

Crane's Creek Chronicle

Newsletter of the Crane's Creek Watershed Planning Team



Our December 2002 meeting, was iced out, so we did not meet until the near year. We met on January 15, February 19, and March 19, 2003. A synopsis of each meeting is found below and further details are laid out on the following pages.

January 15, 2002

Jim Stanfill, of the NC Wetlands Restoration Program, went over the **possible wetland restoration sites** within Crane's Creek Watershed. This presentation is online at http://www.ces.ncsu.edu/WECO/cranes/cranes_current.html. These were only potential sites, many of which had not been ground truthed for accuracy. The purpose of the presentation was to give stakeholders an idea of what type of projects WRP might be looking at and also, to find out further information on the individual parcels of land identified.

February 19, 2002

Jim Stanfill, of the NC Wetlands Restoration Program, went over the **possible stream restoration sites** within Crane's Creek Watershed. This presentation is online at http://www.ces.ncsu.edu/WECO/cranes/cranes_current.html. As with the wetland sites, these are only potential project sites.

Scott Pohlman was present to tell us about the NC Natural Heritage Program and what he has found out about in the Crane's Creek Watershed. Turn to page 2 to read about the presence of important natural heritage components.

March 19, 2002

Rob Breeding of the NC Division of Water Quality gave us an update on the water chemistry of Crane's Creek Watershed. Please turn to page 3 for this report.

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NC Natural Heritage Program

Scott Pohlman of the NC Natural Heritage Program presented information about significant natural areas in the watershed. The Natural Heritage Program was set up by the General Assembly in the 1970's. It is housed in the Department of Environment and Natural Resources within the Office of Conservation and Community Affairs. The Mission of the NHP: To inventory, catalogue, and facilitate protection of the rarest and most outstanding elements* of North Carolina's natural diversity. * "Elements" and "element occurrences" refer to species and communities. Crane's Creek is situated close to some important conservation areas, including Fort Bragg, Sandhills Gamelands, Weymouth Woods, and the Calloway Tract. The watershed is in very close proximity to many NHP elements and occurrences, some of which fall within watershed boundaries. The following 4 animal species are found within the watershed:

- Meske's skipper (*Hesperia meskei*)
- Northern pinesnake (*Pituophis melanoleucus*)
- Pygmy rattlesnake (*Sistrurus miliarus*)
- Red-cockaded woodpecker (*Picoides borealis*)

The following 5 plant species are found within the watershed:

- Carolina grass-of-Parnassus (*Parnassia caroliniana*)
- Georgia indigo-bush (*Amorpha georgiana* var *Georgiana*)
- Sandhills lily (*Lilium pyrophilum*)
- Sun-facing coneflower (*Rudbeckia heliopsidis*)
- Sandhills pyxie-moss (*Pyxidantha barbulata* var *brevifolia*)

There are certain things that help set this watershed apart from other watersheds in North Carolina. First of all, it's a longleaf pine - wiregrass area, transitioning from the Coastal Plain to the Piedmont. The fine-textured soils are probably where you would find agriculture. The uplands would have originally been longleaf pine. There is very little overland runoff here. Most water seeps into the soil and contributes to base-flow. Wetlands therefore, are going to be narrow little places usually. Sandy soils, seepage, and fire set this area apart historically.

A natural community is defined as a distinct and reoccurring assemblage of populations of plants and animals, naturally associated with each other and their physical environment. This definition combines both biological and physical habitats. The classification is restricted to land in an approximately natural state.

Within the Crane's Creek Watershed six rare and high quality natural communities are found. They are: Streamhead Atlantic White Cedar Forest, Streamhead Pocosin, Pine/Scrub Oak Sandhill, Sandhill Seep, Coastal Plain Small Stream Swamp, and Mesic Pine Flatwoods. All but the Small stream swamps are fire dependant communities to some extent. Streamhead Pocosin and Streamhead Atlantic White Cedar natural communities occur along intermittent streams. Streamhead Atlantic White Cedar, along with Sandhill Seeps would certainly be worth restoring. Sandhill Seeps are where most rare plants are found in the Sandhills. The Seeps tend to be small in extent, and highly threatened.

This watershed has many small streamheads, so it is suspected that are more natural communities to be found.

The Natural Heritage Program ranks natural areas based on rarity & quality of species and community occurrences, and landscape context. The areas are ranked on National, State, Regional, and Local Significance

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("A,B,C,D") One of the tasks of the NHP is to prioritize conservation efforts. Part of the definition of "natural community" is re-occurring, which gives us the ability to compare sites. A nationally significant site would be one of best 5-8 in the United States. Local significance is the equivalent of county. Quality of element occurrences is determined based on size, natural condition, and landscape context.

A Significant Natural Heritage Area:

- Is an area of land identified as important to protect state's biological diversity.
- Is defined as an area containing one to several exemplary natural communities that form a distinct geographical unit.
- Can have a natural (e.g., a watershed) or an artificial boundary (e.g., a road).
- Can range in size from one to thousands of acres.

Significant Natural Heritage Areas are identified by NHP, but protection comes from landowner.

There are 6 areas of Significant Natural Heritage in the watershed:

Black Chapel Longleaf Pine Stand
 County Line Road White Cedar Stand
 Little Crane Creek Depression
 Little River Flatwoods
 Pine Forest Road Longleaf Stand
 Seaboard Longleaf Pine Stand

How can we protect biodiversity? Mostly through the protection of integrity of habitat. This means it is best to reduce fragmentation; reduce degradation resulting from pollution; control invasive exotic species; and management that mimics the natural cycles (e.g. Sandhills longleaf pine being burned)

There is an emphasis on protection of natural heritage areas because it is easier and cheaper to protect something than to try to fix or recreate it.

Conclusions

- The Crane's Creek Watershed is diverse and contains some high-quality examples of natural areas.
- Protection of intact, quality examples of natural habitats is important step in conservation
- Include active management
- Restoration offers essential opportunity to connect and buffer key natural areas, improving degraded water quality and habitat

Water chemistry

Rob Breeding: Water chemistry update:

Little Cranes and Cypress Branch have elevated nutrients, but drought of past year may have affected sampling. Originally thought there was high chlorine in some areas, but it turns out it is only naturally occurring manganese, which was causing a false positive on the test.

Currently toxicity tests show problems. Need to do more tests to determine.

Relatively high copper and zinc concentrations are probably due to poultry operations spreading poultry litter on the fields. This may be able to be dealt with by using a simple production BMP at the poultry facility prior to spreading litter.

January 15, 2003 Meeting Roster

Ken Averitte, NC DWQ
 Patrick Beggs, WECO
 Rob Breeding, NCDWQ – WARP
 David Cooley, teacher – Union Pines High School
 Elizabeth Forbes, landowner
 Gene Frazelle, Woodlake Committee
 Jerry Hall, SWCD. - Moore County
 Laura Lee Matthews, landowner
 Rosemary Maurath, Woodlake Committee
 Christy Perrin, WECO
 Jim Stanfill, NC WRP
 Hughie White, NCDENR – DWQ
 Cy Wilcox, landowner

Students present:

Martin Locklear, UPHS
 Scott Schwartz, UPHS
 George Simgni, UPHS



February 19 , 2003 Meeting Roster

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 Patrick Beggs, WECO
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 Elizabeth Forbes, landowner
 Gene Frazelle, Woodlake Committee
 Jerry Hall, SWCD. - Moore County
 Russ Hardee, NC Division of Forest Resources
 Laura Lee Matthews, landowner
 Christy Perrin, WECO
 Scott Pohlman, Natural Heritage Program
 Jim Stanfill, NC WRP
 Hughie White, NCDENR – DWQ

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