



Natural Resource *Adaptation Action* Area Planning

Ralf Brookes Attorney

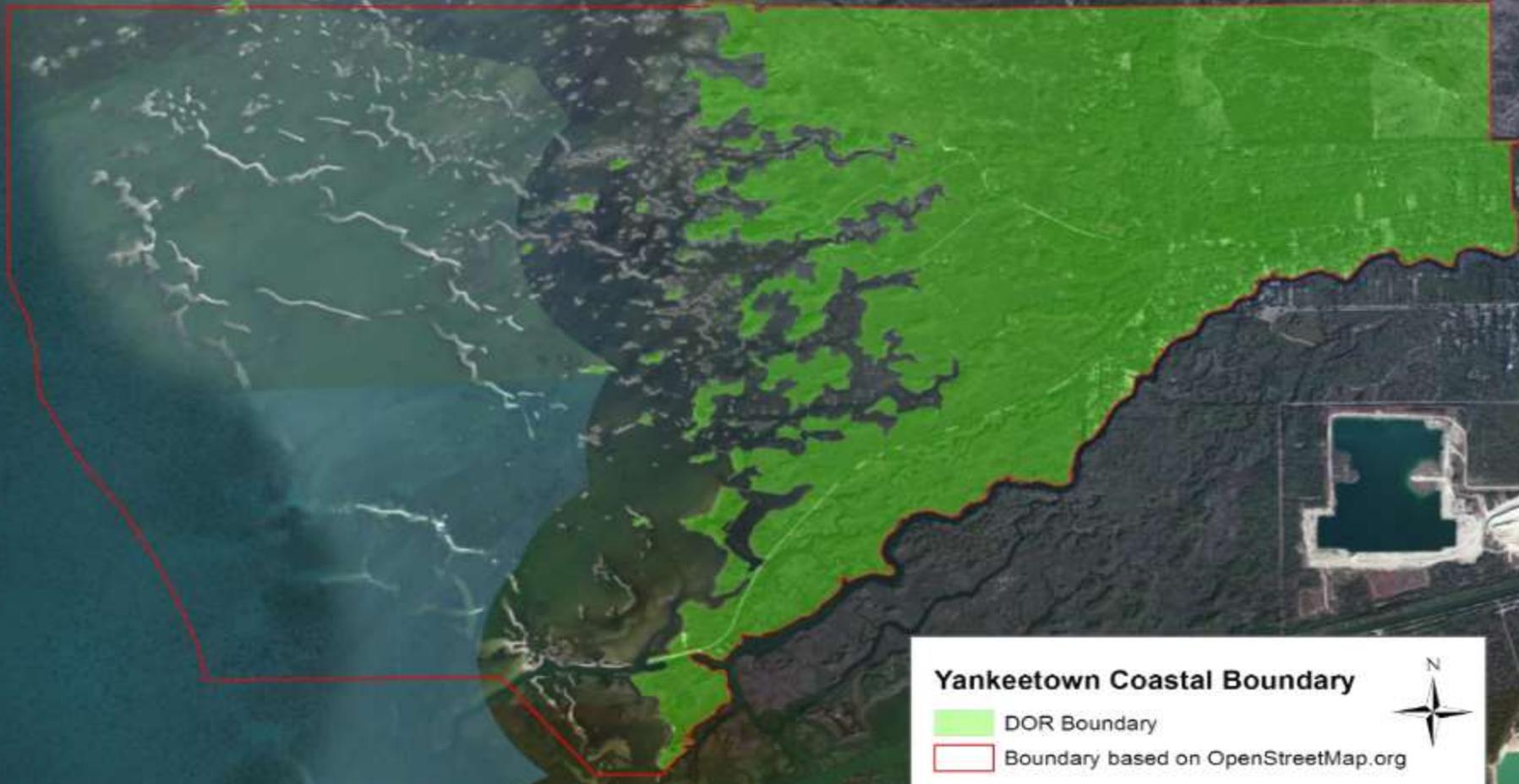
www.RalfBrookesAttorney.com

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In the spring of 2013 the
University of Florida Conservation Clinic
introduced the Town of
YANKEETOWN, FLORIDA
to the conceptual framework for a
**Natural Resource
Adaptation Action Area.**





Yankeetown Coastal Boundary

-  DOR Boundary
-  Boundary based on OpenStreetMap.org



0 0.5 1 Miles



Source: Esri, DigitalGlobe, GeoEye, Ikonos, USDA, USGS, AEX, Geomapping, Aerial, IGN, IGP, and the GIS User Community

Building on its experience addressing
SLR (sea level rise) through
comprehensive planning in
Southwest Florida.



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The clinic prepared a model
comprehensive plan element
that addresses SLR specifically
in the context of
Natural Resource Adaptation



The model calls for a *spatial* dimension based on a land use overlay, and a *temporal* dimension based on SLR.



Goals, objectives & policies must be tailored to specific coastal communities, depending on interest and need.



The Clinic presented its draft model to Yankeetown at a public workshop in May 2013.

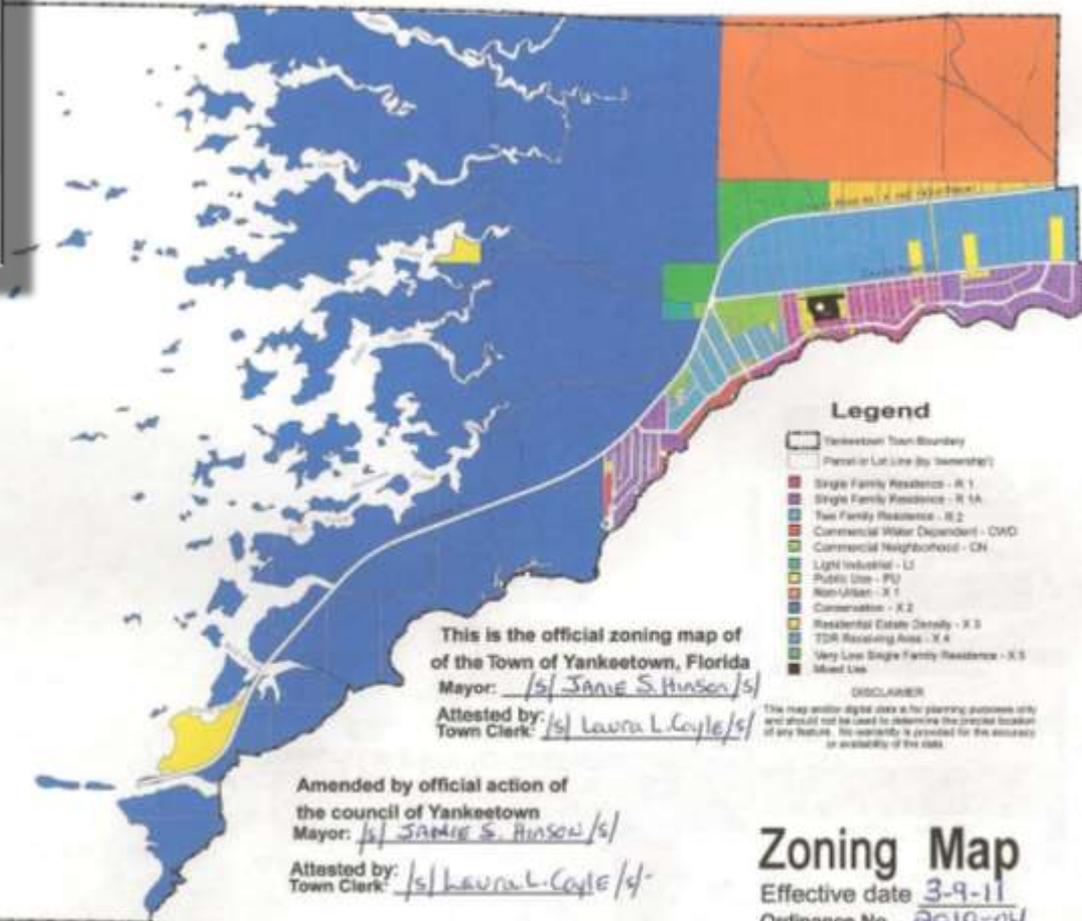
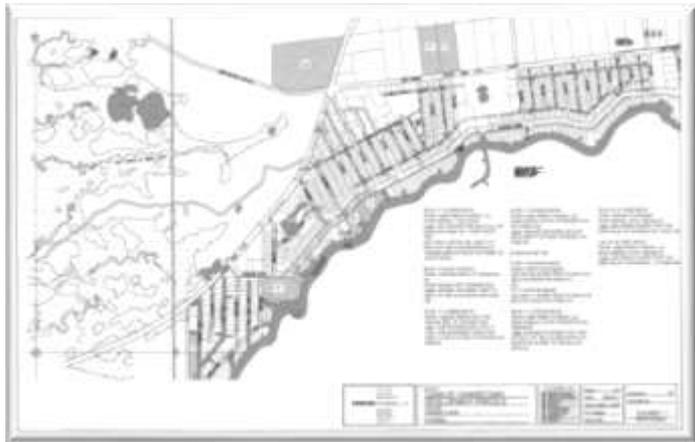


The town decided to move forward with the public participation needed to thoroughly vet the idea through **public planning processes.**



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- Legend**
- ☐ Yankeetown Town Boundary
 - ☐ Parcel or Lot Line (by owner's)
 - Single Family Residence - R 1
 - Single Family Residence - R 1A
 - Two Family Residence - R 2
 - Commercial Water Dependent - CWD
 - Commercial Neighborhood - CN
 - Light Industrial - LI
 - Public Use - PU
 - Non-Urban - X 1
 - Conservation - X 2
 - Residential Estate Density - X 3
 - TDR Receiving Area - X 4
 - Very Low Single Family Residence - X 5
 - Mixed Use

This is the official zoning map of
of the Town of Yankeetown, Florida
Mayor: /s/ JAMIE S. HINSON/s/
Attested by: /s/ LAURA L. COYLE/s/
Town Clerk:

DISCLAIMER
This map and/or digital data is for planning purposes only
and should not be used to determine the precise location
of any feature. No warranty is provided for the accuracy
or availability of the data.

Amended by official action of
the council of Yankeetown
Mayor: /s/ JAMIE S. HINSON/s/
Attested by: /s/ LAURA L. COYLE/s/
Town Clerk:

Zoning Map
Effective date 3-9-11
Ordinance No. 2010-04

Technical support:

(science, coastal engineering & planning expertise)

Needed to adapt the model to Yankeetown, framed in the context of the existing comprehensive plan.



Public Meetings:

LPA and Council public meetings and the formal political processes are required for adoption...

which includes in the Town of Yankeetown, a rather unique voter referendum under the Town's existing Charter.



The UF Law Conservation Clinic

Will provide the technical support to guide the Town through this process.



- Fla. Stat. §163.3177(6)(g)(10), the Town of Yankeetown may "develop an [adaptation action area](#) designation for those low-lying coastal zones..may consider policies [within the coastal management element](#) to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, stormwater runoff, and related impacts of sea-level rise.



The Goals, Objectives & Policies





Goal 1

Goal 1.0: [*General*]

To plan for projected sea-level rise impacts to the Town's estuarine and coastal ecosystems through the creation of a natural resource adaptation action area



Objective 1.1.0: [*Spatial*] To identify areas with vulnerable natural resources where sea level rise adaptation strategies should be used.

Policy 1.1.1 [Adaptation Overlay Designated Lands]:
The Resource Protection (RP) area and Residential Environmentally Sensitive (RES) area as designated on the future land use map shall constitute the Sea Level Rise Adaptation Action Overlay District.



Objective 1.2.0 [Temporal]: To address the anticipated long term impacts that projected sea level rise will have on natural resources within the Overlay District.

Policy 1.2.0: [Planning Horizon]: The Town shall utilize a 40-100 year planning horizon envelope for sea level rise adaptation planning within the Overlay District.



Objective 1.3.0 [*Inventory*]: To inventory resources effected by sea level rise and coastal change within the Overlay District

Policy 1.3.1 [*Habitat and Species Inventory and Ranking*]: The Town shall seek funding to initiate an inventory and ranking of habitat within the Overlay District based on relative vulnerability to projected sea level rise.

Policy 1.3.2: [*Structure and Infrastructure Inventory and Ranking*]: The Town shall initiate an inventory and ranking of structures and infrastructure, including public access infrastructure, within the Overlay District based on relative vulnerability to sea level rise.

Policy 1.3.3 [*Repetitive Loss Inventory*]: The Town shall maintain an inventory of repetitive loss structures including shoreline stabilization structures and design structures that are vulnerable to sea level rise.

Goal 2

Goal 2.0 [***Shoreline transgression***]: To allow estuarine and coastal resources within the Overlay District to adapt to a rising sea and receding shoreline.



Objective 2.1.0 [Ecosystem migration]: To maintain the relative spatial proportionality of ecosystem types within the Overlay District during the long term planning horizon to the maximum extent possible.

Policy 2.1.1 [Vegetative Succession]: The Town shall seek to preserve vegetative successional pathways for coastal habitat and species migration within the Overlay District.

Policy 2.1.2 [Vulnerable Species and Habitat Prioritized]: Species and habitats that are particularly vulnerable to Sea Level Rise shall be given priority in determining successional pathways.

Policy 2.1.3 [Conservation Land Acquisition Priority]: The Town shall develop priority areas for land acquisition based on their strategic capacity to support coastal ecosystem migration.

Goal 3

Goal 3.0 [***Structural Adaptation***]: To protect structures, infrastructure and public access within the overlay district in a manner that over time corresponds to the rate of coastal ecosystem change induced by sea level rise.



Objective 3.1 [Managed Relocation & Protection]: To plan for the protection and orderly relocation and removal of public and private structures based on a timeframe that corresponds to projected sea level rise within the Overlay District.

Policy 3.1.1 [Structural Adaptation Policy Preferences]: Land use and development decisions within the Overlay District should consider the following adaptation options in order of preference based on site-specific circumstances:

- 1) Managed relocation and/or removal of structures
- 2) Soft shoreline stabilization (e.g. living shorelines)
- 3) Hardening (revetments first then walls)



Goal 3.0 [*Structural Adaptation*]: ...

Policy 3.1.2 [*Construction & Modifications*]: Where feasible, structures and infrastructure within the overlay district shall be designed and constructed using techniques that promote accommodation and managed relocation (e.g. floating docks and boardwalks).



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Policy 3.1.3 [*Incentives*]: Incentives, including Transferable Development Rights, density bonuses and subsidies shall be promoted as a managed relocation strategy within the Overlay District.

Policy 3.1.4 [*Voluntary Incentives*]: The Town shall promote voluntary incentives such as rolling shoreline conservation easements to accommodate coastal migration through promotion of soft living shorelines, and relocation of structures, in response to sea level rise rather than hardening or armoring of the shoreline within the Overlay District.

Policy 3.2.5 [*Public Water Access Infrastructure*]: Public water access and infrastructure shall be designed, constructed and where feasible, retrofitted to accommodate or adapt to the rate of projected Sea Level Rise (for example, floating docks shall be preferred).

Goal 4

Goal 4.0 [***Ecosystem Restoration and Creation***]: To promote ecosystem restoration, and where appropriate, additional habitat creation, as a sea level rise adaptation strategy within the Overlay District.



Objective 4.1 [Nearshore Oyster Reefs, Islands and Salt Marshes]: To ensure a healthy and robust system of nearshore oyster reefs, islands, sea grass beds and salt marshes that are robust to both the projected gradual increase in sea level and disturbance events such as hurricanes.

Policy 4.1.1 [Oyster Reef Restoration Priority]: Oyster reef restoration and creation shall be an adaptation priority because it attenuates storm surge, entrains freshwater, creates habitat, improves water quality and promotes economic development.



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Goal 4.0 [*Ecosystem Restoration and Creation*]: ...

Policy 4.1.2 [Dredged Spoil Management]: Suitable dredged material shall be utilized to supplement or create offshore spoil and natural islands and salt marsh pocket beaches and living shorelines where feasible and environmentally desirable and beneficial (for example, to maintain shorebird nesting habitat).

Policy 4.1.3 [Restoration & Adaptation Master Plan]: The town shall pursue grant funding opportunities to develop a comprehensive oyster reef and offshore island restoration master plan that takes into account projected sea level rise within the planning envelope.

Policy 4.1.4 [Restoration Permitting]: The Town shall explore opportunities for conceptual and general permits to construct and reconstruct oyster reefs and offshore island habitat.

Objective 4.2 [Ensure Freshwater Flows]: To ensure that deliveries of freshwater to the marine and coastal ecosystems are sufficient to maintain salinities that are consistent with the requirements of those ecosystems.

Policy 4.2.1 [Minimum Flows and Levels]: The town shall seek to ensure that the establishment and/or revisions to Minimum Flows and Levels (MFLs) to maintain optimal salinity within the estuary.

Policy 4.2.2 [Water quality]: The town shall protect water quality to support existing and restored ecosystems.



Goal 5

Goal 5.0: [**Citizen Science**]: To promote environmental education, environmental monitoring citizen science through the Overlay District.



Objective 5.1 [Demonstration Project]: To promote the Sea Level Rise Adaptation Action Area Overlay as a demonstration project within the Withlacoochee Gulf Preserve for appropriate natural resource adaptation planning.

Policy 5.1.1 [Education Programming]: The Town shall work with educators to develop natural resource adaptation education programming at the Withlacoochee Gulf Preserve.



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Goal **Citizen Science** Objective **Demonstration** Project...(continued)

Policy 5.1.2 [Private land conservation]: The town shall work with the Alachua Conservation Trust (ACT) to promote innovative adaptation tools and strategies through less than fee simple property instruments such as voluntary rolling conservation easements.

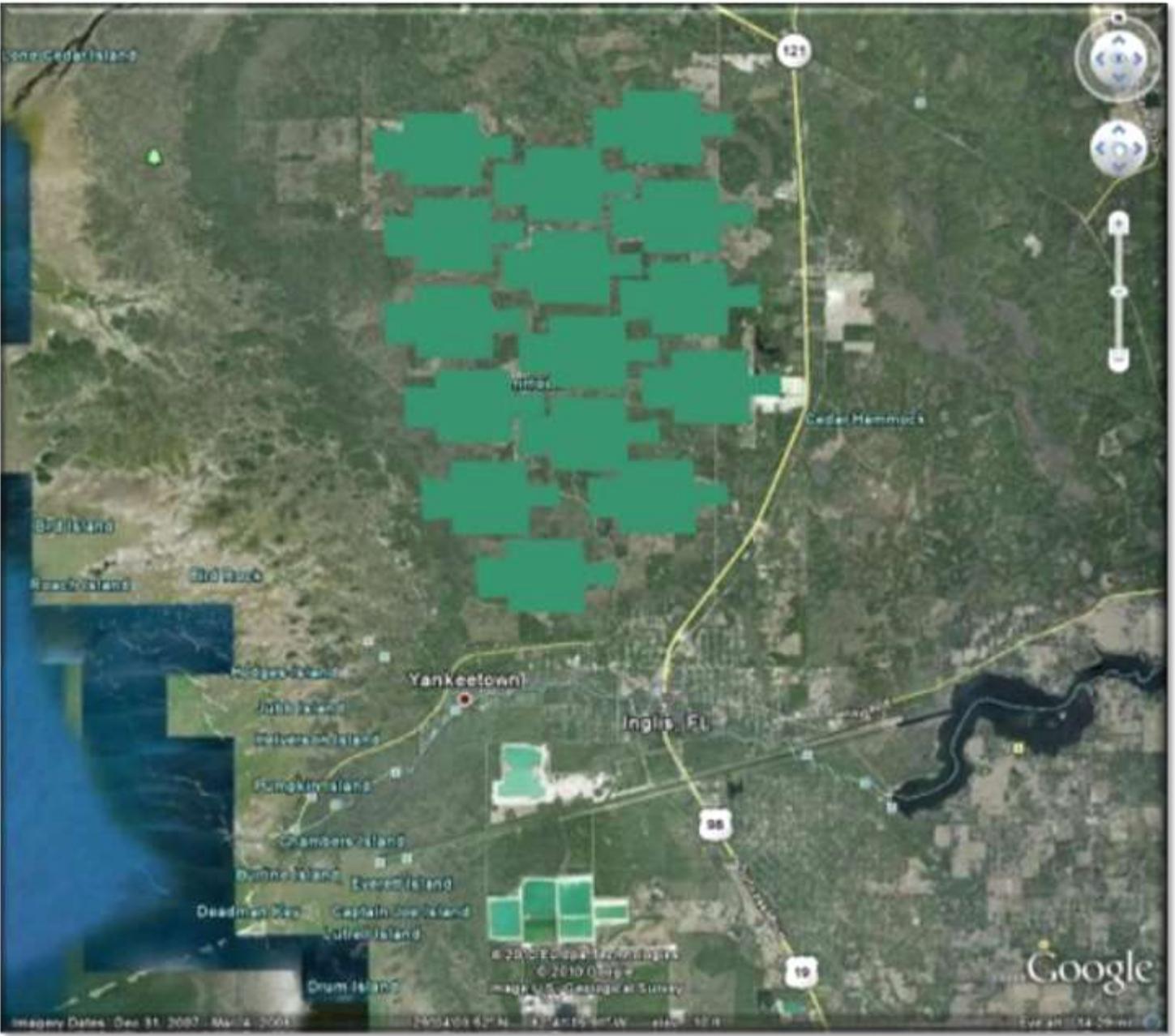
Policy 5.1.3 [adaptation science and policy research]: The Town shall promote the Community Environmental Education Center as research site for short and long term research on the response of natural resources to sea level rise, including the viability of adaptation strategies.



Goal 6

Goal 6.0 [Intergovernmental Coordination]: To promote multi-jurisdictional coordination in adaptation planning.





Objective 6.1 [Extra-jurisdictional Impacts]: To address off-site impacts to the Overlay District that result from policy, planning and permitting decisions that occur outside the boundaries of the Overlay District.

Policy 6.1.1 [Intergovernmental Adaptation Coordination]: The Town shall work with federal state and local resource agencies and managers to ensure that adaptation planning does not occur in isolation and decisions by these agencies and managers do not negatively impact the Overlay District.



Thank you for Attending
& Thanks to the
U.F. Conservation Clinic!

See you soon in Florida's Best Places...



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Questions & Answers



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