Stoney Creek Local Watershed Planning News

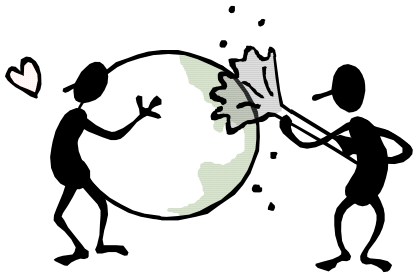
Watershed Education for Communities and Local Officials
~NC Cooperative Extension~

Issue 4

May 17, 2005
Meeting Summary

~~Restoration Projects and Next Steps~~

At our May 17, 2005 Stoney Creek Local Watershed Planning meeting, Mike Schlegel presented the restoration opportunities from KCI, along with a summary of work they have performed in the watershed. An atlas of restoration opportunities for Stoney Creek is now available. Mike's presentation can be found on page 2.



Next, the Team discussed where to go from here. EEP and WECO are available to work with the Team until early 2006. So far we will be looking at the obstacles to implementing projects in both agricultural and residential communities, along with how to alleviate those obstacles. In addition, we are looking into formulating policy recommendations for local governments.
A summary of the Team conversation begins on page 3.

Please feel free to contact us with any questions. Thanks.

Patrick Beggs

Ecosystem Enhancement Program

Meeting Roster - May 17, 2005

Johanna Arnold—Seymour Johnson AFB
Patrick Beggs - WECO
Rob Breeding - EEP
Patty Gabriel - NRCS - Wayne County
Randy Guthrie - City of Goldsboro
Natalie Jones - DSWC
Carol Mayes - Mayes Consulting
Kathy Paul - NC Division of Water Quality
Christy Perrin - WECO
Tom Potter - NCDENR
Connie Price - Wayne County Planning
Mike Schlegel - KCI
Ronnie Wilson—Seymour Johnson AFB
Kathy Paul - NC Division of Water Quality
Christy Perrin - WECO
Tom Potter - NCDENR
Connie Price - Wayne County Planning
Mike Schlegel - KCI
Ronnie Wilson—Seymour Johnson AFB

Inside this issue:

Watershed Restoration Opportunities

Mike Schlegel of KCI Associates gave a presentation on the watershed restoration opportunities KCI has found in Stoney Creek. The following is a summary of Mike's presentation. The full presentation can be found on the WECO website at: www.ces.ncsu.edu/weco/stoney In addition, KCI has produced an Atlas of watershed restoration opportunities. It is available by email or on disc in pdf format from Rob Breeding at EEP.

Local Watershed Planning identifies watershed problems and develops solutions to address the Ecosystem Enhancement Program's key watershed functions: improving, enhancing, and protecting Water Quality, Hydrology, and aquatic and terrestrial Habitat.

EEP has a phased approach to local watershed planning. Phase 1 consists of characterization and prioritization of the watershed. Phase 2 includes the development of a GIS Data Library, detailed field assessment and sub-watershed analysis, along with stakeholder input. Phase 3 identifies and evaluates watershed improvement opportunities, also using stakeholder input.

Types of watershed restoration opportunities identified:

- Stream Restoration – preservation, enhancement or restoration of the stream channel, possibly adjusting the channel dimension, planform and/or profile.
- Wetland Restoration - preservation, enhancement, creation or restoration of wetland hydrology, soil and vegetation, possibly including grading, hydrologic modifications and/or wetland plantings.
- Buffer Restoration - preservation, enhancement or restoration of vegetated riparian buffers, possibly including planting or exotic vegetation control.
- Stormwater best management practices (BMPs) – The collection of practices that store and treat stormwater runoff. Theses are designed to reduce the hydrologic and water quality impacts of development, and may include wet or dry ponds, stormwater wetlands, bioretention areas, etc.

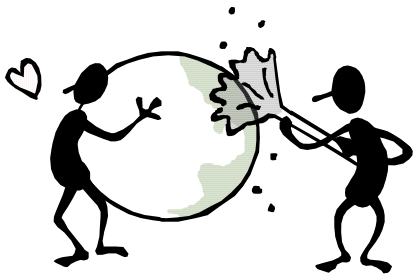
KCI has split the restoration opportunities into 4 restoration categories:

- Category 1 – Contains traditional mitigation components, for which mitigation credit can be obtained by EEP. These include stream or wetland restoration and/or preservation.
- Category 2 – Contains traditional mitigation AND buffer components. Buffer components can not always be used for mitigation credit.
- Category 3 – Contains traditional mitigation AND stormwater components. (May also include buffer components.)

Category 4 – Stormwater Wetland Components only. (May also include buffer components.)

Restoration Score

KCI has given each watershed restoration opportunity (WRO) a score. The score is based on its potential to improve water quality, hydrology, and flooding. Using best professional judgment, each WRO was given a Functional Restoration Score of HIGH (8.3) MEDIUM (5.0), or LOW (1.7). In addition, a watershed scaling factor (1-10) was used to indicate the amount of area treated. Note: A higher scaling number indicates more area treated, therefore a larger project, which may have greater risk of failing or not being implemented. A lower scaling number indicates a smaller area treated, therefore a smaller project, which may mean it has a greater chance of being implemented and being successful. The final restoration score was calculated with the following formula: (WQ + Hydro + Habitat) * (Scaling Factor/10)



Top 100 projects

KCI has identified one hundred (actually 101!) projects in the Stoney Creek Watershed Restoration Opportunity Atlas. Mike pointed out that some of these projects would not have been identified if it had not been for stakeholder input during the past year.

These projects fall into the following Categories:
Category 1: 29 Traditional mitigation
Category 2: 22 Traditional and Buffer
Category 3: 32 Traditional and Stormwater
Category 4: 18 Stormwater

Of these 101 projects, the following 5 have been identified as the best of the best for quick turn around:
WRO-006, WRO-016, WRO-060, WRO-080, WRO-100

Mike presented these projects and asked the team for input – What did they know about the area? The project site? Other projects going on nearby? Landowner contacts? etc? Some of the comments are listed below.

WRO-006: Middle Stoney B, buffer restoration and stormwater wetland

This is a great buffer candidate, but not necessarily a

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Watershed Restoration Opportunities

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great stream restoration site. This is adjacent to the AFB and in the Priority 4 area for the base's land acquisition strategy, so landowners in this area have not yet been contacted. The AFB would not likely be able to use Clean Water Management Trust Fund money to purchase the entire property. Neither could EEP purchase the entire property. If 300 foot buffers were put in, CREP would consider most of the rest of the field not usable, thereby possibly making it available for CREP money. This is indicative of how many partners are needed to get many of these projects done. Nearby land (WRO 12) is being put in CREP for 15 years and the buffers are being forested.

WRO-016: Middle Stoney A, wetland restoration and stormwater wetland

Quail Park is above this site. This could be an educational/demonstration site also. It is all on public property.

WRO-060: Howell Creek, stream restoration and/or stormwater wetland

This is near Wayne Memorial drive at Taco Bell, near the Lincoln Mercury lot and the new theater. It would likely be a stream buffer restoration and an in or off channel wetland. The area does move a lot of water at times, but is not functioning properly. It would require moving a lot of earth, which is expensive. If the city could help with earth moving costs, it could be an easier job to fund. Developers have approached Goldsboro about getting this stream declassified, allowing for different levels/ types development.

WRO-080: Upper Stoney B, stormwater wetland

This is near Wayne Memorial Drive and on Community College property. The college is already in discussion about the project. They are interested and have spoken to NCSU Bio and Ag engineering. It could also have a CREP buffer incorporated in it. It has the opportunity for education, both for college classes and the public.

WRO-100: Upper Stoney A, stream restoration and/or stormwater wetland

Near the airport. Beaver dams downstream contribute to flooding. This project could reduce volume and treat water quality. There is a storage place for portable toilet units nearby.

The CHALLENGE:
Finding high-priority, readily-fundable, technically-feasible, low-risk, cost-effective projects is hard to do. In addition, willing landowners must be found. Most of the projects identified are on private land. The most heavily threatened or impacted areas usually have the most limited and expensive land.

The OPPORTUNITY
Local Watershed planning is not an end, but rather a means. The ultimate environmental goal is improved watershed functioning – improved water quality, fewer impacts from flooding, and improved habitat. To achieve these goals a restoration strategy must be implemented. This may include restoration projects, development incentives, land use regulations, education, outreach, and more. There is an opportunity to turn this information into action and results.

Where do we go from here?

Patrick led the team in a discussion about what to do next. We have spent about 10 months gathering data and asking the team to comment on technical findings. Much of the information gathered has helped to find specific problem sites in the watershed, and specific restoration opportunities. Now, we need to spend our time fleshing out a more complete local watershed plan. EEP and WECO are available to the Stoney Creek stakeholders through January 2006. In addition, Mike Schlegel, of KCI, has asked to stay on and help as part of his Natural Resources Leadership Institute training program. (Info on NRLI can be found at www.ces.ncsu.edu/NRLI. Also, just ask Patrick, Christy or Mike.)

Patrick presented some stakeholder ideas that were brought up in past meetings as a way to jumpstart the discussion. There were 2 overall categories: regulations and education. Patrick asked "Do you want to address policy recommendations and are you interested in education outreach?" Please find here a list of ideas that were discussed and a summary of what was decided upon.

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Watershed Education for Communities and Local Officials ~NC Cooperative Extension~

Campus Box 8109
Raleigh NC 27695-8109
919-515-4525

patrick_beggs@ncsu.edu
christy_perrin@ncsu.edu

www.ces.ncsu.edu/WECO

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Regulations:

- Promote well planned environmentally sound urban growth.
- Address what barriers are present to achieve this.
- The county is hiring a firm to develop a comprehensive land use plan. We could provide the consultant with our ideas/ recommendations.
- Locally supported, well-informed recommendations will hold more weight than simply EEP or WECO providing recommendations.
- This is a good opportunity for input into policy making at the city and county level.
- Without policy/stewardship recommendations there is a chance that this group will be the end of the project.

Education:
Ideas about education included:
Herbicide use, floodplain issues, general watershed education, stream-side recreation can increase awareness, what are mitigation opportunities for landowners? Can it be more economical to participate in EEP than not to participate? Is there a tax advantage? Economics will drive a lot of individual landowner participation.

Who should be targeted for education? Who is the audience?

- Local representatives (city, county) and state representatives from this district. State representatives need information about stormwater too.
- Developers are an audience. Natalie Jones of the Division of Soil and Water Conservation has been asked to present a program about Phase II stormwater to developers. She is working with Bill Hunt and Mitch Woodard on outreach to developers. We may be able to work with Natalie on this to help all of us. WECO is involved in Phase II outreach to small communities. Cost/benefit analysis of LID is needed.
- This plan needs to get out to the public.
- We need some news and PR.
- The school system – not much is done with water education.
- Residential dwellers need to be educated. The same is needed for residents on Seymour Johnson AFB. Maybe we can work together to come up with something to meet both needs.
- CREP could work with local Soil and Water Conservation District to come up with a special workshop for landowners, to show them the economics of what is involved.
- Patrick will contact professors at Wayne Community College.

Ag Group:
Natalie Jones, Tom Potter (Charles Bowden), and Patty Gabriel (Andy Miller) can work together with Rob Breeding to determine what are the barriers to agricultural lands being signed up for CREP and EEP and other similar programs. The group will get together to determine barriers and determine how to remove those barriers. Mike Schlegel can get an overlay that shows which lands are agricultural lands. Also, stormwater wetlands are a very foreign idea to many people, including farmers.

Residential Education Group:
Patrick will work with Johanna Arnold and Ronnie Wilson to determine a plan of action for residential education, both on the base and in the community.

Airport project:
This could be a great place to get the project in the ground, help with stormwater education, work in the headwaters, prevent runoff, rather than treat it. It is also a good chance to determine barriers to urban projects.