Data that Supports Regulatory Assurances and an Ecologically-based Mitigation Approach

Addressing Regulatory Certainty

The Problem Statement: In spite of multi-agency support for the EcoLogical Approach, requirements of the ESA and CWA demand regulatory agencies address specific requirements individually, which currently happens only in project review – too late for incorporation into early planning.

Objectives:

1.Identify regulatory requirements and transportation planning *bottlenecks* related to Regulatory Review and;

2.Identify strategies for overcoming these bottlenecks and data development to support better environmental outcomes, earlier incorporation into the planning process, and speedier environmental review for both project implementation and *mitigation*.

Primary Bottlenecks: ESA and Clean Water Act

Clean Water Act (Section 404; Wetlands)

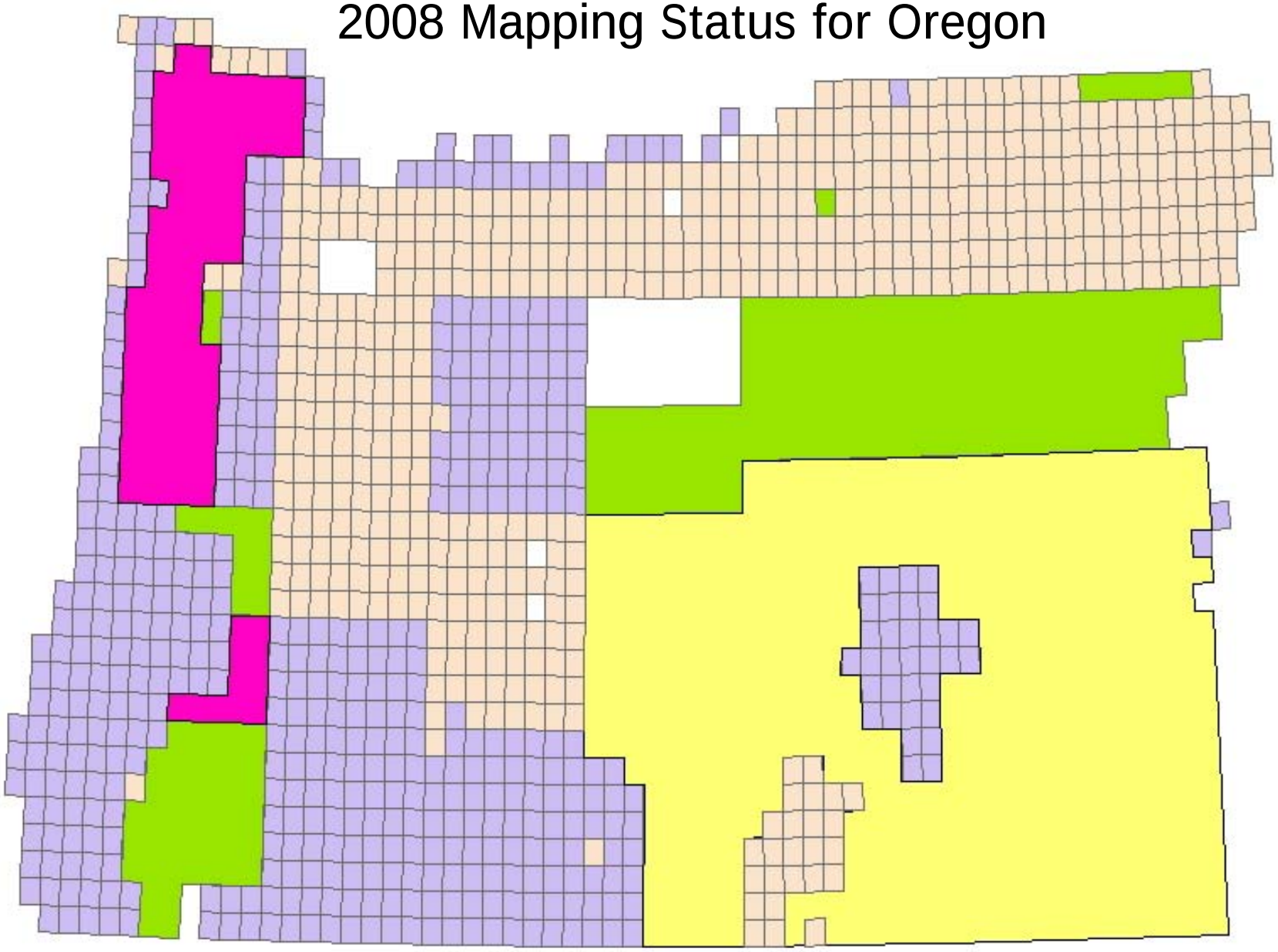
Considerations:

1. Data lacking for avoidance in many areas, and for mitigation everywhere. Address by:
   a) creating *digital wetlands data* sufficient for avoidance; and
   b) developing *wetland priorities* to increase function in mitigation projects, and to facilitate mitigation approvals.

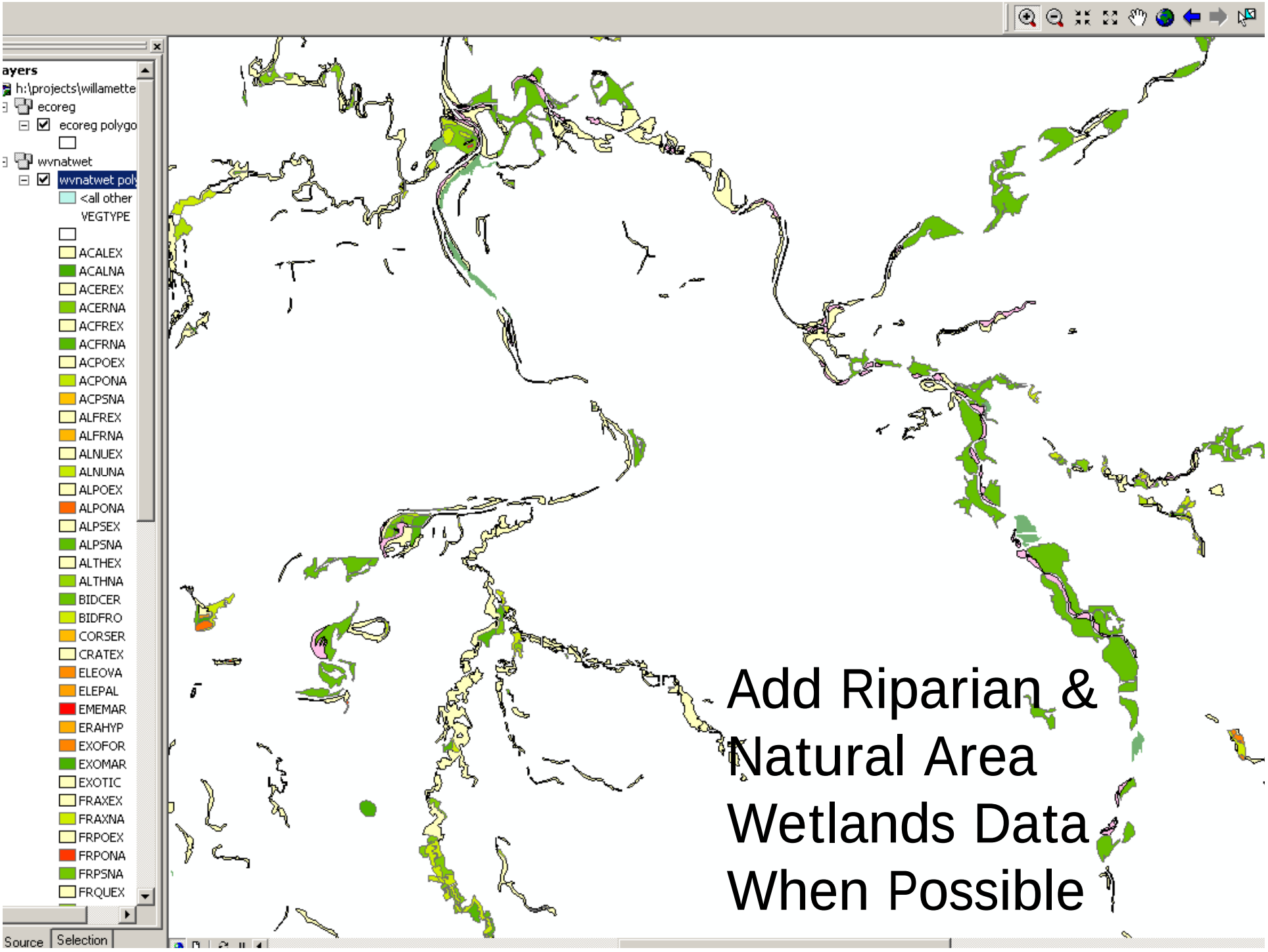
Build Wetlands Data

- National Wetlands Inventory (NWI) is 80% complete for the lower 48 states, although in many areas it is over 20 years old. The project builds from, and updates, the NWI, and is done in partnership with the USFWS.
- Data is integrated from all sources: DOT, NWI, Natural Heritage Data, Local Wetland Inventories, etc.
- Created data is “adopted” by Army Corps and other regulators for regulatory purposes.

2008 Mapping Status for Oregon



Start with NWI and assure that NWI is digitized for the entire state. Many states are done.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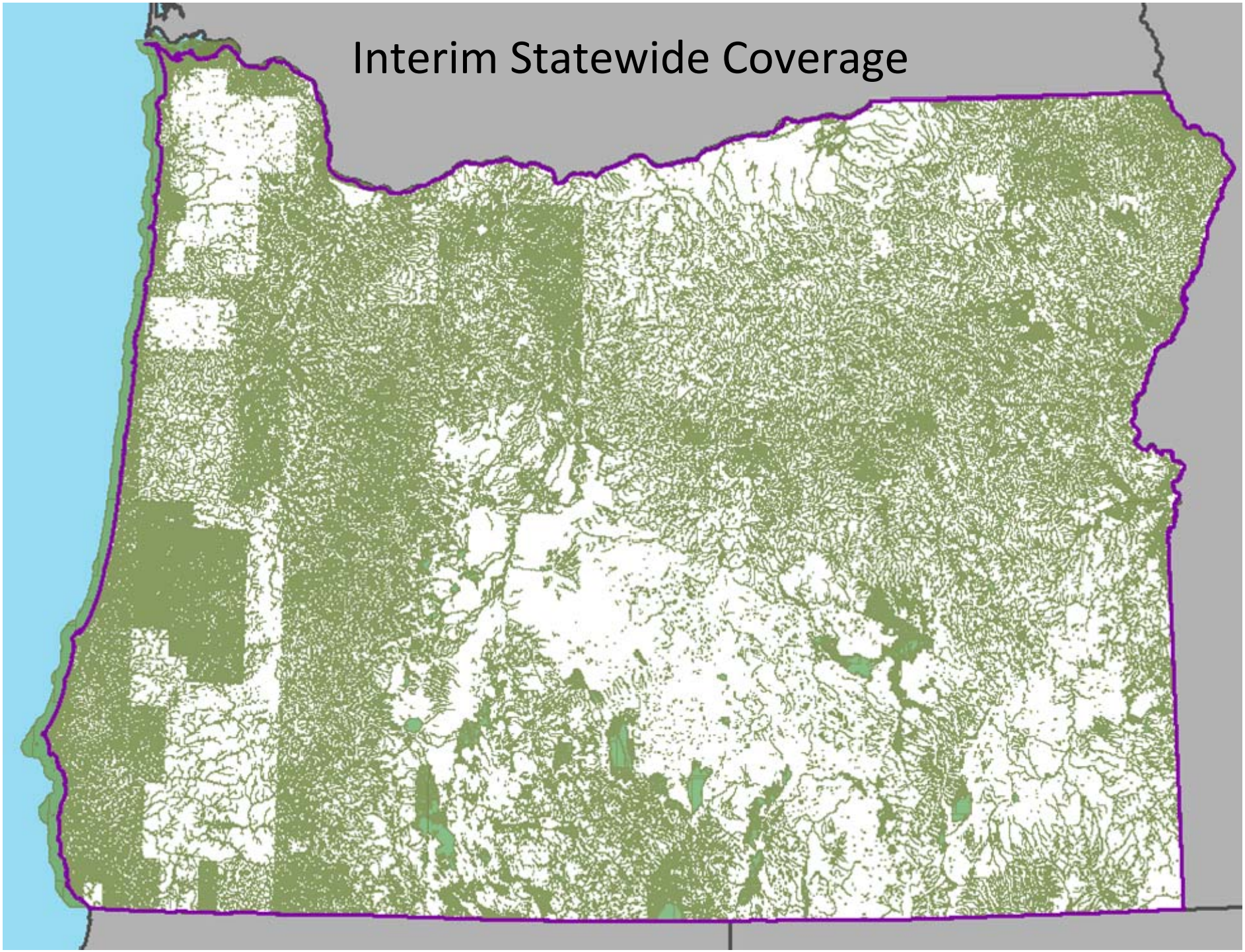
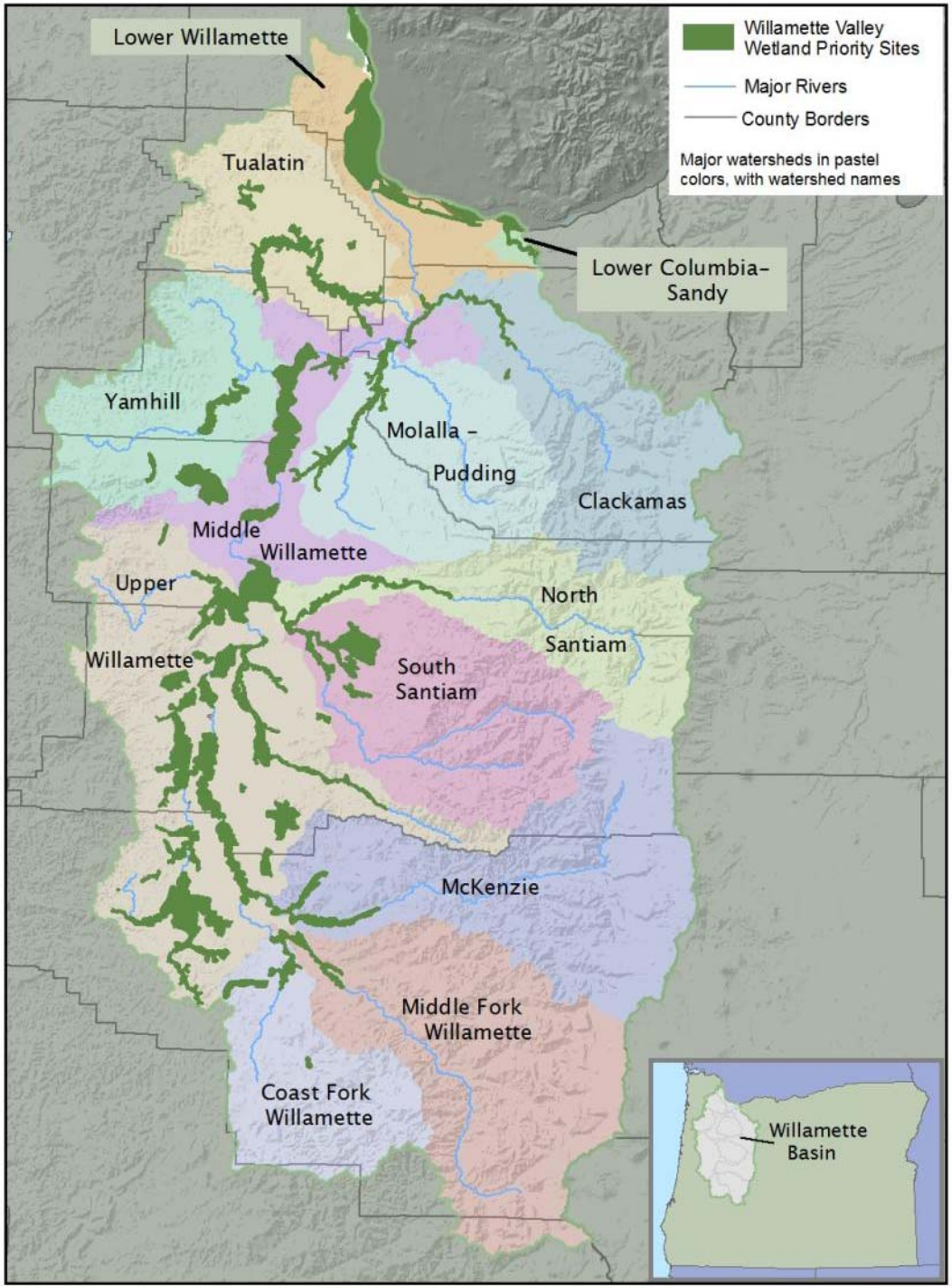

Interim Statewide Coverage

Identify Wetland Priority Areas Through Integration and Analysis

- Most states have one or two sets of spatially defined conservation priorities:
  - The Nature Conservancy's conservation portfolios,
  - and the State Wildlife Action Plan's conservation opportunity areas.
- Some states only have one, other states have three or more. Most priority area assessments are identified and mapped by ecoregion or watershed.

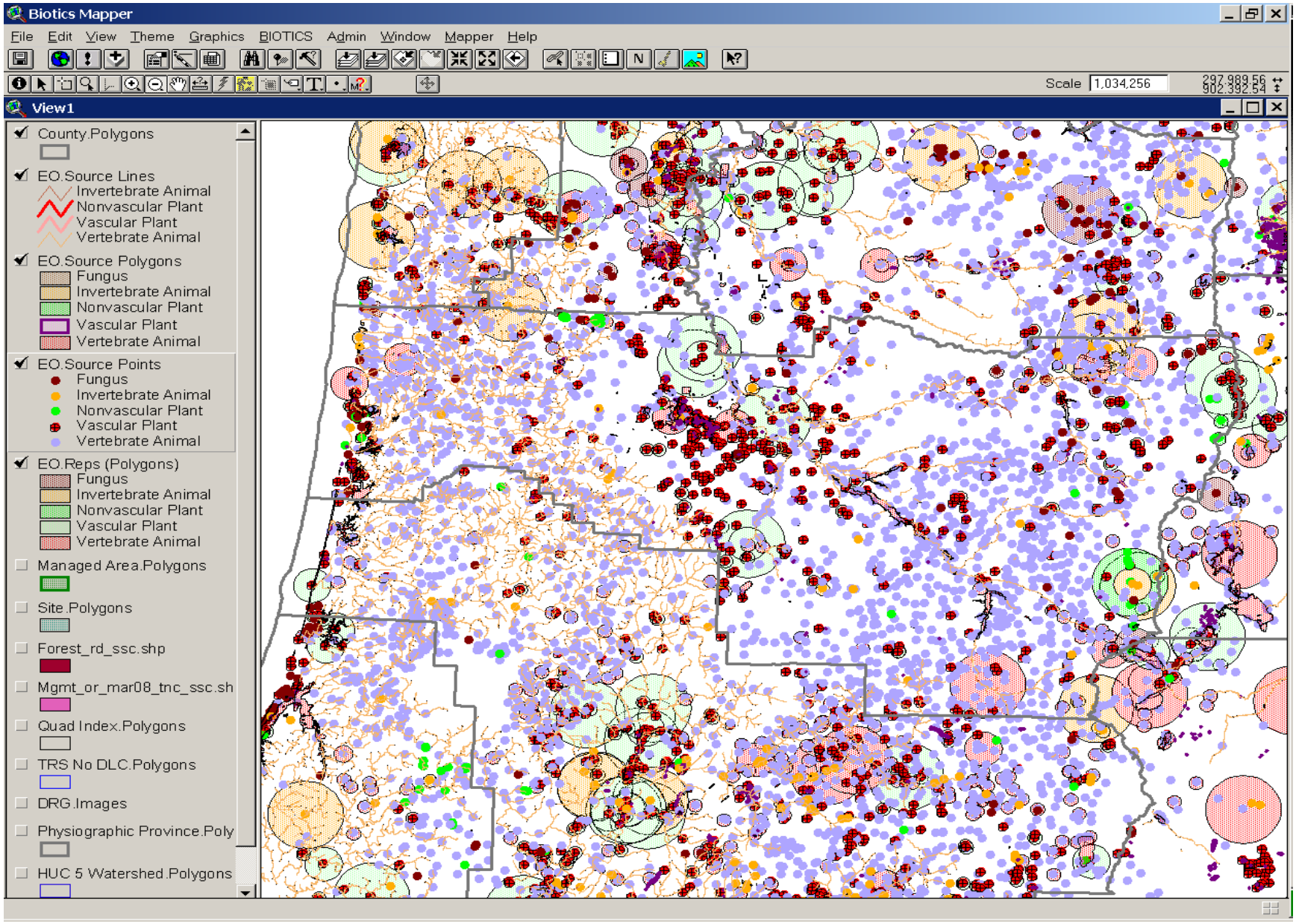

Willamette Valley Wetland Priority Sites
Major Rivers
County Borders
Major watersheds in pastel colors, with watershed names
Lower Willamette
Tualatin
Lower Columbia–Sandy
Yamhill
Molalla –
Pudding
Clackamas
Middle Willamette
Upper Willamette
North Santiam
South Santiam
McKenzie
Middle Fork Willamette
Coast Fork Willamette
Willamette Basin

Primary Bottlenecks: ESA and Clean Water Act

ESA (Section 7 and Recovery) Considerations:

1. Existing data is not suitable for decision support tools. Address by:
   a) creating iterative “maps” showing the likely occupied habitat for listed species, including critical habitat and recovery areas; and
   b) assuring that the Fish and Wildlife Service or NOAA Fisheries assists in the calibration of these data, and pre-approves their use in transportation planning; and
   c) assuring these data are updated and publically available to decision support tools.

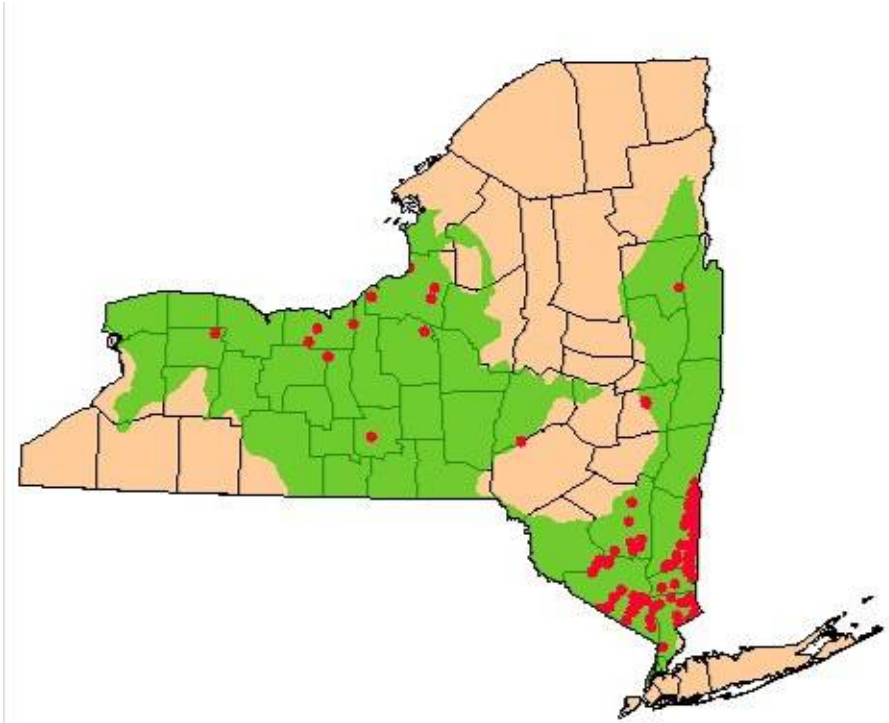
Lane County Endangered Species Occurrences in Biotics



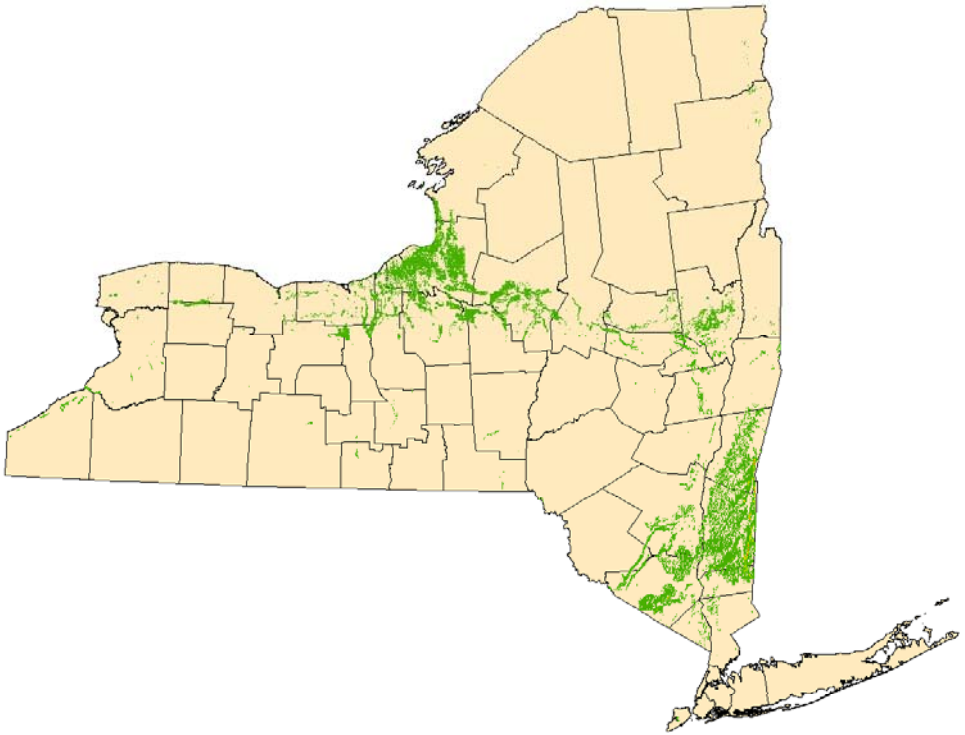
New York
Natural Heritage
Program

Predictive Distribution Maps

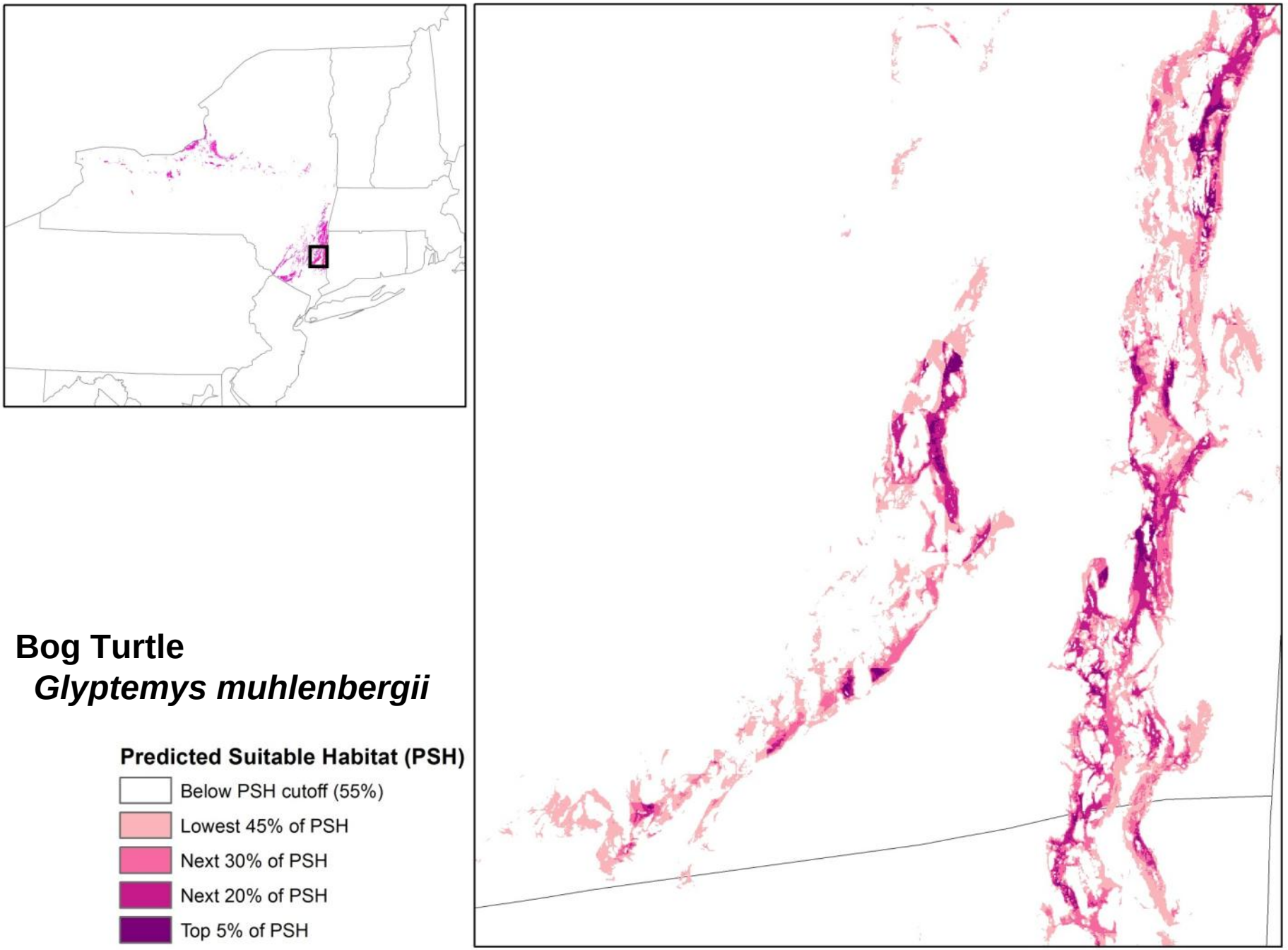
At-Risk Wildlife Species model



Green above are Ecoregional subsections
(red dots show known occurrences)



Element Distribution Model



Bog Turtle
Glyptemys muhlenbergii

Predicted Suitable Habitat (PSH)

- Below PSH cutoff (55%)
- Lowest 45% of PSH
- Next 30% of PSH
- Next 20% of PSH
- Top 5% of PSH

Regulatory Data Conclusions

- To succeed, data needs to be developed cooperatively with regulators, to meet their needs as well as transportation planning needs.
- Key data on listed species can be developed across the country.
  - Species Distribution Models can be created for all listed species in the lower 48 states within two years.
  - Wetland Priorities and basic wetland distribution data can be created for the lower 48 within a few years.
- All these data are iterative, and can (and must) be updated when new information is obtained so it can be used in avoidance and mitigation decisions.