May 1, 2015

Major Comments on Connecticut River Watershed Conservation Design and Potential Options to Address Them

Comment	How to address comment other than by modifying the design	Options to address comment by modification of design	
		Possible alternatives	**Basis for current approach; implications of alternatives**
Smaller-scale features that are not mapped regionally such as Important Bird Areas, key waterbird nesting areas, migratory shorebird stopover areas, and vernal pools may be missed	Reaffirm that design should be combined with local and additional information for conservation actions; conservation design products are intended to complement but not supplant other tools		
Ensure that design products can be applied to local questions, like the relative value of a particular parcel	Resolution allows for local use. Provide appropriate training, guidance and documentation for local applications		
25% cap on core areas lacks scientific justification and seems arbitrary; any cap should accommodate needs of target conservation elements	Clarify that 25% number represents a strategic place to begin and does not encompass all that is valued ecologically; combine core area network with other available information to more fully encompass valued areas	Derive a different cap on core areas. Or, add an additional tier(s), e.g. out to the "Wildland & Woodlands" vision of 70% of the landscape in forests.	Reverses a decision agreed to by the partnership following extensive discussion. Rationale for current approach: how much area should be represented in core areas is a value-based judgment informed by science that cannot be answered through solely scientific analysis; chosen value is a pragmatic, strategic starting point.
Unfragmented forest blocks should be used as the unit of analysis rather than core areas; meaning of cores and connections within unfragmented forest is problematic	Users could overlay core areas on forest blocks to prioritize forest blocks or prioritize conservation within forest blocks.	Build design using forest blocks rather than core areas	Rationale for current approach: unit boundaries are defined by ecological value of all systems rather than by location of roads. Anticipated time and effort required: high.
		Incorporate the larger forest block within which one or more core areas is situated into the design as an additional "tier" of conservation priority	Anticipated time and effort required: low/medium. Would require some discussion among partners about how to define the borders of a forest block.

Comment	How to address comment other than by modifying the design	Options to address comment by modification of design	
		Possible alternatives	**Basis for current approach; implications of alternatives**
Rare, threatened, and endangered species should be incorporated into the core design	Users with access to rare species data could overlay occurrence with the core area network to further prioritize conservation action	Incorporate rare species into core area generation	Reverses a decision agreed to by the partnership following extensive discussion. Rationale for current approach: difficulties related to release and handling of data, quality of data and relevance of data (e.g., how to filter transitory or historical occurrences). Anticipated time and effort required: high.
Include all rivers and streams in the conservation design as necessary parts of the functioning aquatic network	Users can combine core areas with any additional portions of stream networks (potentially including the use of aquatic ecological integrity to assess relative value across the network) for their own conservation prioritization	Include all rivers and streams in the conservation design	Reverses a decision agreed to by the partnership following extensive discussion. Rationale for current approach: design should provide guidance on the highest priority stream segments and networks for conservation. Anticipated time and effort required: low.
Incorporate all Active River Areas into the design, given the ecological importance of riparian areas and floodplains	Users can overlay Active River Areas with aquatic core areas or any additional portions of stream networks for their own conservation prioritization	Incorporate all Active River Areas into the design	See previous comment on rivers and streams. Would result in inclusion of significant areas of agriculture and development.
Replace aquatic buffers for lower reaches with Active River Areas	Users can accomplish this through overlays.	Replace aquatic buffers for lower reaches with Active River Areas in the design	Reverses a decision agreed to by the partnership following extensive discussion. Anticipated time and effort required: low, though would involve some discussion about the appropriate breakpoint at which buffers should be replaced.
Incorporate all wetlands into the design	Users can add wetlands to their prioritization efforts for wetlands that are not already part of the design	Incorporate all wetlands into core areas	Rationale for current approach: design should provide guidance on wetlands of highest priority for conservation. Anticipated time and effort required: med.
Model results have not been field tested; assumptions and errors in models need to be explained	Clarify that all models used in the design are built upon data gathered in the field or by remote-sensing (e.g., wetlands inventories, land cover datasets, road networks, species occurrences, soil surveys,	Postpone conservation design until additional field verification, where appropriate, can be carried out	Could result in enhancements to model components; however, not really a feasible option as it would delay design development by years.

Comment	How to address comment other than by modifying the design	Options to address comment by modification of design	
		Possible alternatives	Basis for current approach; implications of alternatives
	meteorological data); they also rely upon published research on ecological relationships. Better characterize model uncertainty. Clarify that for some models (e.g., responses to climate change), it would not be possible to truly assess model accuracy for decades.	As part of the testing and implementation phase, gather information on correspondence with on-the-ground experience	Design modified at a later date as necessary based on experience gained by practitioners.
A broader scientific community of conservation planners across the region should evaluate the modeling approach used as well as alternatives	Proceed with design as a test while continuing to obtain review and feedback on modeling components, clarifying the review that has already occurred.	Postpone conservation design until modeling components are further reviewed and, if necessary, revised	Rationale for current approach: a broad scientific steering committee provided extensive review and input on the modeling approach for the first two years of the Designing Sustainable Landscapes project and partners in three watersheds (Kennebec, Middle Connecticut, Pocomoke-Nanticoke) provided input on the approach prior to the Connecticut River pilot. Anticipated time and effort required: high.
Do not use representative species for core building; they are redundant and many may be inappropriate for that use	Clarify that cores are built starting with ecosystem core and building out or adding species cores that were not already incorporated in systems cores (and thus capturing elements of biological diversity not capture by ecosystem cores).	Create core areas only using ecosystems	Reverses a decision agreed to by the partnership following extensive discussion. Rationale for current approach: provides a mechanism to pursue species population objectives and results in better representation of high quality habitat for many species, thereby meeting the needs of partners interested in specific outcomes for fish and wildlife and one of the original goals of the pilot. Anticipated time and effort required: low.
Remove grassland birds (represented by Eastern Meadowlark) from core area development; the core area and connectivity model does	Users can choose not to implement conservation actions on grassland areas of the core area network.	Drop Eastern Meadowlark from core area development	Rationale for current approach: farms and grassland birds are highly valued ecosystem components that should be reflected in the design. Anticipated time and effort required: low.

Comment	How to address comment other than by modifying the design	Options to address comment by modification of design	
		Possible alternatives	Basis for current approach; implications of alternatives
not fit well with these species' needs and management requirements		Retain meadowlark in core area development, but do not create connectors for cores that have meadowlark as a seed	Addresses concern that connectors through grassland-based areas are inappropriate for non-grassland species and unnecessary for grassland species. Anticipated time and effort required: medium.
Modify meadowlark model to exclude prime agriculture soils and include only conserved lands		Modify meadowlark model to exclude prime agriculture soils and/or include only conserved lands	Anticipated time and effort required: low-medium (as yet unknown if necessary data are readily available).
Mapped connectivity should not include buffers	Clarify that it is not scientifically defensible to reduce connectors to single paths; clarify that conductance can help identify possible patterns of greatest flow within connectors.	Replace connectors with conductance	Reverses a decision agreed to by the partnership following extensive discussion. Either approach has pros and cons.
Incorporate TNC regional connectivity (not restricted to core areas) into the design	Users can overlay regional connectivity on the design.	Incorporate TNC regional connectivity into the design	Rationale for current approach: regional connectivity, operates at a different scale, would take considerable effort to adapt to conservation design, and not necessary given core-connectors. Anticipated time and effort required: medium.
Develop core areas only for areas not currently under protection (or automatically designate protected areas as core areas, supplementing them with new core areas).	Users can overlay protected areas and focus conservation on remaining portions of cores	Develop core areas only for areas not currently under protection.	Reverses a decision agreed to by the partnership following extensive discussion. Rationale for current approach: core areas should be based solely on ecological value, not current protected status, which could be subject to future change. Anticipated time and effort required: medium-high.
More clearly identify why a core area was selected	The source of the "seed" probably could be added to the existing information on what the core area represents.		