



INTEGRATING PROTECTION OF ECOSYSTEM SERVICES INTO THE PLANNING PROCESS IN FLORIDA

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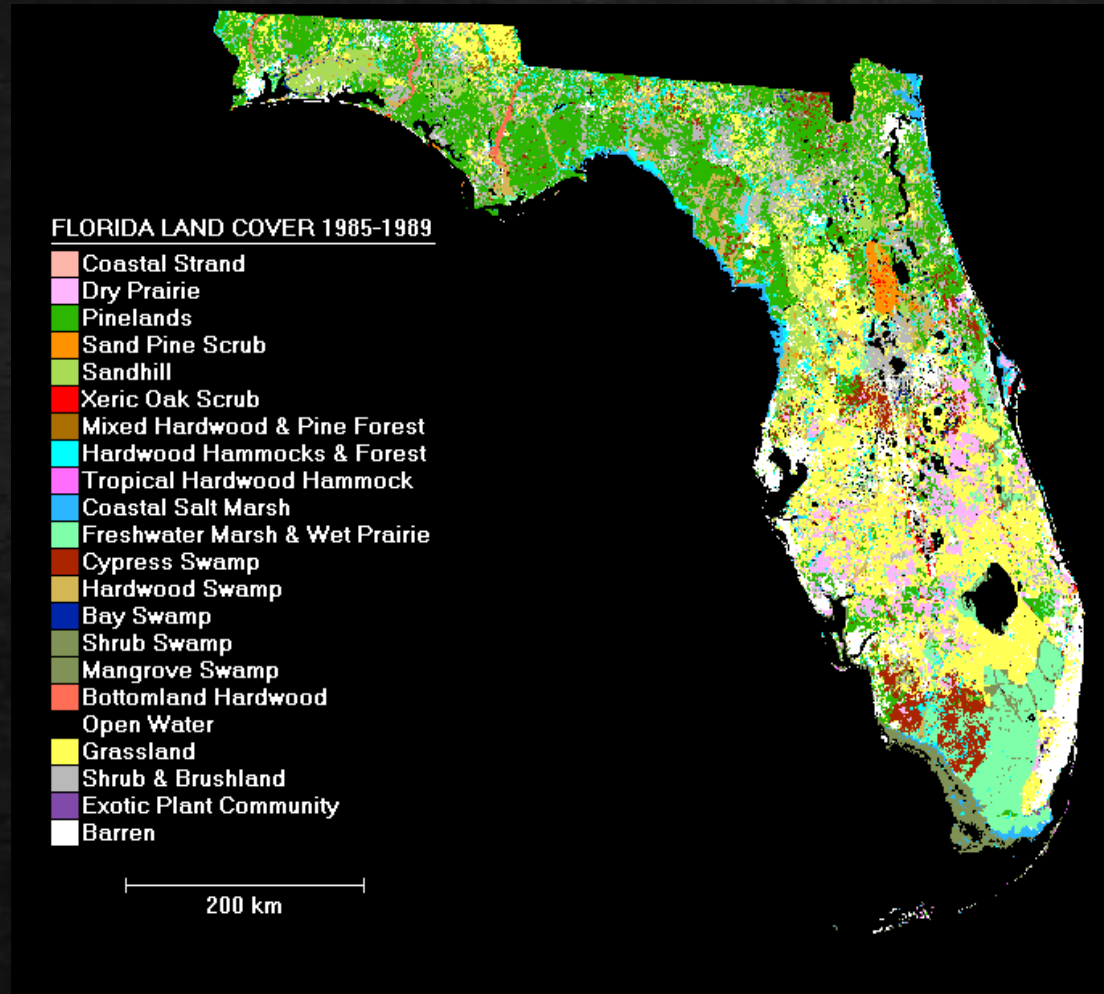
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Florida's Environmental Context



1350 miles of coastline

Everglades

- UNESCO Man & Biosphere Reserve
- UNESCO World Heritage Site

Florida Keys Coral Reefs

Indian River Lagoon

Springs

Climate: Tropical and subtropical

Biodiversity Hotpot

Threats to Florida



- 20 million people
- 50% population increase in 25 years
- Impaired waters
- Half of all wetlands destroyed
- Loss of habitat
- Loss of ecosystem services

1000 Friends of Florida
2060 Plan



Key Ecosystem Services

- Water filtration
- Habitat
- Biodiversity
- Carbon sequestration
- Local food (esp. seafood)



Photos: Ian Adams *The Floridas*



Florida's Planning Context

All local governments are required to adopt Comprehensive Plans and land development regulations

- Growth Management Act 1985
- Community Planning Act 2009
- Water Policy Act 2016

Plans developed around concepts

- Concurrency
- Consistency

Planning Horizon: typically 10 years



Photo: Audubon of Florida

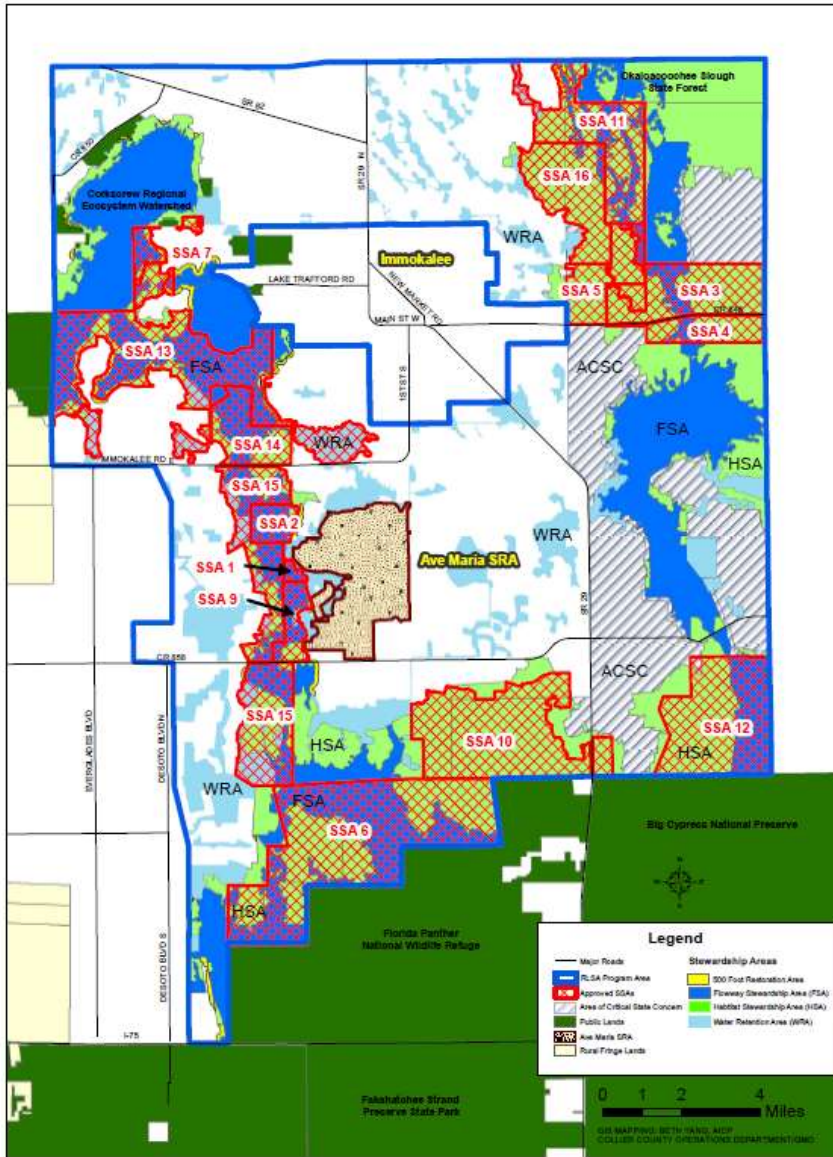
Three Case Studies



- Collier County Rural Lands Stewardship Area (RLSA)
- Farmton Local Plan: Brevard and Volusia Counties large area comprehensive plan
- Deseret Ranch: Osceola County Sector Plan

Question Presented:
Does a long term planning horizon provide an opportunity to protect ecosystem services?

Collier County
RLSA STATUS MAP
OCTOBER 2011



Collier County Rural Lands Stewardship Area

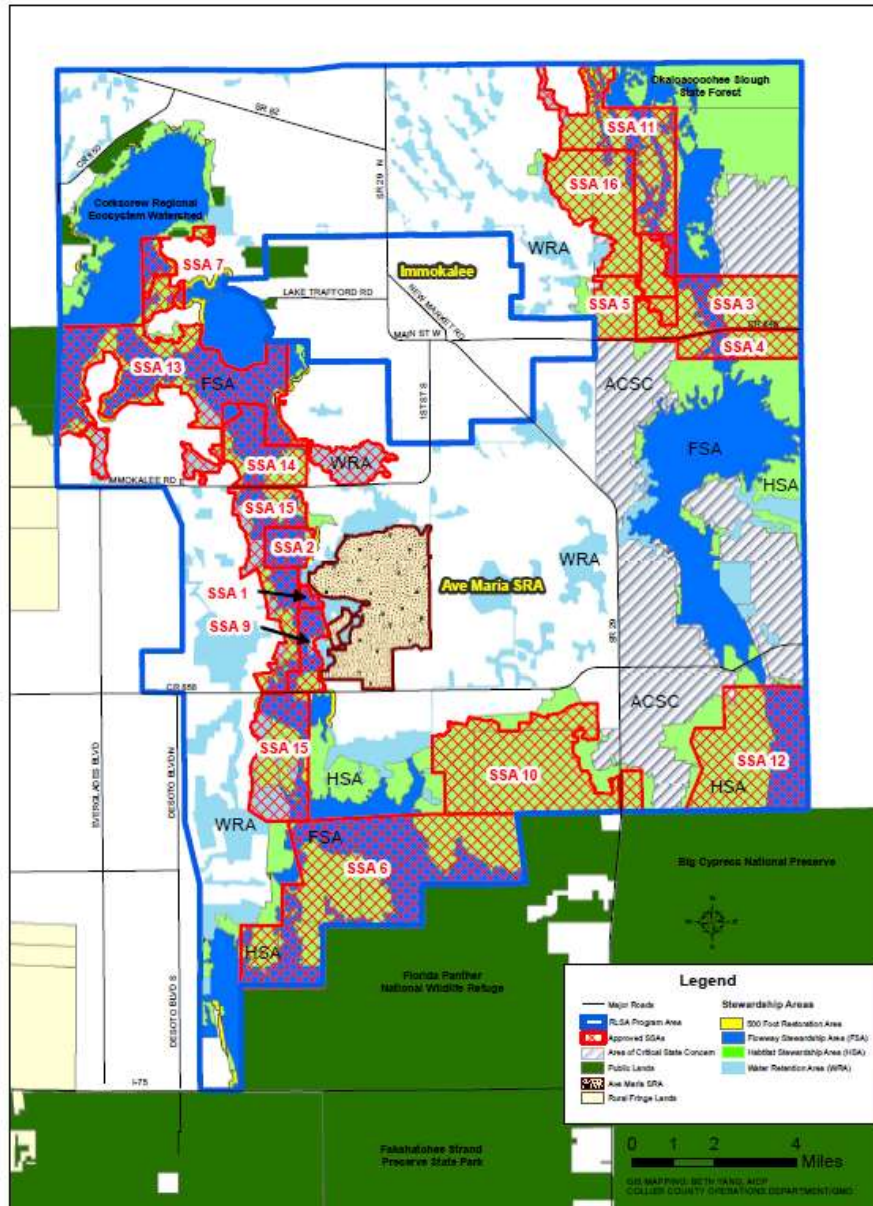
RLSAs are a long-term incentive-based strategy to balance and guide the allocation of land so as to accommodate future land uses that protects the natural environment, stimulate economic growth and diversification, and encourage the retention of land for agriculture and other traditional rural land uses.

Collier County Plan 2001

Adopted as Comprehensive Plan
Amendment and codified in
Florida Law: 163.3248 FS

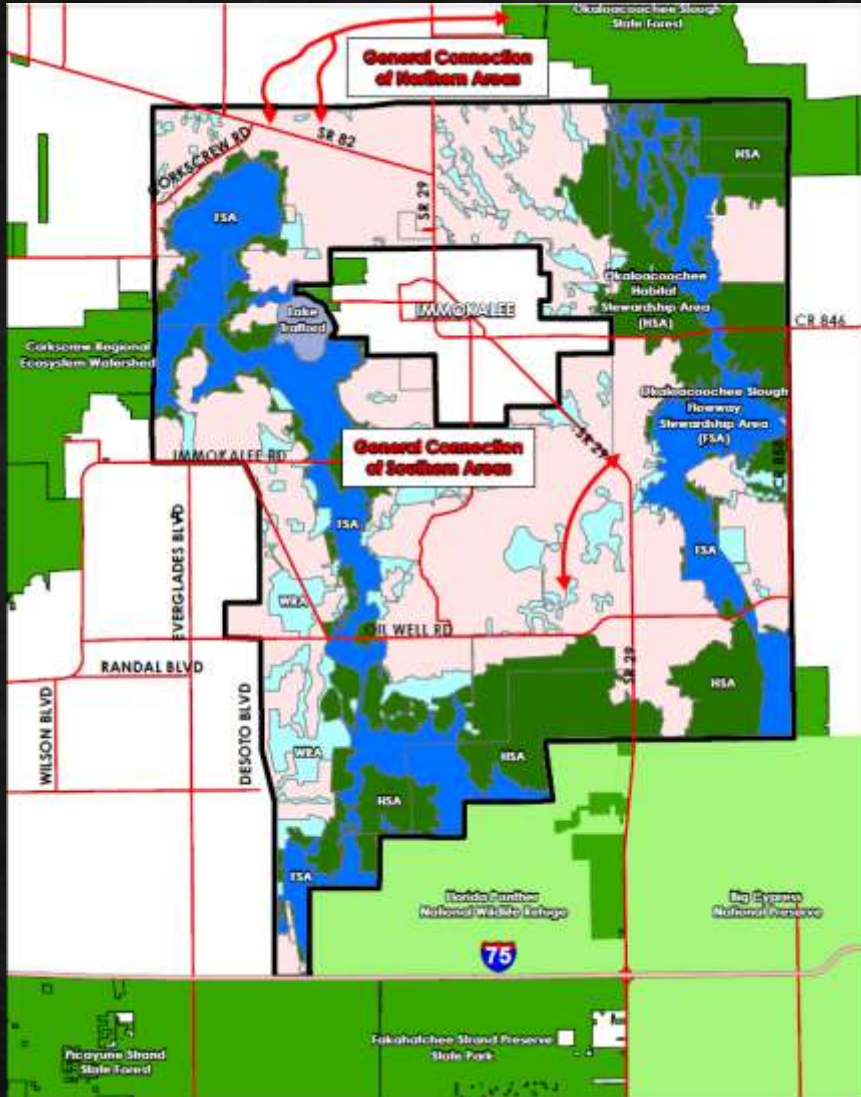


RLSA STATUS MAP OCTOBER 2011



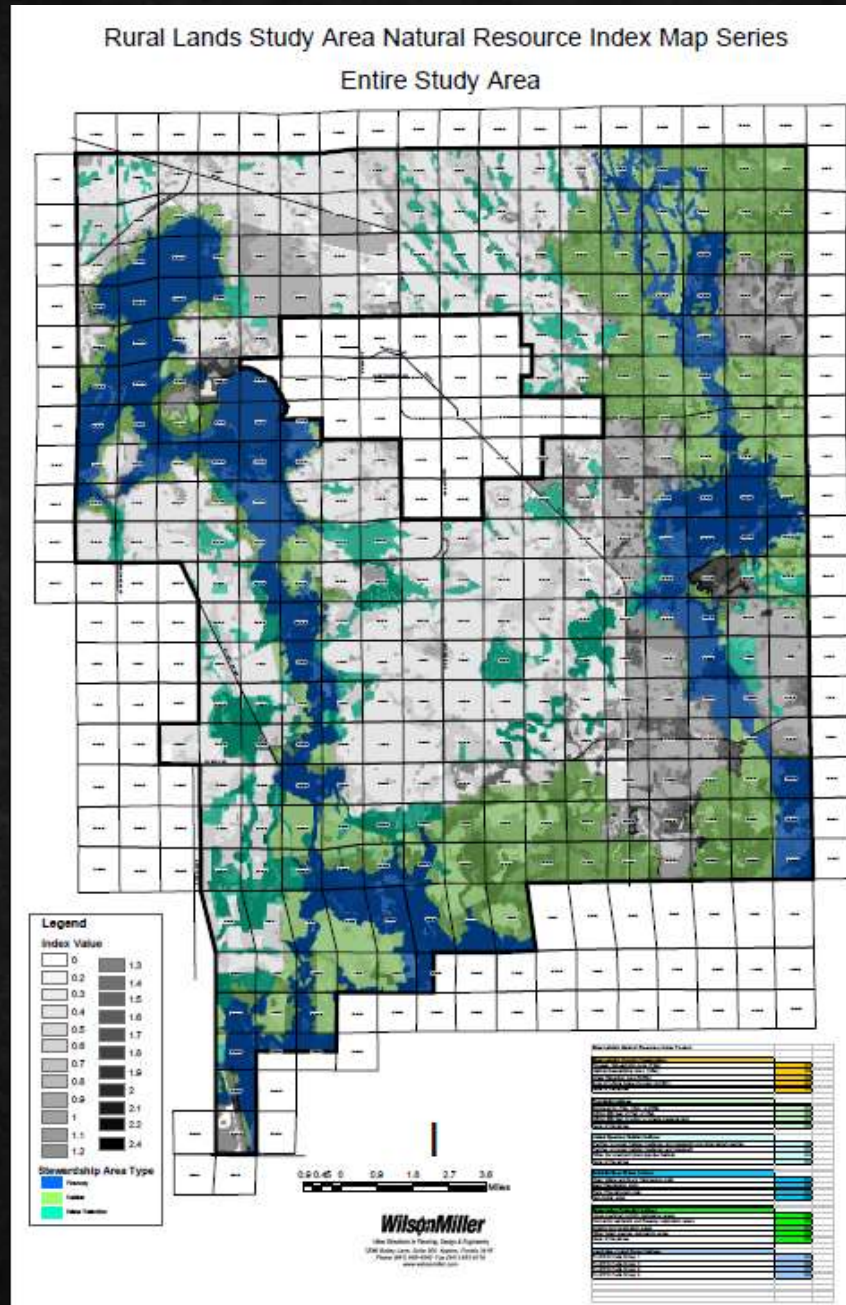
Rural land stewardship areas (RLSAs)

- Like a transfer of development rights program
- Sending areas
- Receiving areas
- Voluntary program
- Must be at least 10,000 acres
- Based upon best scientific data available and economics
- Long term planning horizon



Collier County RLSA 200,000 Acres

- **Natural Resource Conservation: 94,000 acres**
- **Agricultural Areas: 40,000 acres**
- **Potential Development: 45,000 acres**
- **Other public areas: 16,000 acres**

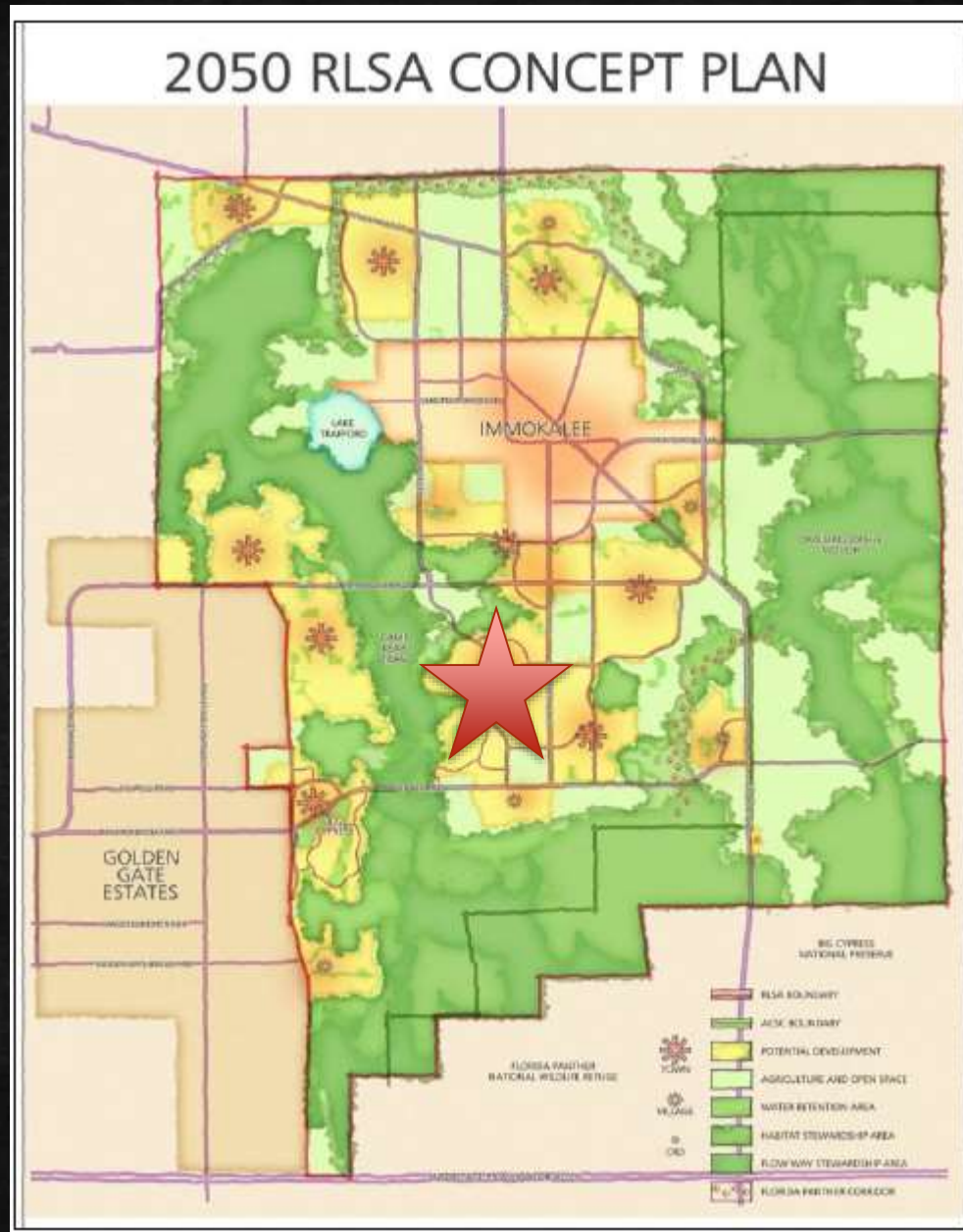


Collier County RLSA Natural Resource Matrix

Conservation corridors based on
Panther habitat needs

Corridors are key component of
Panther Habitat Recovery Plan





Collier County RLSA 'Ave Maria'

Planned mixed use
community

Includes new Catholic
University

11,000 units approved

Farmton

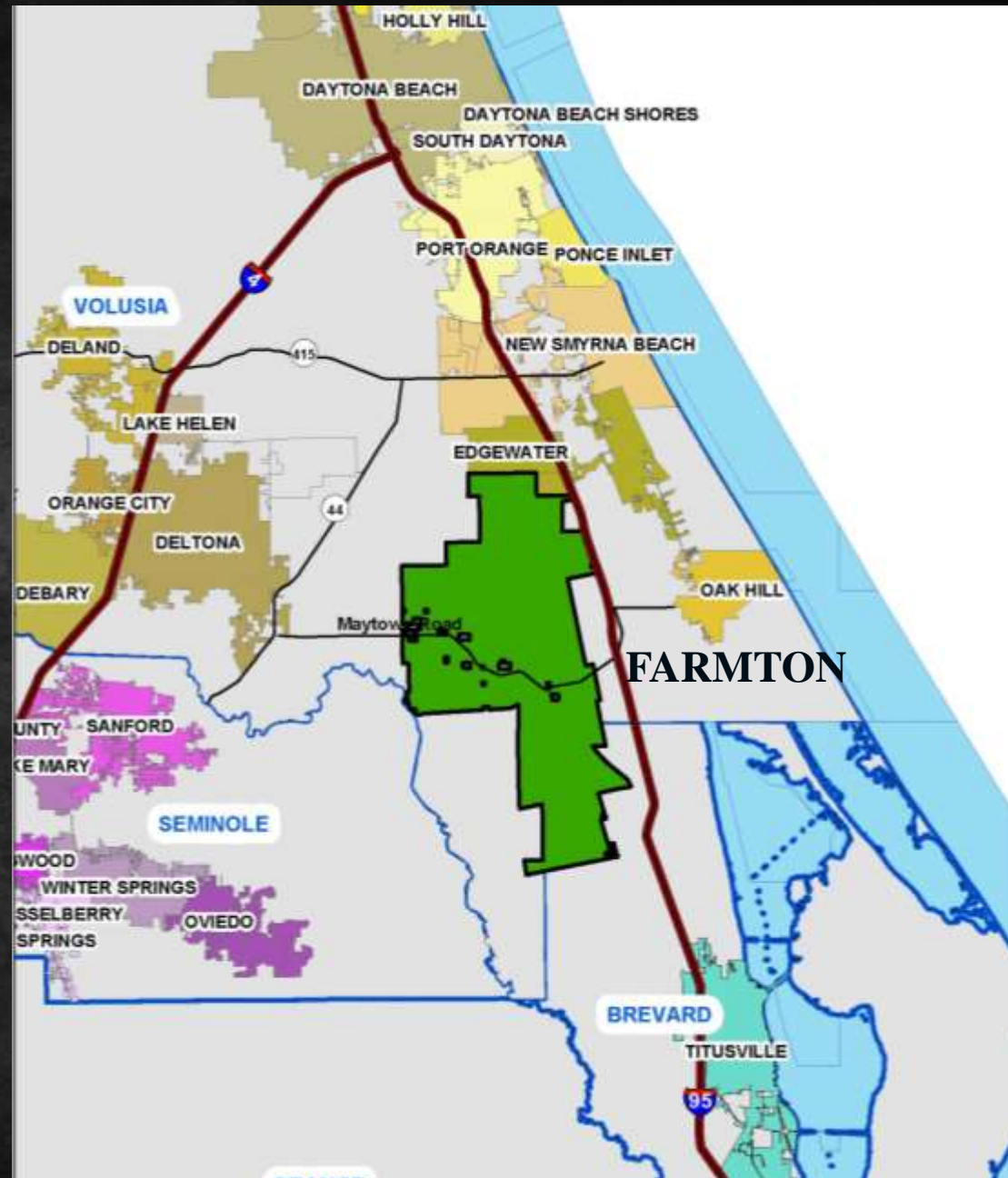
47,000 acres in Volusia County

11,500 acres in Brevard County

Current Uses

- Silviculture
- Cattle
- Mitigation banking

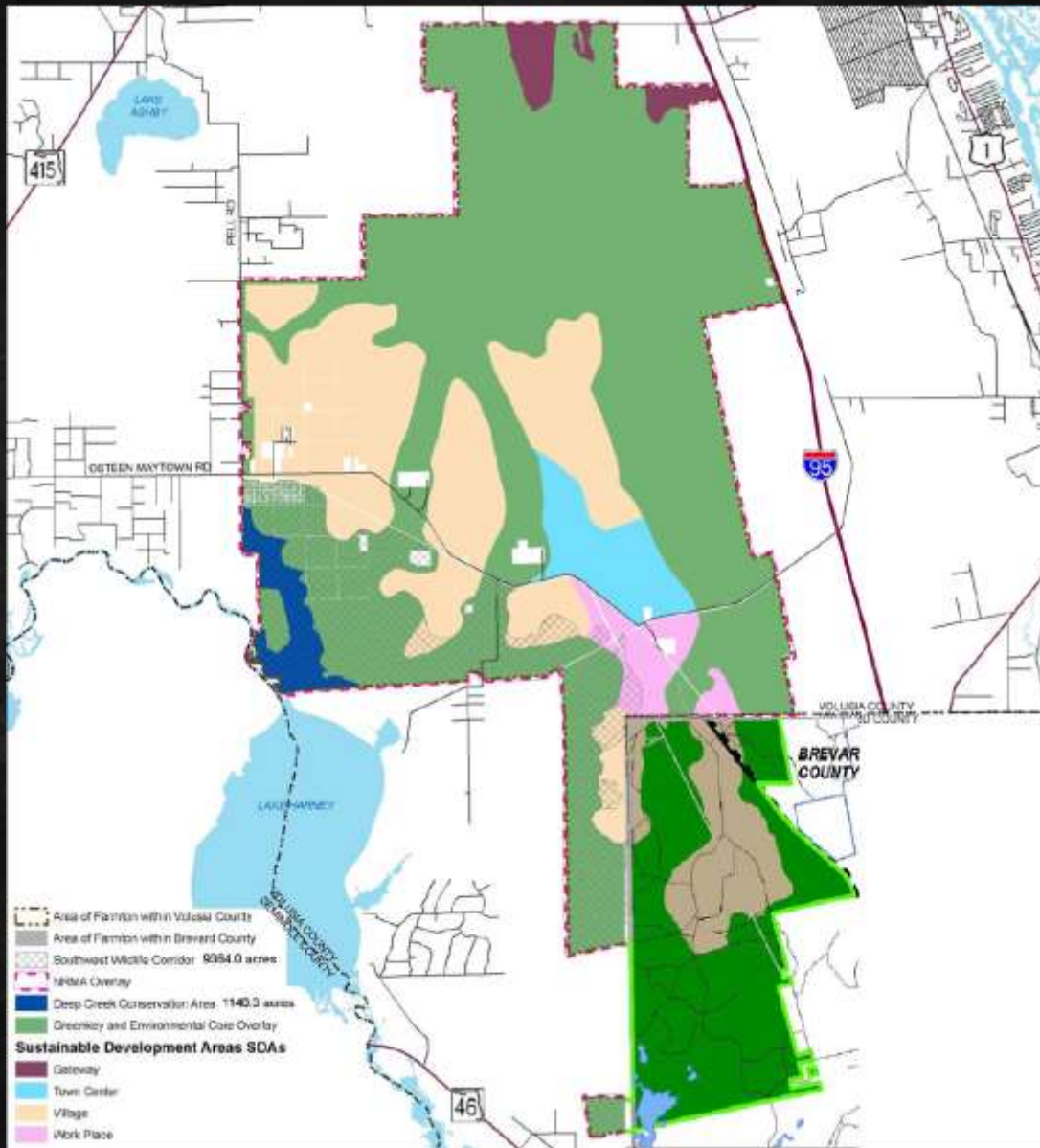
Single Ownership since
1920s



FARMTON PROPERTY EXHIBIT



Ranchettes were permitted uses



Farmton Local Plan

Vacate old plat

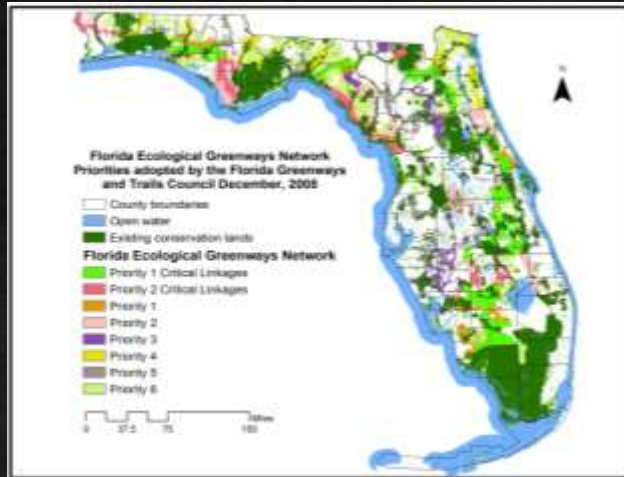
Large scale comprehensive plan with features of TDRs and RLSAs

Sending areas based upon habitat needs for Florida Black Bear

Built upon existing greenway models

50 year planning horizon

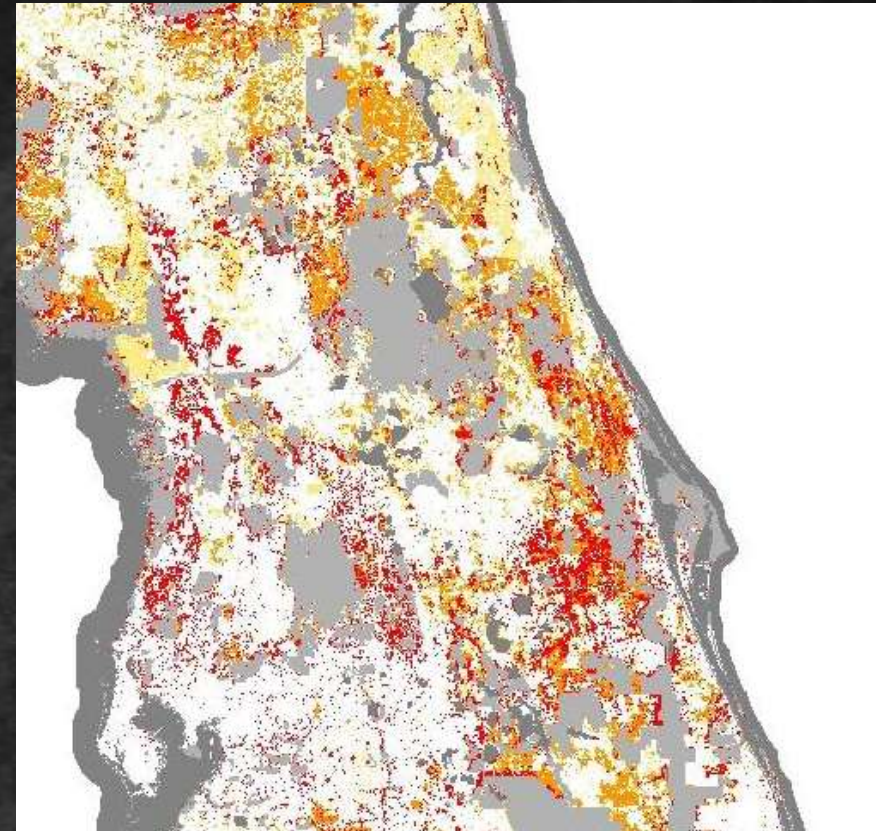
Greenprinting Models: Landscape Level Planning



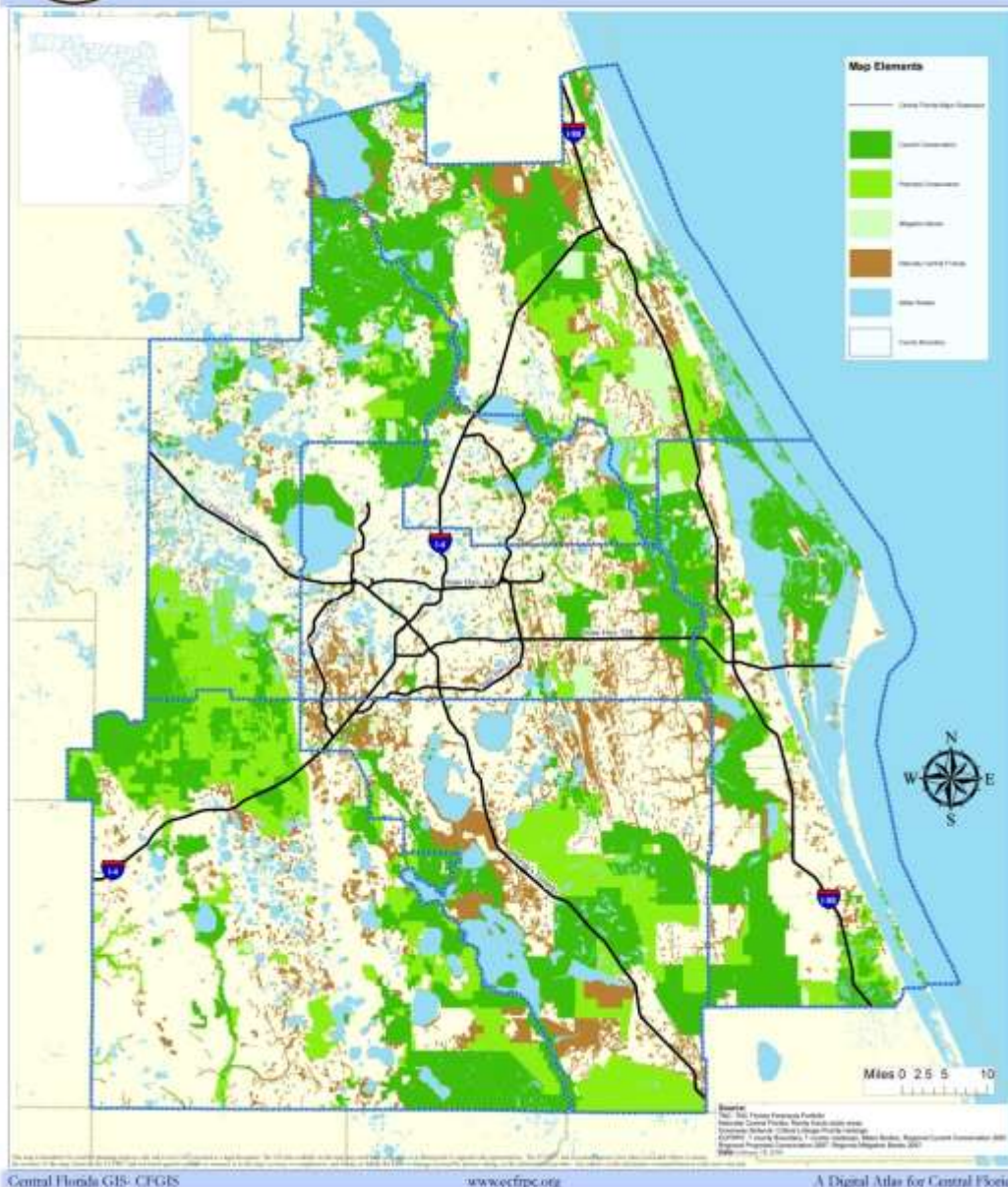
Florida Ecological Greenways Network



TNC Florida Conservation Priorities and Areas of Conservation Interest

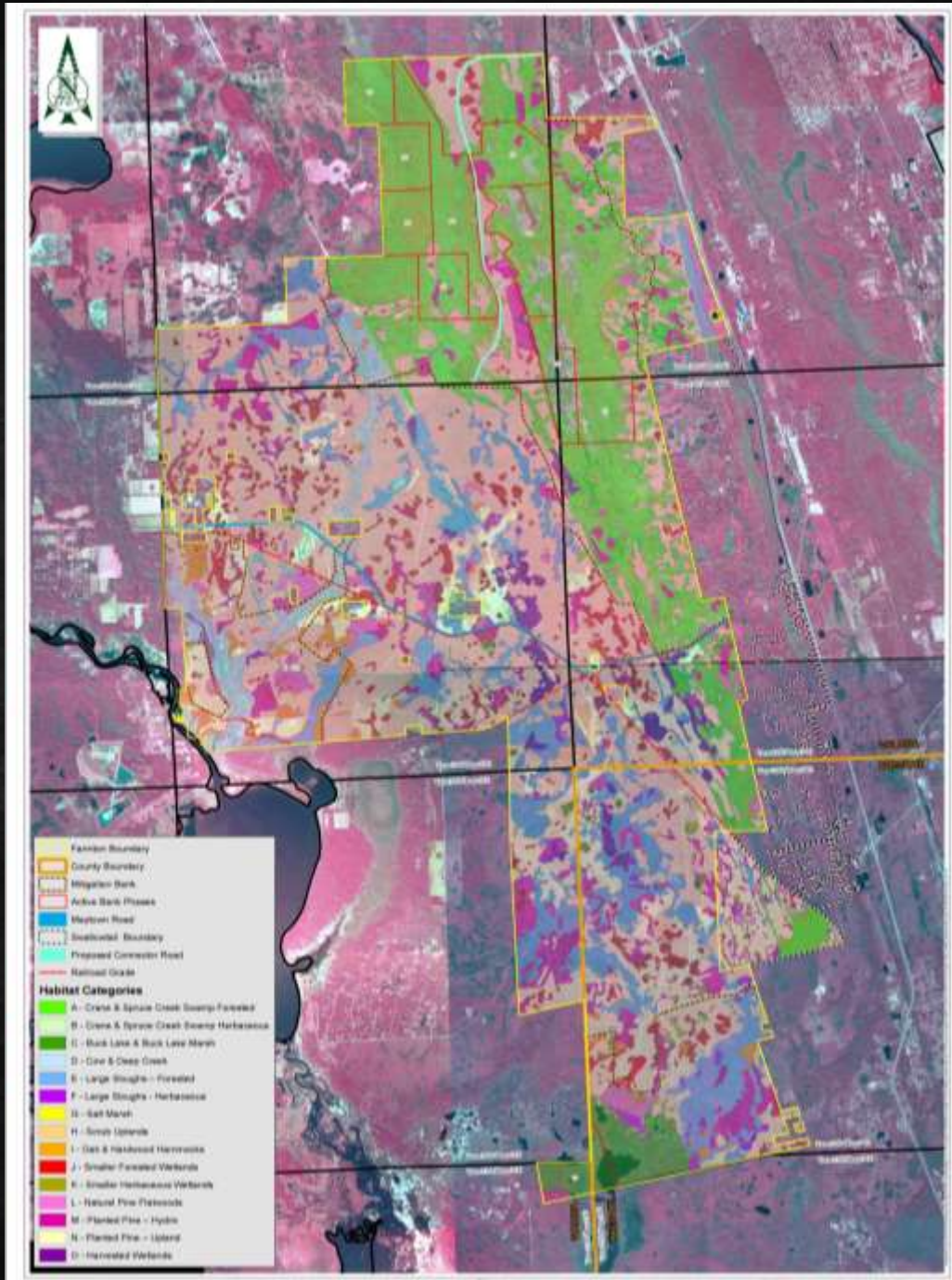


CLIP: Critical Lands and Waters Identification Project



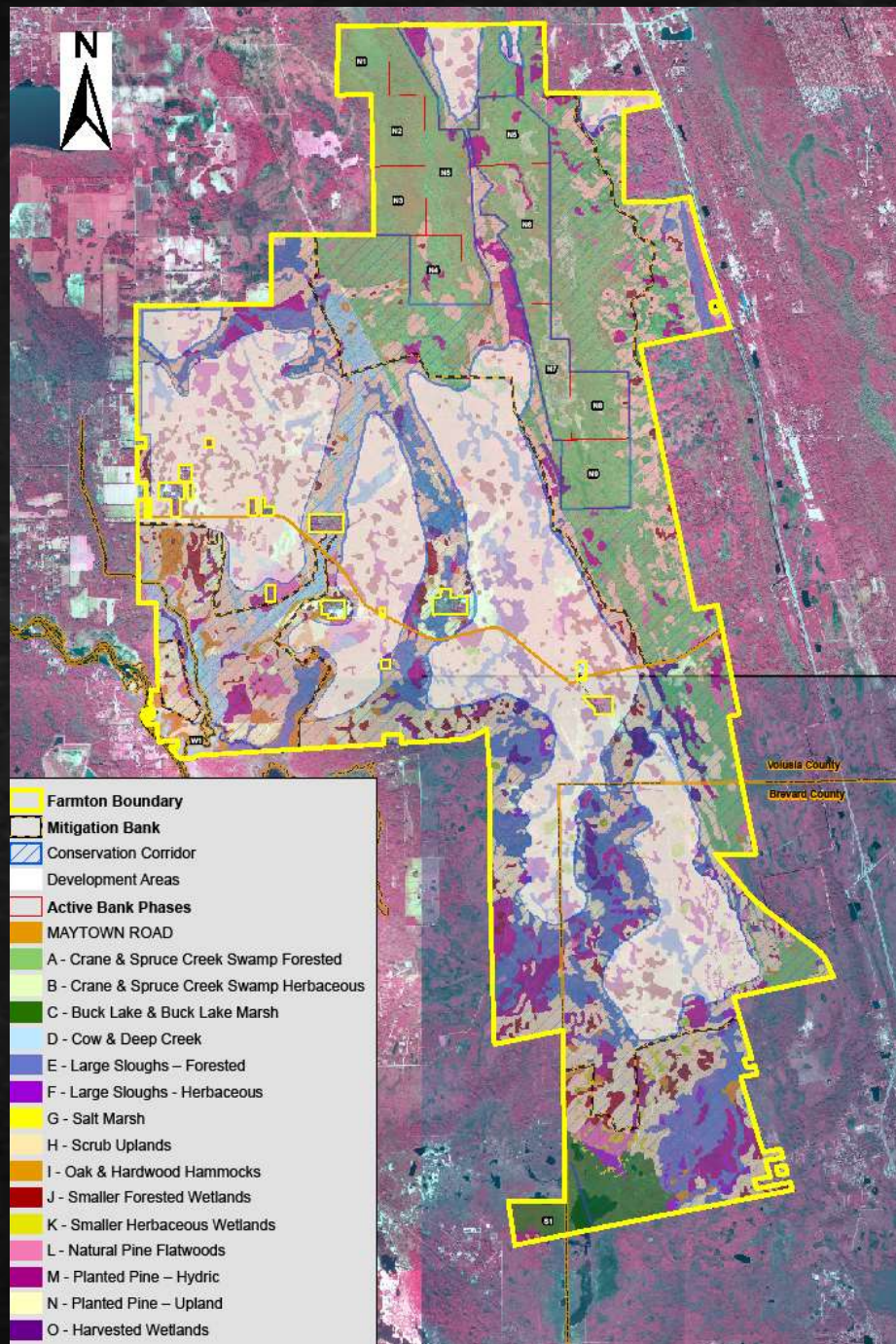
Natural Resources of Regional Significance

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Farmton Ecological Assessment

- Wetlands
- Ecological communities
- Strategic habitat conservation areas
- Divided into 13 habitats
- Opportunities for connectivity
- Ranked for ecological significance

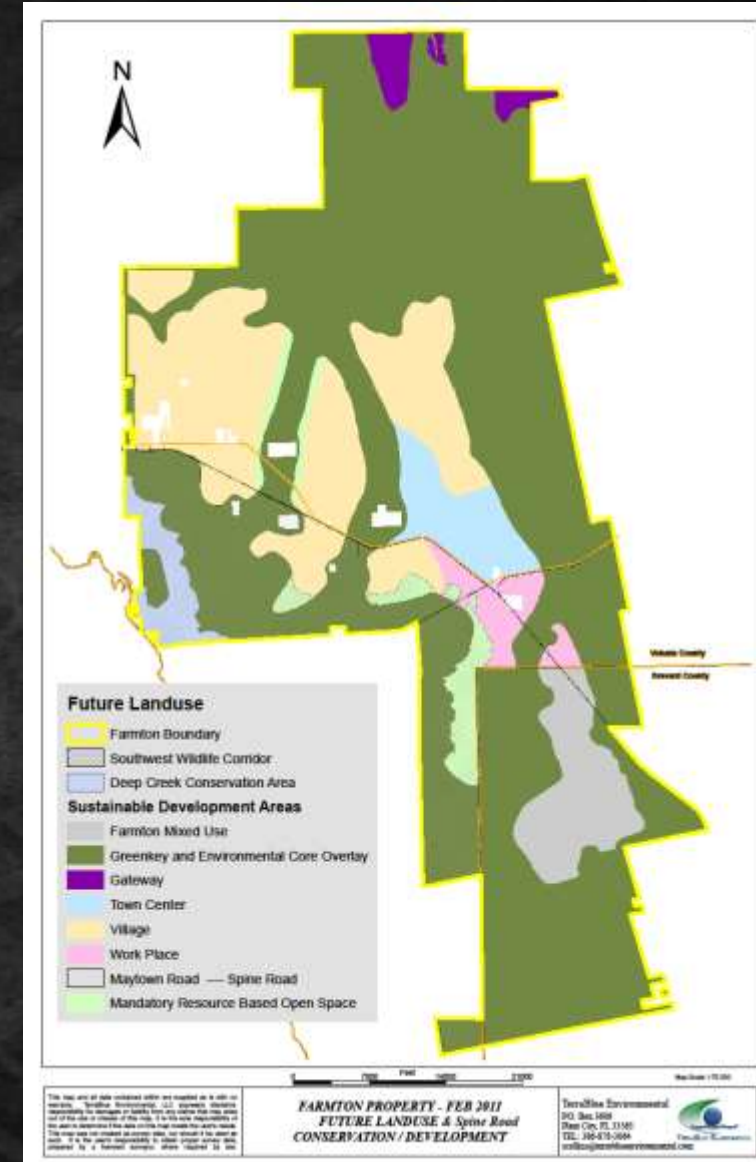


Farmton Planning Outcomes

- 77% conservation
- 35,646 acres under easement
- Minimum ½ mile corridors
- Most significant environmental lands protected
- 50 year planning horizon

Rules of Thumb for Wildlife Corridors

- Wider is better
- At least 10-1 ratio L/W
- 3 times negative edge effect
- One mile for regional corridor
- Reserve area should equate to home range of black bear



Farmton Proposed Composite Future Land Use

Volusia

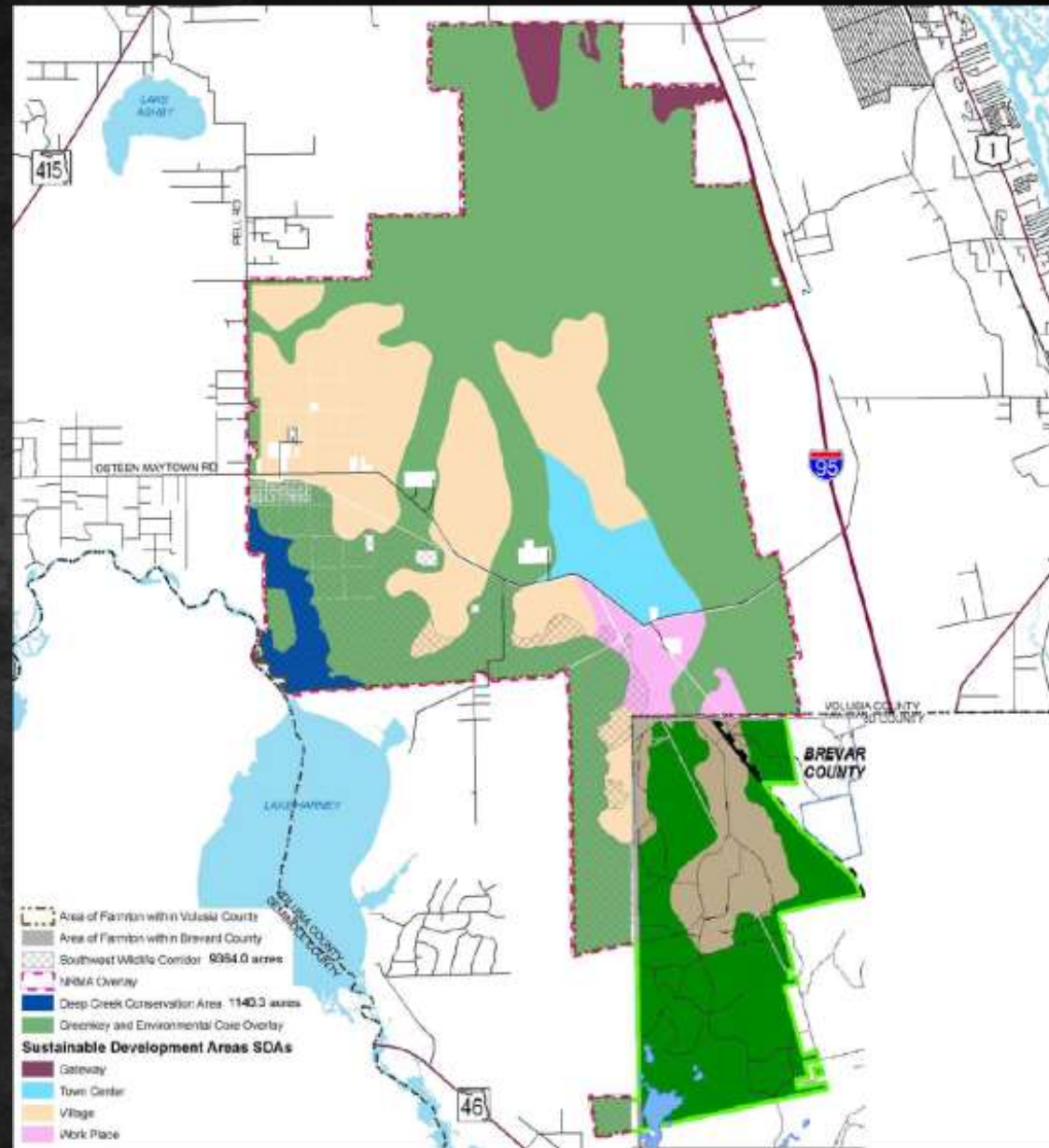
- GreenKey 31,876 acres
- Sustainable Development
- Areas 15,081 acres

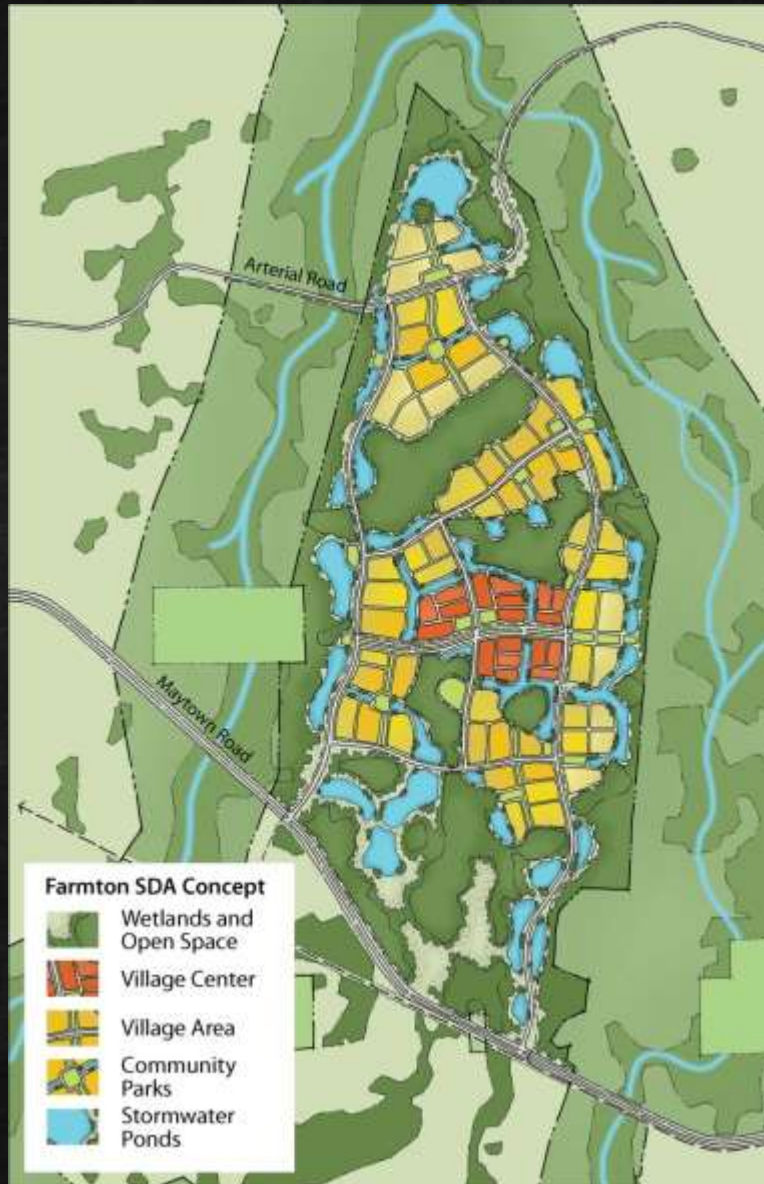
Brevard

- Mixed Use 3,500 acres
- Agriculture 7,000 acres

Brevard County adopted
December 15, 2009

Volusia adoption hearing
February 18, 2010





Farmton Sustainable Development Area (SDA) - Conservation Village Design

- Greenprinting of Resource Based Open Space (RBOS) to add to 'GreenKey' significant natural resource lands
- Minimum 25% of SDA protected under conservation easement
- Wetlands & buffers protected
- 40% civic open space
- Development compacted w/in 50% of SDA

Farmton Local Plan

Highly Transparent Process

Public scoping meetings

Peer review of plan

Peer Review of Conservation
Management Plan in open 12 month
process

All based on best available science

Defended through expert testimony at
three administrative
hearings

Effective 2015





North Deseret Ranch Sector Plan

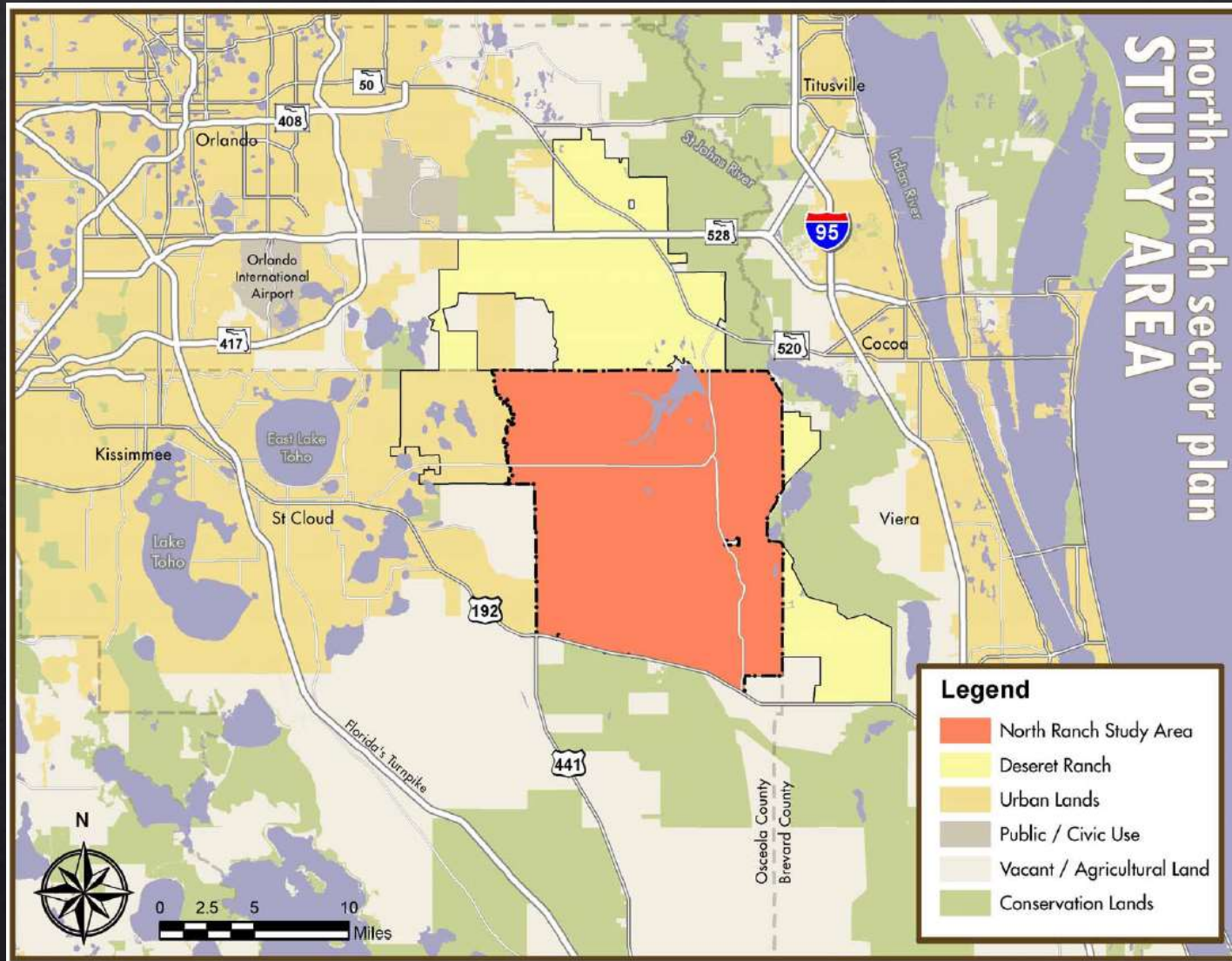
133,000 acres

50 year planning horizon

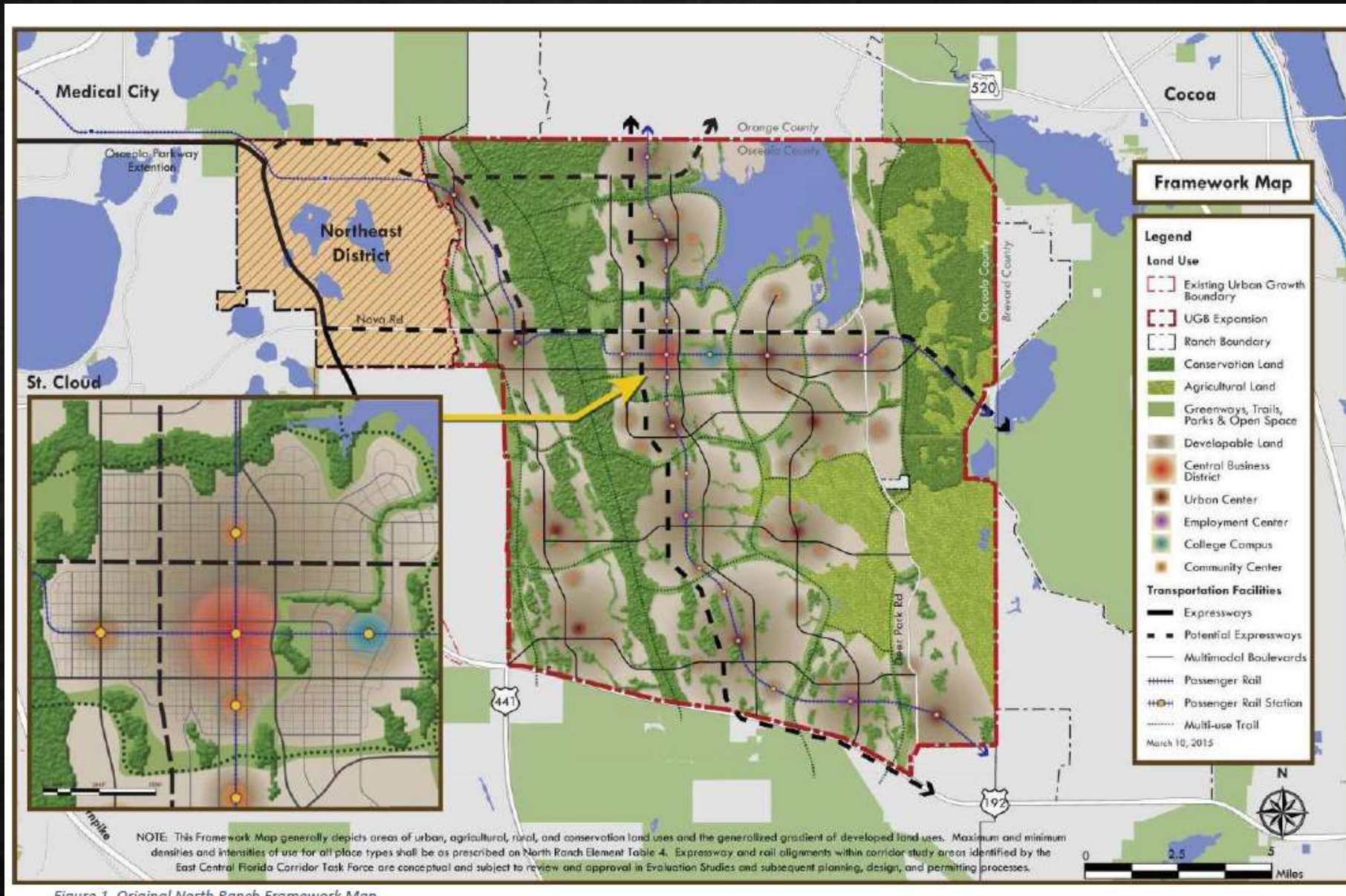
Approved 2015

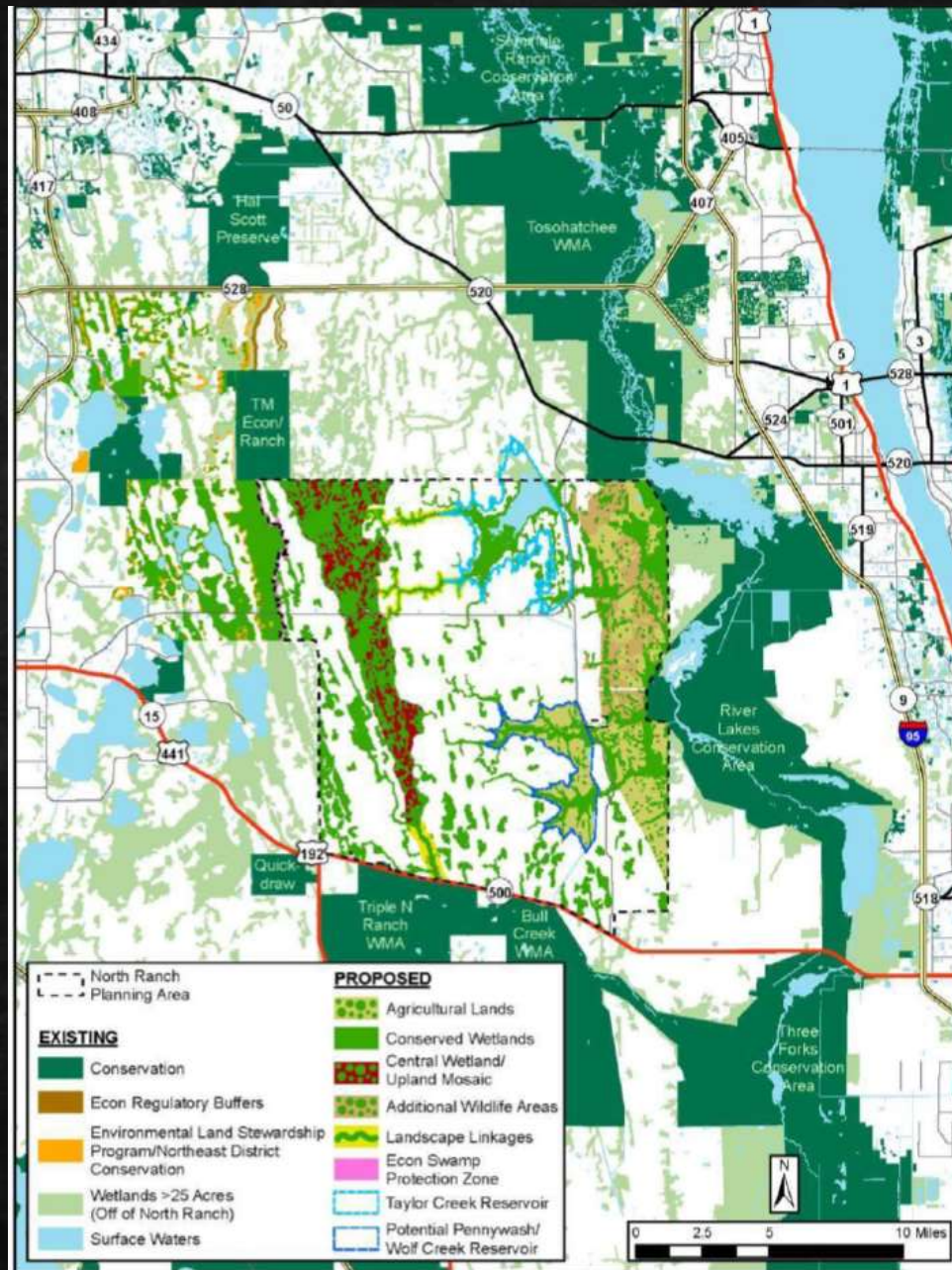
North Deseret Ranch Sector Plan

Focus on Alternative Water Sources
Biodiversity and Wildlife Corridors



Deseret Ranch ecological framework: regional water resources





Deseret Ranch

133,000 total acres

60,889 acres open space

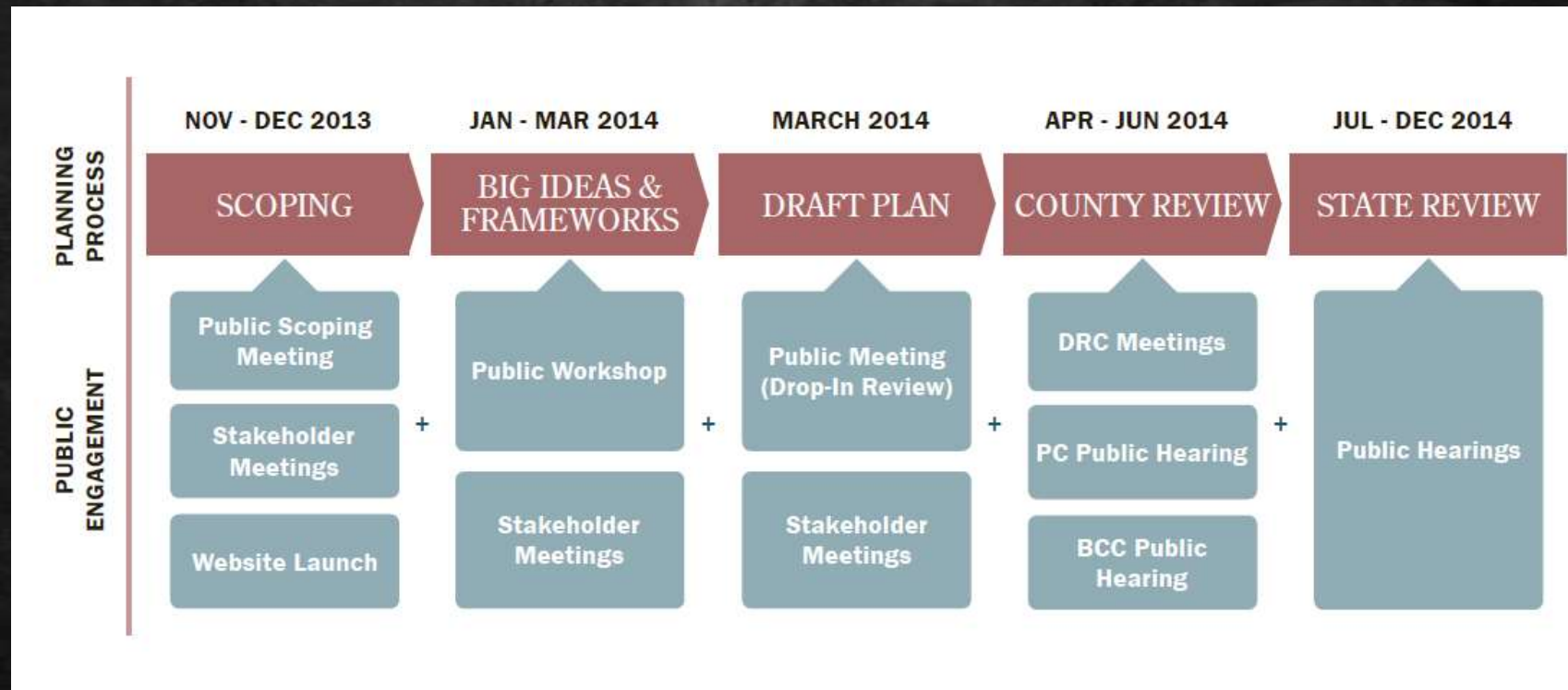
36,658 acres Conservation Lands

Regionally significant natural resources:

A functionally intact ecosystem that depends upon connectivity over statewide or regional landscapes to maintain long term, viable and diverse populations of plant and wildlife communities

Sector Plan Process

- 50 year planning horizon
- Independent peer review
- Built upon process in Farmton Plan



Market based conservation

- Incentives to protect natural resources
- Density pays for ecosystem services
- Long term planning horizon supports economics
- Landowner a community partner
- Voluntary programs

Conclusions

- A long term planning horizon is an good incentive for protection of essential ecosystem services as part of community planning
- Delineation of conservation areas and proposed development areas needs to be based on sound science to better understand ecosystems services to be protected
- Independent peer review of conservation plans is essential to protect the integrity of the conservation values
- Conservation Management Plans can include income producing uses to help make the economics work
- Adaptive management is a critical component of long term conservation