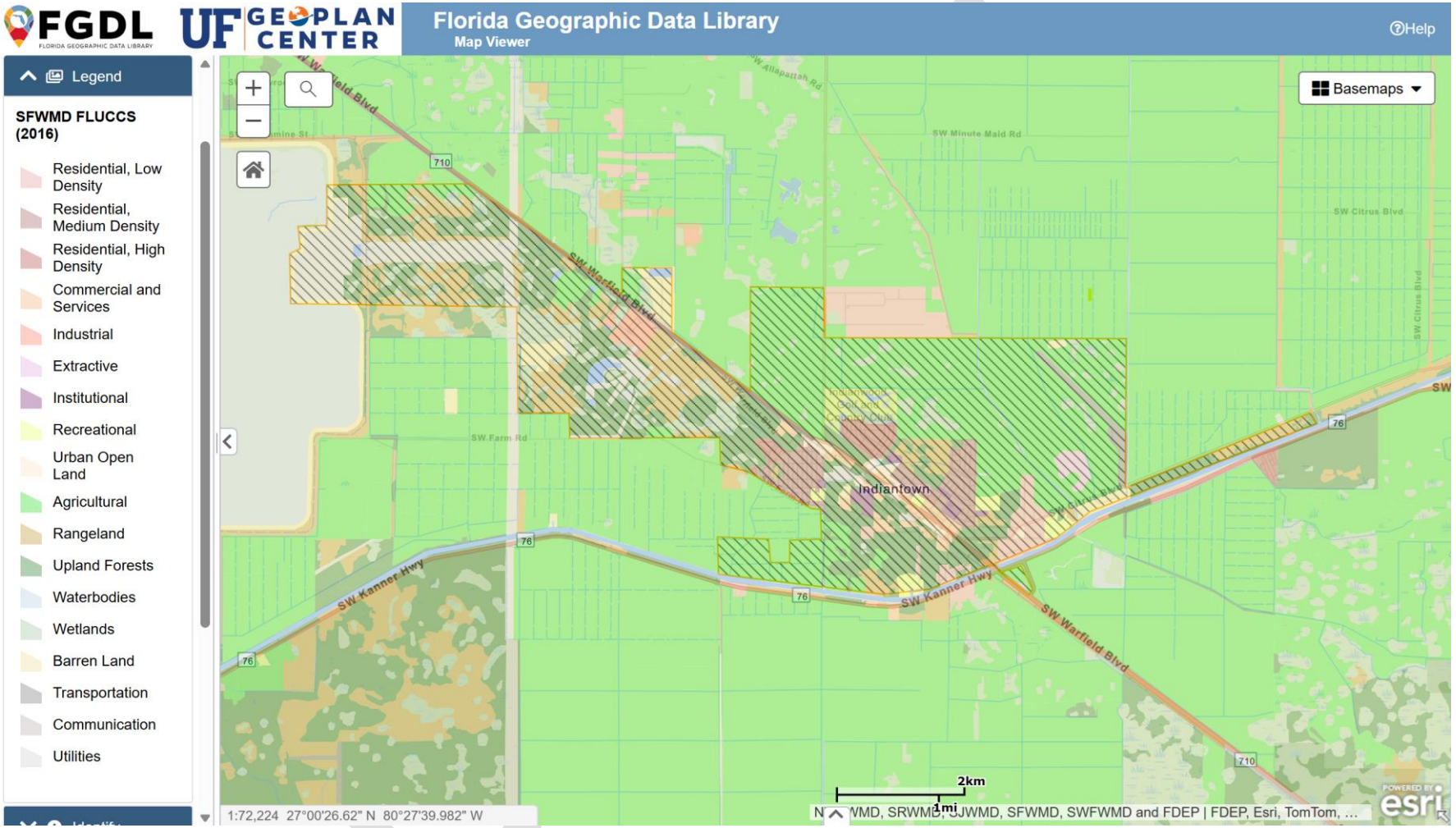
Map 1 – Soil Profile



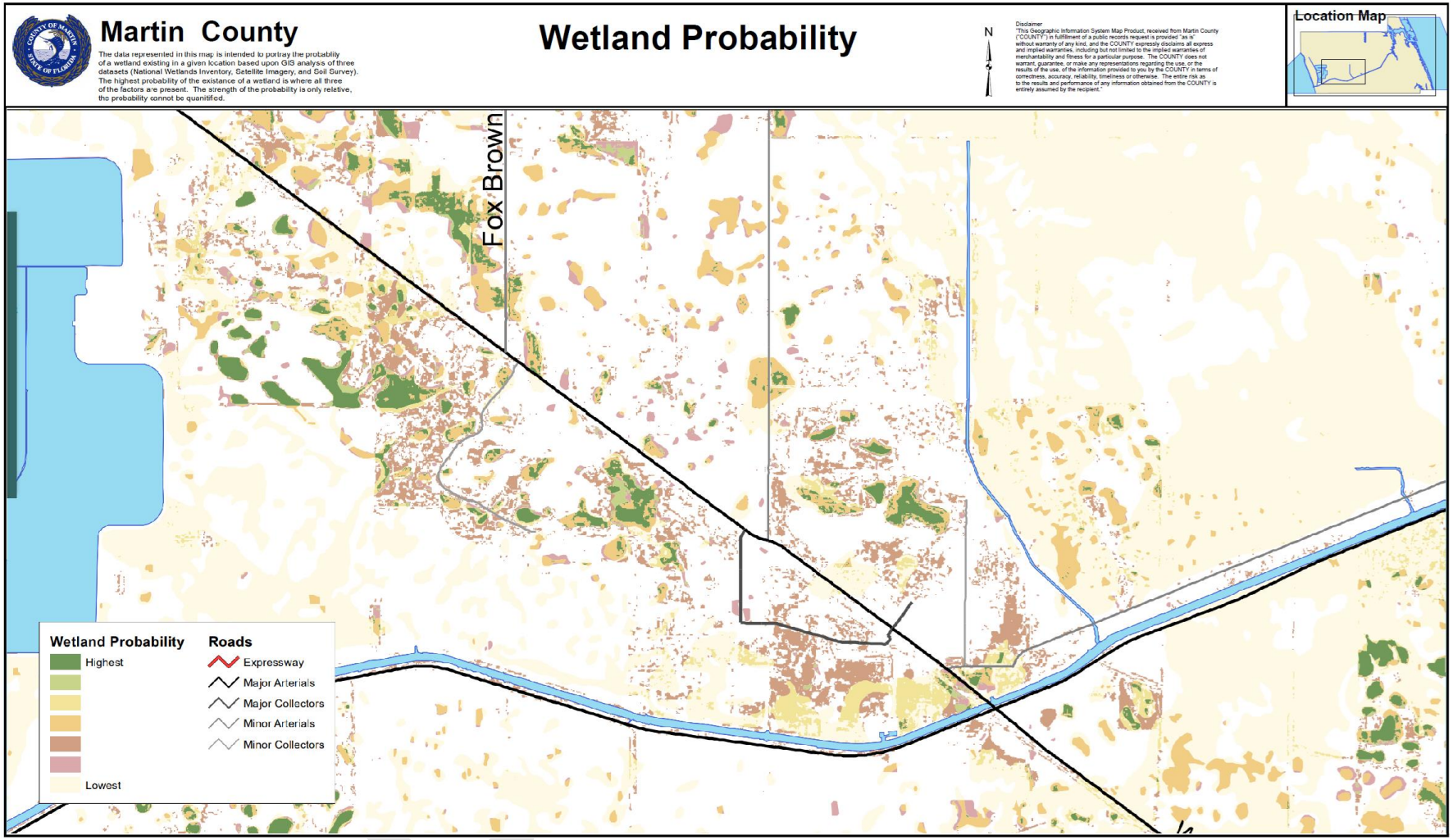
Map 2 – Farmland Soils



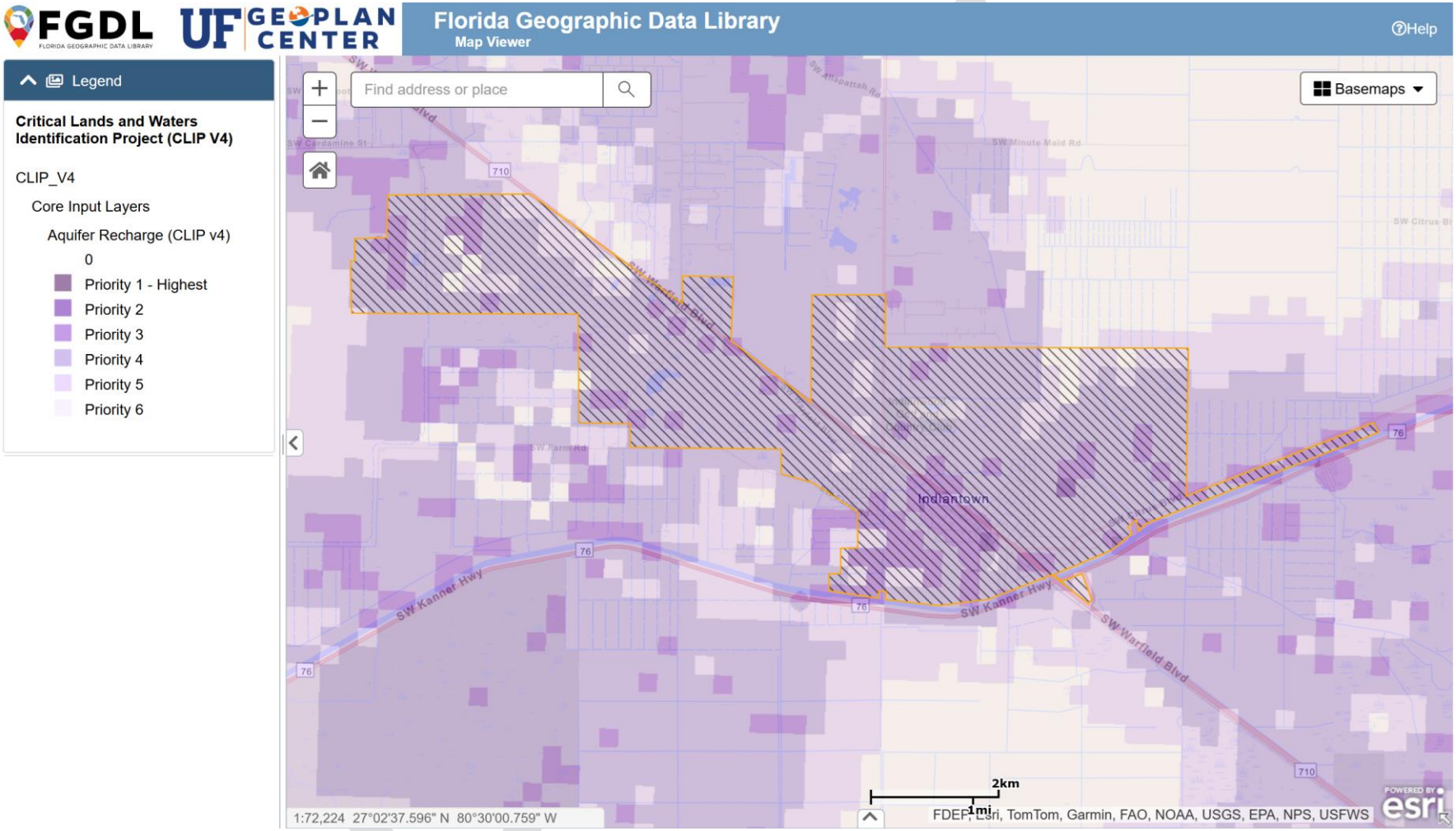
Map 3 – SFWMD Land Use/Land Cover Classifications



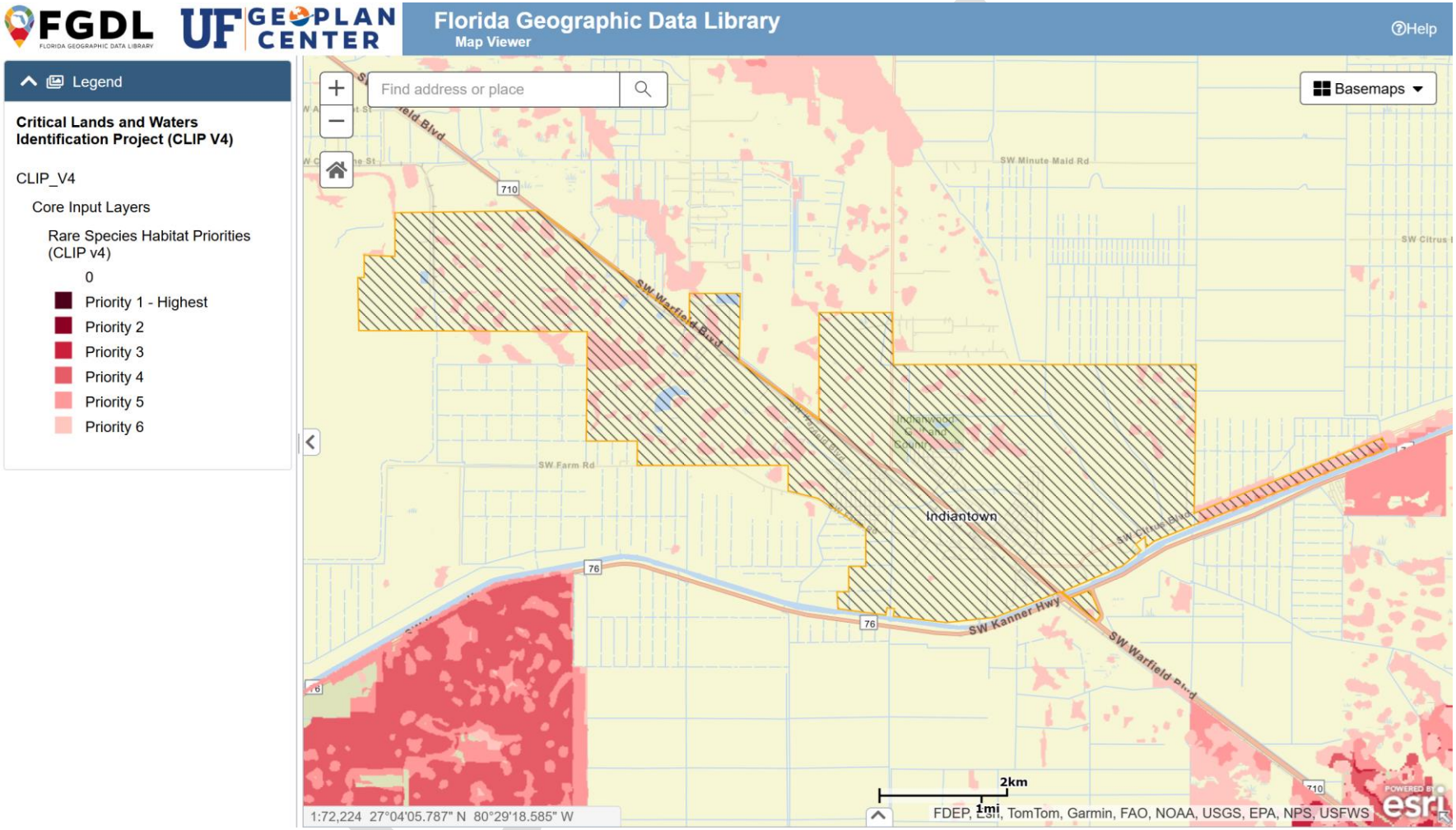
Map 4 – Martin County Wetland Probability



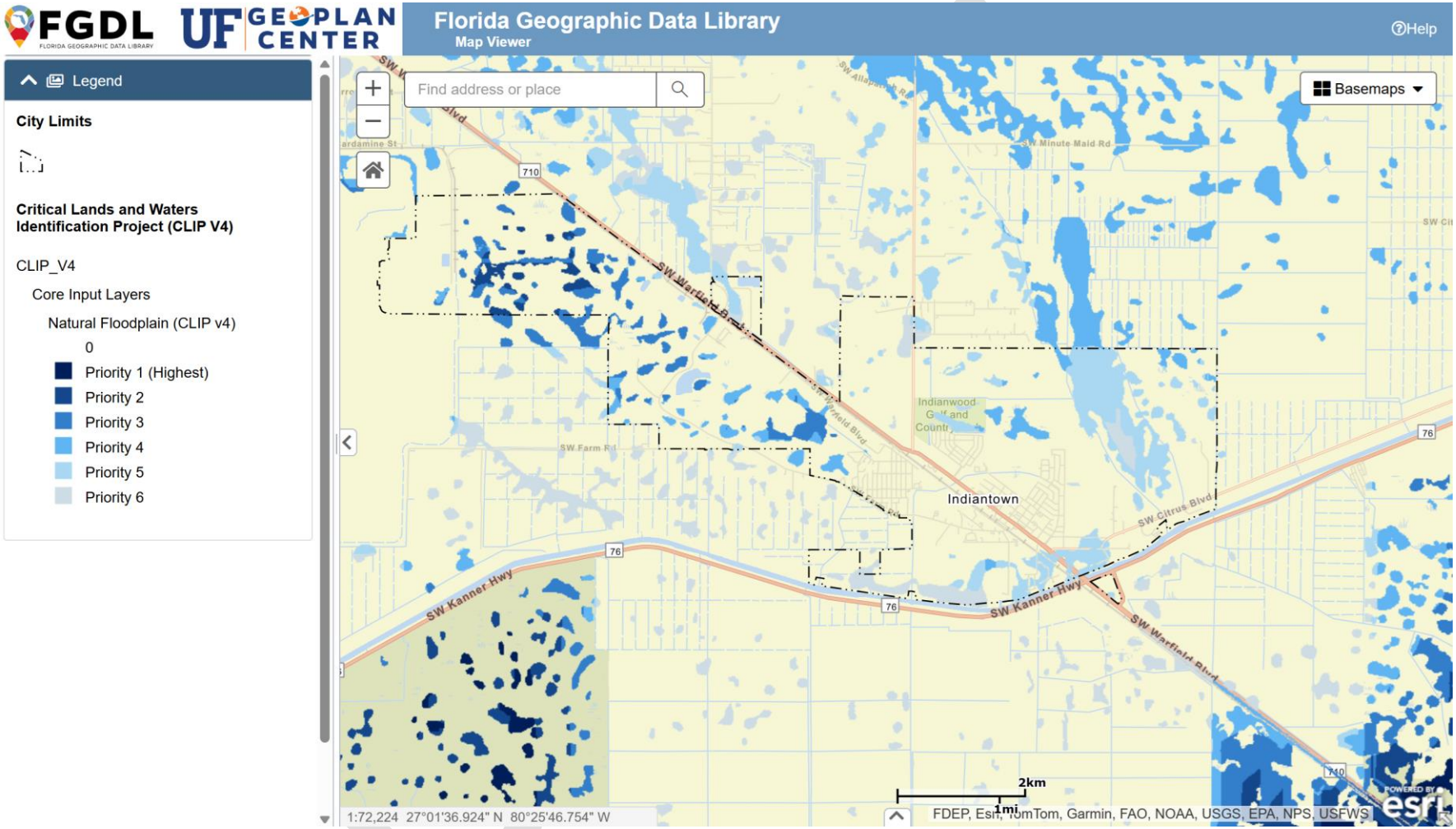
Map 5 – Aquifer Recharge Priority Areas



Map 6 – Rare/Imperiled Species Habitat Priority Areas



Map 7 – FNAI CLIP Natural Floodplain Areas



Map 8 – FEMA Flood Areas