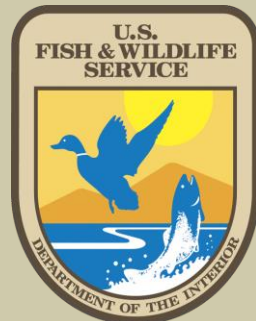
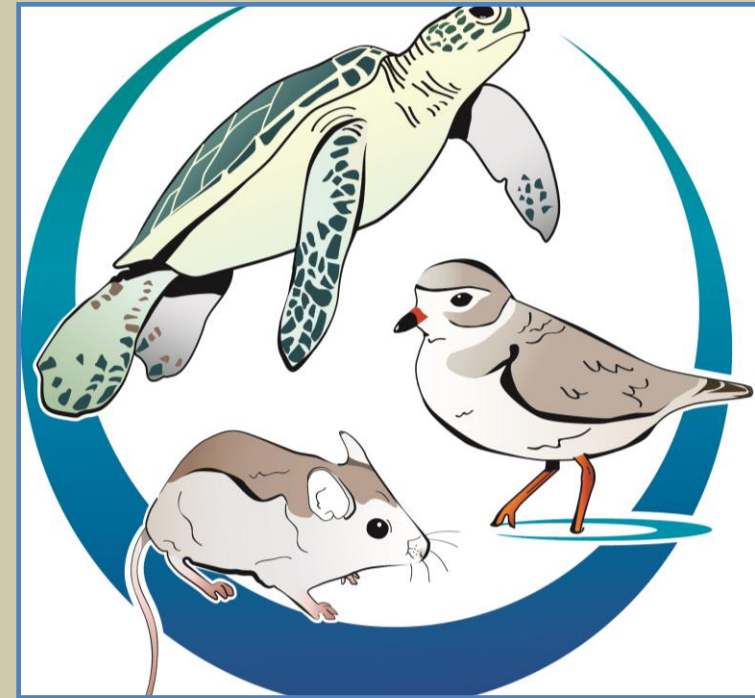


The Florida Beaches Habitat Conservation Plan

***2017 National Conference
on
Beach Preservation
Technology***



Jennifer L. McGee, Ph.D., M.Sc.
FWC-FBHCP Statewide Coordinator

Amy Knight Florida Natural Area Inventory

Michael Flaxman GeoDesign Technologies, Inc.

Florida Beaches Habitat Conservation Plan

- *Multiagency effort - FDEP, FWC, USFWS, & other stakeholders*
- *ITP for FDEP's CCCL Permitting Program*
- *One of the nation's largest & most comprehensive, statewide habitat conservation plans.*

“To obtain an ITP that will allow FDEP to fulfill its CCCL regulatory responsibilities in a manner that fully complies with the ESA.”

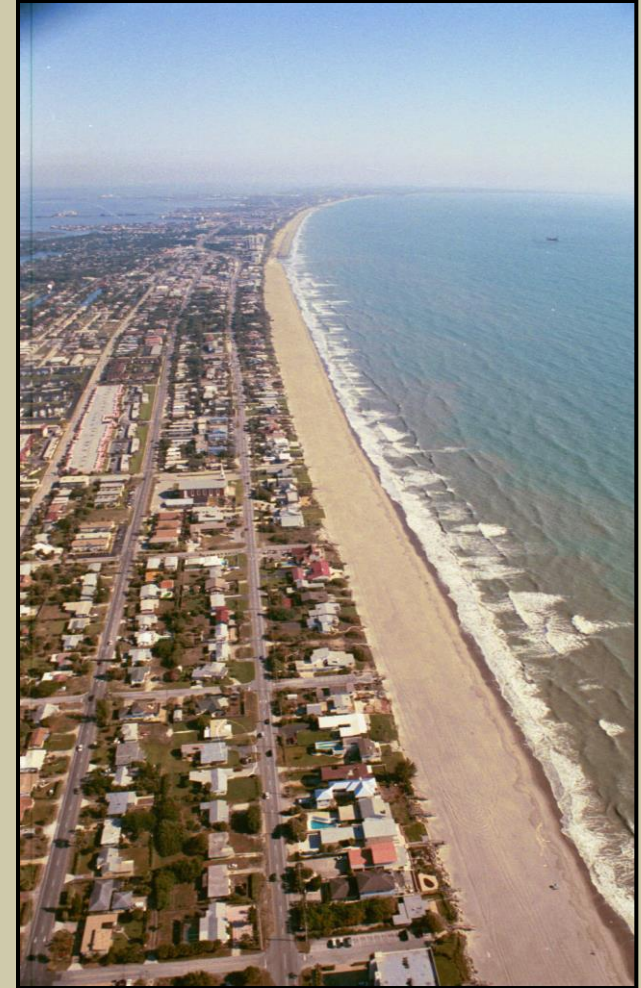


Background

CCCL Program Permitted Activities Only

- **Covered Activities**
 - Coastal Development – Major and Minor Structures
 - Beach/Dune Restoration
 - Armoring
 - Dune Walkovers
 - Mechanical Beach Cleaning
 - Sand Fencing
 - Emergency Response
 - Special Events
 - Other

- **Beach nourishment is not covered since permitted under JCP program**



Background

**10th Year of Work, Grant Phase 9, Section 6 Grants Total :
\$8,000,000 +**

**Only sea turtles currently addressed in Statute
(161.053, F.S. – limited minimization & mitigation conditions)**

The FBHCP will:

- *Amend 161.053(4)(c) to allow for minimization of impacts to beach mice & shore birds*
- *Expansion of authority to include impact/mitigation*
- *Post construction activities*
- *Long term indirect effects (e.g. lighting, sea walls, landscaping, etc.)*
- *Exempt activities*



Photo: J.L.McGee



Legislative Changes

- *Add listed species not currently covered -161.053(4)(c)*
- *Funding Mechanism -161 Part I*
 - *Minimization Measures - 161.053(4)(c)*
 - *Impact and mitigation measures – 161.053(4)(f)*
- *Operational phase to CCCL permits – 161Part I*
- *Rule Changes to Clarify Statute (Minimization)*
- *Post Hurricane Bills 2017*
- *Conditional denial/acceptance of CCCL permit pending proof of individual ITP*



Legislative Session
2017, 2018, 2019 ...



FBHCP Status

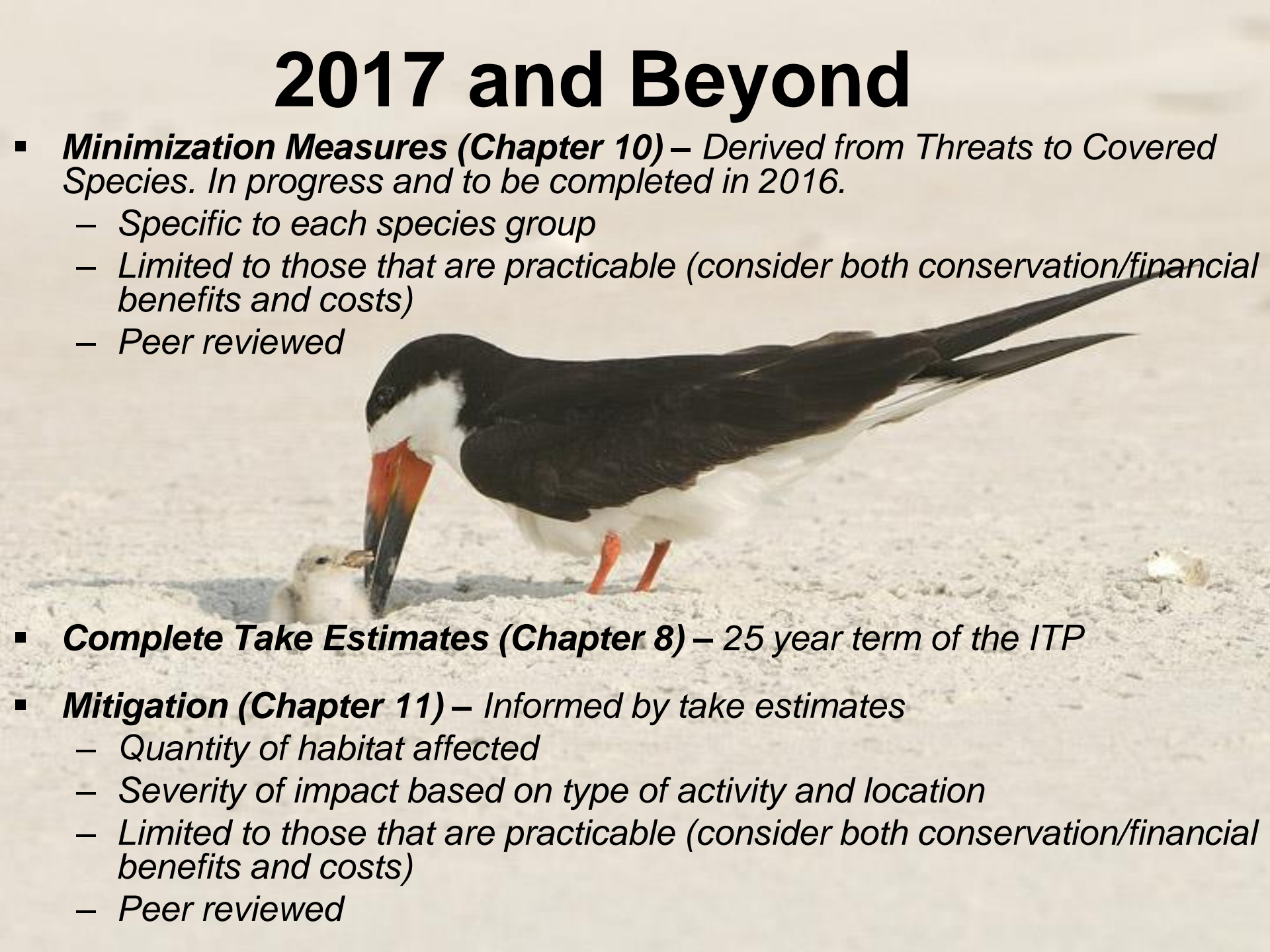
(*Completed, In Progress, Up-Coming*)

- *Executive Summary*
- ***Introduction (1)***
- ***Biological Goals, Objectives & Benefits (2)***
- *Plan Preparation Process (3)*
- ***Covered Activities (4)***
- ***Covered Species with Accounts (5)***
- ***Plan Area (6)***
- ***Threats to Covered Species in Plan Area from CCCL Activities (7)***
- *Assessment of Anticipated Take (8)*
- ***Alternatives Analysis (9)***
- *Minimization Measures (10)*
- *Mitigation Measures (11)*
- *Implementation Strategy, Plan Management, Funding & Schedule (12)*
- *Adaptive Management Plan (13)*
- ***Changed/Unforeseen Circumstances (14)***
- *Compliance Monitoring & Reporting (15)*



2017 and Beyond

- **Minimization Measures (Chapter 10)** – *Derived from Threats to Covered Species. In progress and to be completed in 2016.*
 - *Specific to each species group*
 - *Limited to those that are practicable (consider both conservation/financial benefits and costs)*
 - *Peer reviewed*
- **Complete Take Estimates (Chapter 8)** – *25 year term of the ITP*
- **Mitigation (Chapter 11)** – *Informed by take estimates*
 - *Quantity of habitat affected*
 - *Severity of impact based on type of activity and location*
 - *Limited to those that are practicable (consider both conservation/financial benefits and costs)*
 - *Peer reviewed*



FBHCP Plan Area occurs from CCCL seaward to 2010 Mean High Water Line and excludes Federal Lands.



Gulf Islands National Seashore

Escambia

— CCCL

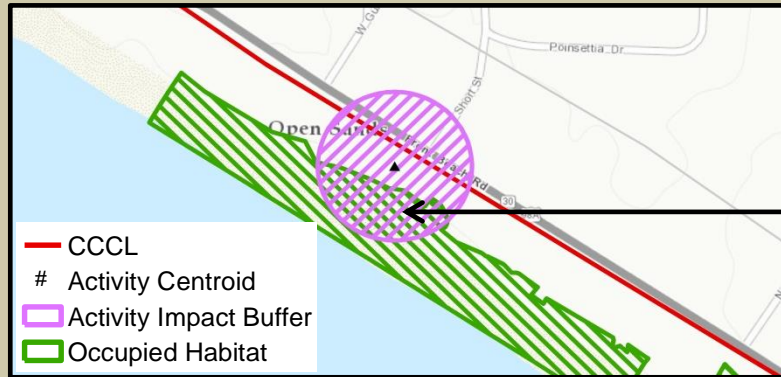
— MHW Shoreline

▨ FBHCP Plan Area

0 0.125 0.25 Miles

Estimating Impacts

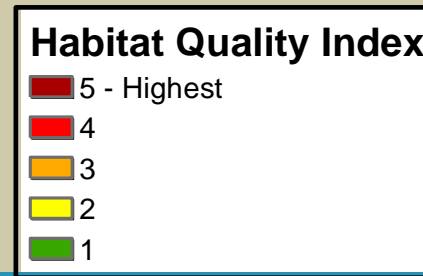
Intersection of occupied habitat area with area of projected impacts



Estimated area of incidental take

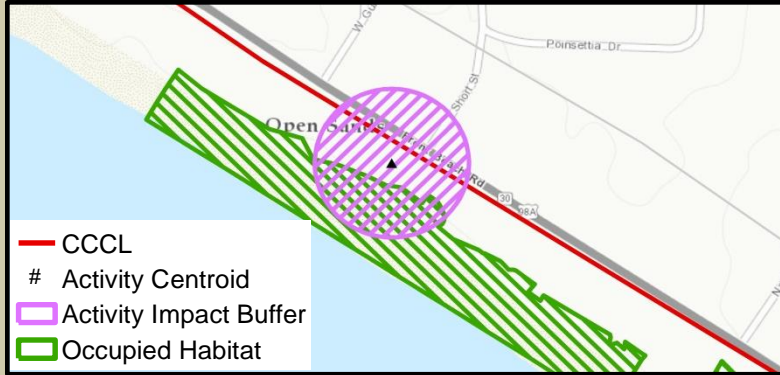
Mitigating Impacts

Balancing relative habitat impacts with lift from mitigation projects

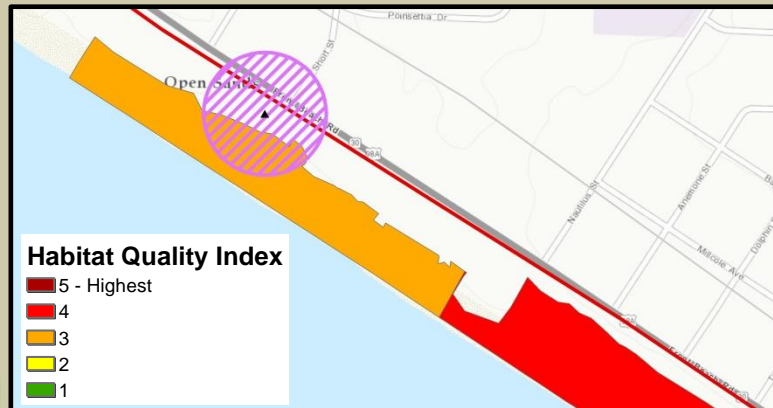


Habitat Mapping

Occupied Habitat



Habitat Quality Indexes



Mapping Habitat Area

By Species Group

- *Sea Turtles*
- *Beach Mice*
- *Solitary Nesting Shorebirds*
- *Colonial Nesting Seabirds*
- *Non-breeding Shorebirds*

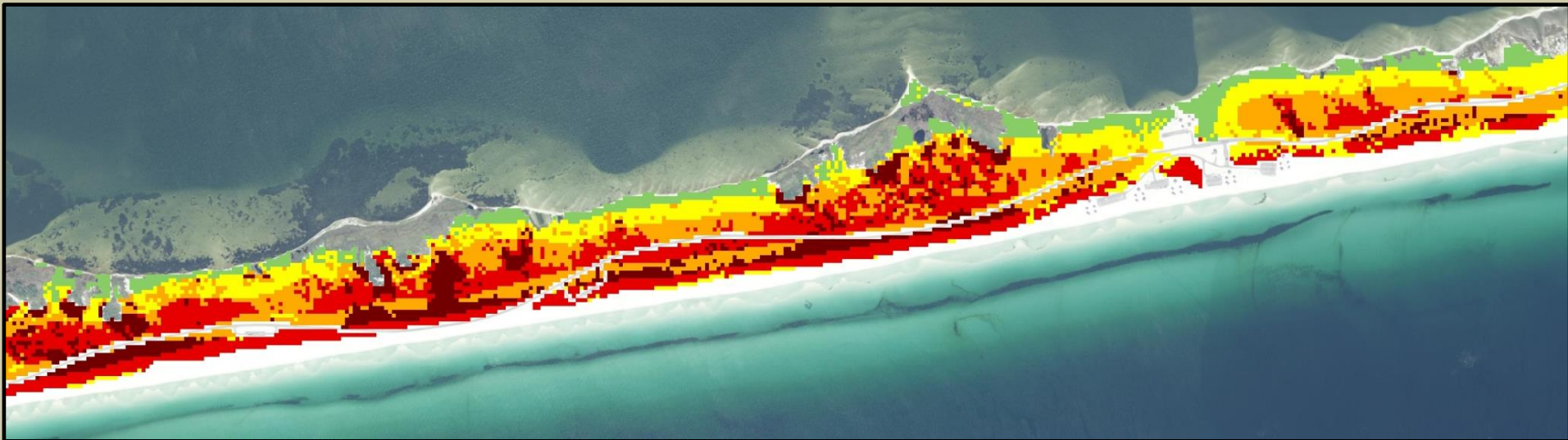
In Consultation with Species Experts



Habitat Quality Indices

***Purpose:** Help determine basis for mitigation fees*

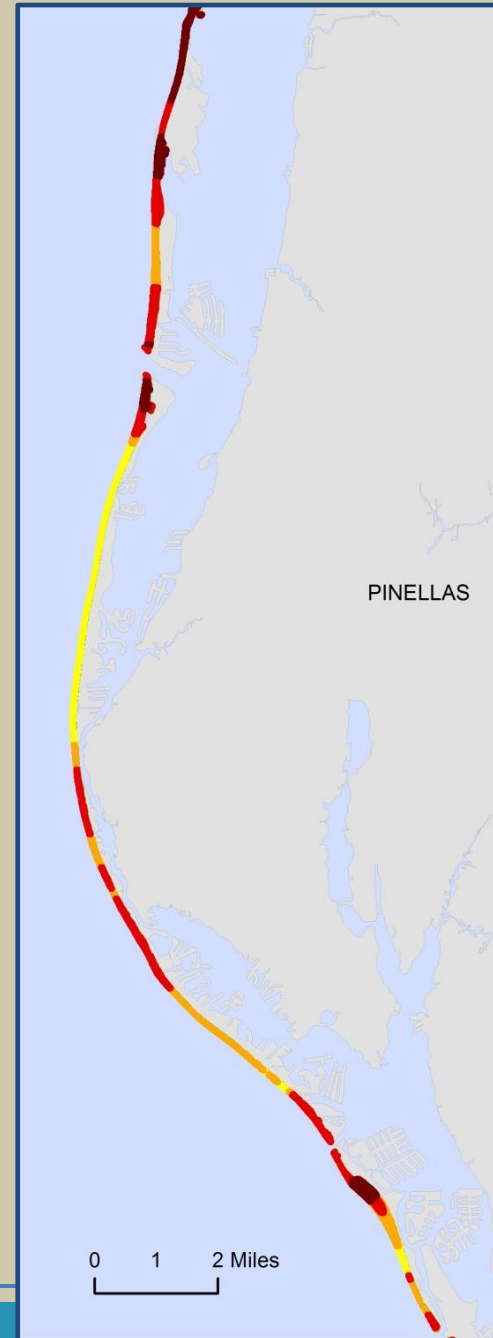
- *Assess relative impacts of incidental take (within Plan Area), i.e. Quality-Adjusted Take*
- *Credit system for mitigation activities (within or outside of Plan Area)*



Habitat Quality Indices

Approach

- *Assess quality within previously mapped habitat, including potential habitat (i.e. not currently occupied)*
- *Determine mappable criteria related to quality*
- *Combine factors into a habitat quality index*
- *Index on 1 – 5 scale, assigned per species group and regionally (by subspp for beach mice)*
- *Draft Index Maps provided to experts for review*

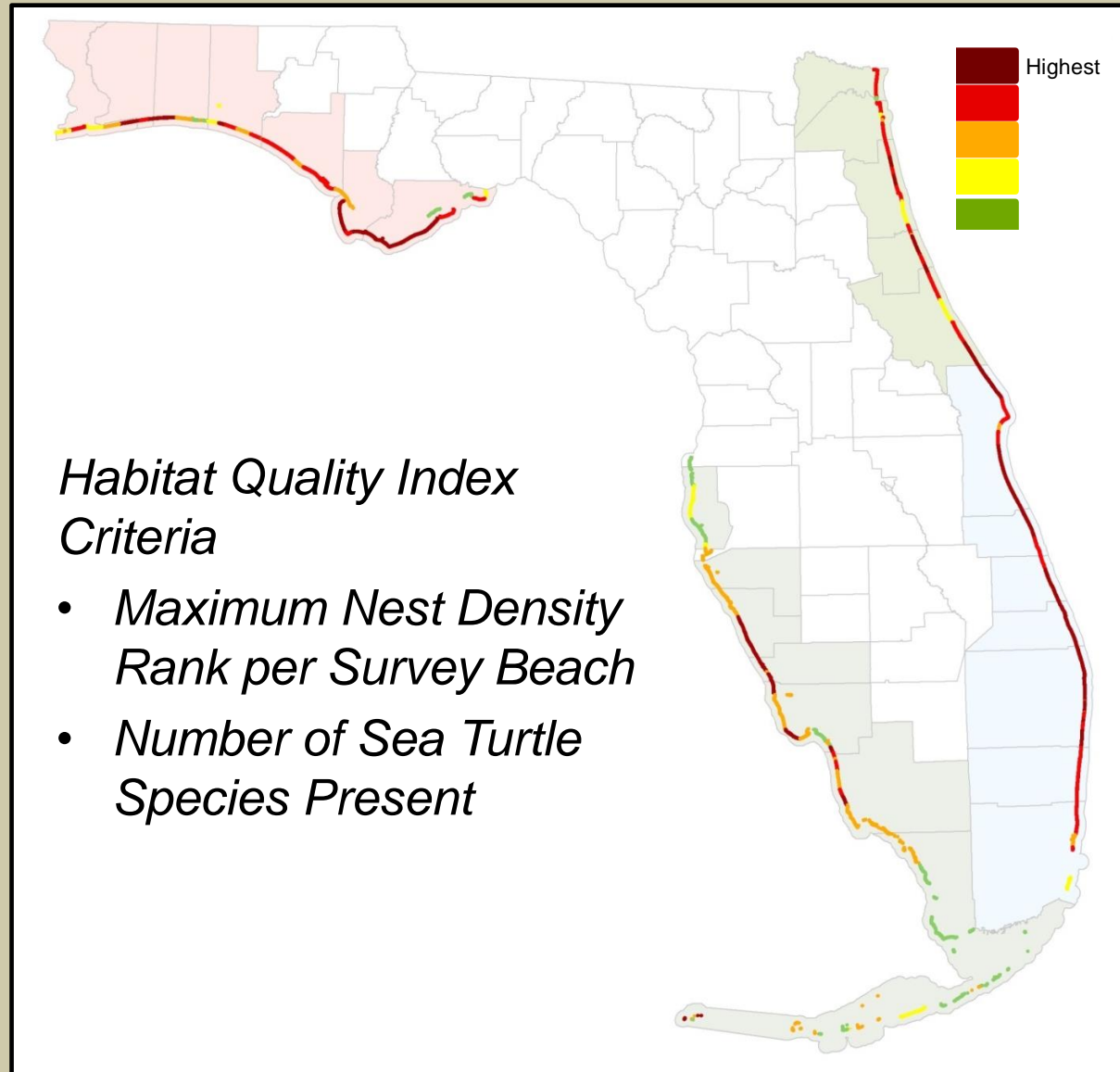


Sea Turtles

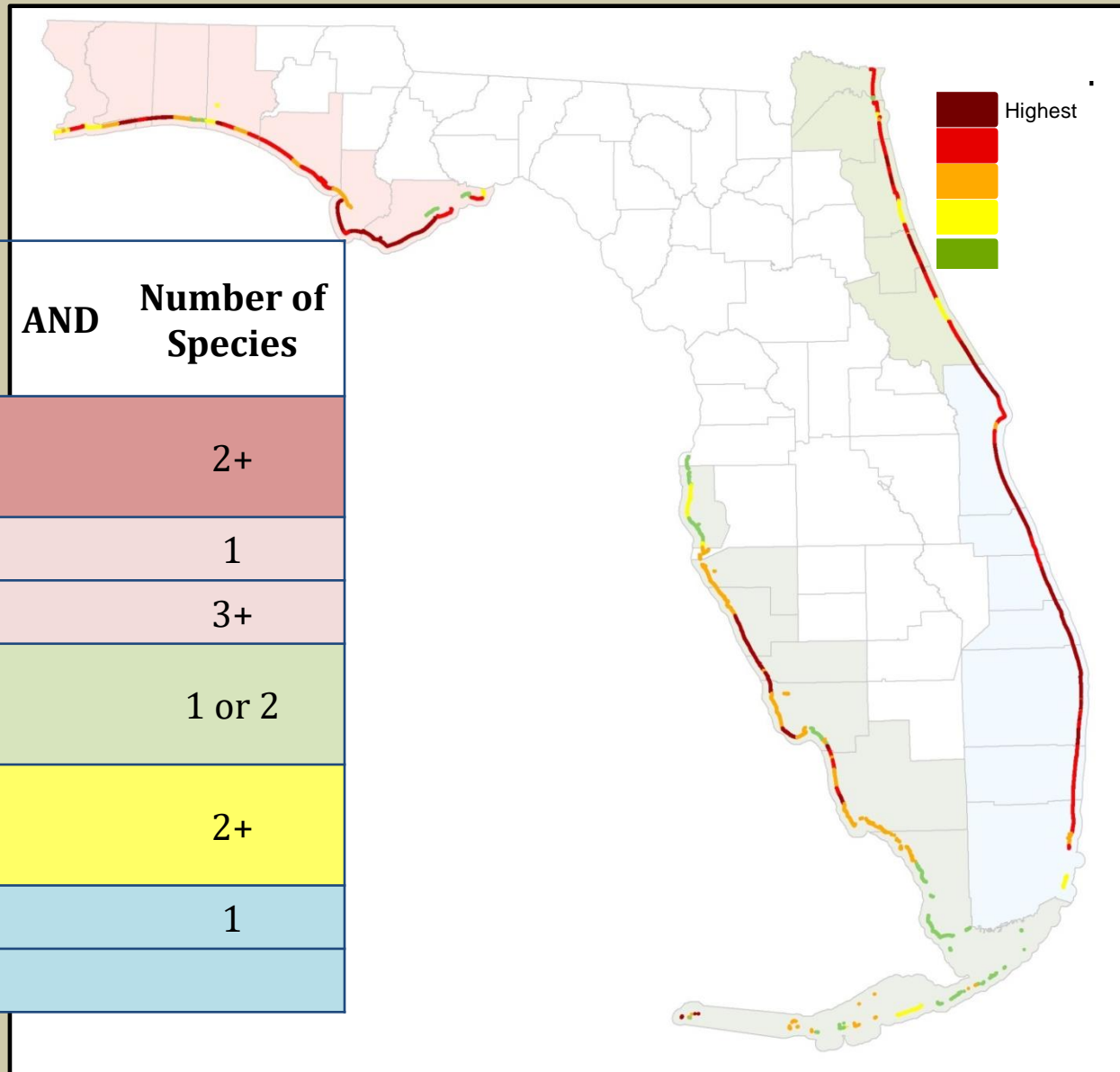
Loggerhead -- Green -- Leatherback -- Kemp's Ridley -- Hawksbill

*Source Data: FWC
Nesting Density 2011-
2015*

- *Nests/km for 215
Survey Beaches*
- *Summarized Into High,
Medium, Low and
Absent*
 - *By Quartiles (High
>75%; Medium
>25-75%; Low ≤
25%*
 - *Per Species*
 - *Per Genetic
Subunit for
Loggerheads and
Greens*



Sea Turtles



Index Value	Maximum Density Rank	AND	Number of Species
5	HIGH		2+
4	HIGH		1
	MED		3+
3	MED		1 or 2
2	LOW		2+
1	LOW		1
	Potential		



FBHCP Status - Phase 9

- **Submission** early 2018
- Finalize **take** models (direct and indirect impacts)
- SC vote on **covered species** edits (State vs. Federally Listed Species) How would this effect statutory changes?
- Additional review for **minimization measures** and conservation recommendations
- Compiling potential **mitigation** projects, calculating mitigation fees, ranking mitigation projects (habitat quality indices)



Photo: J.L. McGee



Phase 9 - 2017 and Beyond

- **Implementation Strategy/Plan Management (Chapter 12)**
 - *Legislative changes needed for implementation*
 - *Funding*
 - *Schedule*
 - *Implementation responsibilities (FDEP, FWC, local partners)*
 - *NEPA*
- **Adaptive Management (Chapter 13)**
- **Compliance Monitoring and Reporting (Chapter 15)**
- **Outreach**



Photo: J.L. McGee

Benefits

- *Develop standard environmental protection measures providing a clear roadmap for CCCL activities Ensure compliance with the ESA*
- *Fewer restrictions on activities occurring during sea turtle nesting season (more flexibility)*
- *Minimize risk from potential 3rd party lawsuits*
- *Reduce risk of unauthorized take*



Benefits

- *Expedited Post Storm Response*
- *Streamline the permitting process & reduce the application processing time*
- *Promote & improve healthy beaches for wildlife*
- *Address impacts to listed species & their habitats comprehensively, rather than parcel by parcel*



Summary

Process has been complex and time-consuming with broad participation and some delays

Data collected and depicted in some cases for the first time

Only HCP Program to cover an entire coastline

Rewards for species protection, permitting efficiency and agency compliance

*Public process-Next Steering Committee Meeting
May 2017*



<http://flbeacheshcp.com>



Questions?

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Photo: J.L.McGee