Priority Science Needs for 2015

North Atlantic LCC Steering Committee Meeting

Newport, RI

April 22, 2015

LANDSCAPE CONSERVATION COOPERATIVES

North Atlantic Landscape Conservation Cooperative

2015 Science Needs Process

- More than 40 individuals
- 6 U.S. federal agencies, 1 Canadian federal agency, 7 state agencies, 6 NGOs (one based in Canada), and 4 partnerships

[Handout 19]

Atlantic Coast Joint Venture
Atlantic Coastal Fish Habitat Partnership
Canadian Wildlife Service
Connecticut DEEP
Delaware DFW
Ducks Unlimited
Eastern Brook Trout Joint Venture
Maine DIFW
National Park Service
National Wildlife Federation
Nature Conservancy of Canada
NatureServe
North Atlantic LCC staff

New Hampshire Fish & Game
New York DEC
Northeast Regional Ocean Council
NOAA
The Nature Conservancy
U.S. Army Corps of Engineers
U.S. EPA
U.S. FWS
USGS
Vermont Fish & Wildlife
Virginia DGIF
Wildlife Conservation Society

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2015 Science Needs Process

- **January** - Review and discussion materials posted
- **February-March** – Teleconference calls w. 3 technical subcommittees
- **March 10-11** – Joint meeting of Technical Committee & Science Delivery Committee
- **March 12-18 –** Extended voting period for Technical Committee (34 votes rec'd)

2015 Science Needs Process

- **March-April** – Staff work with Technical Committee to refine and clarify narrative descriptions for highest ranked science needs
- **April 22** – Highest rated science needs from the Technical Committee presented to Steering Committee *[Handouts 20 & 21]*

2015 Science Needs

Rank	Topic	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
1	Assessment of connectivity and resiliency of tidally influenced road crossings	Inform where to upgrade, restore, and repair tidal road crossings to benefit aquatic organisms and mitigate flood damage	Complements large LCC aquatic connectivity project for non-tidal road crossings	Refine survey protocols, field surveys, incorporation of data into connectivity prioritization tools	$100,000

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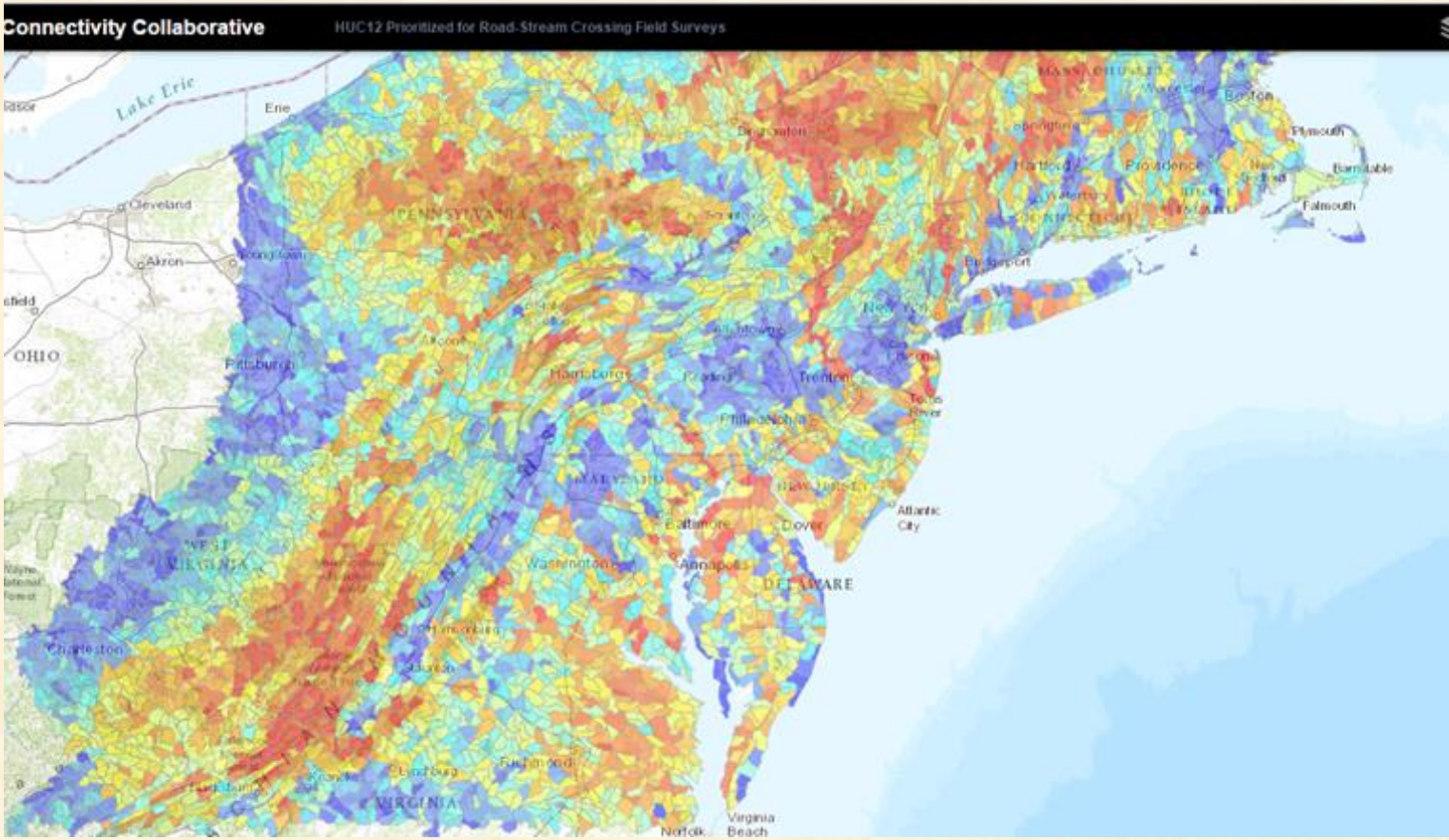
1. Add tidally influenced road crossings to aquatic connectivity project

Red - high priority for surveys

Blue - lower priority for surveys



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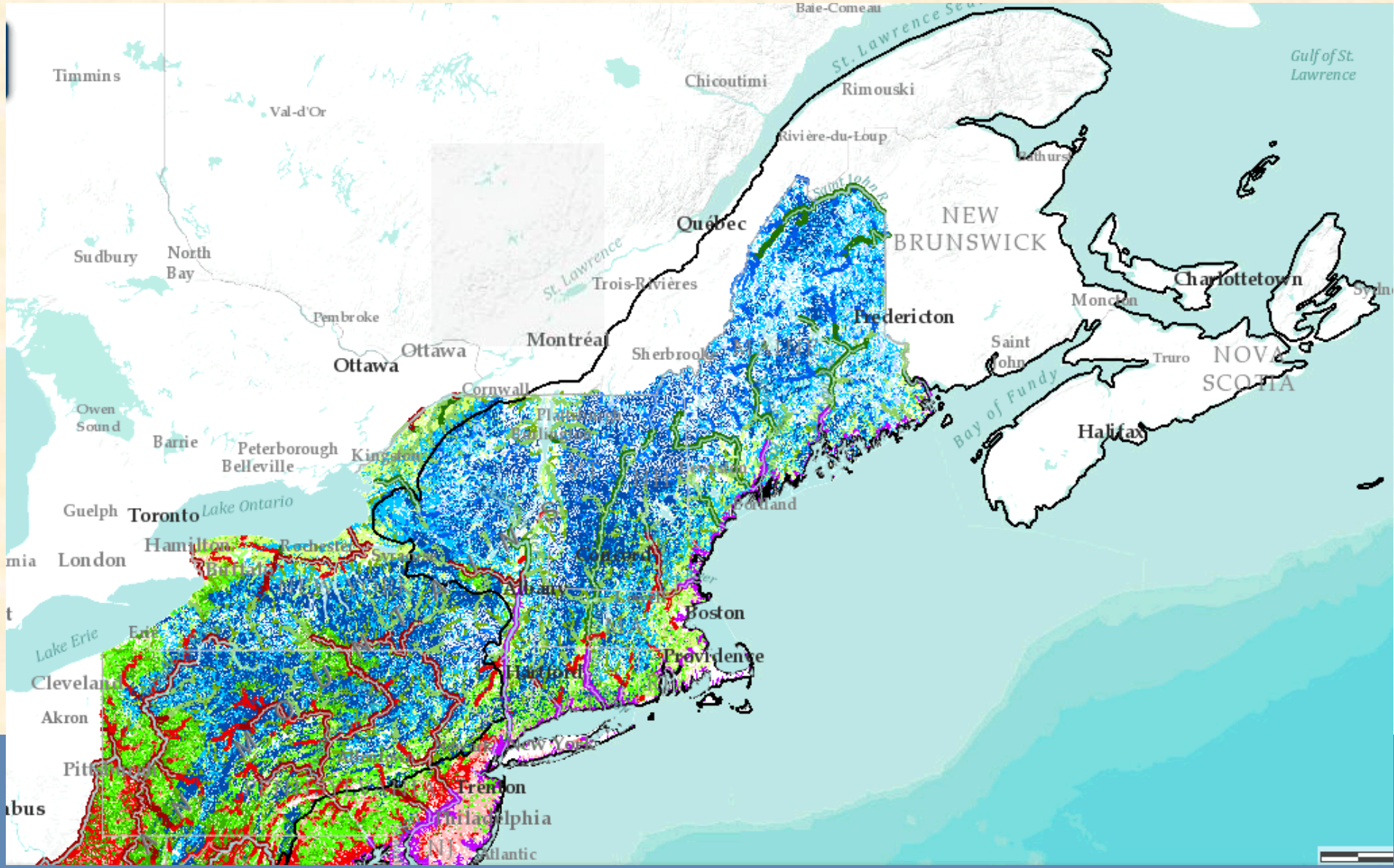
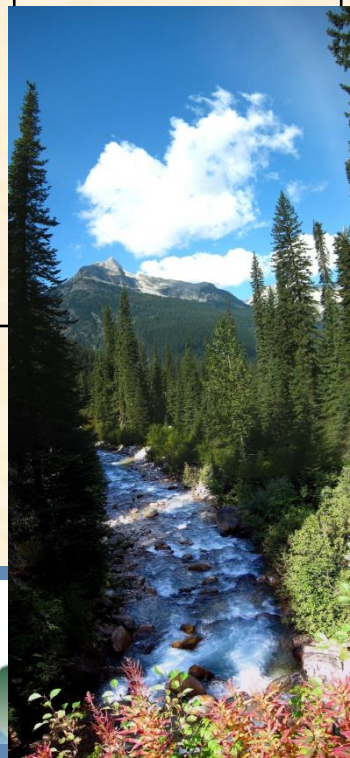
2. Aquatic Classification for Eastern Canada



2015 Science Needs

Rank	Topic	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
2	Aquatic classification for eastern Canada	Foundation for regional-scale conservation planning and prioritization	Extends U.S. classification for Northeast and Appalachian LCC regions	A consistent, mapped classification of stream and lake features into recognizable categories	$110,000



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Canadian Organizations Supporting Aquatic Classification Science Need

(in addition to Nature Conservancy of Canada and Canadian Wildlife Service)

1. The Salamander Foundation, Toronto Ontario (Tentative matching support of $25,000)
2. Department of Fisheries and Oceans Canada
3. World Wildlife Fund Canada (commit technical expertise)
4. Canadian Rivers Institute (commit technical expertise)
5. Wildlife Conservation Society Canada (Two Countries One Forest)
6. Quebec Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (commit technical expertise)
7. Nature Trust of New Brunswick
8. Kennebecasis Watershed Restoration Committee, New Brunswick (in kind support offered)
9. U. of Prince Edward Island – Community Environmental Liaison
10. Conseil de l'Eau Gaspésie sud (in kind support offered)
11. Conseil de l'Eau du Nord Gaspésie (in kind support offered)
12. Nashwaak Watershed Association Inc., New Brunswick

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2015 Science Needs

Rank	Topic	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
3	Planning for marsh migration with sea level rise and increased storm surge	Inform efforts to mitigate future tidal wetland loss by identifying potential areas for upslope marsh migration	Builds on marsh resiliency project (Hurricane Sandy) and other LCC work	Field-based surveys near conserved areas; maps of suitable areas for marsh migration	$115,000†

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2015 Science Needs

Rank	Topic	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
4	Vulnerability of cultural resources to flooding; consistent floodplain assessment	Begin integrating cultural resources into planning and inform most important floodplains for conservation	Adds cultural resources to current LCC portfolio; complements and refines terrestrial and aquatic mapping	Regional assessment of cultural resource vulnerability to flooding; regional mapping of floodplains	cultural resources: $25,000 floodplains: $100,000

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2015 Science Needs

Rank	Topic	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
5	Evaluation of stream networks for climate resilience	Identify high-priority aquatic areas for long-term resilience	Adds to conservation design planning that incorporates terrestrial resilience	Regional map, spatial dataset and tool for stream resilience	$100,000

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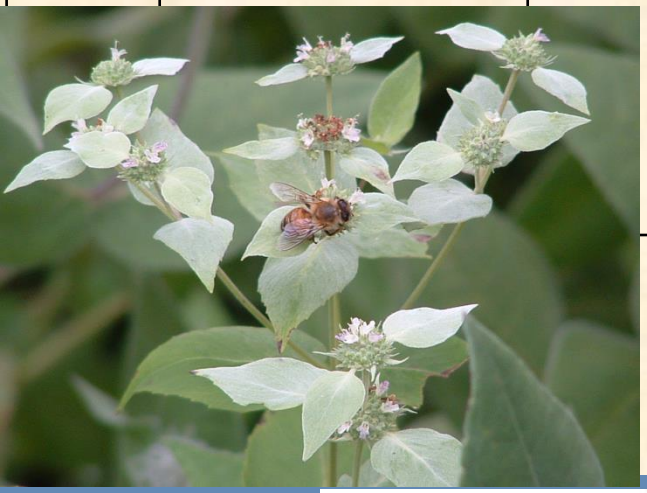
2015 Science Needs

Rank	Topic	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
6	Rare plant prioritization	Prioritize conservation needs for rare plants	Complements LCC-supported assessment of animal species (SGCN)	Assessment of the conservation status of wild plant species across the Northeast	$75,000



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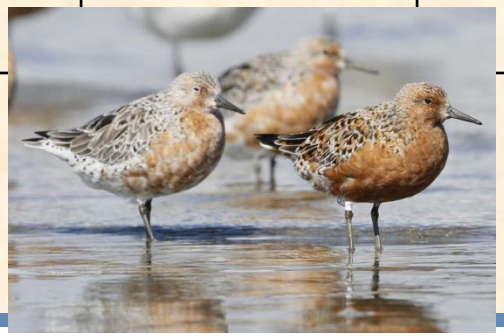
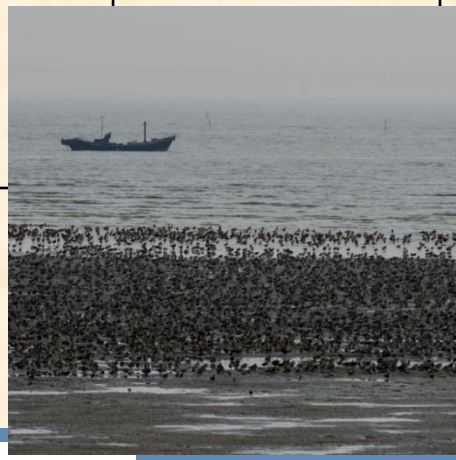
2015 Science Needs

Rank	Topic	Relevance to Conservation Decisions	Status and Relation to Other Work	Potential Project Type	Approximate LCC Funding Level
7	Impact of sea level rise and storms on Atlantic Flyway migratory shorebird stopover habitats	Project impact of changes in stopover habitat for use in planning and management for beaches and tidal flats	Builds on Piping Plover, beach resiliency, and sea level rise projects	Project future availability of shorebird stopover habitat and impacts to shorebird populations	$80,000





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2015 Science Needs Voting

Topic	Budget	Relative Score	Rank
Tidal culverts and bridges	$100,000	100	1
Aquatic classification - eastern Canada	$110,000	88.0	2
Marsh migration	$115,000	87.7	3
Consistent floodplain assessment + vulnerable cultural resources	$100K + 25K	80.1	4
Freshwater resilience	$100,000	65.6	5
Rare plant prioritization	$75,000	54.3	6
Sea level rise + migratory shorebirds	$80,000	54.0	7

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2015 Science Needs Voting Cont'd

Topic	Budget	Relative Score	Rank
Marine Bird Distributions	$80,000	40.3	8
Regional Forest Structure and Condition	$125,000	38.5	9
Quantifying ecosystem services and benefits	$100,000	38.1	10
Stream temperature network	Scalable with level of demand met	28.0	11
Forest block prioritization	Not estimated	27.2	12