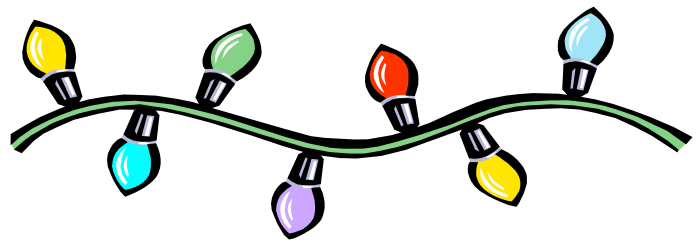


Stoney Creek Local Watershed Planning News

Watershed Education for Communities and Local Officials NC Cooperative Extension

Here's to a wonderful holiday and a healthy and prosperous New Year for the Stoney Creek Watershed and all our partners on this project.

At our November 15 meeting Rob Breeding, of the Ecosystem Enhancement Program (EEP) opened the meeting with a brief overview of EEPs local watershed planning process and an introduction of the ECU protocol that Mike Schlegel expounded upon later. An important part of this meeting was stakeholder input. Participants were asked to list and discuss those issues they would like to see considered in the local watershed plan. It may not be possible to consider all issues fully, but those that fall within the parameters of the EEP Local Watershed Planning process will be taken into account, and others will be considered and at the very least, noted.



At our next meeting, January 31, 2005, we expect KCI to have completed more analysis and will be presenting that data. A representative from the Division of Water Quality will present an update on water quality findings in the watershed. Also, we hope to have an EEP representative review BMP funding options with the group. That will start the ball rolling for funding procurement for some of the sites we identified on the maps at the first meeting.

Next Meeting: January 31, 2005 10 am - 2 noon

Wayne County Center, Goldsboro We will be meeting in the KITCHEN .

Agenda includes:

- Watershed analysis data from KCI
- Update on water quality findings from DWQ
- Review of BMP funding options

Local Watershed Planning – an overview for Stoney Creek

Rob Breeding – Ecosystem Enhancement Program

The Local Watershed Planning process can be simplified to the following 5 steps:

1. Identify the issues, 2. Set priorities, 3. Develop strategies, 4. Secure funding, 5. Implement projects

EEP is charged with finding mitigation requirements and exists to diminish or negate any loss of wetlands. The LWP approach helps EEP be more comprehensive and holistic in its planning. The more comprehensive the plan is locally, the greater the possibility for doing what is ecologically needed here in the watershed. Stoney Creek was chosen originally using remote sensing technology, but it is important to note that subjective information such as local interest and local opinion is what can make or break an LWP.

EEP is using a new stream assessment protocol developed at Eastern Carolina University (ECU). Watershed assessment has been very difficult to do in coastal NC. Widely-used stream assessment methods like the Rosgen classification method are used successfully in the piedmont and mountains of NC. . In good part due to the flatness of the land, streams in the coastal plain don't exhibit the same physical characteristics as their piedmont and mountain counterparts. For example, coastal plain streams rarely have rocky riffles, important invertebrate habitat, and they typically don't have high velocity water flows that help to shape the channel. Because classification methods like Rosgen rely on these sorts of measures, they don't work very well in the coastal plain. The ECU protocol is being developed and tested across the Coastal Plain to try to determine a standard method that will work for coastal NC and to aid in the identification of restoration and preservation sites.

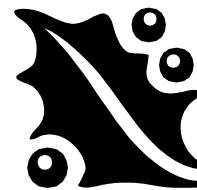
Stakeholder Input

EEP basically considers 3 watershed functions: habitat, both aquatic and riparian, water quality, and hydrology. The stakeholders were asked about concerns that fall both inside and outside these functions.

The following stakeholder concerns are not in a particular order, nor are they ranked. They have been grouped by WECO and EEP into categories for ease of presentation. In addition, comments during this portion of the meeting are included.

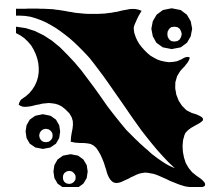
Best Management Practices:

- What are the specific restrictions and requirements?
- What maintenance will be required?
- Who will be required to perform it?
- We need a prioritized list of landowners willing to participate.
- Culverts are not able to handle storm flow.



Education:

- We need to better understand the effects of herbicides and to use them more judiciously.
- We need to increase our awareness of floodplain issues and flooding.
- We need to expand our general watershed education efforts.
- Streamside recreation opportunities can increase awareness.



Project Funding Opportunities:

- Land preservation agreements – conservation easements.
- Nutrient reduction and in-lieu-fee funds.

Streams Crossing Jurisdictional Boundaries (e.g.—SJAFB and adjacent properties):

- What are the water quality indicators?
- All involved parties need to know the indicators used and how they'll be interpreted.

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Stakeholder Input

(Continued from page 2)



Reference Streams:

- What do we want Stoney Creek to look like?
- Are there other nearby streams in the coastal plain that we can identify as reference quality examples?

Existing Regulations:

- What are the barriers to change?
- We need protection from poorly planned (urban) growth.
- We need incentives for innovations like low-impact development (LID) and conservation development.
- The US 70 Bypass interchange will bring additional development. What designs are in place? (State storm water regulations are already in place.)
- Can we have parks and recreation (or greenways) in the buffers?
- Traditional restoration, which uses stream sinuosity, etc., doesn't allow or permit greenways, but Stoney Creek is very different. Much of it is channelized and may not allow for traditional restoration, so with funds from other sources, we may be able to increase and protect watershed function *and* allow for greenways.

Miscellaneous:

- What is the local opinion on beaver ponds?
- Do we want to include projects in the Neuse river 100-year floodplain which encompasses the lower watershed?

ECU Protocol Overview

Michael Schlegel of KCI Associates gave a PowerPoint presentation explaining the ECU Stream Assessment Protocol and some preliminary results his firm collected in the field. The full presentation, which includes great explanatory maps, can be found on the WECO website. The following is a brief overview of Mike's presentation.

The purpose of local watershed planning is to develop watershed improvement solutions to identified problems and that address key watershed functions.

The key functions EEP seeks to improve are water quality, hydrology, and habitat.

Problems will be identified through field survey and sub-watershed analysis.

Watershed improvement solutions may include: stream, wetland or buffer projects, agricultural or stormwater BMPs, and watershed stewardship efforts.

Background data has been collected about land use and hydrology, including aerial photography dating back to 1937. The most obvious things to note are the widespread urban development in the southern portion of the watershed and the preservation of streamside buffers along the main channels.

The watershed has been divided into 9 sub-watersheds.

The ECU Protocol is a reach-scale assessment of indicators of watershed functions using a gradient based on reference conditions for the NC Coastal Plain. To break this down further, the following statements describe the ECU protocol:

- Sub-watershed and reach-scale conditional assessment
- Rapid approach using stream and riparian indicators
- Can be translated to key watershed functions
- Based on a gradient of potential conditions
- Based on reference systems
- Focused for unique conditions of the Coastal Plain



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The ECU protocol involves random site selection, approximately one site per square kilometer, which totals 77 sites in the Stoney Creek watershed. Protocol training was conducted for KCI and other consultants working with EEP. KCI staff then went into the field to apply method at the sites. As a quality control measure, the ECU researchers will conduct field visits to verify the KCI findings. Some items to note about the field assessment: a site may be rejected and replaced with an alternate site if it falls on unreachable property or if it falls outside the boundaries of a stream predetermined by the methodology.

The protocol considers stream and riparian zone inventory and also documents potential sources of pollution (source inventory). Potential sources of pollution include ditches, agriculture, neighborhoods, and potential hot-spots such as hospitals or schools, where a large amount of impervious surface is present.

Finally, all these data are brought together in the sub-watershed analyses, that will include a flushing analysis, water quality spreadsheets, landscape ecology analysis, priority analysis, and water chemistry analysis.

The protocol used is available. Please let us know if you are interested in more detailed information.

Next Steps in the process:

- Finish Source Inventory
- Finish Sub-Watershed Analysis
- Causes and Sources Report
- Identify Watershed Opportunities
- Rank and Report on Watershed Opportunities
- ...Implement Projects

11/15/04

Meeting Participants

Johanna Arnold - Seymour Johnson Air Force Base

Patrick Beggs - WECO

Rob Breeding - EEP

Dwane Jones - Cooperative Extension, Green County

Andy Miller - SWCD - Wayne County

Connie Price - Wayne County Planning

Michael Schlegel - KCI

Ronnie Wilson - Seymour Johnson Air Force Base

