Major Decisions and Discussion Points from November 2014 Core Team Meeting

1) HUC6 scaling (rather than HUC8 or full Conn. River watershed) will be used to achieve a widely distributed network of core areas across the watershed

2) The 39 Ecological Systems (rather than the 16 Macrogroups) will be used for representing land classification in scaling the Index of Ecological Integrity. (Note: this classification distinction only applies to terrestrial and wetland systems; the aquatic team has already agreed to a different classification system for streams and rivers.)

3) The Combined Ecosystem and Species Cores were discussed. No final decision was made on whether to use this as a final, integrated approach for the design pending further review. Subsequent to the core team meeting, discussions between terrestrial team leads and UMass have led to a Combined approach that might achieve ecosystem and species objectives without resulting in as many small core areas. UMass is working to test this approach. (Rather than building out 12.5% of the landscape in ecosystem cores and then adding 12.5% of species cores, it will begin with 20% ecosystem cores and then add 5% species cores.) UMass is also investigating reasons why the most recent set of ecosystem and species-based cores overlapped less than expected.

4) Participants confirmed that the conservation focus area should be focused on the cores, which previously have been defined as making up approximately 25% of the landscape.

5) Considerable discussion focused on a network design of cores, connections, and buffers – see further description on the next page.

6) Landscape Change: participants agreed that one important way to incorporate projected future urban growth (anthropogenic development) into the design would be to rank core areas based on their vulnerability to development. The location and size of cores would be based on their current ecological value rather than possible future changes as a consequence of urban growth. Climate change will primarily factor into species assessments. There was general agreement to place a higher value on species habitat expected to remain resilient to climate change, relative to habitat that could become less suitable, but the exact methods and impact this would have on species-based core areas are yet to be determined. The group also recognized that modeling vegetation change was far less certain and probably should not be included at this time.

7) Combining Terrestrial and Aquatic Approaches - There was interest in combining the two approaches but this will need more discussion since it was clear that both the objectives and approach are significantly different for the terrestrial and aquatic systems.

November Scenarios Available On-line for Further Review

The scenarios presented by UMass in November are now available on the North Atlantic LCC Conservation Planning Atlas for further review.

* Terrestrial Core Areas
  + New ecosystem cores (scaled by HUC6)
  + Species cores
  + Combined species and ecosystem cores

All the terrestrial core areas are available in a map entitled “Nov. 2014 Terrestrial Core Areas,” which also includes some earlier ecosystem core area scenarios. The species cores are also available in a map entitled “Terrestrial-Wetland Species Core Areas.”

Additional discussions about the final conservation design – cores, connections, buffers, and the matrix (building on prior meetings)

* Core areas are intended to represent conservation priorities for the Connecticut River watershed. Core areas alone, however, are insufficient to sustain the current and desired future natural resource and ecological values of the watershed.
* The Connecticut River watershed is highly fragmented by roads and development, especially in the more urban areas in the south and in the Connecticut River valley.
* Because core area boundaries do not span these fragmenting features, cores are constrained to be small in heavily developed areas.
* If the integrity of landscapes surrounding cores is maintained (whether in the form of adjacent cores or a matrix of non-core ecosystems), this will confer a degree of protection upon the integrity of the cores themselves.
* The integrity of core areas is also expected to be enhanced if connections among core areas are maintained.
* In addition to the ecological reasons, highlighting values outside of core area “islands” is likely to engage a wider variety of conservation partners who can see their geographic areas of interest in the design. Conversely, if the design includes extensive “white areas” that seemingly have little value, if could fail to engage the interest of some partners.

At the end of the last core team meeting, considerable discussion addressed these issues and how to represent value outside of cores. In particular, discussion centered on one possible approach, the “M&M in cookies” approach of delineating fixed-width buffers around cores and connectors.

The general sense of the discussion was as follows:

* Substantial effort and an objective approach has gone into defining core areas and connections and their importance should be retained in the final design.
* The “cookie” matrix is probably too amorphous and encompasses too large a proportion of the watershed – with uncertain ecological value – to be retained as presented.
* There was considerable interest in “smarter” buffers. It would be preferable if buffers, like cores themselves, were derived taking into account ecological value. Recognizing that core areas may already incorporate buffers, it also may be preferable to limit additional buffering to core areas that require it.
* It should be very clear what the purpose or value is of any designated areas outside of core areas, and the basis for defining them.
* Based on subsequent discussions, UMass is investigating options where both connections and buffers will encompass a smaller proportion of the landscape.