Status and Schedule – LCC Science Projects

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North Atlantic Landscape Conservation Cooperative

North Atlantic LCC Steering Committee Meeting

Portland, Maine

April 16, 2014

LANDSCAPE CONSERVATION COOPERATIVES

North Atlantic Landscape Conservation Cooperative

Handout 12 – 2014 Process

Date	LCC Decision or Process
April 2014	Progress Report to Steering Committee
May – June 2014	Technical Committee review of Strategic Plan progress and science needs for: • potential new projects • potential future phases of existing projects
Late June	Steering Committee review and approval of science needs
July – August	RFP / project development
September	Review of proposals (if RFP issued)

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Northeast Conservation Framework

Albany II 2011

GOAL-SETTING
Which species/habitats to conserve?
At what levels?
Who decides?

CONSERVATION DESIGN
What should landscapes look like to conserve species at goal levels

SCIENCE TRANSLATION
How do we make science solutions useful?

CONSERVATION ADOPTION
How do we get communities and landowners engaged in conservation?

CONSERVATION DELIVERY
How will we most efficiently put conservation on the ground?

MONITORING, EVALUATION AND RESEARCH
What new information will we gather to support conservation?

PRIORITIES
Which species and issues demand immediate attention?

BIOLOGICAL ASSESSMENT
What do we know about the status of priority wildlife?

INFORMATION MANAGEMENT
How will we manage the demand for and creation of data?

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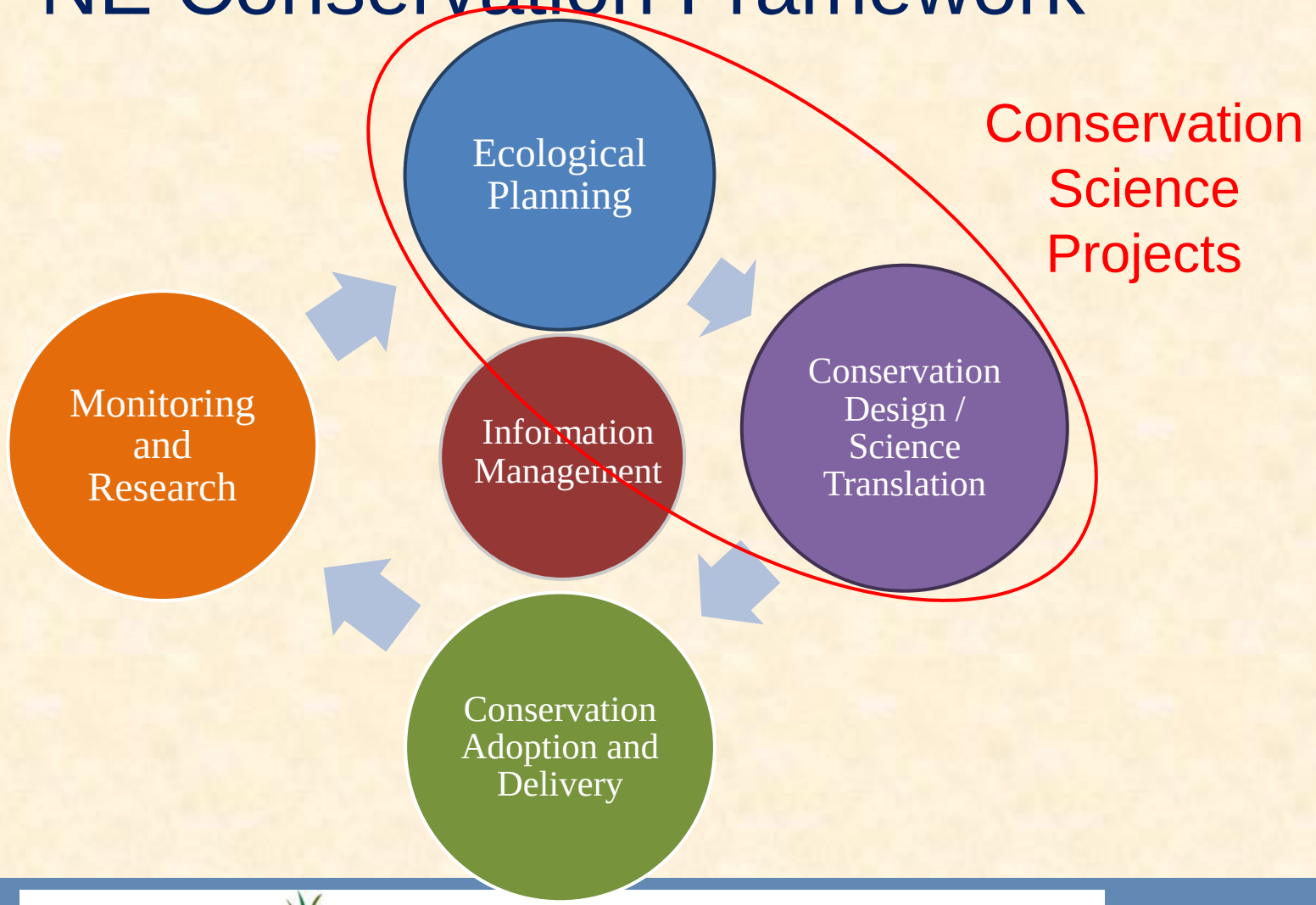
LCC Strategic Plan / NE Conservation Framework



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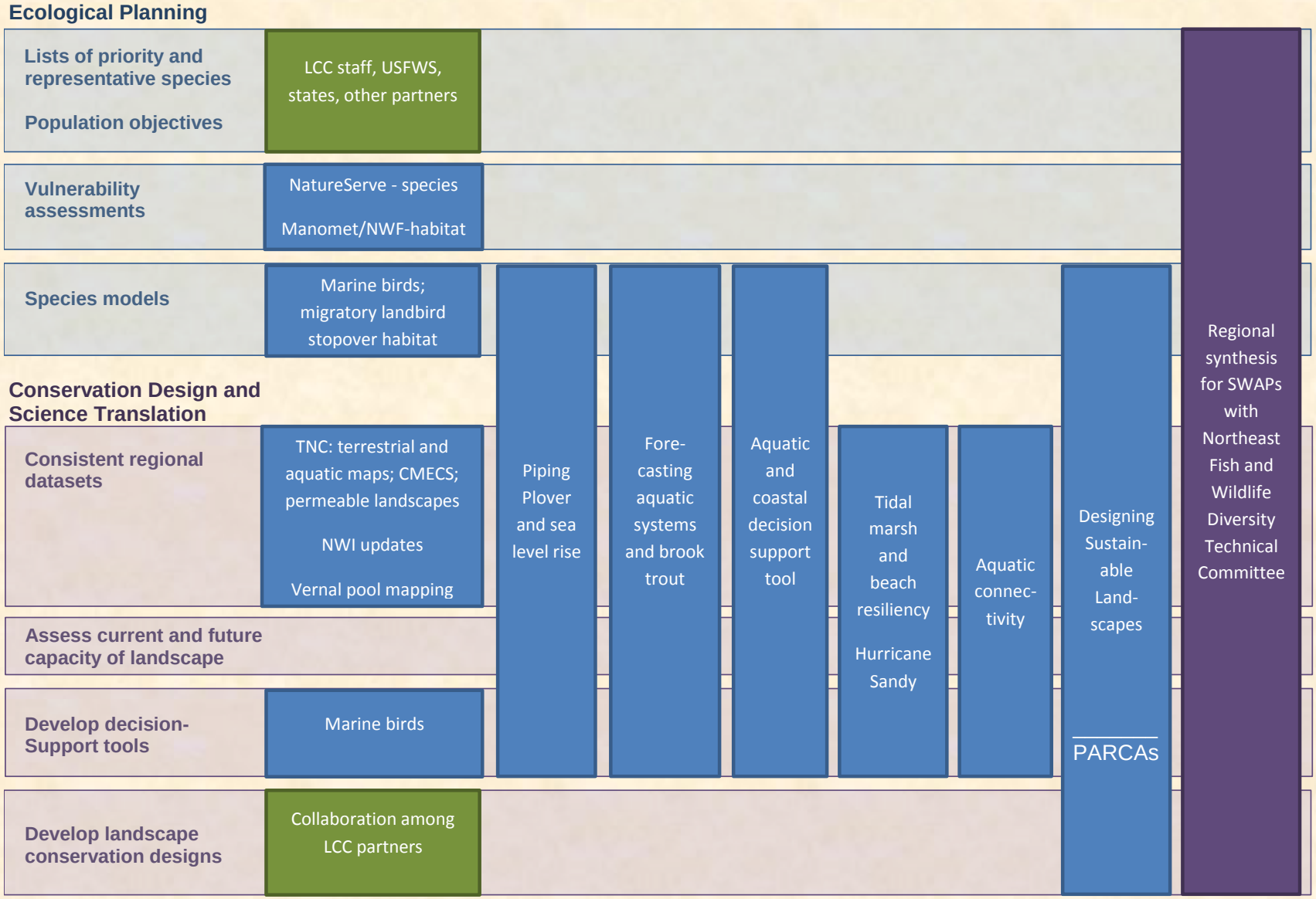
Northeast Conservation Framework (Ecological Planning, Conservation Design) and North Atlantic LCC Science Projects



Handout 13

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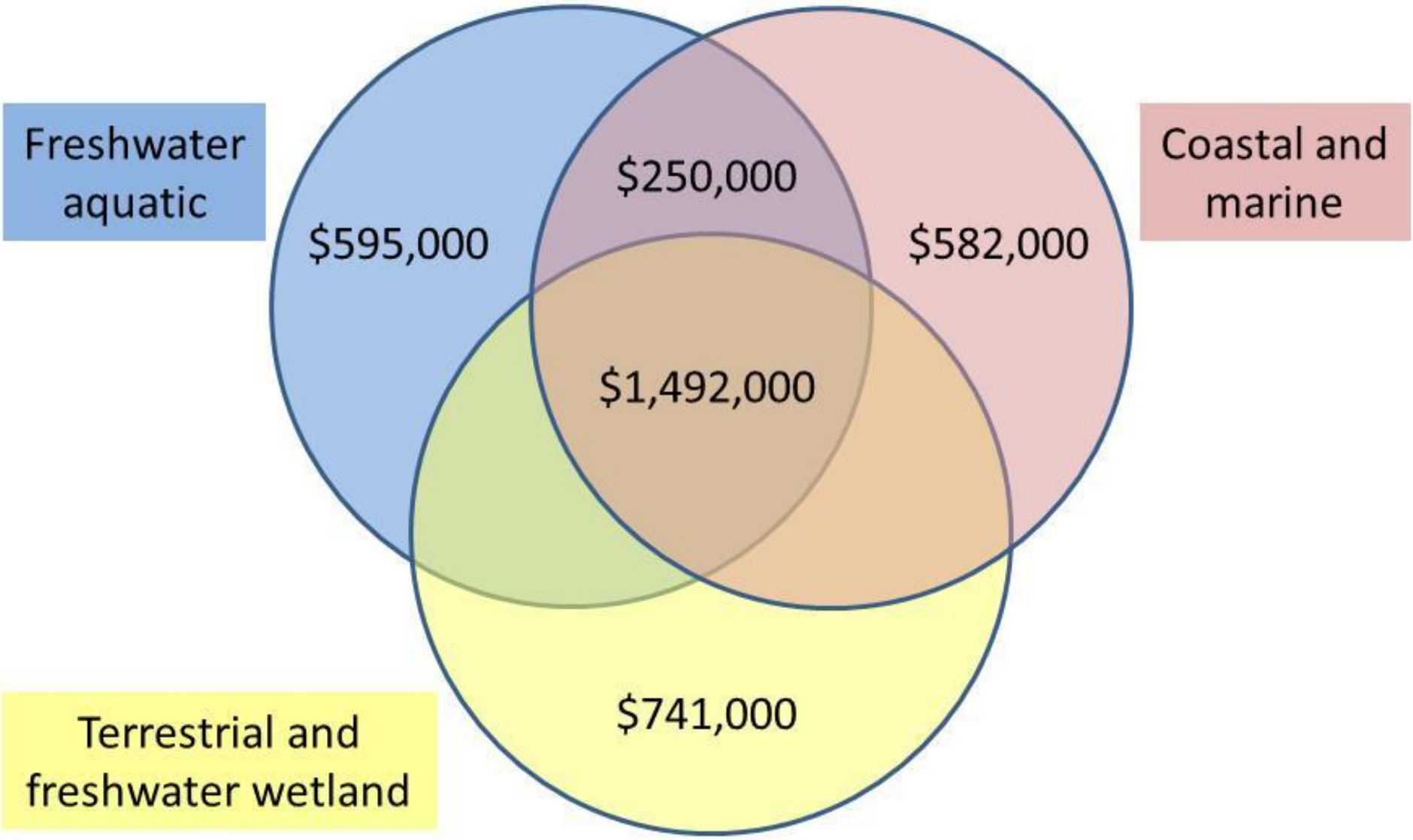
North Atlantic LCC Science Project Investments, 2010-2014



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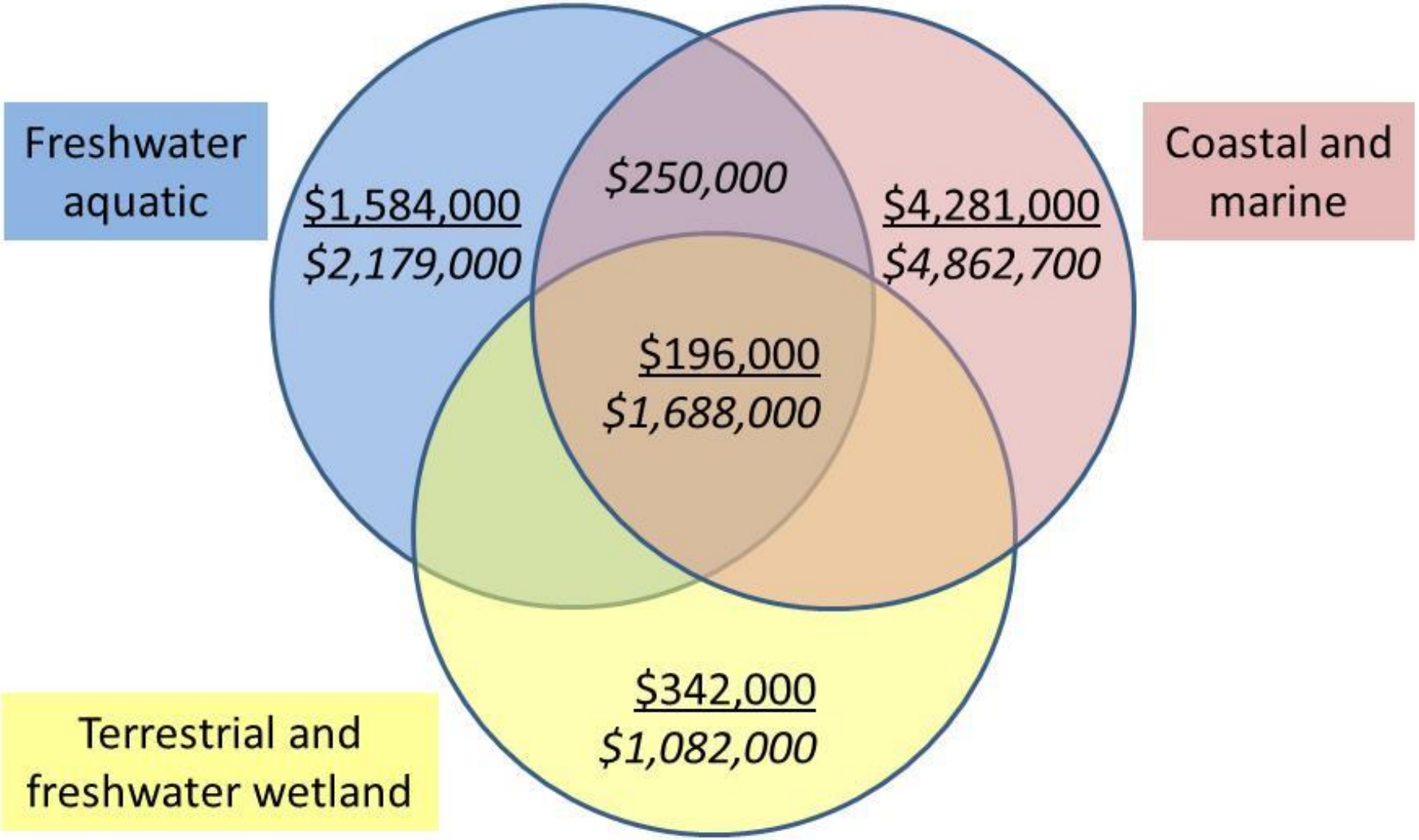
Additional Leveraging and *Total* of LCC Science Investments, 2010-2014 (includes DOI Hurricane Sandy funds)



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Overall Project Summary

- Results and deliverables: all we've asked for, and more
- Schedule challenges
  - Technical
  - Partnership

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Foundational Mapping: Coastal Update to National Wetlands Inventory

North Atlantic LCC Role	Sponsoring update to NWI for coastal areas
Products	Updated wetland mapping in 162 coastal areas in 7 states
Available Now	Project is complete (Sept. 2013); incorporated into Northeast Terrestrial Habitat map by UMass
Available within 3-6 months	Results fully integrated into the National Wetlands Inventory
Longer Term	

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Foundational Mapping: Coastal and Marine Ecological Classification

North Atlantic LCC Role	Sponsoring project by TNC, Mass. DFG, and U. of RI
Products	Report and maps testing the classification at 3 spatial scales
Available Now	Draft final maps and report
Available within 3-6 months	Peer-reviewed final report
Longer Term	Future phases could include full mapping of North Atlantic with NROC and MARCO

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Foundational Mapping: Compilation of Regional Vernal Pool Data

North Atlantic LCC Role	Sponsoring project by Vermont Center for Ecostudies and UVM (initiated Jan. 2014)
Products	Regional GIS dataset of locations of potential or documented vernal pools
Available Now	
Available within 3-6 months	Unified database structure
Longer Term	Complete report and dataset on DataBasin; remote sensing demonstration (2015)

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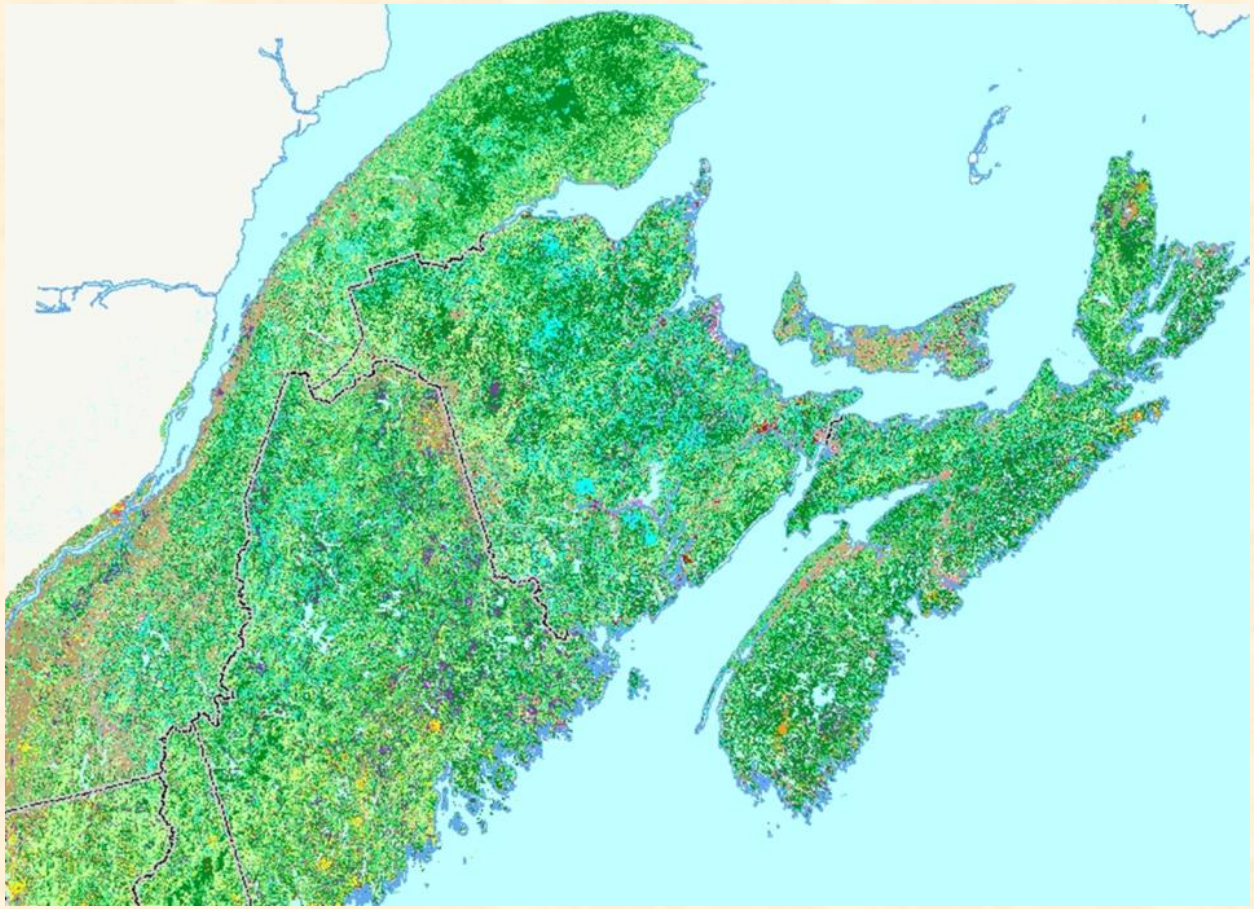
Foundational Mapping: Northeast Terrestrial Habitat Map Extending to Canada



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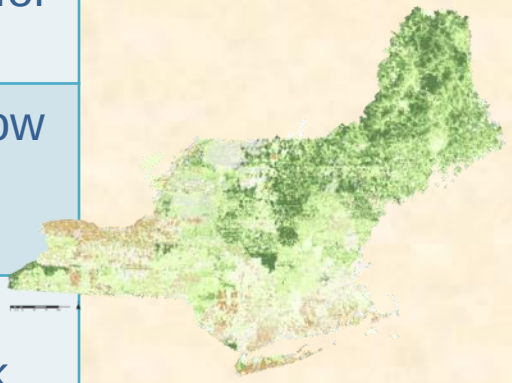
Assessment / Conservation Design: Forecasting Streams and Brook Trout

North Atlantic LCC Role	Sponsoring project led by USGS
Products	Aquatic data and brook trout, forecasts and decision support tools
Available Now	• Prototype web tool for stream conditions and climate change • Brook trout occupancy model for New York to Maine
Available within 3-6 months	• Projections of future stream flow and temperature • Regional brook trout forecasts
Longer Term	Incorporate into conservation design; integrate with other brook trout tools



Brook trout
probability of occupancy

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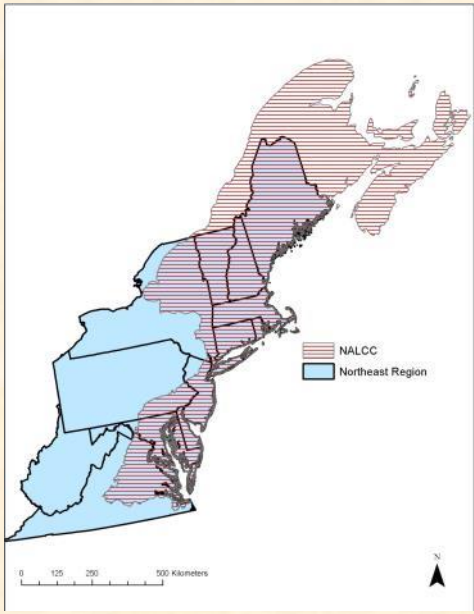
Conservation Design:
Designing Sustainable Landscapes

North Atlantic LCC Role	Sponsoring project led by UMass Amherst
Products	Extensive spatial datasets, current and future species capability and ecological integrity, decision support tool for landscape design (June 2014)
Available Now	Many spatial datasets for entire Northeast, including initial species
Available within 3-6 months	• Additional regional spatial data • Regional models for 30 rep. species • Pilot design effort in CT River watershed
Longer Term	Potential future phase could extend and enhance conservation design work including coastal component



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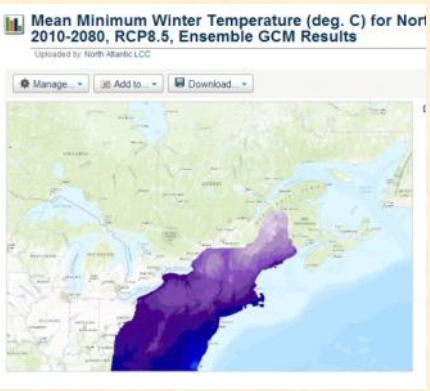
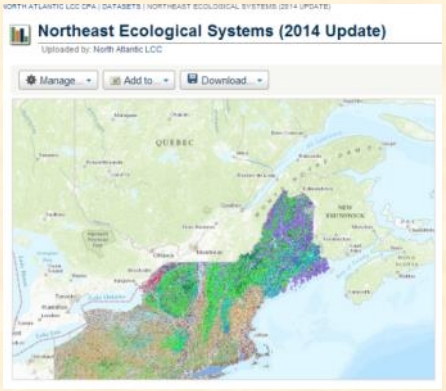
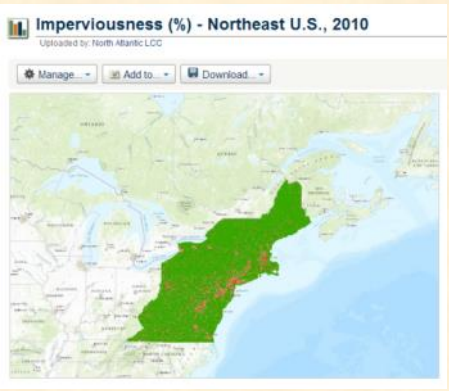
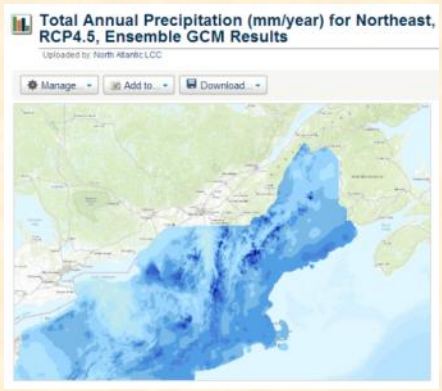
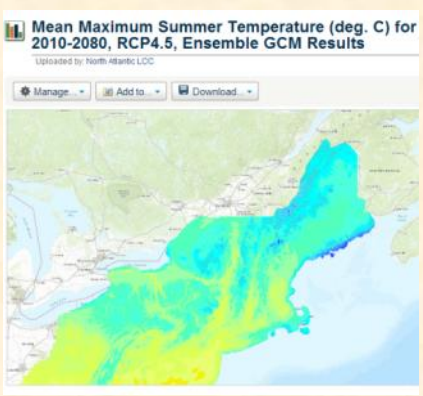
Designing Sustainable Landscapes – Consistent Regional Datasets

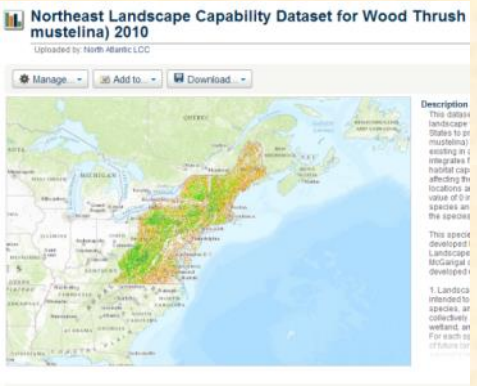












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Support for Connecticut River Watershed Pilot

USFWS
UMass
USGS

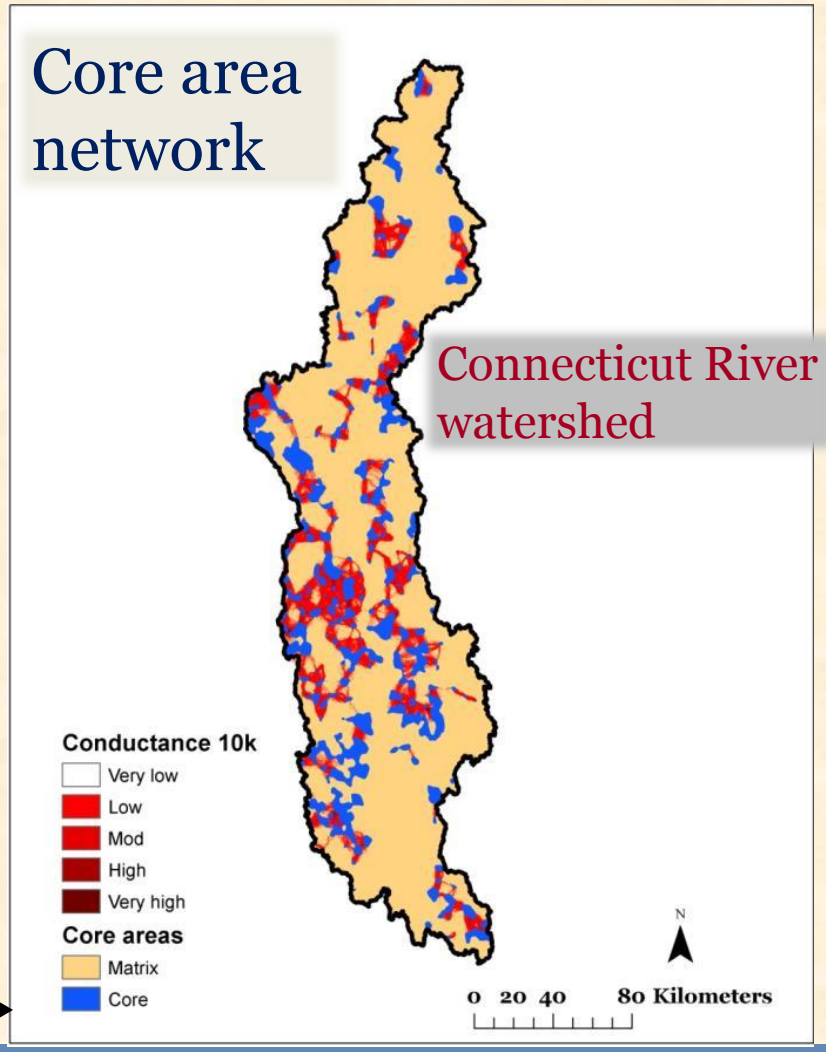
Surrogate Species

Rare and Unique Species

States
NatureServe
LCC

Ecological Integrity and Resilience

UMass
TNC



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Conservation Design: Aquatic Connectivity and Flood Resilience

North Atlantic LCC Role	Sponsoring 2 related projects (one funded through Hurricane Sandy) led by UMass Amherst, USFWS, TNC, USGS, USFS, Trout Unlimited, DOT/FHA (initiated January 2014)
Products	Comprehensive road-streams crossings database; recommended field survey protocols; prioritization to improve fish passage and reduce flood risks
Available Now	
Available within 3-6 months	Initial survey protocols for first field season
Longer Term	Complete datasets and reports (2016)

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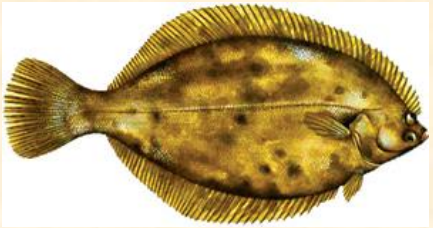
Conservation Design: Aquatic and Coastal Decision Support Tool

North Atlantic LCC Role	Sponsoring project with Atlantic Coastal Fish Habitat Partnership, led by Downstream Strategies
Products	Aquatic and coastal species models and decision support tools
Available Now	
Available within 3-6 months	Pilot models for winter flounder and for brook trout in the Chesapeake Bay watershed
Longer Term	Multi-species decision support tools for restoration and conservation (2015)



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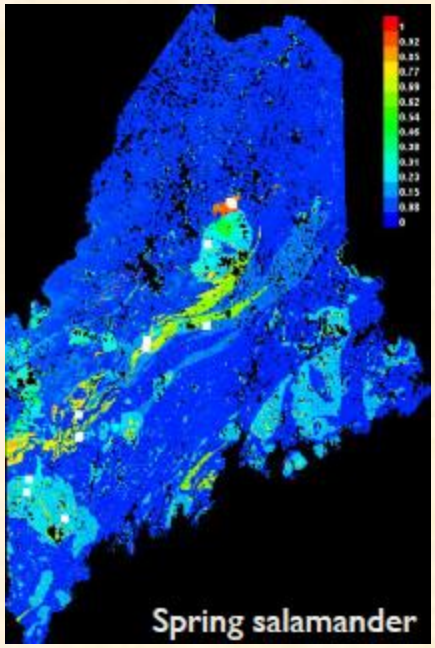
Conservation Design: Priority Amphibian and Reptile Conservation Areas (PARCAs)

North Atlantic LCC Role	Sponsoring project led by State of Maine, U. of Maine, and Clemson
Products	Species models for 60+ priority herp. species; report with priority areas identified
Available Now	Climate niche models for 57 species
Available within 3-6 months	• Projected loss of climate envelope for species • C.C. Vulnerability reviews • Pilot PARCAs for Maine
Longer Term	Full PARCA report and recommendations (Dec. 2014)



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Conservation Design:
Increasing Resiliency of Beach Habitats and Species in the Face of Storms & Sea Level Rise

North Atlantic LCC Role	Coordinating overall project among P.I.s, LCC and CSC partners and with P.I.s USGS, FWS, Virginia Tech, Rutgers, TCI
Products	Regional decision support models for coastal beach management and restoration for beach habitats and species in the face of storms and SLR; evaluation of the effectiveness of beach restoration and management
Available Now	
Available within 3-6 months	Pre-hurricane survey results of inlets and beaches
Longer Term	Complete models and results delivered to partners (2016)

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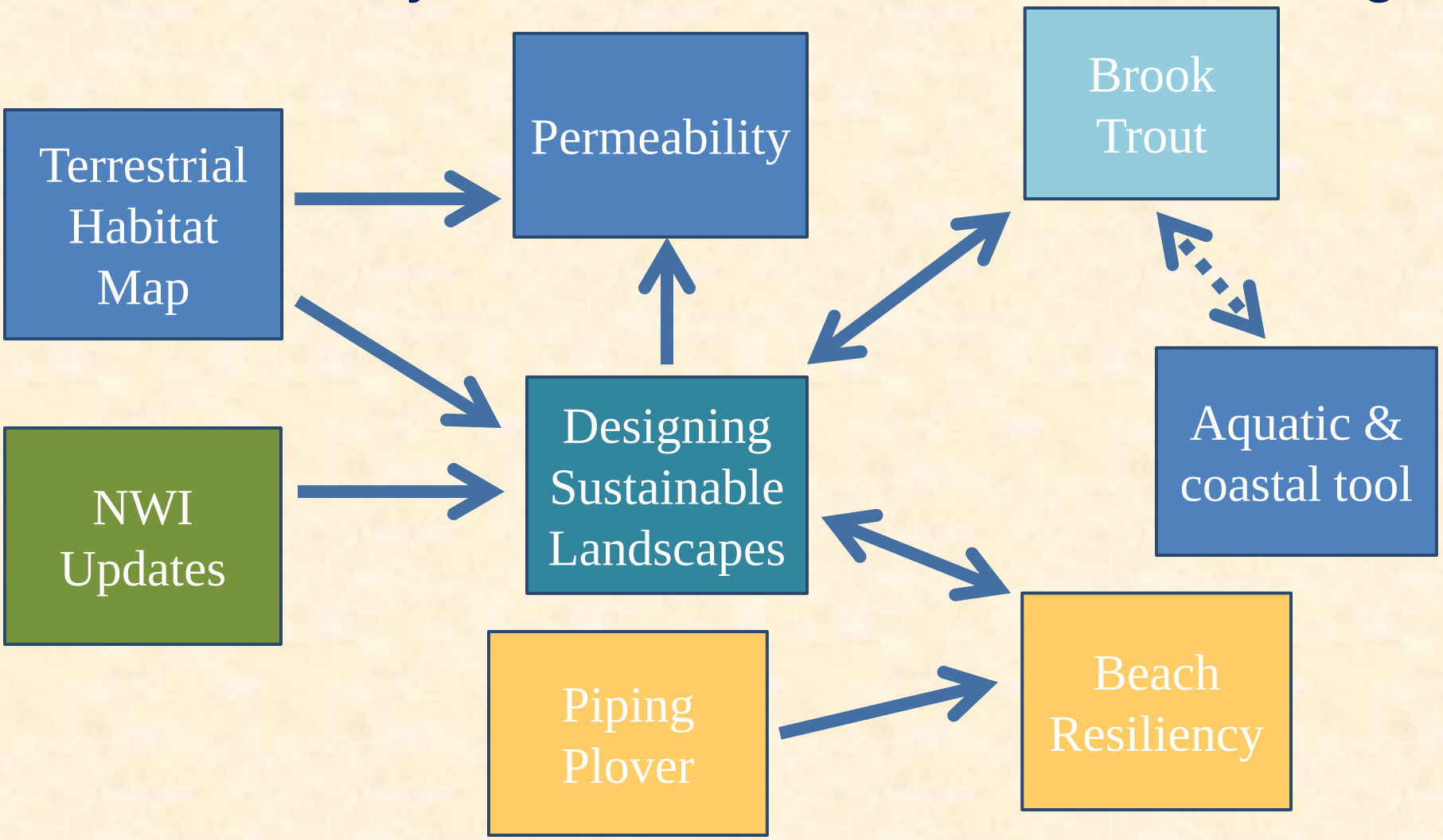
Exs. Of Project Coordination & Data Sharing



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Staff Experience with Science Projects

Characteristics	Foundational Science Projects	Decision-support Tools and Conservation Design
Application to conservation	Indirect, requires incorporation into other tools	Direct and high
Required active role of partners	Variable (low to high)	High
Required LCC staff time and coordination	Low to moderate	High
Time to success	Variable; short (6-12 months) to long	Long (>18 months to multiple years)

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Conclusions and Looking Forward

- 2014 science project budget outlook
  - Hurricane Sandy resiliency projects
  - Limited LCC science project funds
- Decision Support Tool and Conservation Design Projects
  - Choose new projects with care
  - Maintain momentum on existing projects (future phases)
- Technical Committee focused review on progress and critical needs