

Connecticut River Watershed Landscape Conservation Design  
Core Team Meeting  
March 28, 2014

Attendees

*In person:*

Ana Rosner, USGS  
Ben Letcher, USGS  
Kevin McGarigal, UMASS  
Dave Stier, Springfield Museums  
David Paulson, MassWildlife  
Barry Parrish, Silvio Conte Refuge  
Dan Everson, USFWS Migratory Birds  
Kim Lutz, The Nature Conservancy  
Jeff Horan, USFWS Refuges  
Mitch Hartley, USFWS Migratory Birds  
Randy Dettmers, USFWS Migratory Birds  
Dave Perkins, USFWS Fisheries  
Ken Sprankle, USFWS CT River Coordinator  
Georgia Basso, USFWS Coastal Program/EPA Long Island Sound Study  
Bill Labich, Highstead  
Tanya Lama, USFWS Wildlife and Sports Fish Restoration  
Colleen Sculley, USFWS Wildlife and Sports Fish Restoration  
Andy Fisk, CT River Watershed Council  
Tim Wildman, CT DEEP, Inland Fisheries  
BJ Richardson, USFWS, Science Applications  
Lori Pelech, USFWS, Science Applications  
Patrick Comins, Audubon CT  
Andrew French, Silvio Conte Refuge  
Andrew MacLachlan, USFWS Science Applications  
Andrew Milliken, USFWS Science Applications  
Scott Schwenk, USFWS Science Applications  
Nancy McGarigal, USFWS Refuge Planning  
Meredith Bixby, USFWS Refuge Planning

*Via Webinar/phone:*

Jed Wright – USFWS Gulf of Maine Program  
Emily Preston – NH Fish and Game  
Rachel Cliché – USFWS Conte Refuge  
Mike Slattery – USFWS Chesapeake Bay Program  
Bill Jenkins – EPA  
Kim Royer – VT Fish and Wildlife

I. Welcome: Meeting Purpose and Logistics

- Nancy McGarigal welcomed everyone to this second pilot project core team meeting.
- She reiterated that the meeting purpose was to hear from the developers of several principal models/tools that we expect to use in this pilot project, and for core team members to have a fundamental understanding of how these tools could be used in design work.
- Another meeting outcome is for the core team to agree on a proposed process and next steps to guide the terrestrial and aquatic subgroup
- Meeting is scheduled from 10 am to 1 pm, with the presenters willing to stay an extra hour for one on one discussion
- Don't forget to access the Website (which we may redesign soon) to get materials referenced in past and future meetings (<http://northatlanticlcc.org/groups/connecticut-river-watershed-pilot>).

## II. Update on Actions Since Last Core Team Meeting

- Nancy McGarigal shared her appreciation for feedback received from the first meeting, including some thoughtful responses and suggestions on who else should be involved, how future meetings should go, and some comments on the project documents that have been drafted
- She also:
  - Reminded folks of the schedule for future core team meetings (see attached)
  - Reminded folks to identify which subgroup they wanted to be on: Aquatic or Terrestrial/Wetlands
  - Mentioned that several folks agreed to help lead the subgroups with objective-setting. These folks are identified on the subgroup attachment.
  - Mentioned that she and the USFWS Regional Native American Tribal Liaison had contacted 5 Federally recognized Tribes with affiliations in the Watershed to see if they would like to participate in the pilot project; no responses yet
  - Mentioned she had contacted the four State reps on the core team to see if their respective agencies might have population objectives that could be scaled to the Watershed for four species: moose, bear, ruffed grouse, and brook trout. Responses are forthcoming.
  - Mentioned that she, Ken Elowe, Andrew Milliken and Scott Schwenk met with Bill Labich and Emily Bateston from Highstead to discuss their interest in how/when to involve Regional Conservation Partnerships (RCPs). There are 12 RCPs in the Watershed (handout posted on website) who are very interested in how this pilot project will affect the work that they do, which is at various scales within the Watershed. It is an impressive list of partnerships, and an important group when it comes to advocating for, and implementing, the results of this pilot project. We agreed that meeting with some of the key RCP coordinators in June, once we have preliminary objectives, would be a good time to introduce them to the project and get feedback from them.
- There are 7 fact sheets that have been prepared as handouts (and posted on Website) that provide highlights of some of the major models/tools and datasets (including those presented today) that we think will be useful in this pilot project
- Other handouts (posted on the Website) were: 1) CT River Watershed, Landscape Conservation Design Pilot FAQs, 2) Potential Process and Decisions for Connecticut River Watershed Pilot, and 3) a list of partners in each Regional Conservation Partnership and a map of their area of interests

## III. Brook Trout Project – Ben Letcher and Ana Rosner, USGS (presentation is posted on the Website)

- The goal of this project is to understand brook trout response to environmental variation. This project is designed to characterize current variation in stream flow, temperature, and brook trout occupancy in headwater stream catchments in the Watershed, to provide forecasts on changes to those conditions under future climates, and to develop a web application to facilitate access and utility of the project results.
  - Questions:
    - Did you use Stream Stats data? *No, although Stream Stats is great for information on current conditions, we are interested in predicting future conditions.*
    - Does your model consider increases in precipitation due to climate change? *Yes, we set the model up to simulate changes in precipitation due to climate change.*
    - Does your model consider groundwater? *Yes, indirectly. Streams that are more resilient have water temperatures that change less due to air temperature. Those streams temperatures remain cooler due to inputs from groundwater.*

## IV. Resilient Sites for Terrestrial Conservation in the NE and Mid-Atlantic – Mark Anderson, The Nature Conservancy (presentation is posted on the Website)

- “Conserving the Stage” – the idea that we should conserve places based on their geophysical setting

- “Resilience” – the capacity for renewal in a dynamic environment (Gunderson 2000); the capacity of a site to adapt to climate change while still maintaining diversity, although it does not assume the species currently located at a particular site will necessarily remain there in the future. More heterogeneity = more options
- This project developed a map to show areas with high resiliency within the NE and Mid-Atlantic ecological region based on 1) representation of geophysical settings (characterized by information on geology, elevation, and landforms); 2) landscape complexity/diversity, including landform variety, elevation, range and wetland density; and, 3) landscape “permeability” including local connectedness and regional flow patterns.

#### V. Designing Sustainable Landscapes – Kevin McGarigal, Univ of MA

- This project developed a Landscape Change, Assessment and Design (LCAD) model framework to assess the capability of current and potential future landscapes to provide integral ecosystems and suitable habitat for a suite of representative species, as well as to provide guidance for strategic habitat conservation. Future habitat capability is estimated by integrating urban growth, succession, and climate change models.
- The project will develop maps and datasets that depict areas where the distribution of species may expand, contract, or persist due to future landscape change; it will also produce a map depicting areas and their relative value of ecological integrity.
  - Questions:
    - Were all variables treated equally, or were they weighted differently? *It depends, but essentially most variables were weighted by experts.*

#### VI. Process for Using Scientific Tools to Create Conservation Design – Scott Schwenk, USFWS

- Scott presented a recommendation for a 12 step process (shared as a handout) for completing a landscape design. He identifies where major decisions will need to be made by either the core team or by subgroups.

#### VII. Group Discussion Following Presentations

- Bill Labich mentioned that the scale with which these tools can be used and applied is very important. He asked what limitations there were on using the tools at various scales, and wondered how the group would decide which scale to use in developing the design.
  - Scott responded that the team will be transparent about the scale used; and that we might come up with a single design that may be applied at multiple scales
- Bill said it will be important to communicate the applicability of these tools to other practitioners when we move from design to implementation.
- Marvin Moriarty asked if the tools would be available to anyone to use for their own applications
  - Scott responded that the tools are very challenging in their present form to use without assistance from UMASS, but that the plan is to eventually make them more user-friendly. And yes, they will be in the public domain to use.
- Collen Sculley asked, in response to Scott’s presentation on a proposed design process, if a decision on the design framework was already made (e.g. using the 3 tiers of surrogate species, rare species, and ecological integrity/resiliency)? She wondered whether we couldn’t base the design using just the coarse filter approach of ecological integrity and resiliency.
  - Scott responded that he had presented a recommendation for a process, but that it had not been decided on and that it was a core team decision. He also mentioned that even with a plan to just use the coarse filter approach, there were still decisions on how to weight elements of integrity that the group would have to decide on. It wasn’t as simple as just taking the maps that Mark and Kevin had presented.

- Bill also pointed out that he understood why the State and Fed agencies participating in the pilot would also want to include the species (fine filter) approach because of their respective agency responsibilities to wildlife
- Bill Jenkins discussed how it will be important to develop education and outreach tools to explain how conservation design could be used at the local level; it is important to bridge the analytical work to local level and show its applicability
- The group discussed how it was important that none of the conservation design map outputs should portray “white spaces”; that the outputs would include tiered values covering the entire area so as not imply no value to areas. The group consensus was that all communities want to fit into the design framework – this project should not exclude any community or we will lose support and interest
- The group also discussed how we need to scale the results to sub-geographies so that there is good distribution across the landscape. The recommendation is to use HUC 8’s to get that sub-watershed distribution; this is in addition to analysis that will be done for the Region and CT river watershed.

#### VIII. Close-out

- Nancy hoped that everyone now had a fundamental understanding of the tools presented.
- She mentioned that the subgroup leaders would be in touch with everyone within the next week to begin the discussions on objective setting.
- She reminded everyone of the next meeting: **Friday, April 25, 2014** at the USFWS Regional Office in Hadley, from 10:00 am to 1:00 pm.

**Connecticut River Watershed Landscape Conservation Design Pilot Study**  
**Core Team Meeting Dates**

*\*\*\*All meetings will be in the USFWS Regional Office, Hadley, Massachusetts from 10:00 am to 1:00 pm\*\*\**

Friday, April 25

Friday, May 30

Friday June 27

Friday, July 25

Friday, August 29