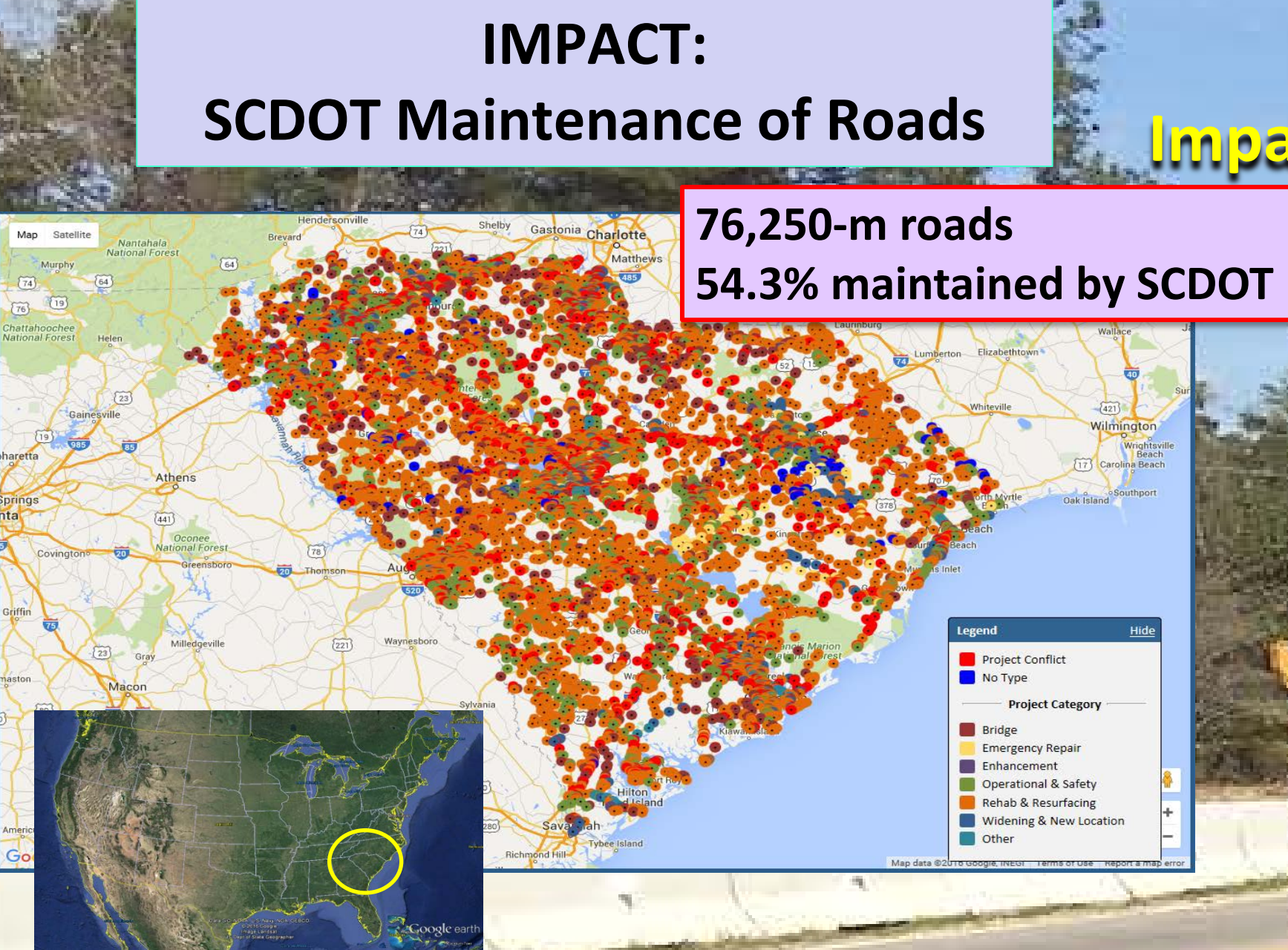


A Geospatial Wetlands Mitigation Forecasting Model



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An Introduction to the Project



Impacts
Wetland acres
Stream feet

Conducted by the GISciences Research Laboratory in the Department of Geography at USC, this project will complete 3 tasks in support of and with guidance from the South Carolina Department of Transportation:

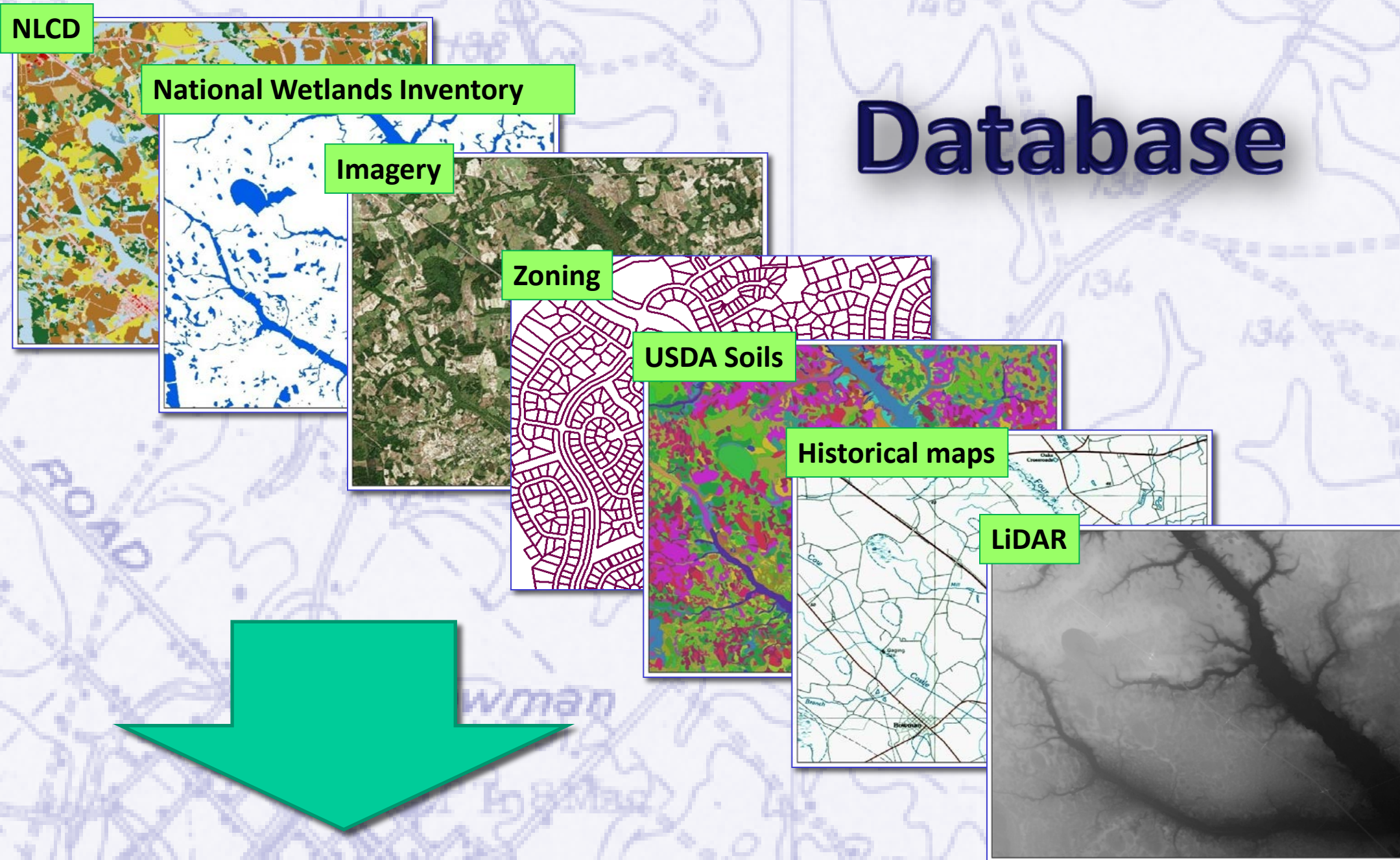
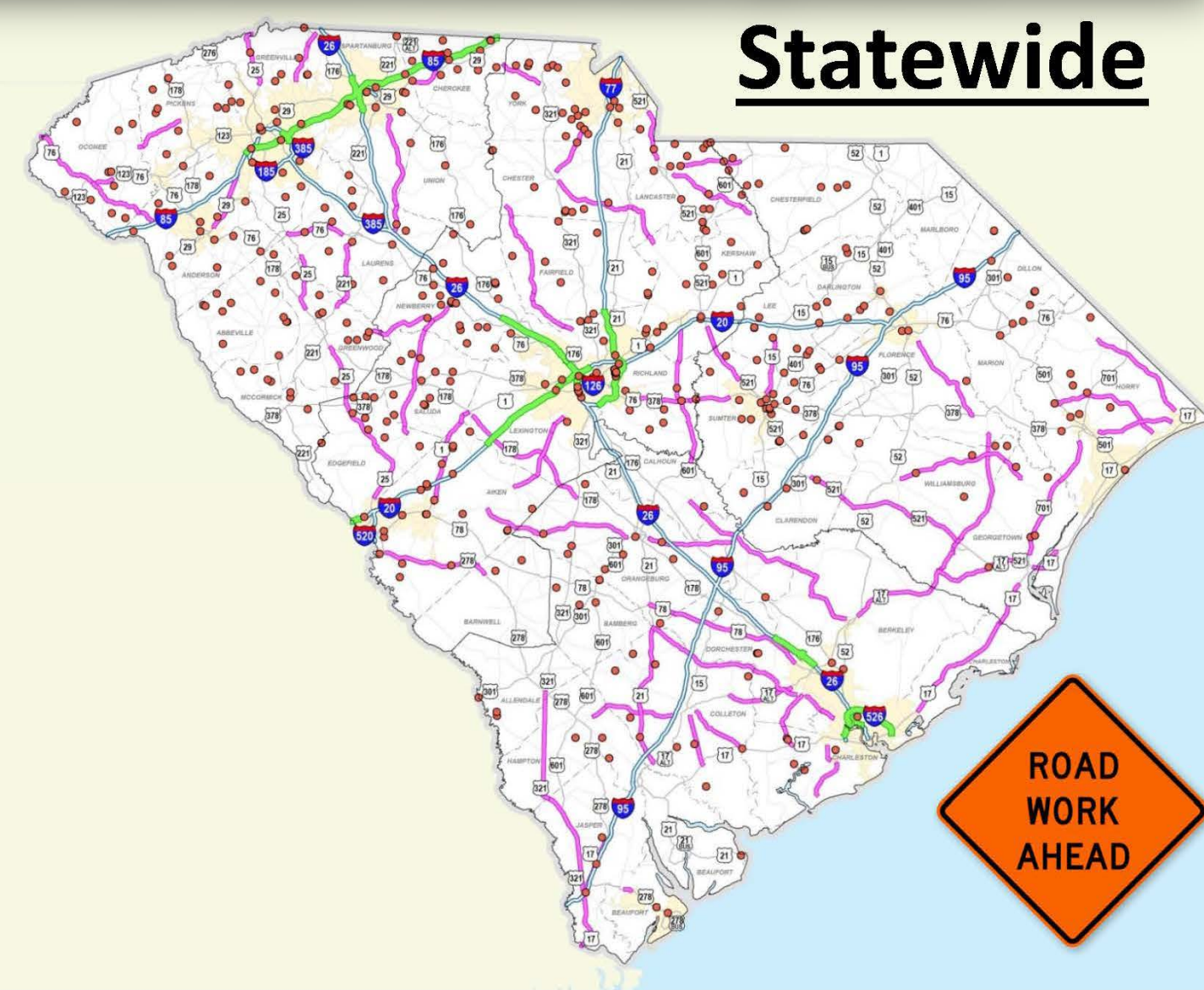
1. Statewide Geospatial Database
2. Existing State Wetlands Mitigation Tools/Approaches
3. GIS-Based Wetlands Impact Forecasting Model

Purpose of Impact Forecast Model

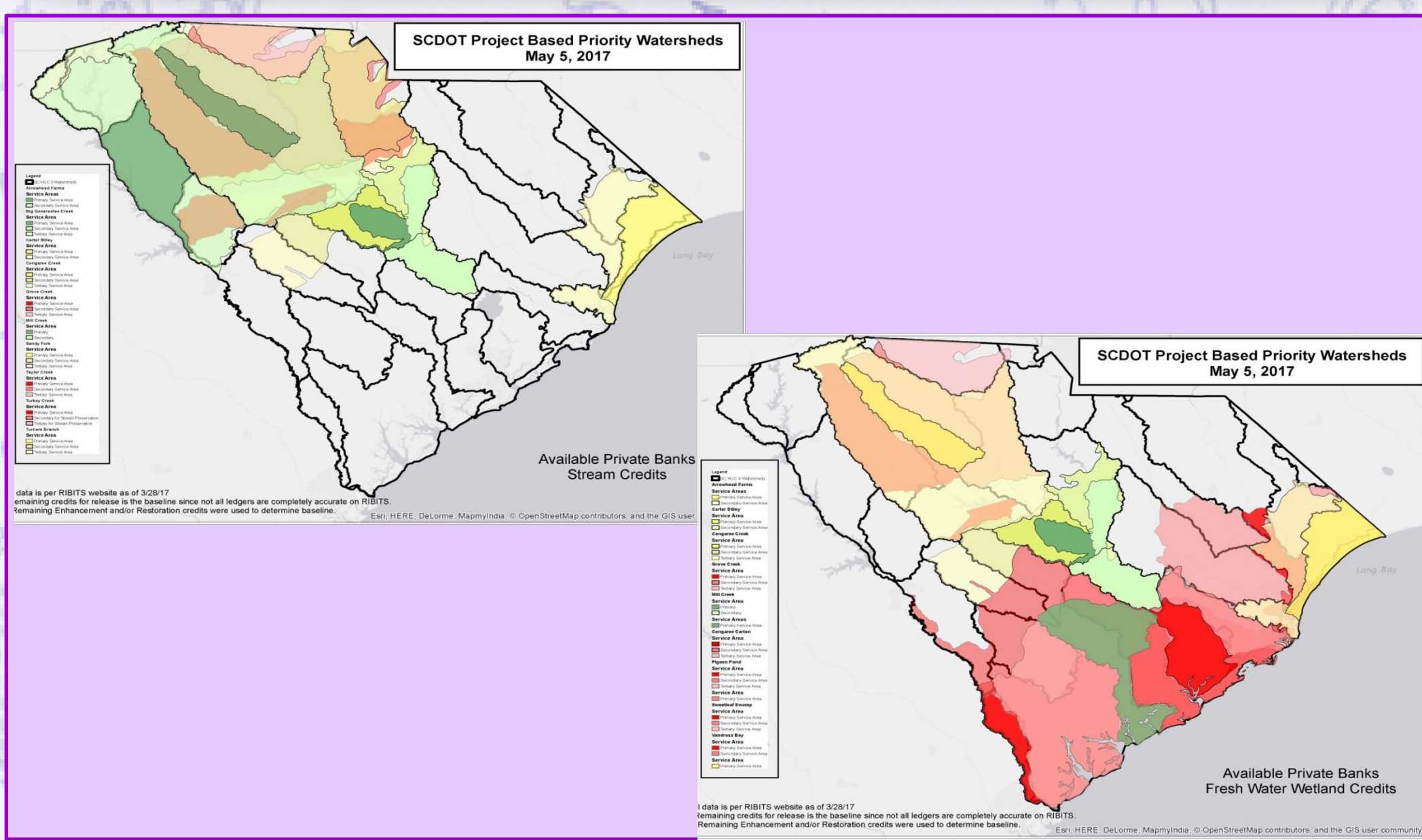
- To solve the anticipated mitigation issue for projects prior to entering the NEPA phase to have more economical and readily available mitigation options to not delay projects while also benefitting the resources.
- Improve quality of project outcomes and improve scheduling for safer, improved infrastructure.
- Begin development of a mitigation framework to improve watershed and ecosystem health as well as increase connectivity and conservation.
- Development of an interagency/collaborative and EcoLogical approach to developing infrastructure projects.

Projects in the next 10 years

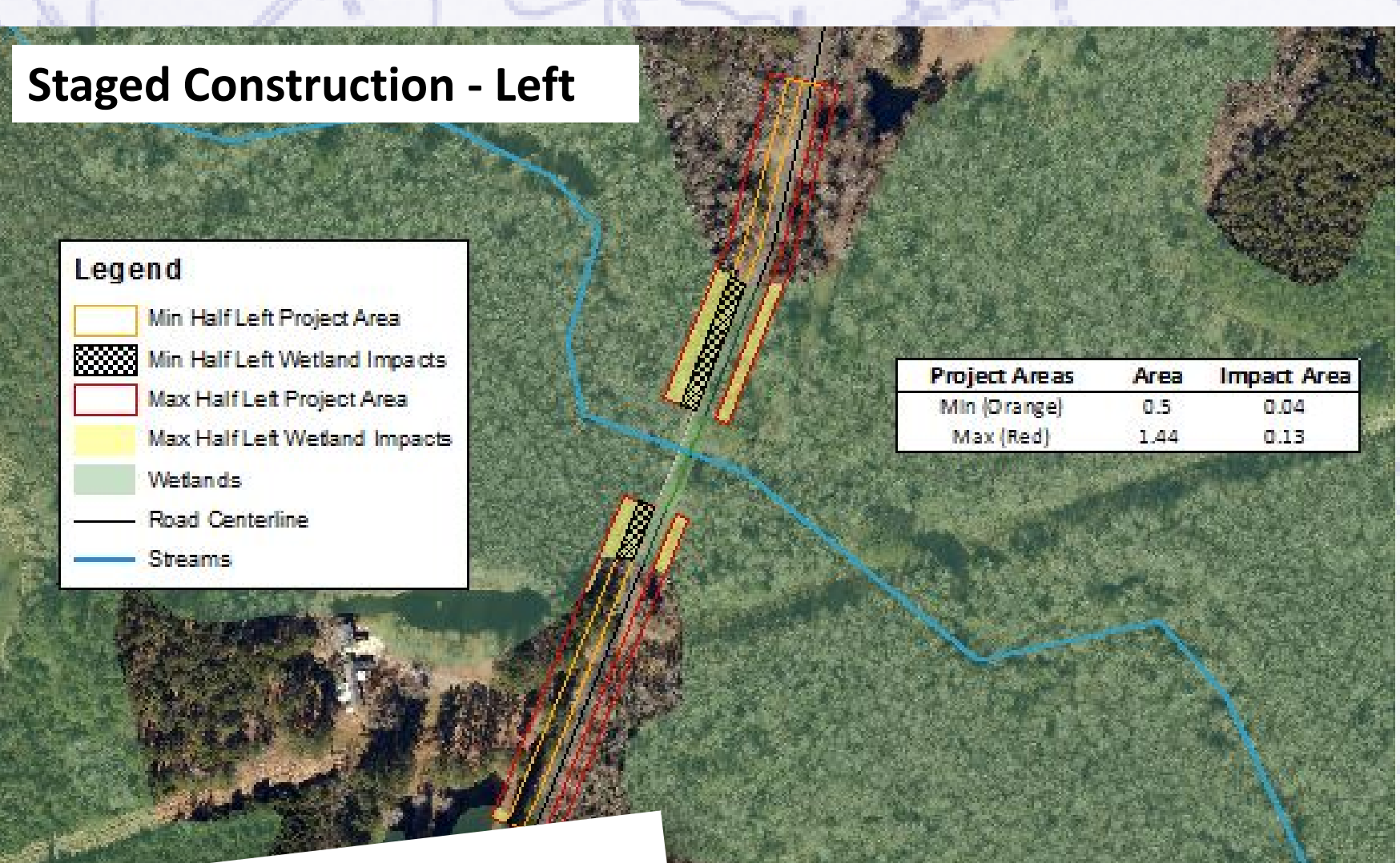
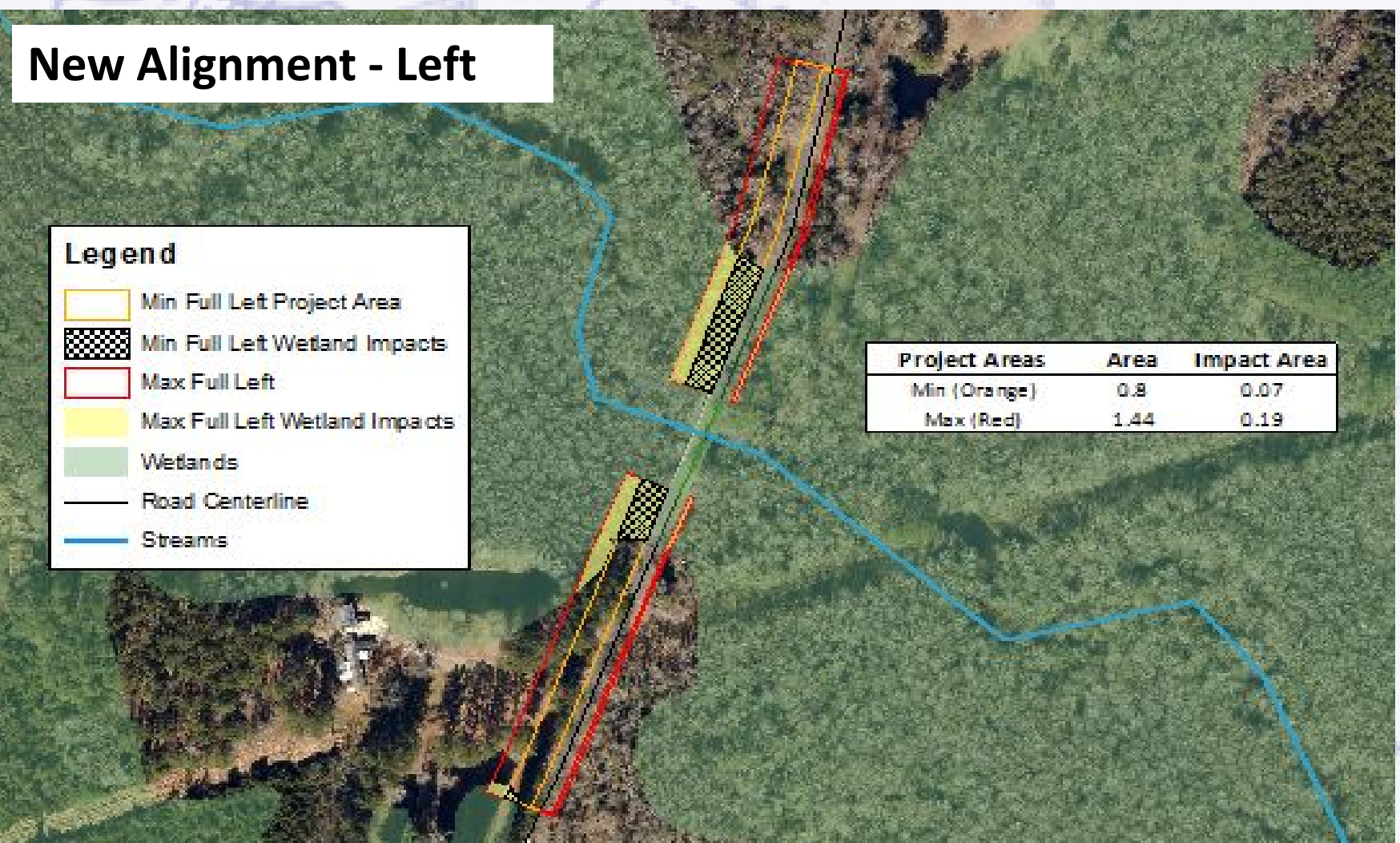
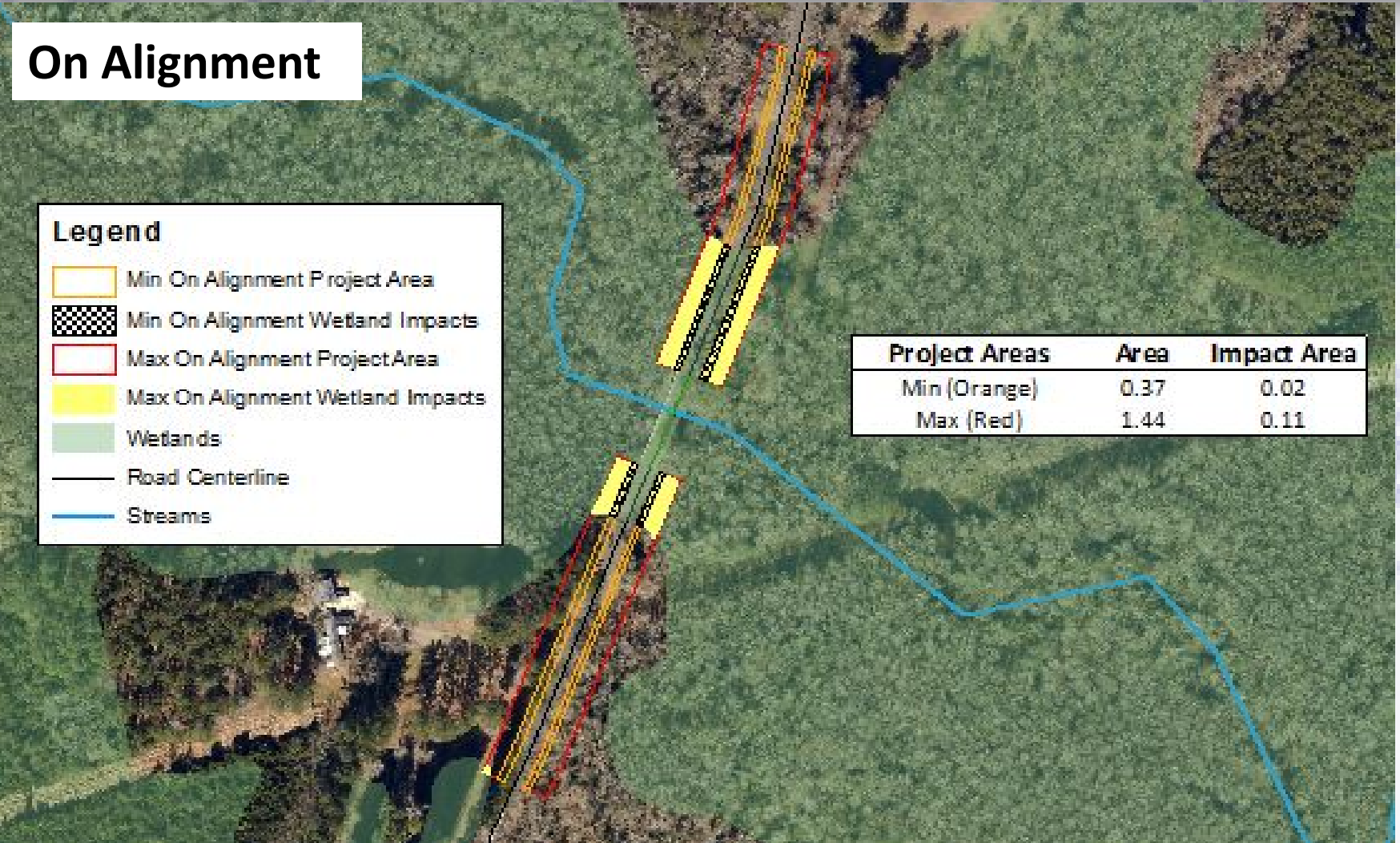
- Doubled Resurfacing
- 465 Bridges Replaced
- 140 Miles of Interstates Improved
- 1000 Miles of Safety Features Added to Rural Roads



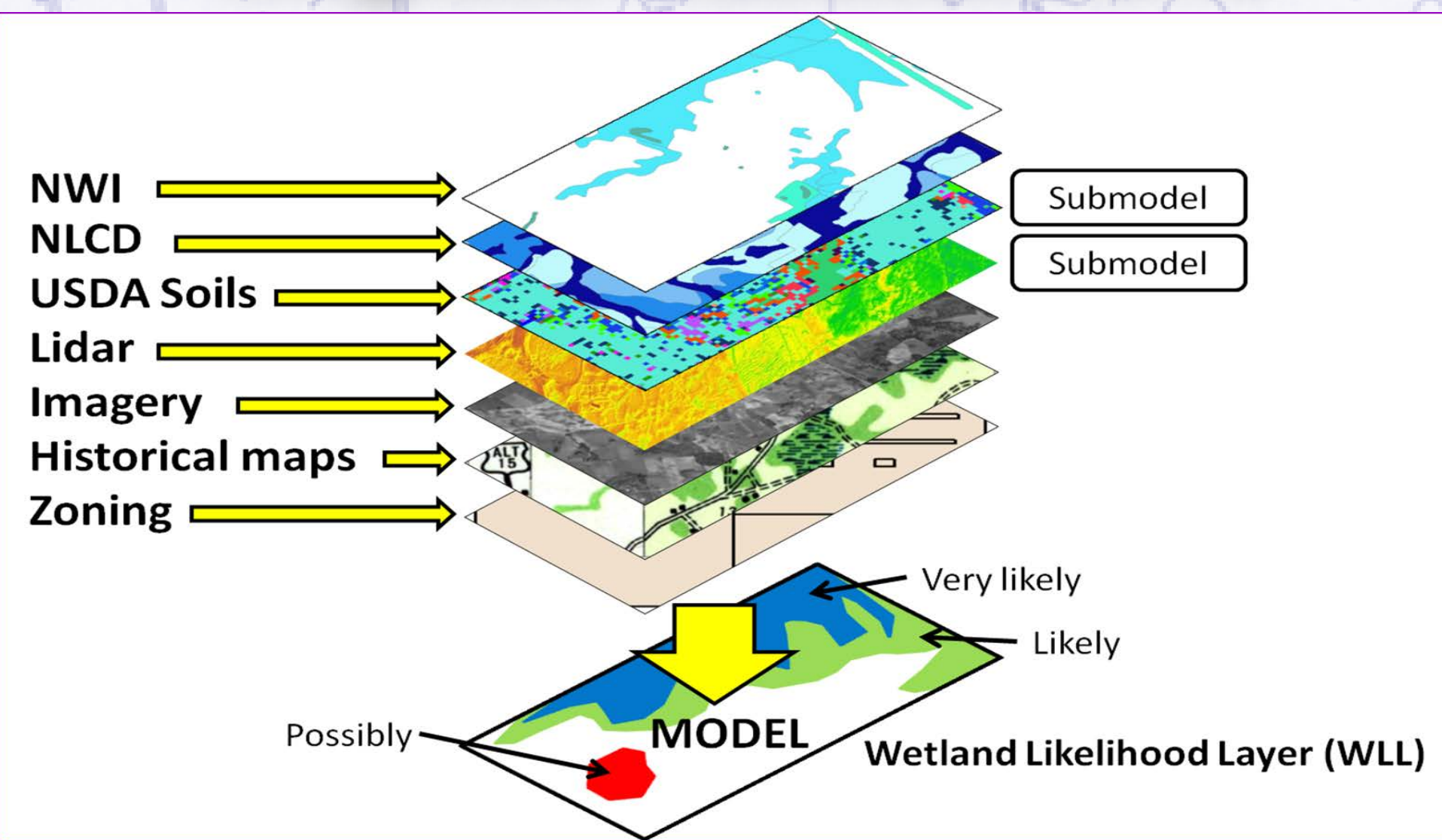
Available Stream and Wetland Mitigation Banks



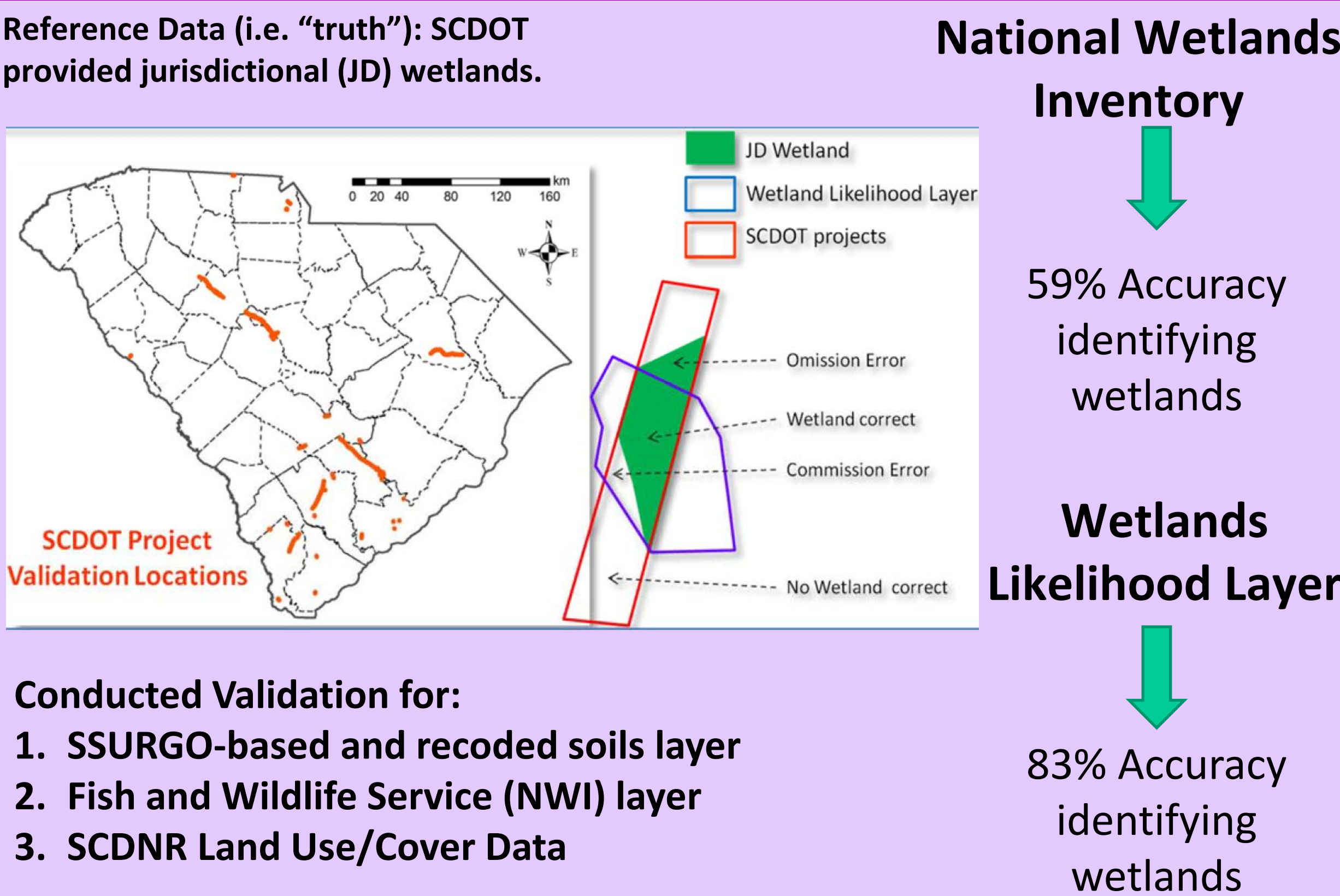
The Role of Wetlands Likelihood Layer in Forecast Analysis: Bridge Replacement Example



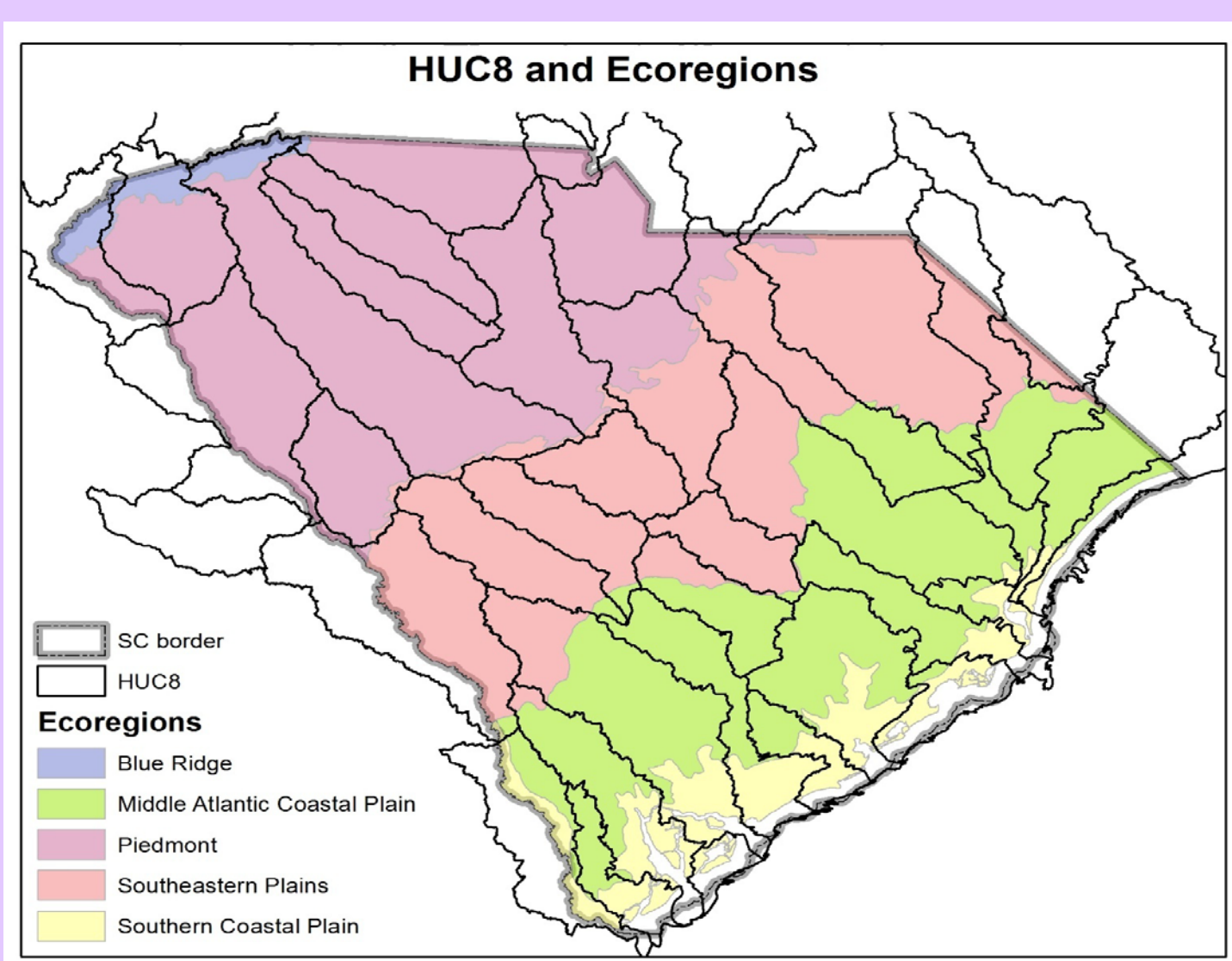
Wetlands Likelihood Layer for Impact Assessment



Validation of the WLL



Mitigation Focus Areas by Watersheds and Ecoregion



Compensatory Mitigation Strategy for SCDOT

- An innovative approach to meet the anticipated mitigation demand in South Carolina
- Multi-faceted steps incorporating stakeholders from all levels
- Development of an Advanced Mitigation Partnership with state and federal agencies to ensure an ECO-Logical approach
- Encouraging and promoting a healthy mitigation banking community in South Carolina

Field Visits

