

FWS Prioritizing Fish And Wildlife, Establishing Population Objectives, and Dabbling In Surrogate Species Concepts

Selecting Surrogate Species (Pick Me, Pick Me, What About Me???)



National Series of Surrogate Species Training Workshops
San Juan, Puerto Rico
October 30-31 2012 – Bob Ford

FWS Prioritizing Fish And Wildlife, Establishing Population Objectives, and Dabbling In Surrogate Species Concepts

Objectives:

- A Moment To Recall Our Roots & Frame FWS Organizational Structure
- A Moment of FWS Prioritizing And Means To Setting Objectives for How Many Critters
- A Moment On the Shoulders of Giants Inspires Strategic Direction: B/C We Need To, We Have To, We Can

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- A Moment Objectives
- A Moment Dis



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National Series of Carriagat Species Training Workshops

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October 30-31 2012

Roots & Framing FWS Organizational Structure

fish, shorelines and water



Public Trust Doctrine*



The Nation's fish and wildlife resources are publicly owned and held in trust by the government for the continuing benefit of the public.

* Organ, J. and S. Mahoney. 2007 "The Future of Public Trust" *The Wildlife Professional* Vol. 1(2) pp: 18-22



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Roots & Framing FWS Organizational Structure



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Roots & Framing FWS Organizational Structure

United States

Government



Judicial Branch



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Executive Branch



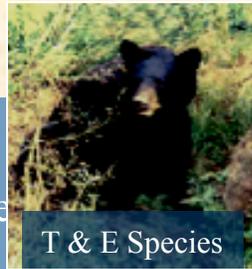
Legislative Branch

EXECUTIVE ORDER 13186



Mig Birds

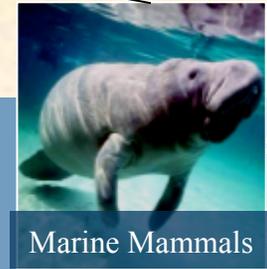
Wildlife Service
Saving the Nature



T & E Species

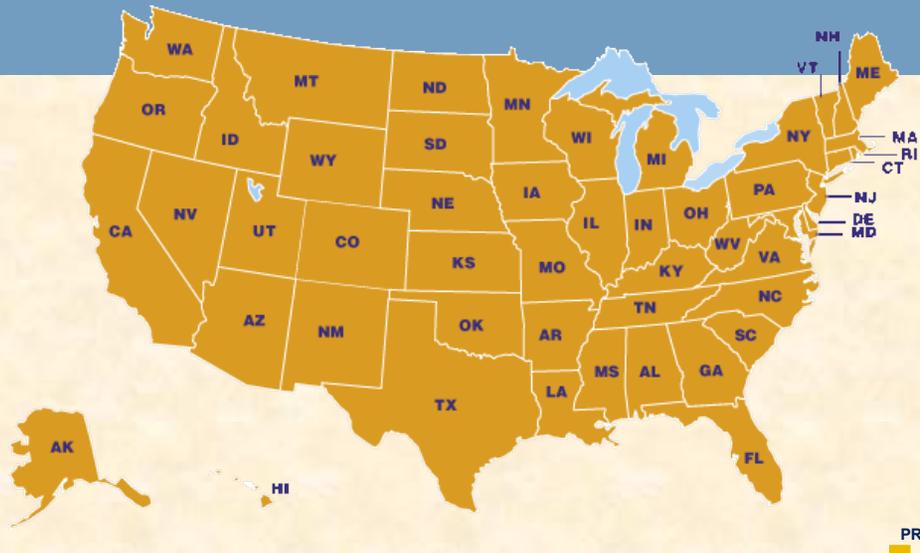


Inter-J Fish



Marine Mammals

Roots & Framing FWS Organizational Structure



Public trust responsibilities for fish and wildlife are shared by State and Federal governments.



Mig Birds

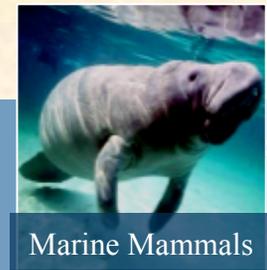
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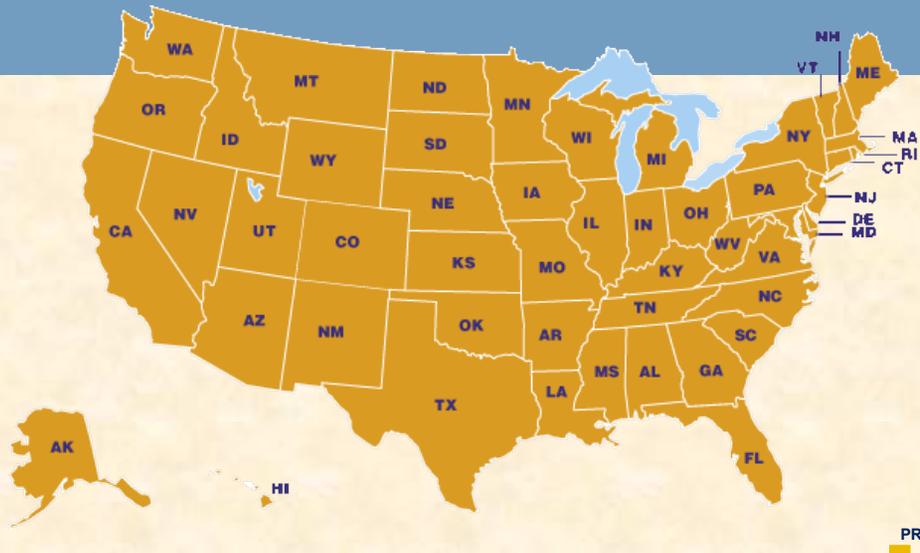


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Species....



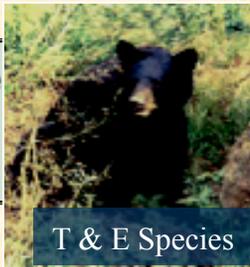
T & E Species Inter-Media Mammals
U.S. Fish & Wildlife Service
Conserving the Nature of America



Roots & Framing FWS Organizational Structure



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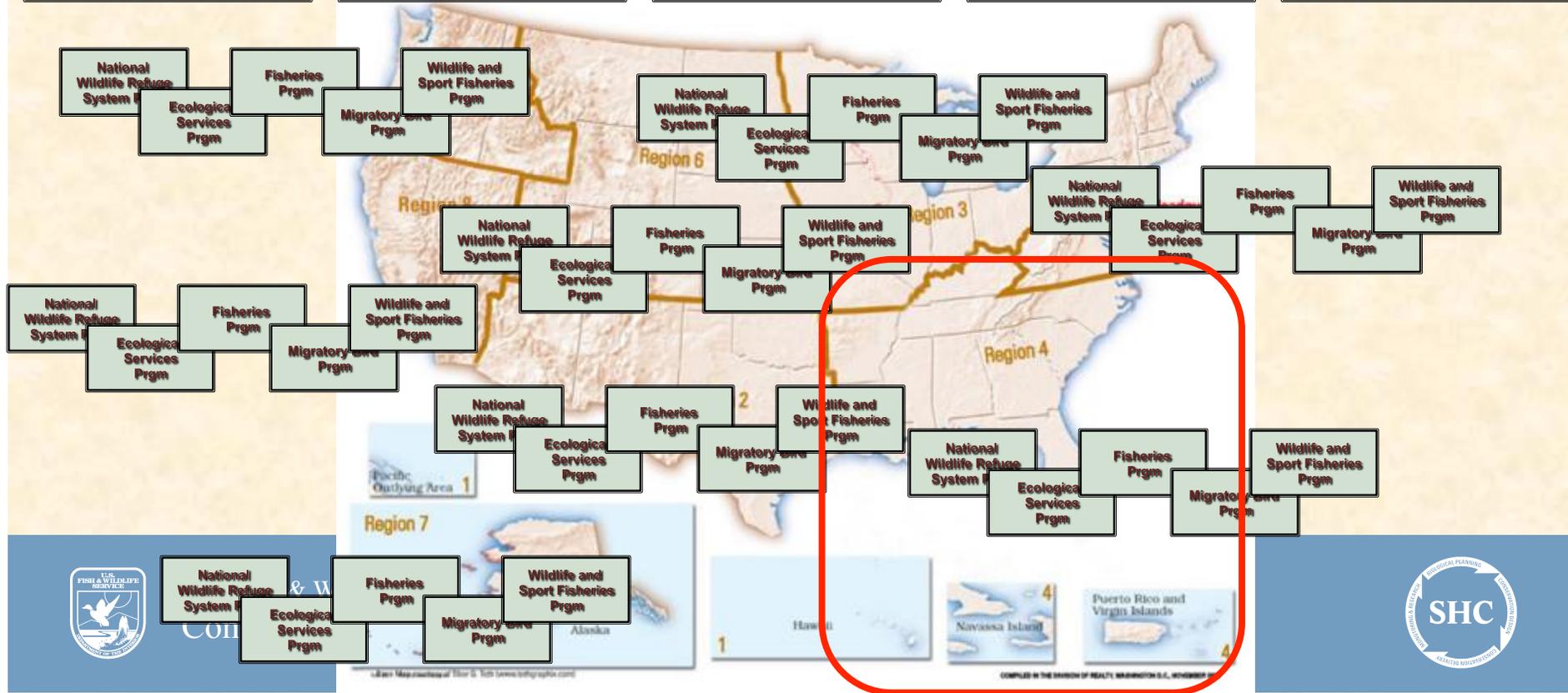
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Conserving the Nature of America



Roots & Framing FWS Organizational Structure





SOUTHEAST REGION OFFICES

U.S. FISH AND WILDLIFE SERVICE
U.S. DEPARTMENT OF THE INTERIOR

LEGEND

- ECOLOGICAL SERVICES FIELD OFFICE
- FISH HEALTH CENTER
- FISH TECHNOLOGY CENTER
- FISH & WILDLIFE COORDINATION OFFICE
- JOINT VENTURES
- LAW ENFORCEMENT OFFICE
- MIGRATORY BIRD COORDINATOR OFFICE
- NATIONAL FISH HATCHERY
- NATIONAL WILDLIFE REFUGE
- WILDLIFE & HABITAT MANAGEMENT OFFICE
- NATIONAL WILDLIFE REFUGE COMPLEX OFFICE

- LANDSCAPE CONSERVATION COOPERATIVES
- APPALACHIAN
 - EASTERN TALLGRASS PRAIRIE AND BIG RIVERS
 - GULF COAST PLAIN AND OZARKS
 - GULF COAST PRAIRIE
 - NORTH ATLANTIC
 - PENINSULAR FLORIDA
 - SOUTH ATLANTIC
 - CARIBBEAN



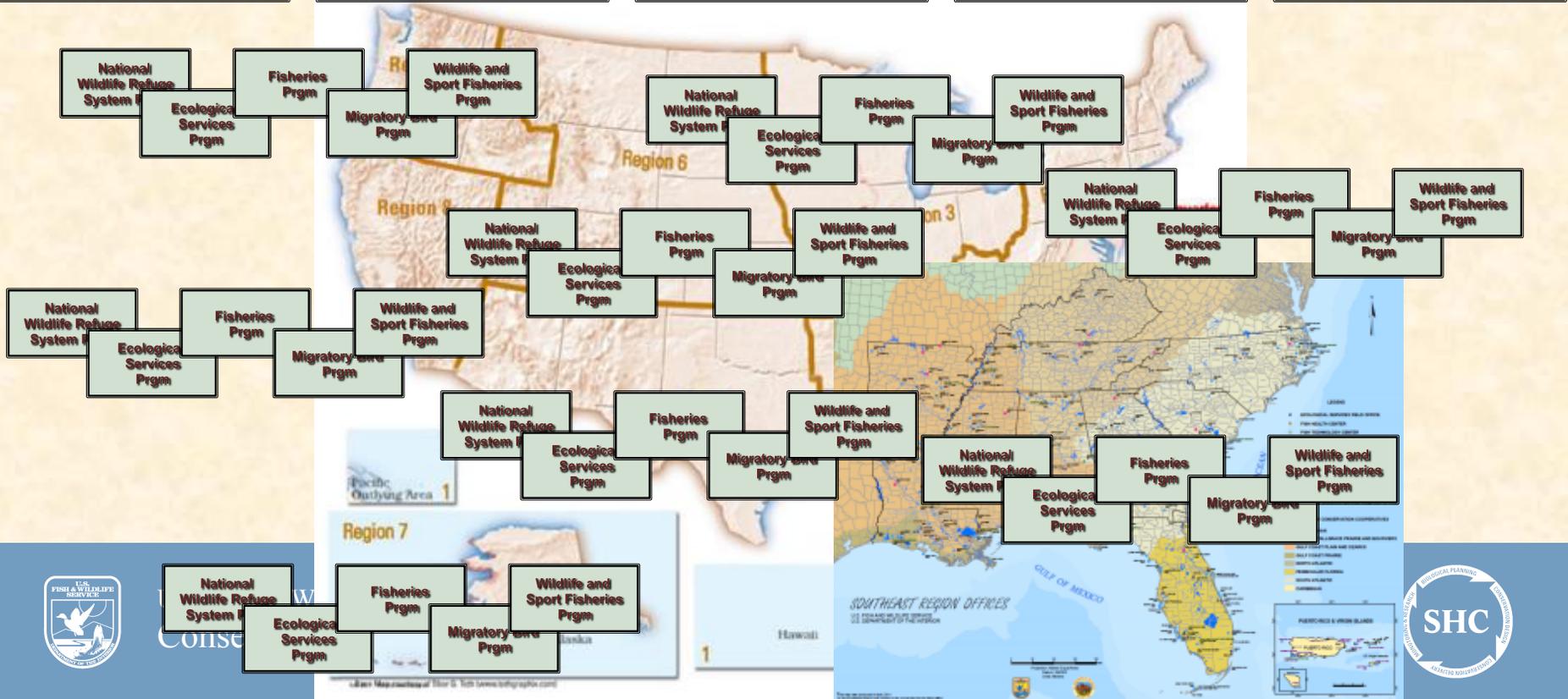
0 50 100 150 200 Miles

Projection: Albers Equal Area
Datum: NAD83
Units: Meters



This map was produced in April, 2011
by the Southeast Region GIS Center in the Cookeville, TN ES Field Office

FWS Species Prioritizing & Setting Population Objectives



“FWS trust species” are defined by public (via Congress) as:

- Threatened and Endangered Species, Subspecies, and Vertebrate Populations (also candidates)
- Migratory Birds
- Interjurisdictional Fish (e.g., Anadromous and Catadromous species, Sport Fisheries in support of mitigating Federal Projects)
- Marine Mammals (i.e., for FWS, Manatee)
- Resident wildlife of State management interest or conservation concern, occurring on National Wildlife Refuges



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The total number of species is Overwhelming!

Nationally, trust species for the Service equates to several thousand species, subspecies, and vertebrate populations

- So, is there a means by which we can conserve many of these species by focusing on a few?
- “Focusing” on a select number of species to show better success rates is not a new concept for the Service.



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Examples of Service Lists to Focus on a Few Species

- Regional Priority Species (2007) which also included Fisheries
- Spotlight Species for Endangered, Threatened, Proposed, Candidate, and Species-at-Risk
- Birds of Management Concern (both hunted and non-hunted species) and Birds of Conservation Concern (non-hunted species), “Focal Species”
- Resources (often Species) of Concern for Refuge Habitat Management Plans
- Field Station Focus Species



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With all of these responsibilities of national, regional, and local importance how do we choose how much to do what and where?

- Recovery Plans for Threatened and Endangered Species
- Migratory Bird Conservation Plans (NAWMP, Flyway, PIF, Shorebirds, Waterbirds)
- Fishery Management Plans
- Collaborate w/State Wildlife Action Plans, TNC Ecoregional Plans, Other Federal Agencies, etc.



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HOW MANY??



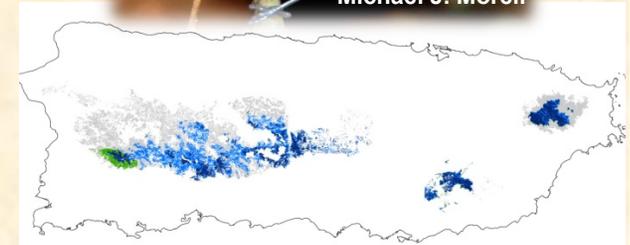
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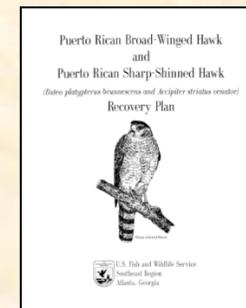
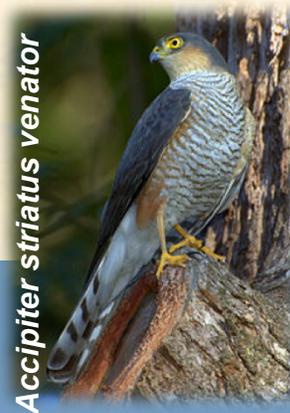
Step 7

Identify Population objectives

- Population objectives
 - abundance, trends, number and population status
- Conservation actions: measurable
- Modeling (Elfin-wood warbler)
- Example of population objectives:
 - Sharp shinned hawk: minimum 250 breeding pair
 - island wide (5 forests)
 - maintained for at least 7 years
 - breeding densities should be restored to the levels known in 80's
 - Carite - 0.42/km²
 - Guilarte - 0.821/km²
 - Luquillo - 1.03/km²
 - Maricao - 1.15/km²
 - Toro Negro - 1.45/km²



Elfin-wood warbler habitat suitability model



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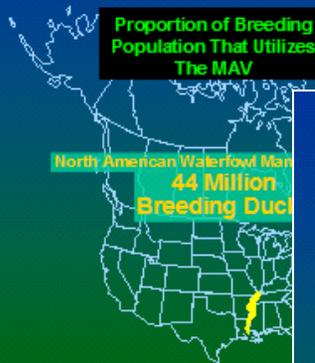


North American Waterfowl Management Plan Setting - Linked – National, Regional, and Local Population Objectives

Establish Population Targets

CANADA GOOSE
SNOW GOOSE
WHITE-FRONTED GOOSE

AMERICAN BLACK DUCK
AMERICAN WIGEON
CANVASBACK
GADWALL
GREEN-WINGED TEAL
MALLARD
NORTHERN PINTAIL
NORTHERN SHOVELER
REDHEAD
RING-NECKED DUCK
RUDDY DUCK
SCAUP
WOOD DUCK



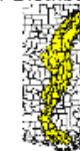
Establish Population Targets

STEP 1 Winter Distribution of Ducks Among States

Mid-Winter Inventory Data
January 1970-79



STEP 2 Winter Distribution of Ducks Within States



Harvest Data
January 1970-79

Establish Objectives to Counter Limiting Factor

Habitat Objectives in Duck-Use Days (x1000)

$$\text{Habitat Objectives} = \frac{\text{Target}_{\text{state}}}{0.85_{\text{survival}}} * 110_{\text{winterdays}}$$

State	Dabbling Ducks	Diving Ducks	Wood Ducks	Total
Arkansas	186,485	9,918	40,770	237,172
Illinois	380	0	1,378	1,758
Kentucky	1,602	25	849	2,475
Louisiana	80,695	42,120	50,076	172,892
Mississippi	55,047	5,168	22,673	83,338
Missouri	8,326	463	3,292	12,081
Tennessee	29,966	1,906	4,491	36,362
Total	362,500	60,050	123,527	546,078

Establish Population Targets

$$\text{Target}_{\text{state}} = P_{\text{state}} * P_{\text{MAVstate}} * \text{Goal}_{\text{continent}}$$

State	Dabbling Ducks	Diving Ducks	Wood Ducks	Total
Arkansas	1,474,189	78,401	322,290	1,874,880
Illinois	3,005	0	10,890	13,895
Kentucky	12,662	194	6,710	19,566
Louisiana	637,907	332,965	395,860	1,366,732
Mississippi	435,151	44,414	179,230	658,796
Missouri	65,817	3,664	26,020	95,501
Tennessee	236,884	15,066	35,500	287,450
Total	2,865,615	474,703	976,500	4,316,818

Establish Objectives to Counter Limiting Factor

Relating Food Requirements to Foraging Habitat :

Habitat	Duck-Use Days per Acre
Moist-soil Area	1,386
Harvested Croplands	
Rice	752
Soybeans	121
Milo	849
Corn	970
Forested Wetlands	
50% red oaks	321



3.7 kcal/gram



merica

North American Waterfowl Management Plan Setting - Linked – National, Regional, and Local Population Objectives

Louisiana Step-Down Objectives: 125,000,000 DUDs

Managed Habitat = 60%

Natural Flood = 40%

Public Managed = 20%

Private Managed = 80%

Catshoula NWR
Objective = 629 ac

Dewey Wills WMA
Objective = 0 ac

Lake Ophelia NWR
Objective = 1,550 ac

Grand Cote NWR
Objective = 1,600 ac

Spring Bayou WMA
Objective = 3,200 ac

Bayou Cocodrie NWR
Objective = 358 ac

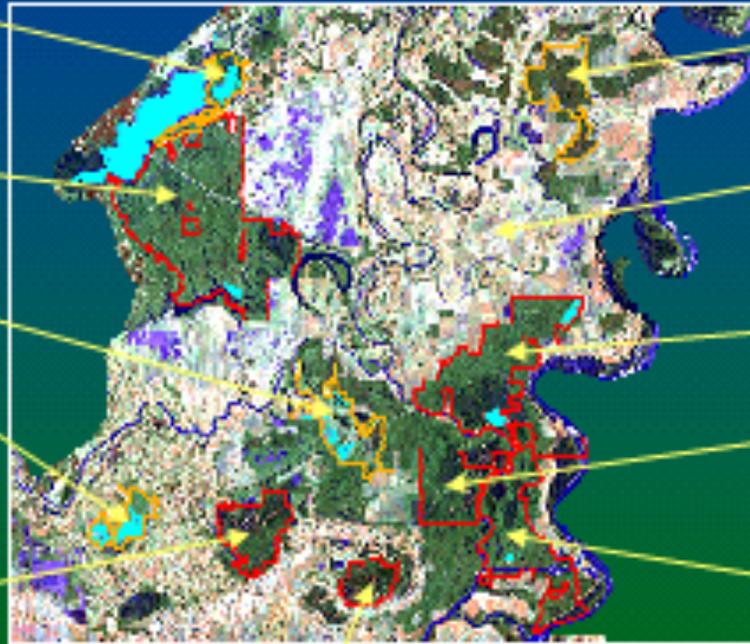
Private Lands
Objective = 140,000 ac

Red River WMA
Objective = 558 ac

Grassy Lake WMA
Objective = 0 ac

Three Rivers WMA
Objective = 153 ac

Bayou de Terre WMA
Objective = 2,406 ac



Apportion Habitat

e.g., Louisiana: 130,771,000 DUD

Hydrology

Landowner

PUBLIC

PRIVATE

PUBLIC/F

MANAGED 60%

NATURAL 40%



FWS Species Prioritizing & Setting Population Objectives



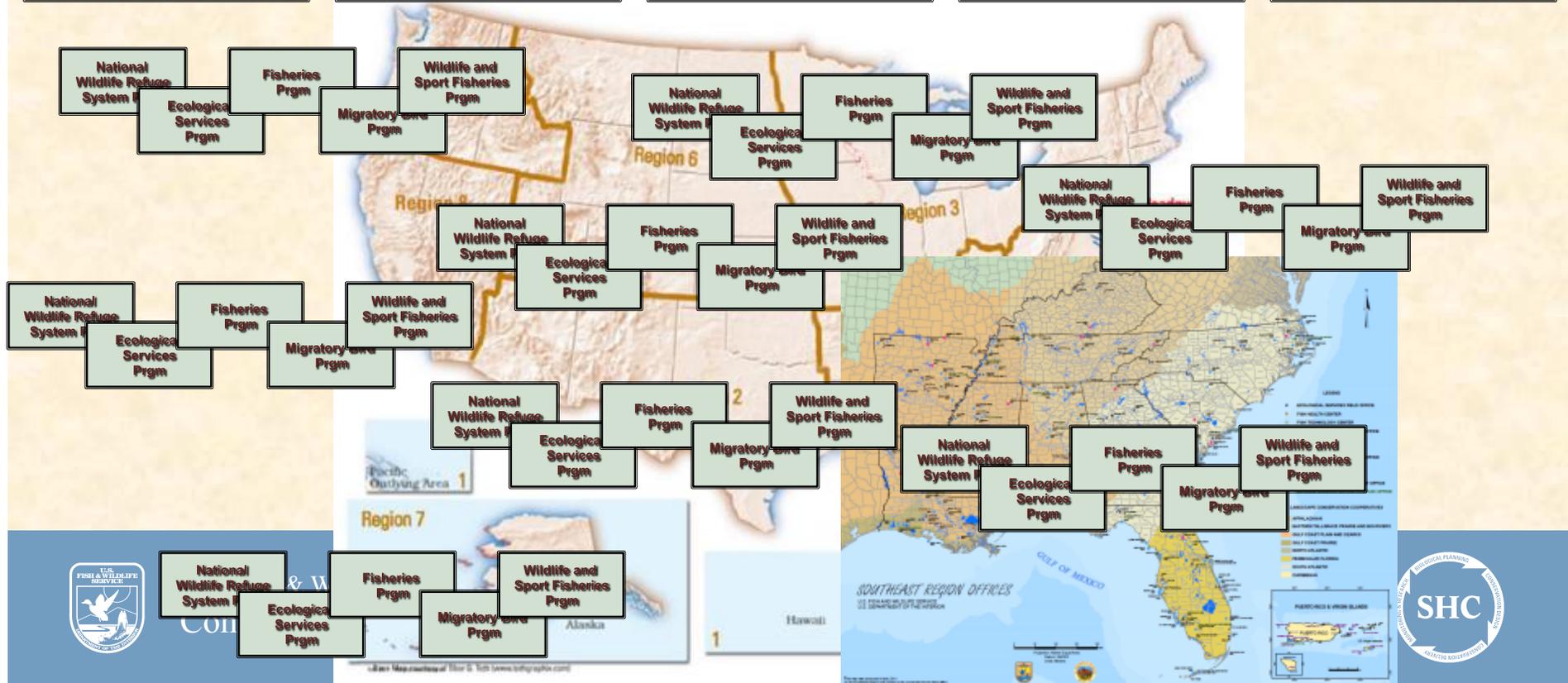
National Wildlife Refuge System Prgm

Ecological Services Prgm

Fisheries Prgm

Migratory Bird Prgm

Wildlife and Sport Fisheries Prgm



National Wildlife Refuge System Prgm

Ecological Services Prgm

Fisheries Prgm

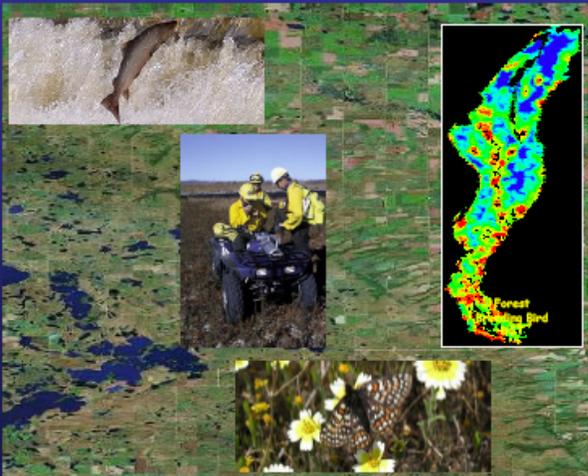
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FWS Species Prioritizing & Setting Population Objectives

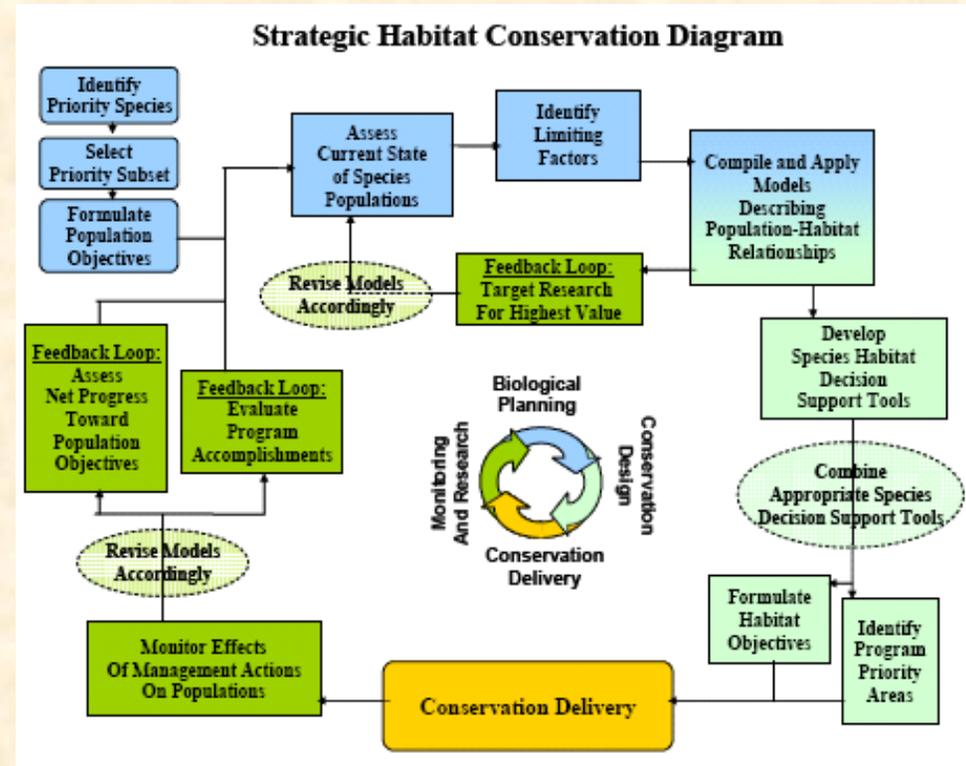
Strategic Habitat Conservation

*Final Report of the
National Ecological
Assessment Team*



July 2006

Strategic Habitat Conservation Diagram



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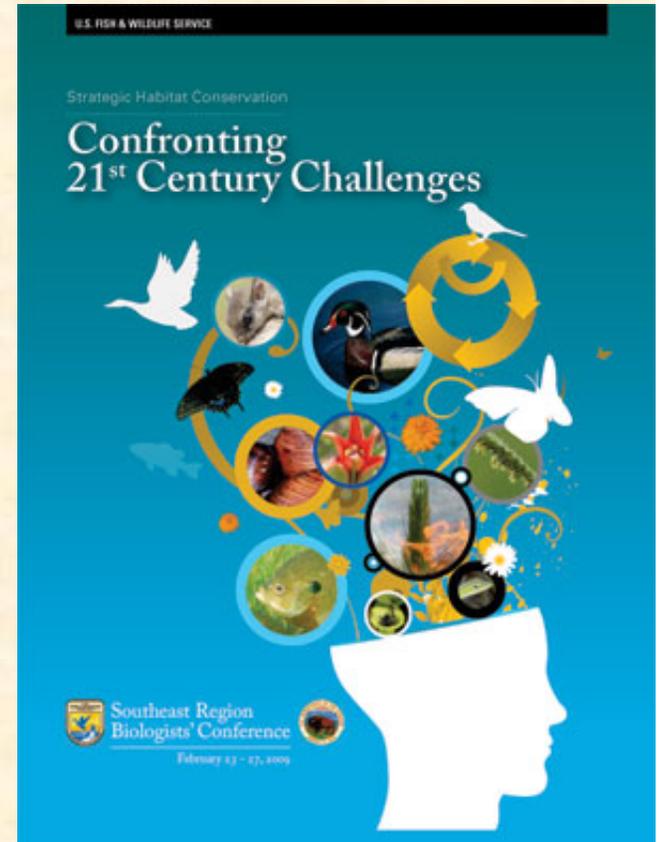


This map was produced in April, 2011 by the Southeast Region GIS Center in the Cookeville, TN ES Field Office



Ecological Communities (“Broadly-defined Habitats”) of the Southeast Region

- Beaches and Dunes
- Caves, Karst, Springs
- Estuarine (marshes) & Marine
- Freshwater Aquatics
- Freshwater Marshes
- Freshwater Managed Wetlands
- Grasslands
- Forested Wetlands-mineral soil
- Forested Wetlands-organic soil (pocosins, Okefenokee)
- Montane Conifers and Upland Forests
- Southern “open” Pine
- Trop. Hardwoods, mangroves, s FL Slash Pine Rocklands
- Xeric (Florida) Scrub and Coastal scrub
- Other Shrub-scrub (glades, bogs, patch prairies)



July 20, 2012

DRAFT Guidance on Selecting Species for Design of Landscape-scale Conservation

TABLE OF CONTENTS

INTRODUCTION	2
PURPOSE	4
THE SURROGATE SPECIES APPROACH	5
FINDING EFFECTIVE	5
LIMITATIONS	8
CLIMATE CHANGE	9
PROCESS FOR SELECTING SURROGATE SPECIES	9
DEVELOP AND SPECIFY CONSERVATION OBJECTIVES	10
IDENTIFY GEOGRAPHIC SCALE	11
DETERMINE SPECIES TO CONSIDER	12
DECIDE WHICH CRITERIA TO USE IN DETERMINING SURROGATE SPECIES	13
ESTABLISH SUBGOALS	13
IDENTIFY SPECIES REQUIRING SPECIAL ATTENTION	14
IDENTIFY POPULATION OBJECTIVES	15
TEST FOR LOGIC AND CONSISTENCY	17
IDENTIFY KNOWLEDGE GAPS AND DATA DEFICIENCIES	17
MEASURE EFFECTIVENESS	18
OTHER CONSIDERATIONS FOR CONSERVATION OF FUNCTIONAL LANDSCAPES	19
ASSURING CONSISTENCY AND CONTINUITY	20
THE ROLE OF LANDSCAPE CONSERVATION COOPERATIVES	22
CONCLUSION	22
LITERATURE CITED	24
APPENDIX 1 - COMPARISON OF SURROGATE SPECIES CONCEPTS	26
APPENDIX 2 - GLOSSARY OF TERMS	29
APPENDIX 3 - FREQUENTLY ASKED QUESTIONS	30

Strateg



USGS
science for a changing world

Are Not The
F&W Agencies
Yesterday



U.S. Fish & Wildlife
Conserving the

Century

Will They Be
the F&W
Agencies of
Tomorrow



On the Shoulders of Giants Inspires Strategic Direction: B/C We Need To, We Have To, We Can

Societal Changes = Changing Values



Economy & Fiscal Accountability



Economy & Fiscal Accountability



Economy & Fiscal Accountability

"The current conduct of American government is a poor match for the problems it must solve..."

"American governments increasingly face problems that pay little attention to the boundaries created to manage them..."

"If government is to serve the needs of its citizens in the 21st century, it must reconfigure itself - to shift the boundaries of who does what and, even more important, how its work gets done."



Scope and Scale of "System" Changes + Runaway Complexity



U.S. Fish & Wildlife Service
U.S. DEPARTMENT OF THE INTERIOR
Conserving the Values of America

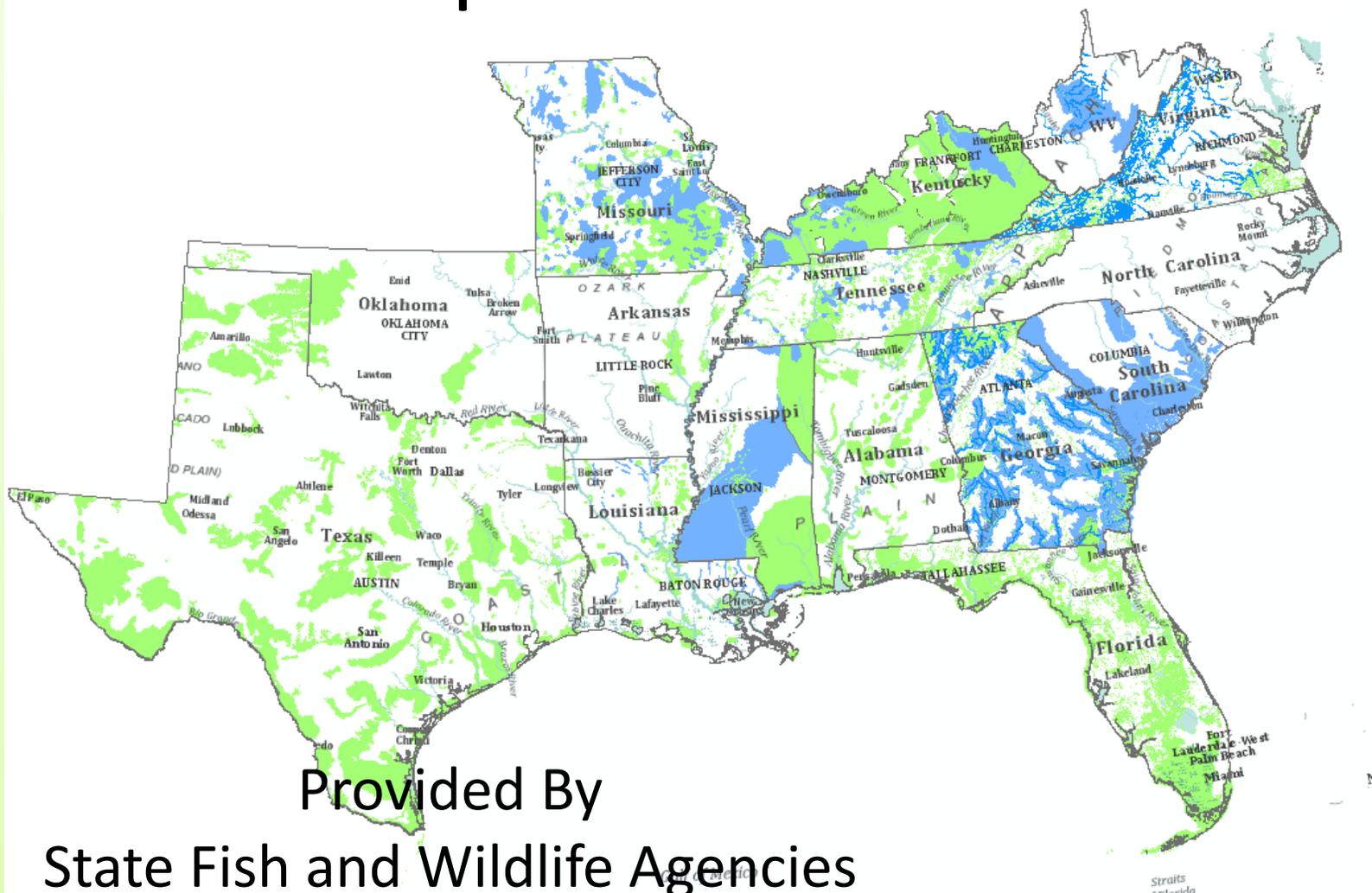
U.S. DEBT & FISCAL SERVICE
Conserving the Values of America



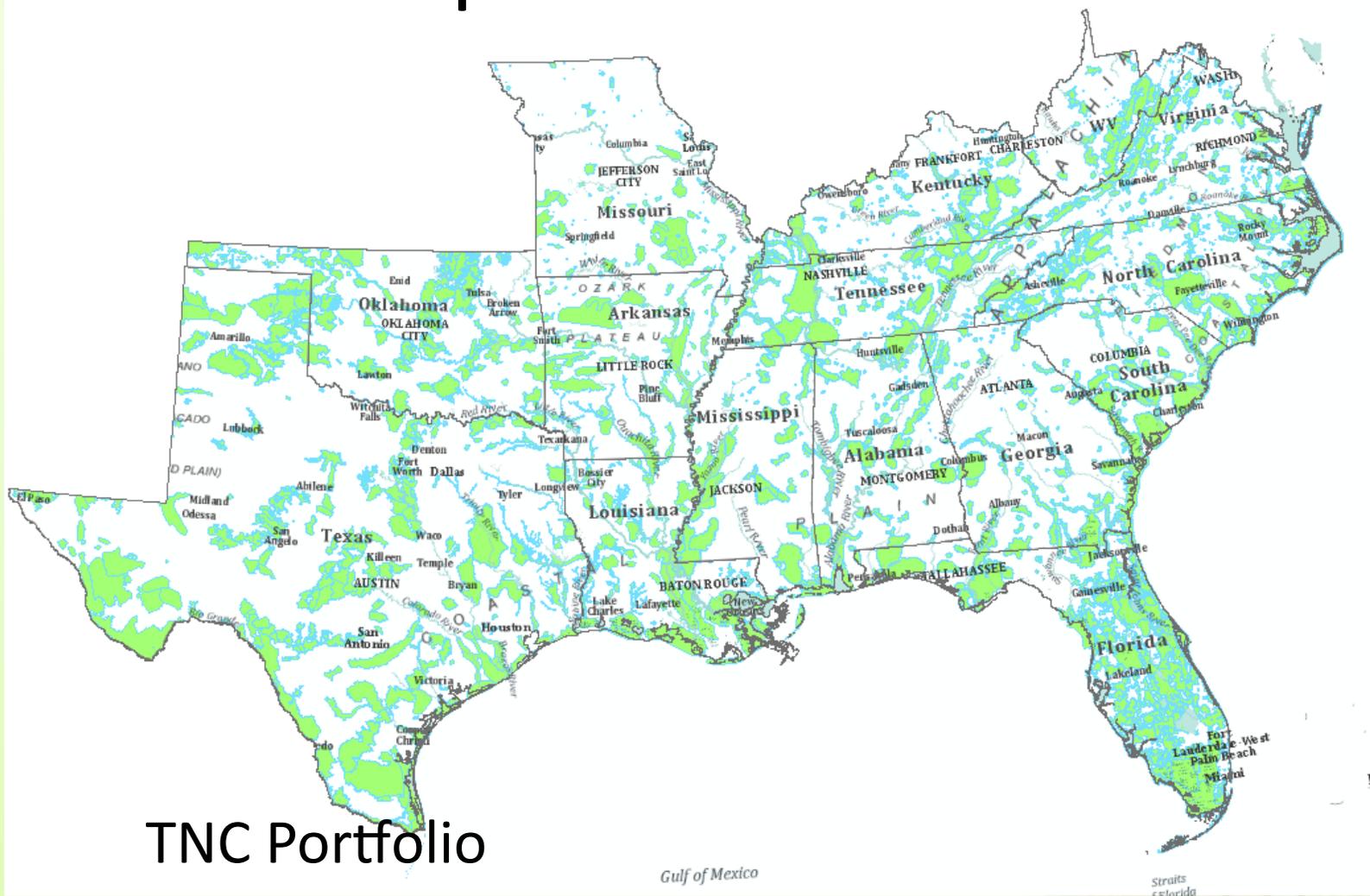
Building On The Foundation Current Conservation Estate



An Incomplete & “Un-proved” Snapshot of Areas Important for Conservation



An Incomplete & “Un-proved” Snapshot of Areas Important for Conservation

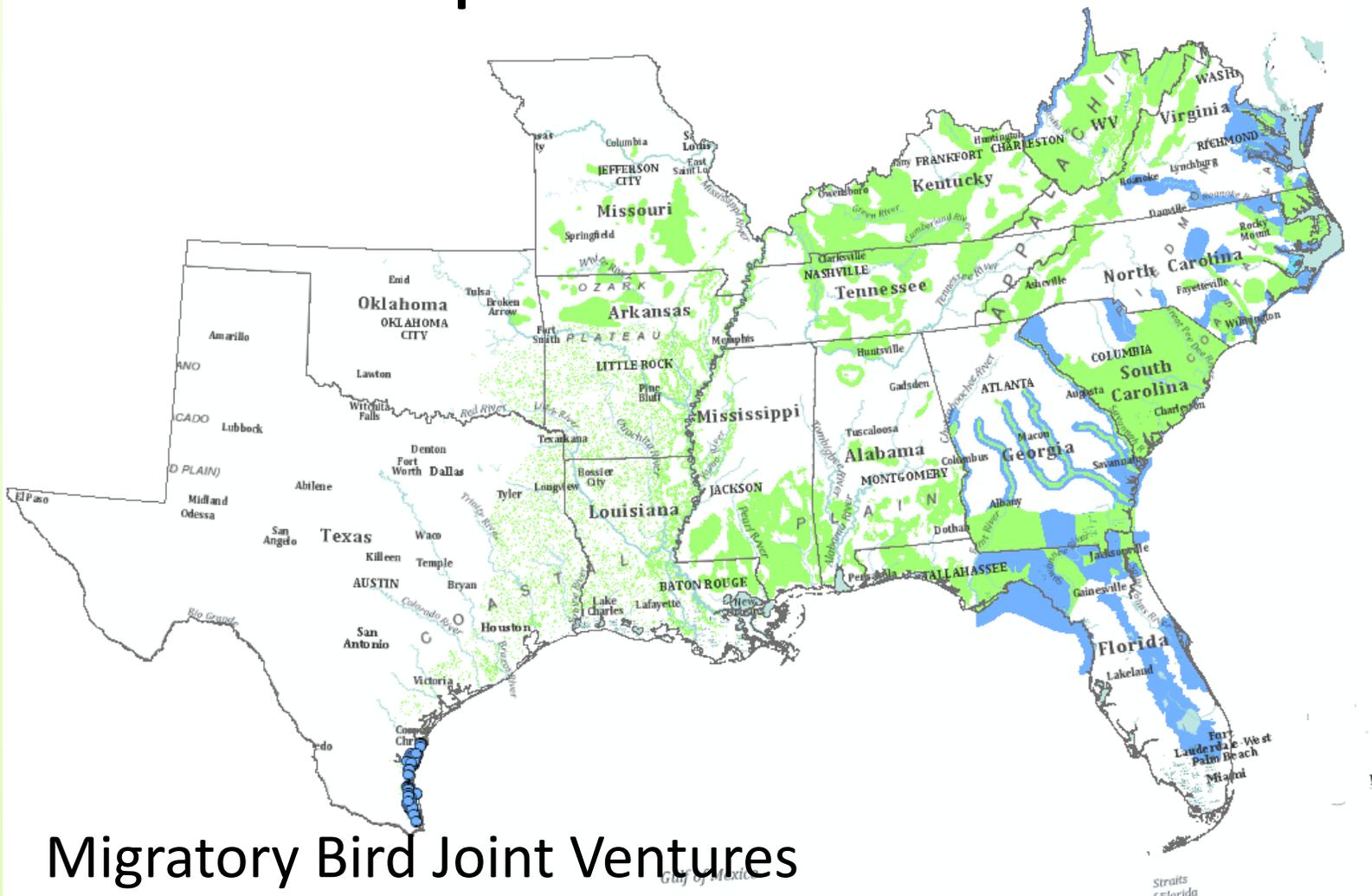


An Incomplete & “Un-proved” Snapshot of Areas Important for Conservation

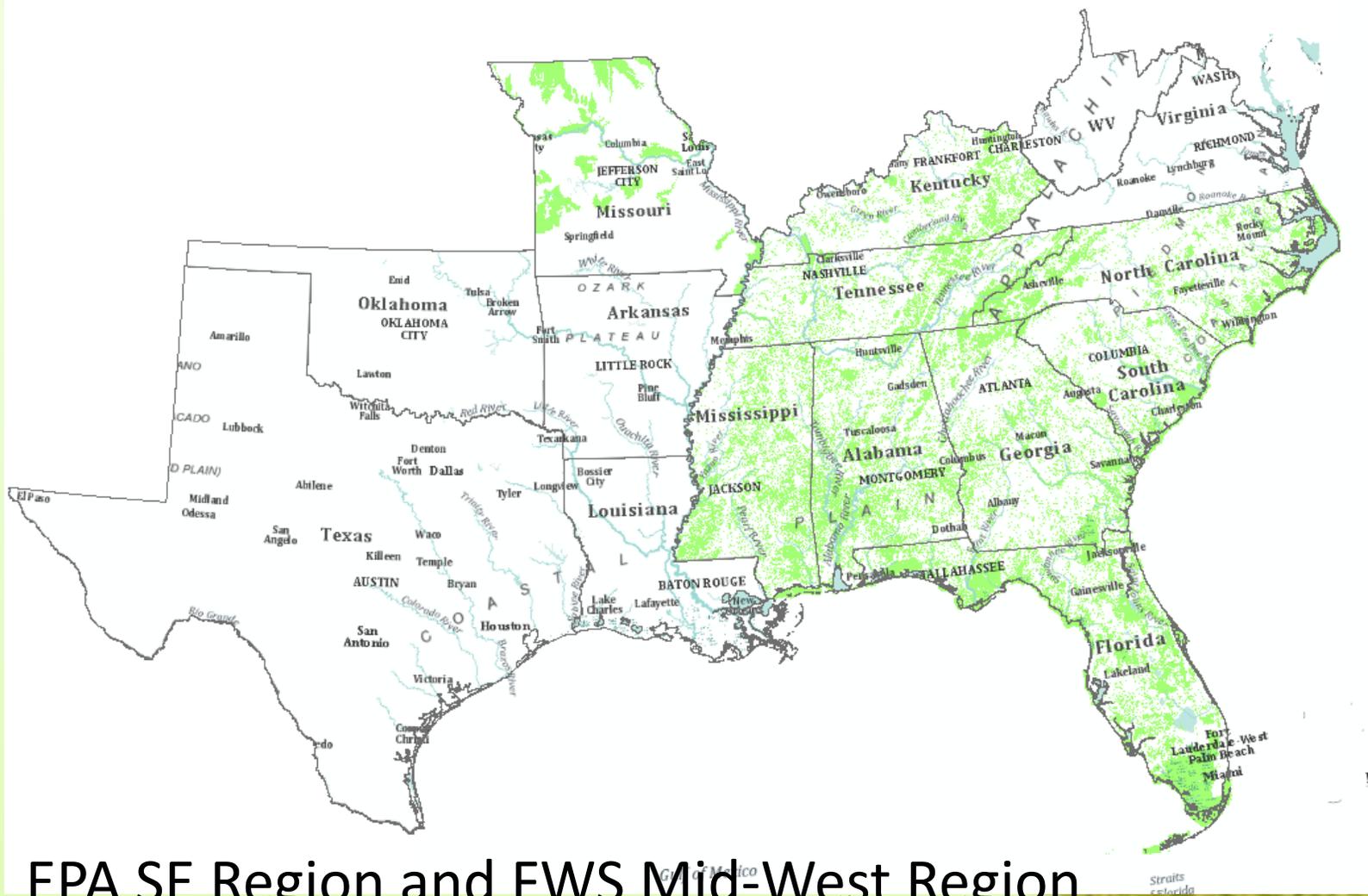


Southeast Aquatic Resource Partnership

An Incomplete & “Un-proved” Snapshot of Areas Important for Conservation

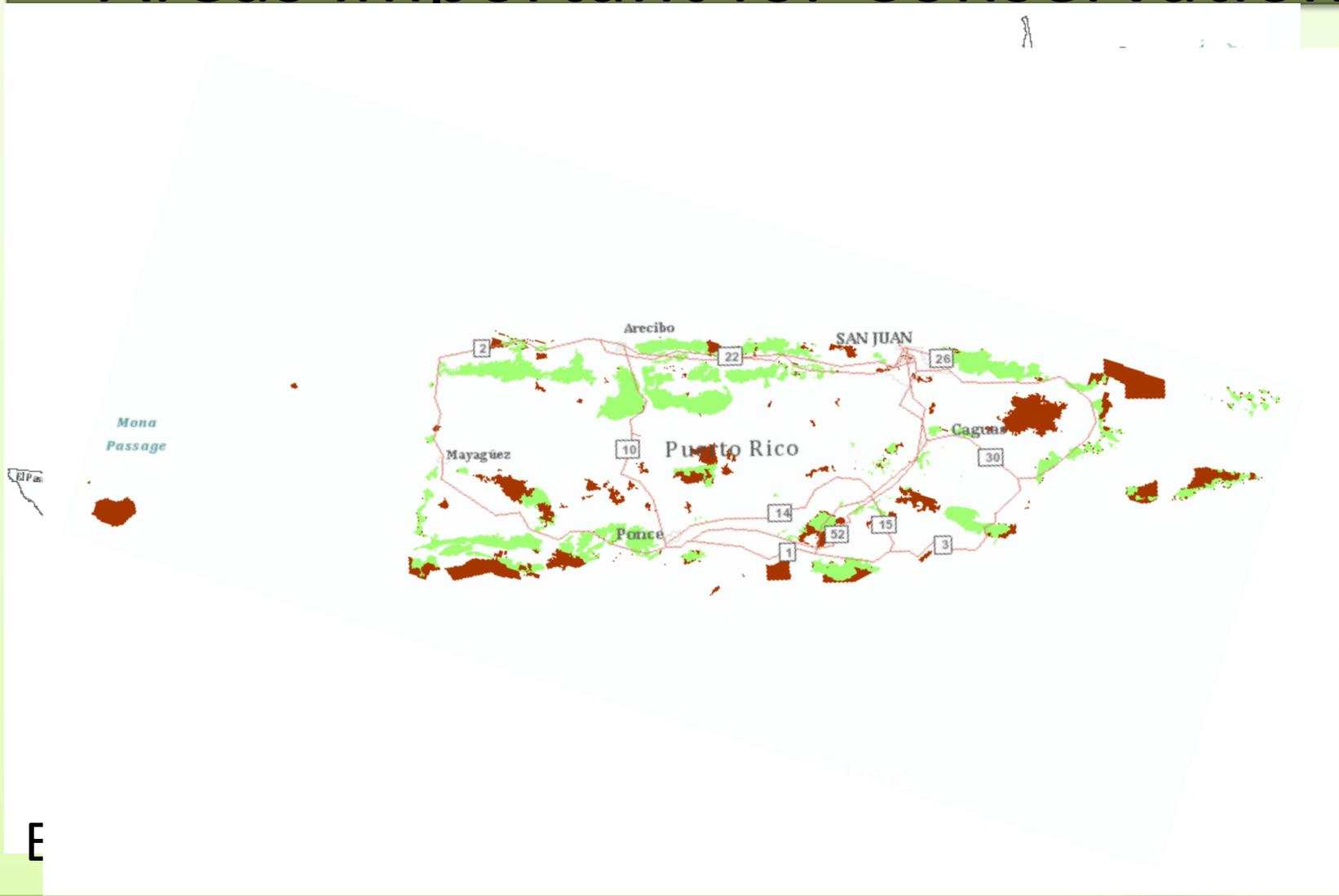


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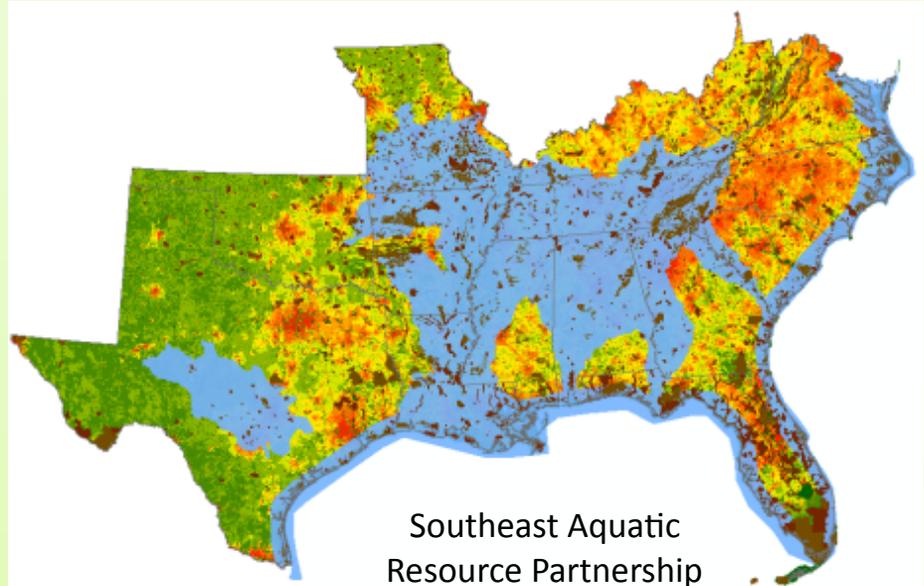
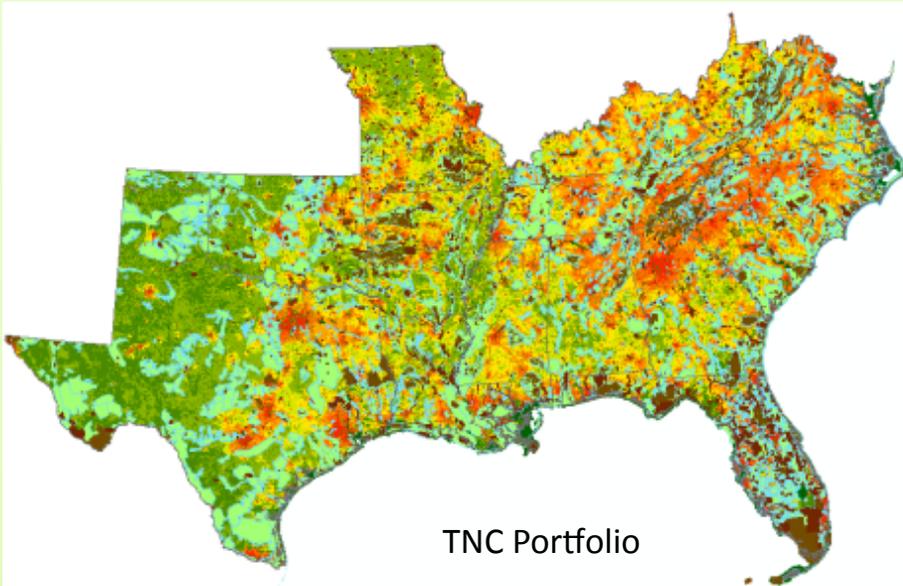
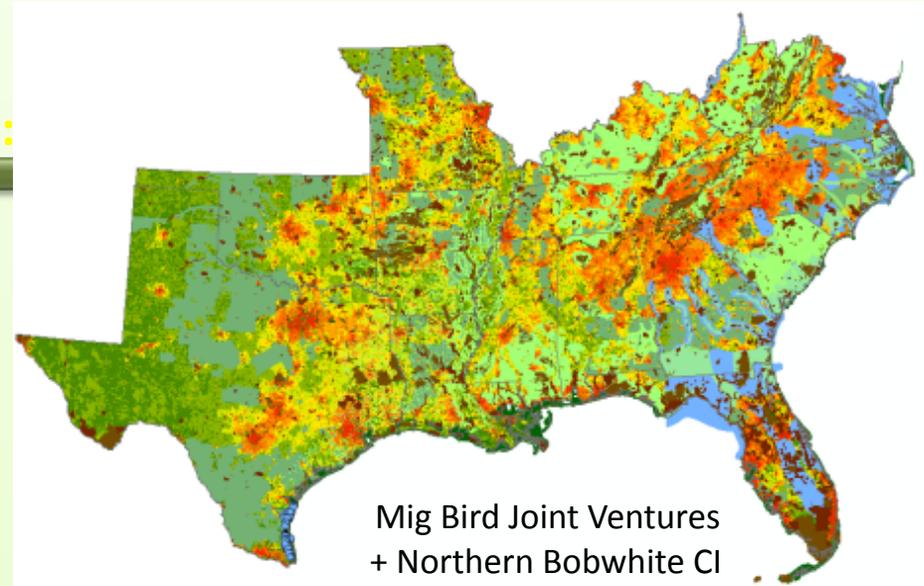
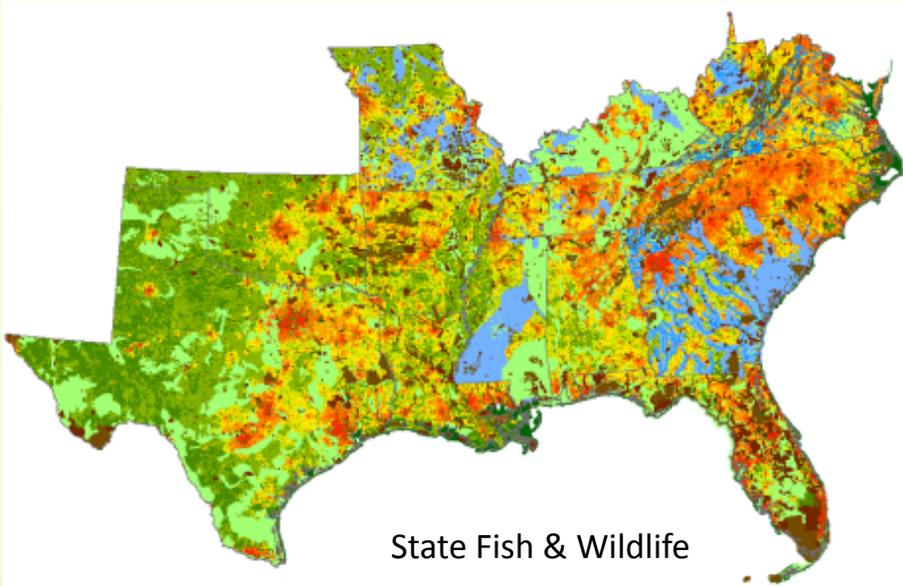


EPA SE Region and FWS Mid-West Region

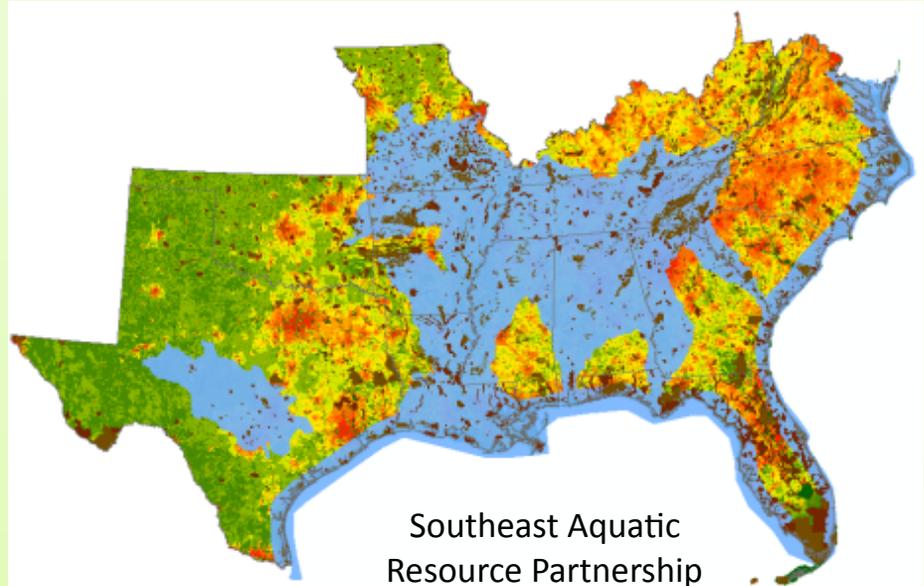
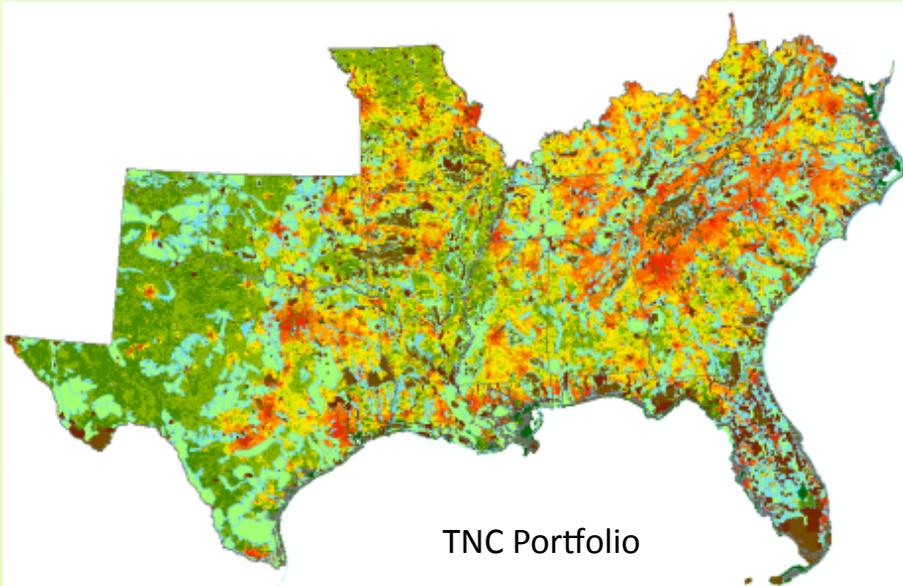
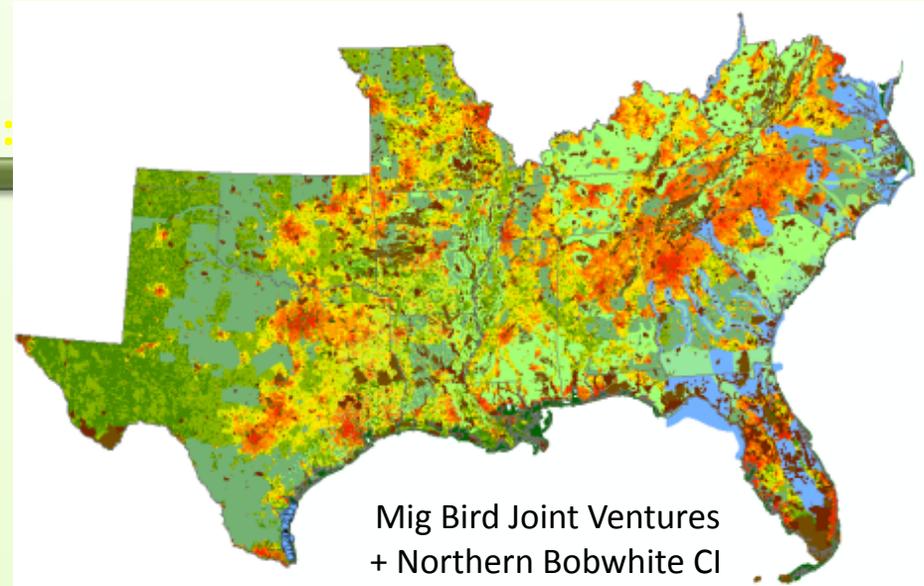
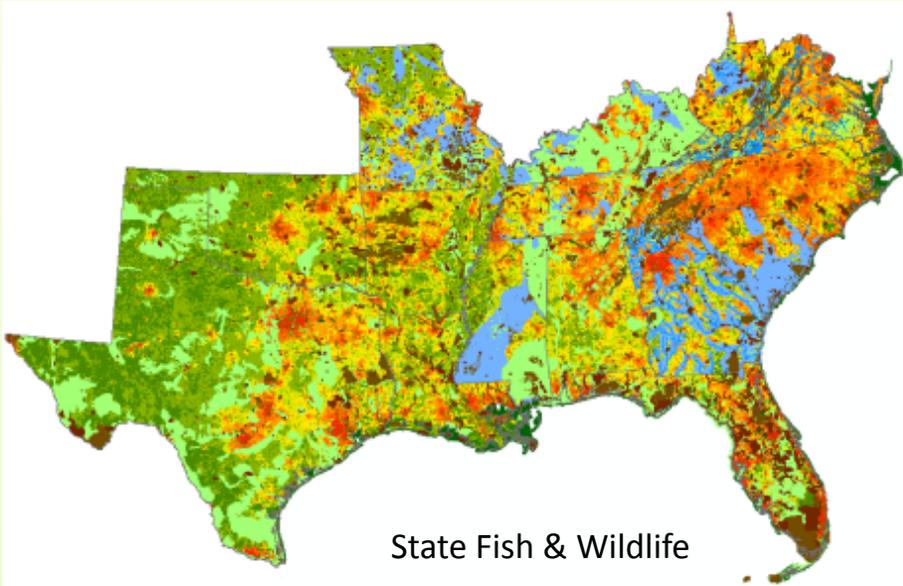
An Incomplete & “Un-proved” Snapshot of Areas Important for Conservation



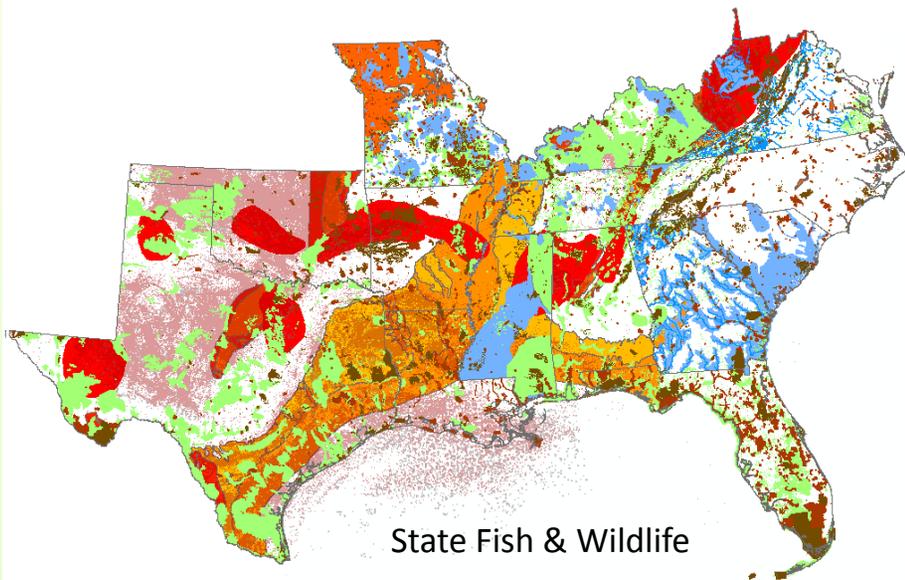
Urban Growth & Areas Important to Conservation



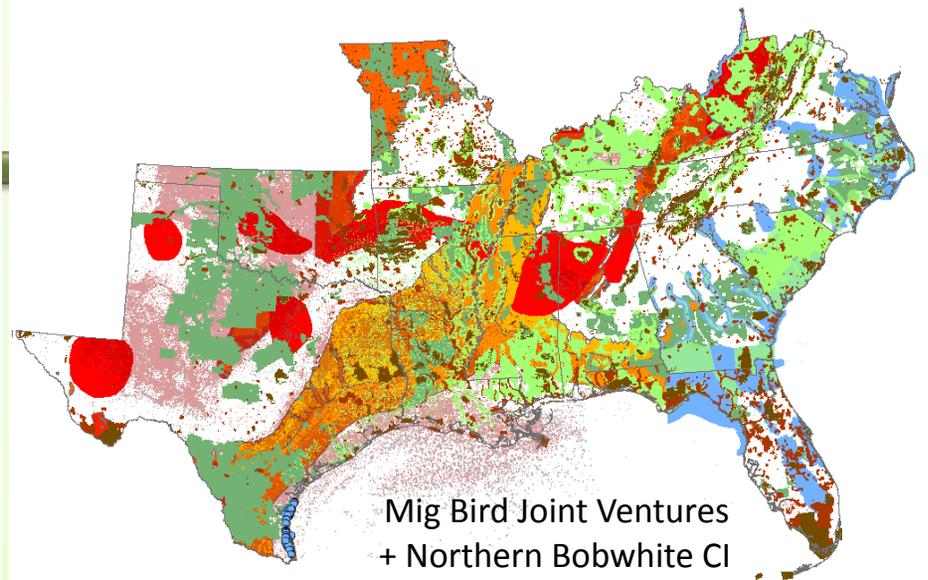
Urban Growth & Areas Important to Conservation



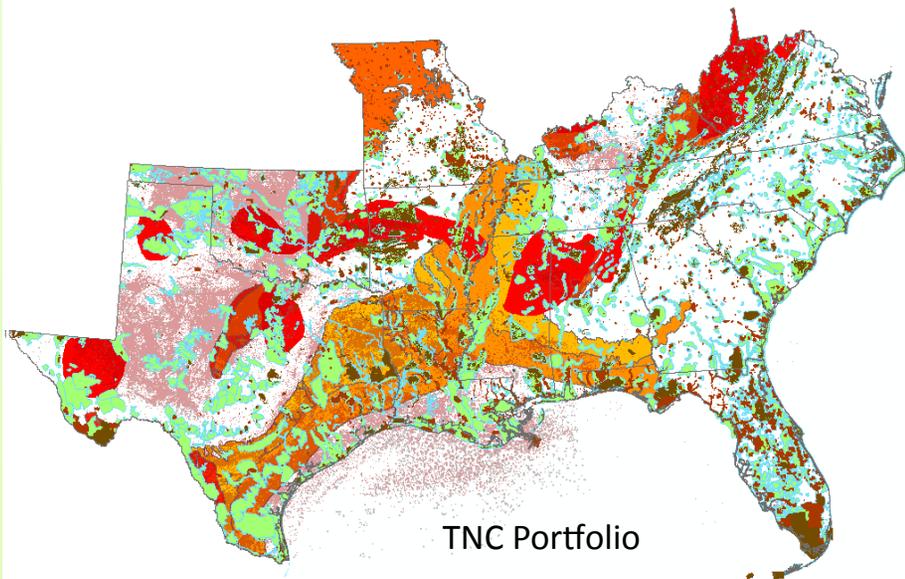
Shale/Coal Deposits & Areas Important to Conservation



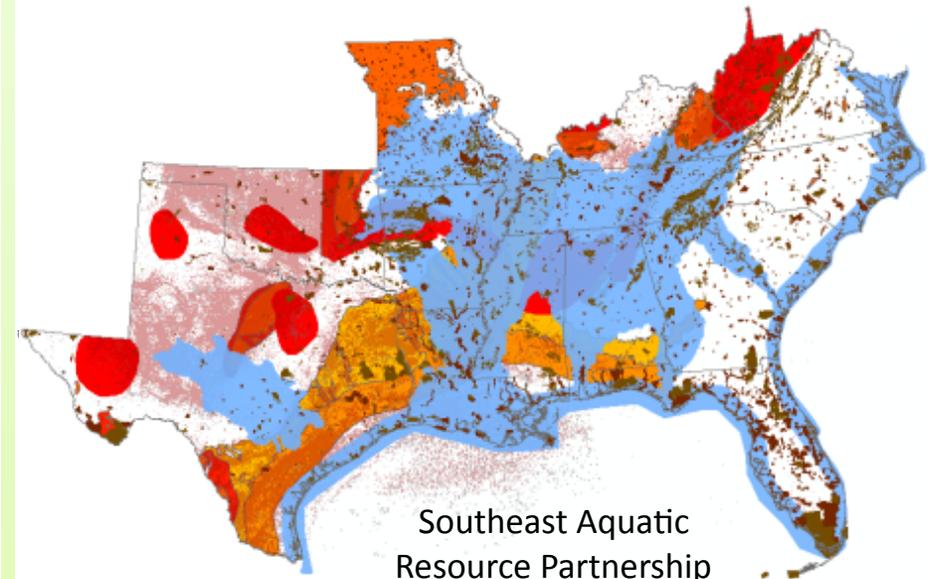
State Fish & Wildlife



Mig Bird Joint Ventures
+ Northern Bobwhite CI

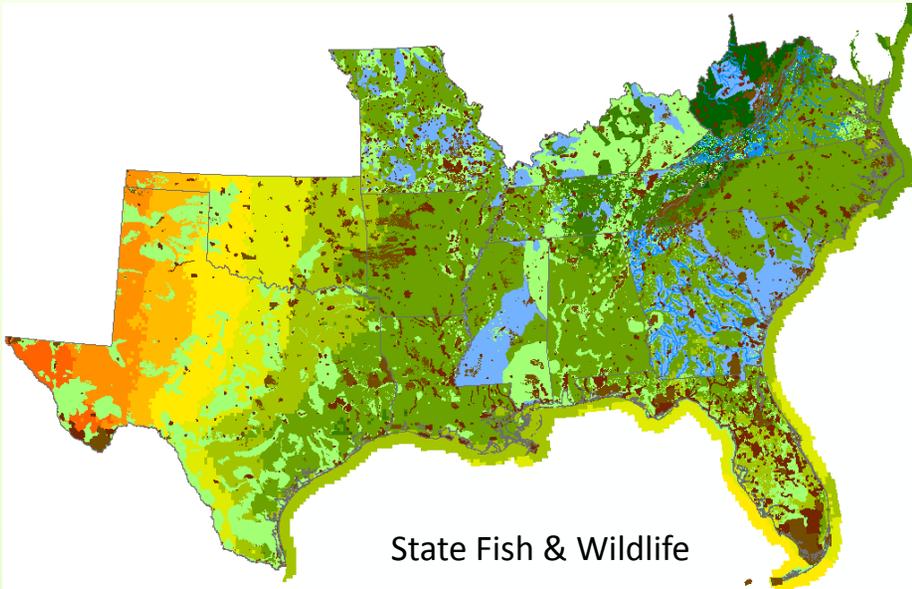


TNC Portfolio

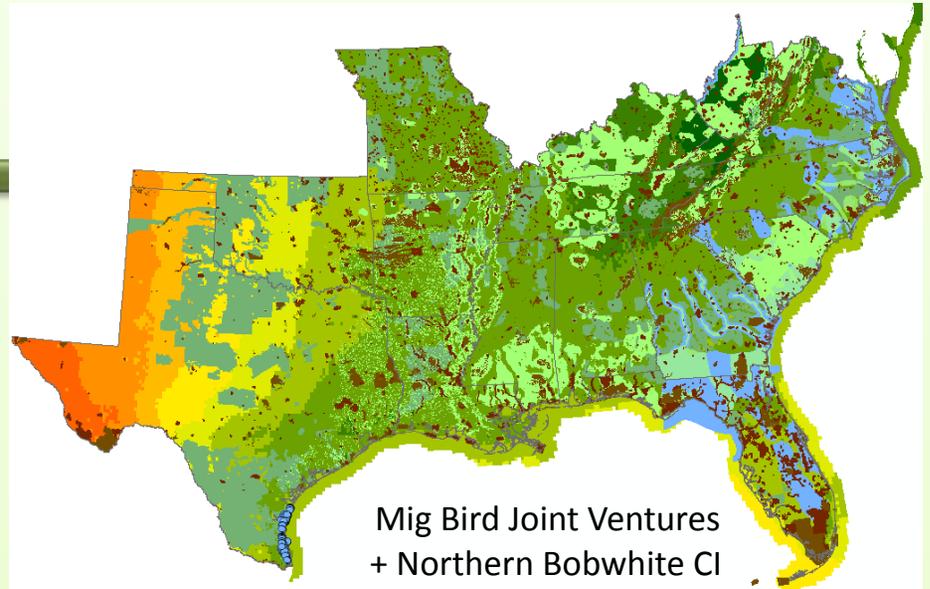


Southeast Aquatic
Resource Partnership

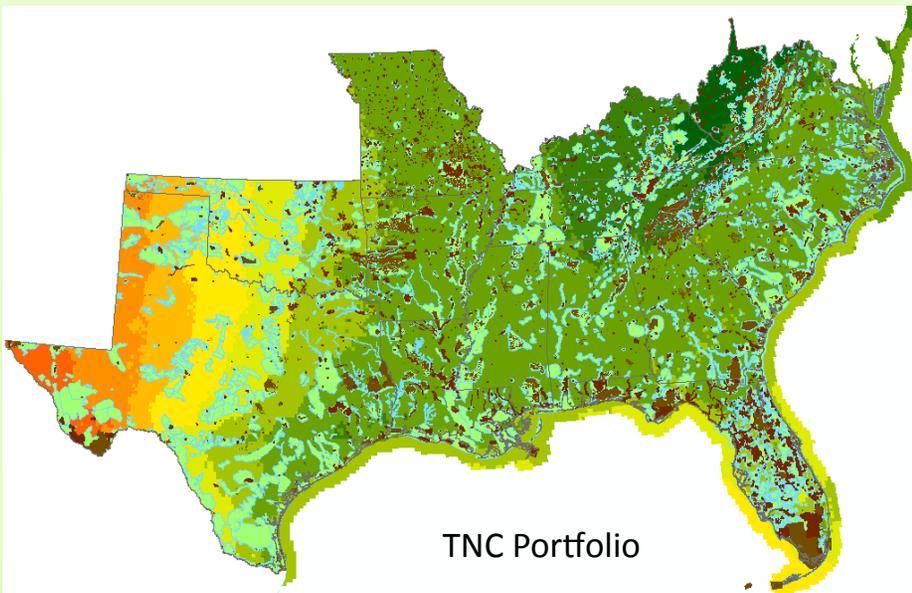
Solar Energy Potential & Areas Important to Conservation



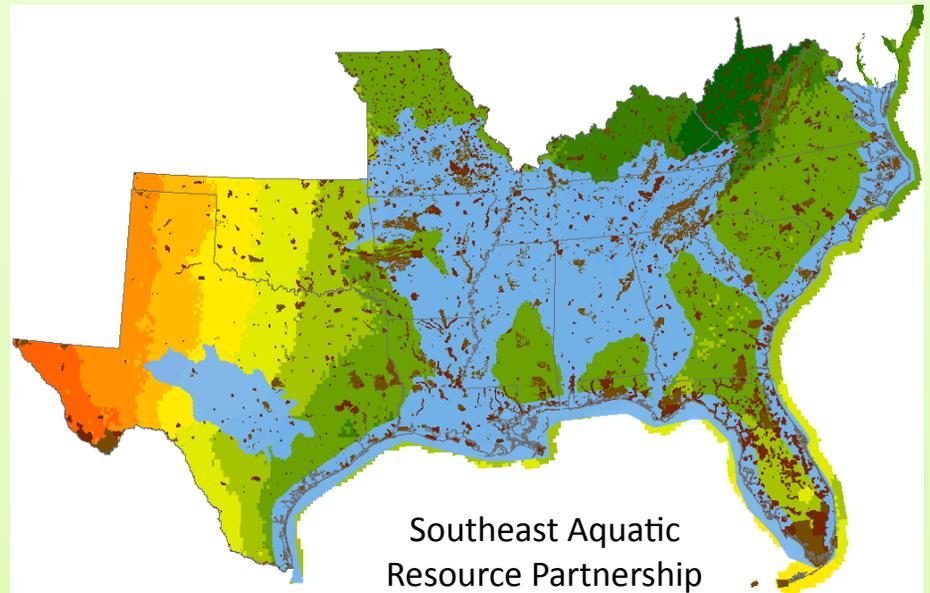
State Fish & Wildlife



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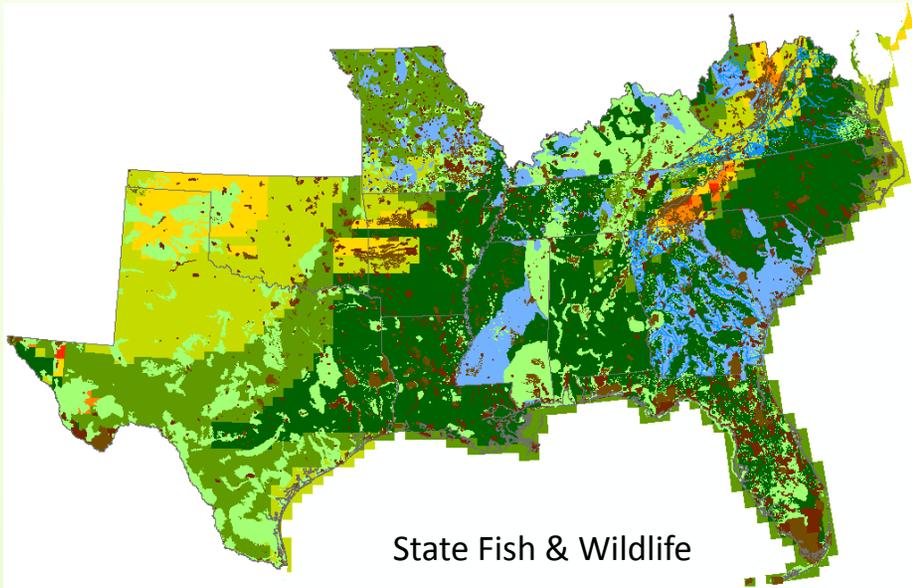


TNC Portfolio

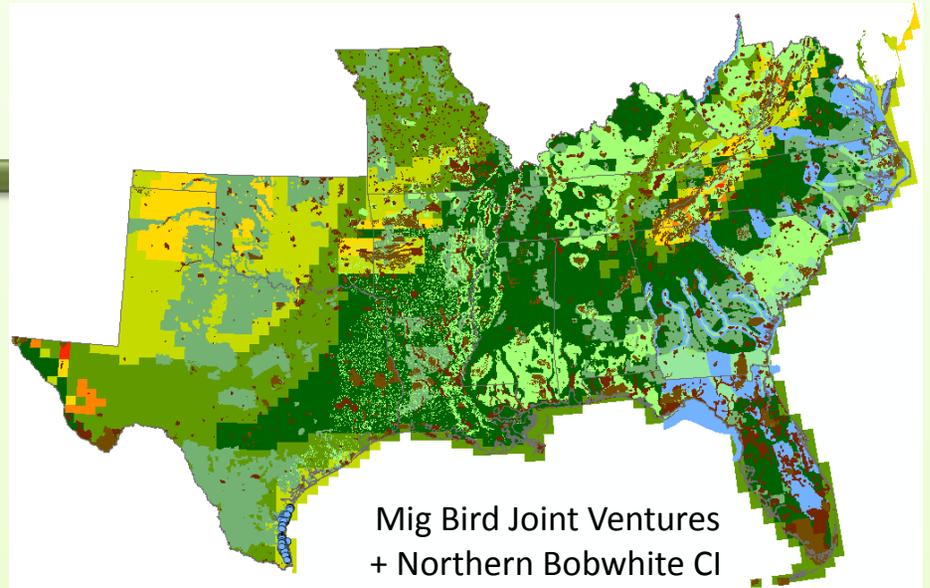


Southeast Aquatic
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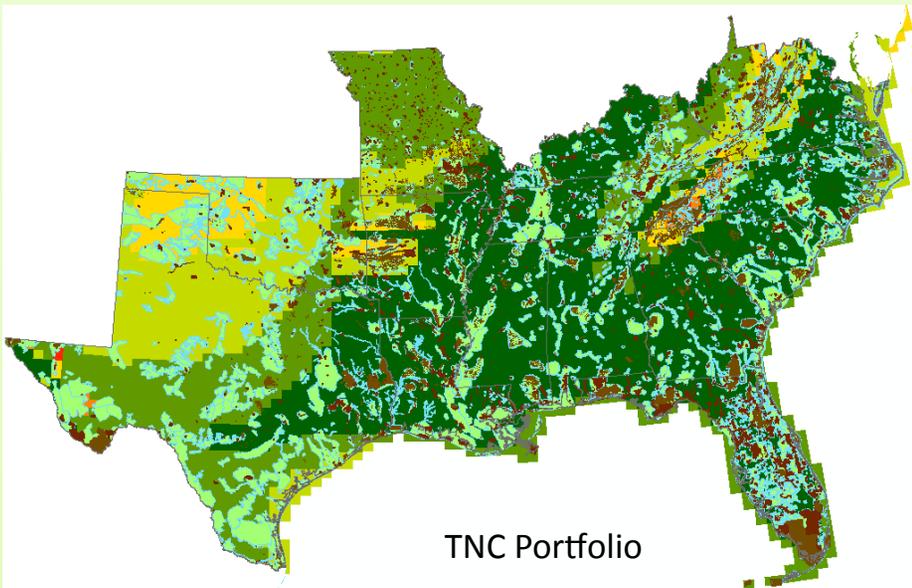
Wind Energy Potential & Areas Important to Conservation



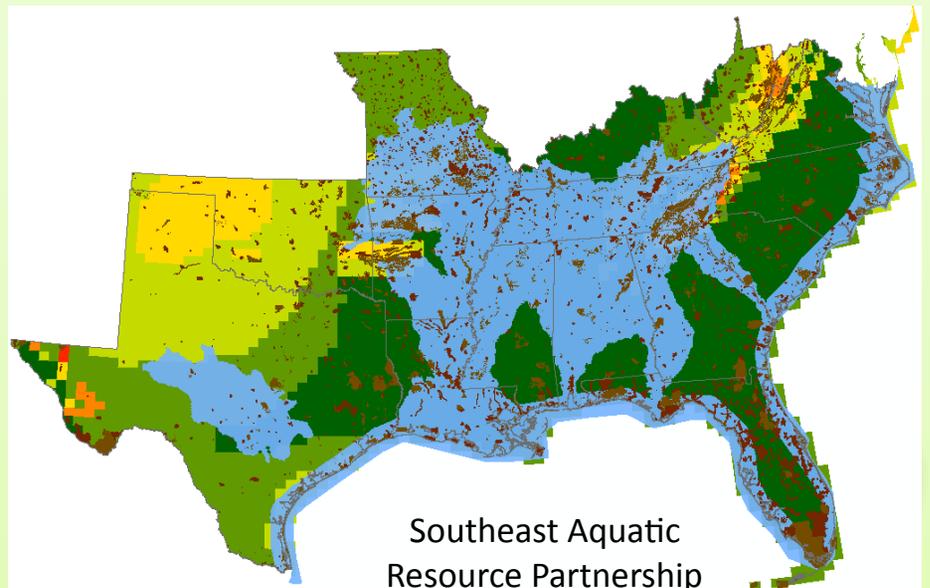
State Fish & Wildlife



Mig Bird Joint Ventures
+ Northern Bobwhite CI



TNC Portfolio



Southeast Aquatic
Resource Partnership

Responding to The Challenges

SE Conservation Adaptation Strategy

Conservation Landscape of the Future



Southeastern Association of Fish and Wildlife



DNR



FWS Prioritizing Fish And Wildlife, Establishing Population Objectives, and Dabbling In Surrogate Species Concepts

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