Connecticut River Watershed Pilot Study Meeting
February 24, 2014
Great Falls Discovery Center, Turners Falls, MA

Attendees: Nancy McGarigal, Ken Elowe, Andrew Milliken, Rachel Cliche, Scott Schwenk, Kristen Sykes, Kim Lutz, Dave Paulson, Tim Wildman, Dave Stiers, Dave Perkins, Bill Jenkins, Jeff Horan, Randy Dettmers, Bob Houston, Georgia Basso, Eric Sorenson Dave Eisenhauer, Collen Sculley, Anne Truslow, Tanya Lama, Bill Labich, Patrick Comins, Chad Rittenhouse, Andy French, Jeremy Goetz (P), Barry Parrish (P), Jenny Dickson (P), Jennifer Griener (P); Peter Murdoch, Clem Clay, Ana Rosner, Andy Fisk, Ben Letcher, Andrew MacLachlan

Action Items:

Who	What	Due Date
Everyone	Let us know if you would like to continue to be a member of the pilot study core team (email or call Nancy)	February 28, 2014
Everyone	Let us know if you have suggestions on additions or changes to the core team (email or call Nancy)	February 28, 2014
Everyone	Let us know which of the two objective subgroups you would like to be on: 1) Terrestrial/Wetland Species and Ecosystems and/or 2) Aquatic Species and Ecosystems (email or call Nancy)	February 28, 2014
Everyone	Review guidance document and provide feedback, especially on what success looks like for the pilot project including measures of success (email or call Nancy)	March 7, 2014
Everyone	Provide feedback on any other tools or products that could be included in the pilot project (email Andrew/Scott)	March 7, 2014
Everyone	Look over the list of representative species and provide feedback, including any proposed changes (email or call Scott)	March 7, 2014
Everyone	Next Core Team Meeting at Northeast Regional Office, Large Auditorium	Friday March 28, 2014; 10am to 1pm
Andrew/Scott	Provide list of rare species being modeled to core team	March 7, 2014
Dave Eisenhauer	Create online space to share information; send link to site to core team	Due Date
Nancy	Send out list of all members of the core team to everyone	February 28, 2014
Nancy/Andrew/Scott/ Ken	Create sample objectives for core team to use as basis for objective development; send to core team	Due Date

*****The documents referenced above are located on the pilot project's Web page:**
http://northatlanticlcc.org/groups/connecticut-river-watershed-pilot/connecticut-river-pilot-core-team-meeting-2-24-2014

Highlights and Questions

Project Overview

- Ken E: This project is a ground-breaking experiment on how to do collaborative landscape-level planning. The outcomes of this project need to be useable; we are trying to take volume/complexity of science and turn into something we can use on-the-ground with municipalities and landowners. This project is not intended to be an imposition on other projects individual agencies and organizations are doing; we are just trying to pull these efforts together at a larger-scale.
- Nancy M: We are not trying to dictate the planning process, but instead would like it to be group-directed. It is an experiment; that is why we are calling it pilot. At this point, we are focusing on biological and ecological aspects—not going to strongly emphasize sociological/economic/recreational at this time. Our outcome will be about establishing a process and a spatial design. We won't take it through implementation and monitoring. Already meet with a smaller group of Service people interested in Aquatics and with all four State directors.
- Bill L: How does Service imagine the outcomes of this pilot project will affect investments/funding/etc.?
    - Ken's response: We hope this project will help us be more strategic with the conservation funding we have. We hope it will help us find where the better spots are to spend our limited amounts of money, time, and effort/time/effort. It might not effect overall Service budgets, but should guide where and how we spend the money we do have.

History and Context

- Andrew Milliken's Presentation:
    - The LCC has been developing and identifying three broad categories of decision support tools to help guide landscape-level conservation:
        1. Foundational Needs (e.g., regional scale terrestrial habitats, vernal pool data, NWI)
        2. Assessments (e.g., climate change vulnerability index (for species), regional habitat vulnerabilities to climate change, SLR on piping plover, CC on streams/brook trout)
        3. Conservation Designs (e.g., designing sustainable landscapes, PARCAs). There are now over 50 regionally consistent spatial datalayers *(http://nalcc.databasin.org)*.
    - Please let Andrew and Scott know if there are any other tools that might be helpful for the pilot project. Also, please let them know if anything (e.g., regionally consistent data layers) is missing from North Atlantic LCC websites.
        - Patrick C: Suggests also considering important bird areas, critical habitat areas determined by States, RAMSAR sites, key grassland areas, and high-elevation habitats.
        - Eric S: Suggests looking at State Heritage databases for information about rare species and natural communities. The states are going to a new database soon-BIOTICS 5. The data is site-specific, ground-truthed.
        - Andy Fisk: Baseline fish info for CT River.
- Scott Schwenk's Presentation:
    - One of the aims of the project is creating an interconnected, resilient network of lands and waterways that has many benefits to society.
    - Why did the Service choose the Connecticut River watershed for the pilot project? We already have a lot of information on the watershed, there are many existing partnerships between agencies, organizations, and individuals working on conservation in the watershed, and it coincides with the Conte Refuge.
    - Two main purposes of the project:
        1. Collaboratively prioritize conservation actions.
        2. Establish a process for doing landscape-scale conservation. The lessons learned during this project will help future projects.
    - Questions we hope to collaboratively answer as part of the project:
        1. Where should we invest in land protection?
        2. How should we manage conserved lands?

3. Where should we do ecological restoration?
4. Where and how should we influence local land use/open space planning?

- Two draft conservation goals for the watershed
  1. The Connecticut River Watershed sustains a diverse suite of intact, connected, and resilient ecosystems that provide important ecological functions that benefit society.
  2. The Connecticut River watershed sustains healthy and diverse populations of fish, wildlife, and plant species.

  - Discussion on adding social and economic function to goals
    - Bill L: Maybe we could add social and economic function into the first goal statement. Even though they aren't the focus on the project, it might make sense to have them in the goals.
    - Andrew Milliken: That makes sense to me.
    - Scott S.: We might be already getting at it with the "benefits to society" part of the goal, but agree it belongs in the goal.
    - Eric S.: It is okay to mention social/economic function in the goals, but I would be worried about having social and economic targets in objectives. They are important, but second to our biological, science-based focus.
    - Georgia B: Maybe we could reference the list of benefits from Scott's previous slide.
    - Patrick C.: We are interested in knowing where the biology overlaps with social/economic aspects.
    - Clem C: Is it reasonable to add a goal about the need to understand the non-biological benefits of our work?
  - Discussion on watershed versus planning process goals
    - Jeff H suggested adding something to the goals about how we are trying to develop a transferable approach in this pilot project that can be taken down from the larger regional to local level. Everyone agreed that is a goal of the project, but not for the watershed.
    - Colleen S: I feel like we are piloting the process, not the implementation. I'm a little stuck on that. Maybe we should have process goals too.
    - Nancy M: Although we are only piloting the design part of the process right now, we hope the project moves on to implementation phase in the future.
  - Discussion on ecosystem versus species goals:
    - Kim L: I don't feel we need the second species goal. If we have a goal for ecosystems, then I feel we cover species.
    - Patrick C: I think we should keep the two goals. For some species, just having good habitat is not enough to sustain them.
    - Randy D: May be we can revisit the species goal after we have developed objectives to see if it still makes sense (particularly the part about healthy and diverse habitats).
    - End result: The group decided to keep both goals.
  - Eric S: The goals should be lofty and cover all species and ecosystems, and also recognize that species and habitats change over time.

- On the species side, the Designing Sustainable Landscapes team at UMASS is currently developing habitat capability models for 30 terrestrial representative species (see handout). Thirteen of these models will be completed soon. These models are based on known habitat associations, stressors, and, where available, actual field data. We are also doing some modeling for rare species that we do not feel are adequately represented by the representative species. For aquatic species, so far we are focusing on brook trout (which will be modeled). Other representative species include shortnose sturgeon, river herring, American eel, and dwarfwedge mussel, but habitat models have not been developed. Some of these species would be difficult to model (e.g., dwarf wedgemussel occurs is a wide variety of river sizes). Please look over the list

of representative species, and let us know if there are any important species we missed; however it is probably too late to develop a model for new species.
    - Bill L: How do you deal with the lack of species data in certain places? Scott: We tried to pick species that we knew a lot about and that there was data available for. Where no field data exists on a species, we are using what we know about their habitat needs and the regionally consistent habitat layers. When field data does exist, we use it to improve the models.
    - Patrick C: Do you have the list of the rare species that you guys are modeling? How did you come up with this list?
        - Andrew: Yes, we will make that list available. They are from a larger list of about 500 species identified by States as important, rare species.
- On ecosystem side, we are using UMass's index of ecological integrity and TNC-Conserving the Stage. For brook trout, we are also proposing to use USGS's work on forecasting changes in aquatic systems.
    - Patrick C: Does the index of ecological integrity pick up small, but important habitats, such as tidal wetlands/grasslands?
        - Scott: Yes, to the extent that the underlying data types out those habitats. However, the underlying data does not capture grasslands very well, but will include tidal wetlands.
- Example of how putting all the information could work for wood thrush:
    - Identify areas that are most suitable/important to wood thrush using habitat capability model.
    - Look at the overlap between the areas most suitable/important for wood thrush and area of high ecological integrity. Based on this, identify core areas of importance.
    - Develop a series of these core areas and then assemble core areas into a network with buffers, corridors, and places to restore connectivity.
        - Jennifer G: Have you guys thought about a time-scale for the project. Scott: Not really, we should discuss as a group. Andrew: The models go out to 2080, but the further out we try to predict, the less certain.
        - Bill L: Suggest trying to identify and incorporate local priorities into the process.
        - Georgia B: How was landscape complexity defined in the TNC: Conserving the Stage project? Andrew: They looked at different physical landforms, not the biological habitat types.
        - Kim L: Do any of the data sets incorporate flow, process, geomorphology, etc?. TNC has region-wide data of floodplains and streams.
        - Andrew M: The brook trout study looks at flow. We recognize that most of the work that has been done to date is on the terrestrial/wetland side, and that we need better information on the aquatic side. We now have hydrodynamic data that is consistent across the region.
        - Patrick C: Does the wood thrush model match up with breeding bird atlas data? Scott: We compared the wood thrush model to some finer scale info (e.g., E-bird information) and it matched up pretty well.

<u>Discussion on Tools and Process</u>

Subgroups for Objective-Setting

- We were originally thinking of splitting up into three subgroups to develop objectives: aquatic species, terrestrial/wetland species, and ecosystems. After some discussion, we have agreed to have just two objective subgroups: aquatic species and ecosystems and terrestrial/wetland species and ecosystems.
    - Kim L: What does it entail to be a member on one or more of these subgroups?
    - Nancy: We will try to meet as a large group once a month. Being on an objective subgroup, may entail being on some conference calls/online stuff in-between monthly core team meetings.

- Andy French suggested another subgroup to develop socioeconomic objectives. After some discussion, we decided that we should develop the ecosystem/species objectives should be created first, then go back, and think about how to integrate the social and economic factors into them.

Possible Steps in Setting Species Objectives

1. Consider existing national or regional objectives for species (if they exist). If not, we might consider sustaining the existing population status.
2. Consider feasibility of existing objectives in light of future landscape changes.
3. Consider importance of watershed for that species.
4. Given these considerations, identify quality and quantity of habitat needed (recognizing that habitat might not be only factor (e.g., species need habitats outside of watershed, they might be migratory, might have other threats)—we will focus on what habitat is needed in this region for species).
5. Revisit as necessary as multiple species are considered simultaneously (e.g., balance the needs of species requiring late forest with young forests).
    - Colleen S: Are we only going to set objectives for every species or just the representative species? Scott: focus on the representative species/rare species we are going to have models for.
    - Bill L: How/when does the modeling fit into this process? Does the modeling come first or second? It seems like we would need to wait for the modeling to help us answer some of these questions? Scott: Agree, we would need to wait for the modeling for the 2nd through 5th steps.
    - Jeff H: Suggest also considering more local objectives under step 1, such as State objectives.
    - Clem C: Under step 4, we should also consider the distribution of habitat, not only habitat quality and quantity.
    - Dave P: We will need to adapt for aquatic species because won't have the modeling or population goals for most of them?
    - Patrick C: Does PIF have goals that could be adapted to the watershed level? Randy: Yes.

Possible steps in Setting Ecosystem Objectives

1. Adapt the species steps, as appropriate.
2. Consider functions/services wish to retain, or recover if lost
3. Identify extent, connectedness, and distribution of ecosystems necessary to achieve these functions and services

What is Role and Time Commitment for Core Team Members

- We hope that all core team members can:
    - ✓ Participate in once a month meeting (tentatively last Friday of month, next meeting 3/28 from 10am to 1pm at Northeast Regional Office in Hadley, MA).
    - ✓ Participate in conference calls.
    - ✓ Serve on one of the objective subgroups.
    - ✓ Keep other members of agency/organization appraised of project progress.
- Expanded/extended team members will not be as involved, but will be kept informed of project process.
- The Service does not have a hard and fast deadline for the project; just committed to showing progress on the project at the end of 6 months.
- Clem C suggests that the Service create a “strawdog”, or first draft, of objectives to keep the process moving, and then have core team members respond to it. Core team members will still have flexibility; this would just serve as a starting point for discussion. The Service agreed and will provide examples.
- There seemed to be general support that monthly meetings would be good so as not to lose momentum.

Communications (David Eisenhauer’s presentation)

- We created two Websites: one where we will share information on the pilot project with core and

expanded team members and another for the public about the watershed and project.

- FWS and LCC plan to provide some communication tools so that core team members can discuss the pilot project with their respective stakeholders (e.g. coworkers, external audiences). We are also looking at ways to coordinate among core team members and organizations/agencies to create a communications network within the watershed to share information on progress and results.