

Stoney Creek Local Watershed Planning News

Watershed Education for Communities and Local Officials NC Cooperative Extension

NC Ecosystem Enhancement Program kicks off Local Watershed Planning in Goldsboro

The Stoney Creek Local Watershed Planning Team met for the first time officially on September 15, 2004 at the Wayne County Center in Goldsboro. The NC Ecosystem Enhancement Program has convened this team of stakeholders to formulate a Local Watershed Plan for Stoney Creek. The Stoney Creek watershed is found in the Neuse River Basin, within Wayne County, and includes portions of the City of Goldsboro as well as portions of the Seymour Johnson Air Force Base.

This newsletter gives an overview of that first meeting. The PowerPoint presentations given at the meeting are available to view on the WECO website. Click on "Projects", then "Stoney Creek", then "Presentations & Technical Documents." You'll find 3 presentations: 1) an introduction to EEP by Rob Breeding, 2) and introduction to in lieu buffer and nutrient offset payments, and 3) the initial watershed assessment findings.



Feel free to share this newsletter, which is also available on the WECO website.

If you have any questions, please contact:

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Next Meeting: November 15, 2004 10 am - 2 noon

Wayne County Center, Goldsboro We will meet in the large room at the top of the parking lot.
(This is NOT the kitchen room we met in last time.)

Agenda includes:

Watershed Assessment Methodology - Team Expectations - Summary of Results (so far)

Stakeholder feedback: What needs to be addressed in this Local Watershed Plan?



Ecosystem Enhancement Program (EEP) Overview

Rob Breeding of EEP is the plan manager for the Stoney Creek Local Watershed Planning Project. Rob presented an overview of EEP and the general planning process for the Stoney Creek Watershed. His PowerPoint presentation can be found on the WECO website, www.ces.ncsu.edu/WECO/stoney.

EEP is a non-regulatory program found within the NC Department of Environment and Natural Resources (DENR). EEP was formed by merging program resources of DENR, the NC Department of Transportation, and the US Army Corps of Engineers. EEP's goal is to Restore, Enhance and Protect watershed functions in NC. These functions include water quality, hydrologic balance (including floodwaters), and aquatic/terrestrial habitat.

EEP sponsors Local Watershed Planning to help reach these goals. A group of local stakeholders, using the technical expertise of governmental and private consulting services, work to identify issues, set priorities, develop strategies, secure funding, and implement watershed protection and restoration projects within the community.

Local watershed planning requires understanding the symptoms of watershed function and loss of function—then, determining a course of action. These actions may include stream and wetland restoration, riparian buffer implementation, best management practices (BMPs) for stormwater or agriculture, education, and policy recommendations for improvement or protection.

The best watershed projects are identified by locating the intersection of the following 3 priorities: (1) habitat and water quality improvement, (2) future DOT impacts, and (3) local priorities.

EEP has contracted with WECO, Watershed Education for Communities and Local Officials, to convene this local stakeholder group who will review the assessment as it occurs and provide feedback and solutions for the local watershed plan. In addition, EEP has contracted KCI Associates to continue the watershed assessment that was begun by the NC Division of Water Quality.

The Technical Assessment of the watershed will be conducted in 3 phases.

- Phase 1 has already been completed by the DWQ Watershed Assessment Team. The Phase 1 Watershed Characterization Report can be found by going to the WECO website. A summary of the report was presented at the meeting. (see p. 3)
- Phase 2 is the detailed assessment of the watershed being conducted by KCI Associates. It involves field reconnaissance and modeling. A new Coastal Plain stream assessment tool, developed at Eastern Carolina University, is being tested during this phase.
- Phase 3 involves the development of watershed strategies including specific project recommendations, outreach and implementation of the plan.

The Stoney Creek watershed was chosen in part because it qualifies as Neuse River nutrient sensitive waters and as 303(d) listed impaired waters. It also has altered hydrology, rapidly changing land use, and projected future DOT impacts. These things, combined with strong local interest and ample opportunities for stream and wetland improvement, make Stoney Creek a good candidate for developing a Local Watershed Plan.



Phase I Watershed Assessment Findings

Rob Breeding, of EEP, presented the findings from Phase I. His PowerPoint presentation can be found on the WECO website. The goals of the watershed assessment were:

1. to determine the relative health of the fish and aquatic insect communities,
2. characterize water quality and habitat problems in subwatersheds,
3. identify subwatersheds that would benefit from restoration and management.

Rob explained the methodology for collecting biological and water quality samples. Both fish and macroinvertebrates (larval aquatic insects) were collected. Certain insects are considered indicator species—their presence or absence giving clues to the quality of water. Certain fish are also considered indicator species, giving clues about the ecological balance of the ecosystem.

The insect sampling suggests degraded water quality in the sampled watersheds. The headwaters suffer from low water flow and reduced dissolved oxygen. Bank instability is moderate. There are some indications of nutrient enrichment. The recent insect sampling supports toxicity findings from prior studies.

Only one site was sampled for fish community analysis so definitive conclusions are not possible. The community from the single site was skewed towards generalist species, suggesting low habitat variability. That finding is further supported by cursory observations of the physical condition of the stream at and near the sampling site. Other locations in the watershed may have more diverse habitat and house a more diverse assemblage of fish species.

The water quality sampling showed that low dissolved oxygen may be naturally occurring in the watershed. The high nutrients are primarily organic, but may have an agricultural source. The toxicity test sample was collected during a stormflow at Rt 70 Bypass. Several high metals were found, and diazinon (a pesticide) was found in concentrations that exceeded the normal benchmark.

9/15/04 Meeting Participants

Deborah Anderson—NC Ecosystem Enhancement Program (EEP)
 Mike Bell—US Army Corps of Engineers—Washington, NC
 Patrick Beggs—Watershed Education for Communities and Local Officials (WECO)
 Rob Breeding—EEP
 Bonnie Duncan—EEP
 Patty Gabriel—USDA-Natural Resources Conservation Service (NRCS)—Wayne County
 Tasha Logan—City of Goldsboro
 Carol Mayes—Mayes Wilson Associates
 Andy Miller—Soil and Water Conservation District (SWCD)—Wayne County
 Kathy Paull—NC Division of Water Quality (DWQ)
 Guy Pearce—EEP
 Christy Perrin—WECO
 Connie Price—Wayne County Planning
 Ronnie Wilson—Seymour Johnson Air Force Base
 Bennet Wynne—NC Wildlife Resources Commission (WRC)

Overall watershed assessment findings to this point suggest:

- a moderately to severely impacted fish and aquatic insect community
- Instream habitat is not very variable
- Sedimentation is present
- Some evidence of nutrient problems
- Some evidence of toxicity

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Watershed Education for Communities and Local Officials - WECO is a program of the **North Carolina Cooperative Extension**. We are housed within the **Department of Agricultural and Resource Economics** at **North Carolina State University**.

WECO is dedicated to facilitating watershed planning at the local level in NC. We bring watershed stakeholders together to find solutions to water quality/water resource issues.

Buffer and Nutrient Offset Programs - In Lieu Fee Payments

Stoney creek lies within the Neuse River Basin. The Neuse Basin has two programs in place which can help communities fund projects which may increase watershed function: the Neuse Buffer Program, and the Nutrient Sensitive Waters Management Program. For the best information on these two program, please go the following website: www.nceep.net/pages/inlieureplace.htm. Deborah Anderson's PowerPoint presentation is available at the WECO website, and briefly summarized here.

The major components of the Riparian Buffer Protection rules are: applicability, buffer width, vegetation or existing use of land, mitigation, delegation and variance requests. In the Neuse Basin, this rule applies to perennial streams, intermittent streams, lakes, ponds, estuaries and modified natural streams. It DOES NOT apply to ephemeral streams, manmade ponds/lakes outside of natural drainage ways, nor ditches and manmade conveyances unless constructed for boat access or navigation.

Buffer width consists of 50 feet with 2 zones. Zone 1 is an inner zone, 30 feet wide, of undisturbed vegetation. Zone 2 is the outer 20 feet. It must be a stable vegetated area, but can allow for grading provided the area is revegetated and the health of the existing vegetation in Zone 1 is not compromised.

EEP has received buffer impact payments for 243 acres in the Neuse River Basin.

The Nutrient Sensitive Waters Management Strategy Rules require local governments to restrict the average nitrogen load from non-urban areas of the Neuse Basin, and sets a cap for nitrogen export from residential and commercial/industrial areas. Money paid into this fund by developers and government entities can be used by EEP for watershed restoration activities.

