

Meeting Summary

North Carolina Sandhills Conservation Partnership

Reserve Design Working Group Meeting

October 1, 2009 - 10am to 4pm

Weymouth Woods State Nature Preserve – Auditorium

Welcome and Introductions

Scott Pohlman (SP) – NC DENR

Mike Schafale (MS) – NC NHP

Brian Ball (BB) - Ft. Bragg ESB

Jeff Marcus (JM) – WRC

Nick Haddad (NH) (pm only) - NCSU

Sara DiBacco (SD) - USFWS/AEC-ORISE

Pete Campbell (PC) - USFWS

Revisit Background Information & Evaluate Progress To-date

Sara reviewed Reserve Design (RD) efforts to-date including: the Site Conservation Plan and selection of conservation targets through the TNC 5S process; map iterations demonstrating known and potential biological value; and the principles, goals, objectives, and strategies listed in the Reserve Design Working Group (RDWG) draft plan. This presentation led into an assessment of past work, which included discussions about remaining action items, use of the map products by working groups and partners, and a potential need for performance measures. Discussion topics and related action items are listed below, but overall, consensus was reached regarding the need to reengage working groups with respect to acquisition and management priorities demonstrated by the RD, as well as the need to update/refine/finalize existing regional datasets now that the Green Growth Toolbox will provide a direct outlet for communication of our conservation priorities with land use decision makers.

Discussion:

1. Past and Future Use of Map:

- a. (JM) It is not being used for acquisition projects, but the logic that is applied to create the RD is similar to the logic used when a partner is assessing a property for protection, i.e. what does the habitat look like, what is it adjacent to, etc.? However, the map does not explicitly inform this decision process.
- b. Individual partners do not take into account priorities across the Partnership when submitting funding proposals; however, this may be due to the fact that in general, potentially competing opportunities do not occur at the same time.

- c. Geographic priorities and interests of partners relative to their mission - It may not be realistic to expect partners to override their agency priorities in favor of partnership priorities especially if a partner's geographic extent goes beyond the Sandhills.
 - i. A functional process for comparing priorities across partners in the NCSCP does not exist. This indicates a need for better communication between partners – this is a process issue (PC).
- d. (SP) What drives acquisition is primarily opportunity, guided somewhat by location based on defined RCW corridors, but the overall reserve design could/should be used to communicate with local land use decision makers to help protect important conservation areas. The map also hopefully captures other attributes related to water quality and other issues related to human derived benefits, which we have yet to articulate. These represent possible values of the RD or ways in which to apply the RD beyond acquisition. There is a need to: update maps to identify potential gaps; think about other issues related to management, such as how we can get more prescribed fire on the ground (is funding available?), to gain additional functionality on the landscape; and there is a need to improve communication to other WGs.
- e. **Action Item (MS):** We need to figure out how to have the map used more effectively by the partners internally and externally, and this needs to be addressed before we “tweak”/improve the map. Some suggested approaches include:
 - i. (JM) Bring the RD data to partners on-site and explain its utility.
 - ii. (SP) Host a RD ‘workshop’ for other WG chairs.

2. Relationship between RD and Conservation Planning Tool (CPT):

- a. The RD map can be useful in providing extra support for land acquisition grant proposals. Currently, NHTF (but not CWMTF) has points built in for an evaluation of the proposal based on the State’s CPT. Is it possible that trust funds would consider using scaled-down, local maps where available in lieu of CPT?
- b. (BB) What is the difference between the state map and the Sandhills design? (MS) Sandhills map is more detailed and contains or uses more specific information, but the differences may not be that significant at the overall Sandhills scale. Results may differ in the middle areas of the values.
- c. (JM) The GUCP map is assumed to be a better tool than the state map in highlighting regional priorities and interests because it is specific to the Uwharries. This should be the same for the Sandhills. However, if the statewide map is very similar, then the time and energy invested in creating and updating regional maps may not make sense.

- d. **Action Item:** There is a need to compare the Sandhills Reserve Design with the CPT. After the comparison is completed, it may be appropriate to push for changes in the statewide map – this could be a future Action Item.
 - i. Kim Douglas did a comparison of Sandhills suitability map and the CPT – what were the results? ([Q: Did Kim use the Reserve Design or the Sustainable Sandhills Natural Areas Suitability Surface?](#))
 - ii. Sara could do a comparison with the updated version of the Sandhills map (whichever one was used by Kim). What needs to be done?
 - 1. Assessment should be based on upper third of the scale of the most important areas for conservation to compare “cut-off” points between the two products.
 - 2. Calculate the number of acres included in some aggregate of ranks we care about and express as a percentage of the total acres in the Sandhills

3. Green Growth Toolbox (GGT) - a new outlet for the Sandhills RD and regional datasets:

- a. (SD) GGT is a real and immediate opportunity to communicate our conservation priorities via the map. Given this fact, we may want to go ahead and perform required updates/refinements to the existing regional datasets sooner rather than later. This is a concrete example of an applied use of the map that has tremendous value for the Partnership and its mission beyond guiding acquisition.
- b. (JM) GGT is a tool that will use our GIS data to communicate our conservation priorities and hopefully influence land use decisions to protect biological values. Therefore, we need to make sure smoke management buffers and corridor data are as accurate as possible.

4. Characterizing Potential Areas:

- a. Potential areas are a good example of a type of information contained in the Sandhills regional dataset that are not likely to ever be available at the state level since the process to identify potential areas is labor intensive.
- b. **Action Item:** Updating potential areas is important. It is also a potential opportunity to build landowner relationship if they are willing to provide access to their property for on-site data collection (which will be used to categorize the status of the potential areas). However, we do not currently have the needed resources to do the field work. Also, while it is labor intensive to review aerials as part of the updating process, this needs to be done prior to initiating field verification.

- i. Identify programs/individuals that are visiting private lands to solicit existing information on status and condition and/or use new inventory data to refine list of potential areas prior to the aerial-photo review.
 - ii. Generate a list of criteria to share with private-land biologists or possibly a seasonal technician to facilitate collection of consistent field data in order to make final determinations on each potential area.
- c. Evaluate the need for buffers around “potential areas” based on assessment of lands during “potential areas” updates.

5. Refining and Prioritizing Buffers:

- a. What are you buffering for? What is the purpose of the buffer? Ecological (e.g. protection from edge effects, wildlife management priorities) vs. smoke management. An ecological buffer is based on biological value (e.g. secondary areas defined by Natural Heritage) that you are trying to protect for some reason (e.g. habitat connectors). Recommended buffers must be defensible, especially for GGT-type purposes; buffers should not be mapped unless we can define why (JM).
- b. Buffers and Managed Areas in the Sandhills differ from the statewide product (e.g. smoke management buffers).
- c. **Action Item:** Need to prioritize lands that are appropriate for smoke management buffers. Refine and prioritize buffers via an analysis and “culling” process using an expert-derived rule set, e.g. all known prescribed burn areas receive a priority buffer that can be refined according to on-the-ground knowledge.
 - i. Jeff Marcus suggests sending the smoke buffer file directly to the burn bosses from the various partners can provide first cut and then send to experts for review of current smoke management buffers (experts to include burn bosses from TNC, Ft. Bragg, WRC, and private consultant foresters or commercial prescribed burners).
 - ii. Adjust standard smoke buffers based on local knowledge of public and private managers controlling actions on priority (and perhaps) conservation lands. Also include buffers (but maybe at a different priority level) on areas we would like burning to occur in the future, e.g. primary areas that are not protected or potential areas.
- d. **Action Item:** Check why military lands are not being included in conservation lands that are being buffered. Create a conserved land layer and a conserved land buffer layer (for smoke management) that includes the military lands.

- e. Consider calculated $\frac{1}{2}$ mile upland buffer areas the same as “potential” areas until on-the-ground information becomes available to refine the size and extent of a buffer around a primary area.
- f. **Action Item:** Use a GIS approach to “clip out” areas where buffers are not reasonable or can be adjusted from the base $\frac{1}{2}$ mile buffer standard. Exclude areas that are already developed within the buffer area (BB).
- g. Buffers on Primary Areas and Protosites:
 - i. Secondary areas do not need a $\frac{1}{2}$ mile buffer
 - ii. Eliminate buffers based on the small size of primary areas or protosites or the location for questionable sites (areas already developed within buffer). JM: I think the notion of filtering which primary sites should be buffered was to limit smoke buffers to those habitat types that would/should be burned, and not including bottomland sites, for instance. As you summarize in that section, other types of ecological buffers should be defined before we try to map them.
 - iii. Filter by habitat type (Q: Does this imply using habitat type to define the extent of an ecological buffer?)
- h. (BB) Using one set of GIS data for multiple purposes can be problematic. It may be prudent to show one set of data for public consumption, e.g. a buffer layer containing a minimal number of categories, but for conservation planners, it's probably better to show the more sophisticated version, e.g. two types of independently prioritized buffers.

6. Other

- a. In next iteration, should we include other issues such as source water protection priorities or should we focus on wildlife and then merge issues after the fact? This remains T.B.D.
- b. **Action Item:** Conduct assessment of known targets captured on lands protected over the last 10 years.

SP: We could emphasize the performance component: improving communication between the groups where appropriate and helpful, and evaluating actions in light of the conservation plan.

Integration of SHC Elements into RD & Review of Grant Efforts

Sara provided an overview of the ‘Biological Planning’ and ‘Conservation Design’ elements of Strategic Habitat Conservation (SHC) and discussed the relevance of the approach to the RD and the RDWG. In addition, she presented grant work that was completed, “to integrate NC Wildlife Action Plan priorities into the conservation mission of the NC Sandhills Conservation Partnership”. General conversation revolved around the question of what specific objective is being accomplished by incorporating

additional priority species, i.e. what is the value-added to the RD, and what approach should be pursued? These issues do not yet have resolution, but relevant discussion points are provided below.

Discussion:

1. Objective
 - a. (SP) Interested in expanding our list of targets, but need to be explicit of our objectives.
Notes that syncing the map with Action Plan priorities could be a way to attract financial resources to the Sandhills.
 - b. (NH) Where does the 5-element adaptive framework (as presented by SD) breakdown in application to the Sandhills? SD suggested that we lack a mechanism for amassing species information in order to create a design informed by species-specific requirements (assuming this would add value to the RD). Related to this idea, there is not a central resource for understanding what research is currently being conducted in the Sandhills and how it might inform the RD. In addition, as discussed during the morning assessment, there has been a breakdown in communication between the RD and implementation through working groups.
 - c. (PC) From the group's perspective, what is the overall goal of the reserve design and our conservation actions in the Sandhills?
 - i. Ecosystem, including all species and processes. Target species that need protection and community types that can capture the other species.
 - ii. Conserve functional ecosystems and viable populations of key *component* species. How do we define "key species"?
 - iii. Focal species list could inform protection and management where the habitat type may not.
 - iv. Ecosystem function goal could inform the selection of species targets.
 - v. Ecosystem function goal also has implications for habitat targets and their relationship to one another. (JM) How do we better inform the reserve design and conservation in the Sandhills? If so, in what way? Can we build in ways to evaluate the value of what we do and how we do it? Perhaps, additional species could be included because of their implications for management.
 - d. **Action Item:** Need a definition of what we are trying to protect, e.g. most rare, what makes the ecosystem viable, etc. Has implications for accountability, but the next step is to use that definition to refine or revise the focal species list.
 - e. (SD) What objective will add value to the current reserve design? Start with existing targets and see what is not covered? Not all WAP species are tracked by NHP.
 - f. Tying species more explicitly to habitat to determine protection and management actions is the priority.

2. Approach:

- a. Two overarching questions remain and are relevant to a discussion of the type of approach we might pursue:

- i. Q1: How to proceed with incorporating work from SWAP grant into RD?
- ii. Q2: Is using the SHC framework to define priority and focal species useful to informing/improving the RD?
- b. (SD) SWAP grant just amassed information in preparation for deciding how to improve the reserve design. If the group elected to add species, the focal species list would augment and NOT REPLACE the existing conservation target list.
- c. (PC) Need to add focal species by an agreed upon approach, e.g. ones that represent or are related to habitat targets.
- d. (NH - *in reference to question on survey*) Importance of Sandhills species populations to the species across its range may not be completely relevant due to it being common in other portions of its range but still critical in the Sandhills or at the state level.
- e. (MS) What is the relationship between focal species and our reserve design? All 200+ natural heritage species are inherent in nested targets. Need to elevate nested conservation targets to the same level as broad community targets.
- f. Consider refining focal species list to ones which are “key” to the Sandhills (but must define what is meant by “key”). This could be a question of scale, is the species key to the Sandhills, Sandhills populations key to the species in NC, or Sandhills populations key to the species across its overall range?
- g. (MS) It appears that this approach is similar to our buffer discussion, i.e. just like there are different categories of buffers, there are different categories to represent species, e.g. Sandhills ecosystem is crucial to a species survival, a species survival is crucial to Sandhills (ecosystem) survival, or it is an umbrella species representing others species.
- h. (SP) **Action Item:** Need to go back to the original target list prior to the 5-S Process and use the existing data we have.
- i. (MS) There are several different proposals being discussed on how to select species that have different underlying logic; 1. Start with the rarest and the other species that need special attention, 2. Umbrella species, 3. Species not covered already, 4. Management Indicator Species, 5. Conservation success indicator species, 6. Species for which we can define quantitative goals – indicators for how much is enough for a given species.
- j. (SD) Look into limiting factors as a means of selecting focal species; this piece is a major driver for selection in literature dealing with a ‘focal-species as surrogates’ type of approach.
- k. (JM) Selecting umbrella species for each guild that are facing the greatest limitations may be a good approach.
- l. (JM) Does the reserve design represent sufficient habitat to protect sustainable populations of focal species? If not, then we need to add a given species to the conservation target list.
- m. (MS) Are we shooting for a list of conservation targets (approx. 200 species already covered by the natural heritage data included in the reserve design) or are we looking to define analysis subjects, i.e. species that would possibly be used to determine if our RD captured the habitat necessary for sustaining that species and those it ‘represented’?

MS response: I suspect there should be more than the one action item in the last section, on the approach to adding focal species. Probably a number of action items. But I still think the one to start

with is to clarify whether the species being selected are meant to be only analysis targets or to be actual conservation targets. And if they are to be actual conservation targets, to clarify what of the several possible roles they are supposed to play. Or to clarify that there are several different things needed here, and to pull them apart and clarify each. The other decisions should follow from that.

Wrap-UP

Review of morning action items and request to send any additional feedback to SD.

DRAFT