

# Hominy Swamp Creek Watershed Planning Team Minutes August 26, 2003

## Agenda:

- Jocelyn Elliot: Welcome, Introduce Watershed Education for Communities and Officials
  - Patrick Beggs: Explained WECO's involvement
  - Introductions
  - Jocelyn Elliot: Explanation of Wetlands Restoration Program and Hominy Swamp project
  - Brainstorming and sharing of ideas
  - Close
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## Attendance:

Larry Baldwin, Lower Neuse River Keeper  
Marc Burke, City of Wilson Stormwater Services  
Walter Earle, Cooperative Extension - Wilson County  
Leo Green, Green Engineering  
Dave Little, USDA-NRCS/Wilson SWCD  
Jimmy Taylor, City of Wilson Public Services  
Mike Tolson, Green engineering

## Support Staff:

Patrick Beggs, Cooperative Extension - WECO  
Jocelyn Elliott, Wetlands Restoration Program  
Christy Perrin, Cooperative Extension - WECO

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**Jocelyn Elliot of the NC Wetlands Restoration Program** (WRP) presented a powerpoint slideshow, explaining WRP and the EPA grant which began this project. The presentation, including some great maps that may be of use, is available for download at the WECO website. A summary of the presentation follows.

<http://www.ces.ncsu.edu/WECO>

WRP is a non-regulatory program formed by the General Assembly in 1996  
It's mission is the restoration of wetlands, streams, and riparian buffers.

WRP has two major program areas: planning and implementation

- Planning involves identifying "Targeted Watersheds" where restoration projects will have the greatest benefit.
- Implementation involves getting stream & wetland restoration projects "in the ground"

The overall goal is Healthier watersheds, which includes, but is not limited to improving water quality, wildlife habitat and lessening flooding

WRP obtained an EPA Wetlands Development Grant.

This has involved:

- Selection of one 14-digit hydrologic unit within Contentnea watershed:
- Watershed assessment
- Watershed restoration plan

- Analysis of funding sources
- Implementation strategy
- Development of wetlands functional assessment procedures and monitoring program – underway at ECU

#### Hominy Swamp Creek:

- Is in the Neuse River Basin
- Within Contentnea Creek Subbasin, which is the largest Neuse subbasin (1,007 sq. mi.)
  - Contentnea Creek is 303(d) Listed: it was rated PS (partially supporting) in 2000 and Impaired in 2002 due to historical listing for sediment, based on biological impairment (multiple nonpoint sources, many of which are agricultural)
- Drains a 15.5 sq. mi. watershed
  
- The following is from the Hominy use support rating in 2002 DWQ Neuse River Basinwide Water Quality Plan:
  - 9.9 miles Impaired, in the categories of Aquatic life and Secondary recreation
  - Based on Poor bioclassification ratings at 2 sites in 2001 sampling
  - Indicates impacts likely from urban nonpoint source runoff

#### Potential Elements of this planning effort:

- Formation of Local Stakeholder Team (focus on local resource professionals)
- Assessment of watershed conditions
- May identify priority sub-watersheds
- Identify wetlands & stream restoration projects and BMP's
- Identify ecologically important parcels for preservation
- Recommendations of watershed improvement projects,
- Education/outreach; Demonstration projects
- Technical assistance & funding sources

#### Major tasks of the grant to be accomplished:

- Watershed assessment
- Development of watershed restoration plan
- Analysis of funding sources
- Implementation strategy

#### Assessment of Watershed Conditions May Include identification of

- land use & land cover (e.g., impervious surfaces)
- soils
- erosion "hotspots"
- available water quality/habitat data
- pollution source inventory
- storm water structures; urban drainage, storm drainage inventory
- aquatic habitat
- riparian buffers
- data on instream conditions (biological, chemical, physical parameters, habitat assessments)
- GIS mapping/evaluation and preliminary analysis
- sub-watersheds at risk
- future "build out" or development scenario
- existing and proposed ordinances, transit plans, tax parcels, etc.
- gather data and assemble into accessible formats
- existing and projected land use
- floodplain mapping
- subwatershed delineation

- historical data review (aerial photographs)
- identify areas of major channelization, wetlands, riparian features
- establish Indicators
- parameters which will estimate stream health and integrity (water quality, habitat, restoration and preservation criteria) and also help rank restoration opportunities
- habitat degradation, sedimentation, nutrients
- assessment of delineated subwatersheds.

#### Current Data Available:

- Land cover classification: 1988, developed through NCSU, 1-2 meter resolution use CIR DOQQ. Urban cover = 22%
- Division of Coastal Management Wetlands Data:  
3 sets: wetland types, wetlands restoration potential, ecological significance
- Historical and 2001 aerial photographs, local GIS ( municipal boundaries, zoning, floodplains, roads, utilities), NC Gap analysis
- Watershed management plan for upper hominy swamp creek: recommendations include treatment of existing and new pervious cover, stabilization of stormwater outfalls, riparian buffer establishment, stream channel maintenance and restoration, preservation and restoration of wetlands, public education.

#### Data Gaps (Needs)

- Recent stream visual assessments
- Existing local water quality and habitat data
- Areas of concern or interest (both geographically and watershed function)

#### We need stakeholder guidance at several points

- developing criteria for addressing watershed problems and ranking priority sites
- developing a methodology by which the range of stream impairment and project needs will be addressed. (*i.e. - Water quality, biological health, stream morphology, cost/benefit, etc.*)

#### Targeting of Management

Based on assessment, field investigations of candidate sites may include:

- stream, wetland, riparian area restoration;
- protection/preservation;
- alternative water quality improvement projects

#### Development of Restoration plan:

- Information gathered during assessment will be used to produce a draft restoration plan;
- Draft plan will specify programs and funding sources to implement plan components; includes analysis of potential future watershed conditions, recommendations;
- Solicit feedback on draft plan;
- Priority projects identified in final plan, as well as programs and mechanisms necessary to further implementation of plan components.

#### Analysis of Funding Sources:

- NCWRP and Ecological Enhancement Program ( EEP) - can fund stormwater BMPs meeting 30% nitrogen reduction and riparian buffer restoration
- Clean Water Management Trust Fund, 319
- Ag. Cost Share Program, EQIP, CREP
- EPA, preservation (land trusts?)

Develop Implementation Strategy: Produce a watershed improvement plan focused on recommended restoration/water quality improvement projects, management strategies, and long term monitoring strategy

**Anticipated Timeline for Project:**

RP = resource professional

Activity / Task	Who's Doing It	When Needed
Walking the watershed	WRP, local RP's	Summer - Fall 2003
Gathering Data	WRP, local RP's	Summer - Fall 2003
Assessment	WRP	October 2003
Identify potential projects	WRP, local RP's	Summer - Fall 2003
Draft Plan	WRP	November 2003
Solicit Comments	Public Meeting	November 2003
Final Plan	NCWRP	December 2003

**The following comes from the discussion at the meeting. Participants were asked to explain problems in the watershed. This discussion was lead by WECO.**

## Problems/ Issues in the Watershed:

- Flooding of structures and streets. Much of this takes place in what is the floodplain and historically flooded. The upper basin is where most of the structural flooding is, which is where residential density is found. Examples include: Cardinal & Canal Streets, Forest Hills
- Southern portion of watershed is more rural and likely the reason there is less flooding complaints.
- A 1965 article concerns Hominy canal flooding in the 1960s.
- Flooding is the most important issue from the public's concern.
- Stream corridor erosion is a consistent problem in just about any stream in Wilson
- Hominy has no riparian buffer.
- Undersized culverts are a problem for erosion since water gets forced out at high velocities. This is a large economic issue since funding is not available to do all the work. It does need to be done though. These undersized culverts cause flooding upstream.
- The design of culverts may be to blame also. They are wider than the original channel (double box culvert) and one of boxes fills with sediment.
- Need to look at bottomless culverts as replacements. Can get stream mitigation credits probably. A bottomless culvert has the natural stream channel as the bottom. The simplest culverts are pipes under road crossings.
- Below Black Creek, there doesn't seem to be much stream channel erosion. It is agricultural land. This is an area below the wastewater treatment plant before Hominy joins Contentnea, east of Black Creek Road.
- If you fix culverts upstream, will problems be caused downstream? A lot of floodplain/riparian area in the lower basin was purchased after Hurricane Floyd. It is a lower economic area. From a public standpoint, there is a need to be careful when selecting projects. City council will bring up socio-economic issues, so it may as well be a part of the discussion now.
- Raleigh road is a unofficial divider of upper and lower watershed and the differences between the two.
- Sedimentation is a huge issue for City of Wilson.
- Wilson hasn't been in the stormwater business very long. Currently the plan is to collect data and mitigate.

- People feel unfairly regulated to protect downstream area of the Neuse. It is often voiced that the enforcement of Neuse stormwater regulations are for fish and wildlife downstream, that some folks in Wilson don't care about. Wilson has a stormwater service fee, which residents refer to as a rain tax. They are still getting flooded so they are not seeing the benefits yet.
- Although flooding is seen as a nuisance, not as much damage occurs since many structures were removed after Hurricane Floyd. Flooding still closes streets, although 2 hours after a storm the streets are clear.
- Flooding is on a monthly basis almost- pretty frequently after Floyd.
- People need to realize that even after all this money is spend, there will still be flooding. This could be a major problem: spending money but still having flooding occur. Citizens may not like to hear about it.
- Stormwater services will be providing outreach materials.
- Flooding will have to be focus point for community.
- Why did WRP come into this project? And what is the end result? We knew there were problems in the watershed so we hoped to find solutions, provide a step in effectively addressing the problems. We want your help to identify goals of the project.
- Project actually began a few years ago with the Wilson park. Cooperative Extension contacted WRP since the park was washing away. WRP responded that a plan need to be developed.
- Contentnea is listed as impaired due to sedimentation. Hominy's impairment based on the poor bioclassification. The bioclassification of Hominy is due to a benthic macroinvertebrate problem, not a water quality problem.
- There is a volunteer program ongoing in Contentnea that could be expanded. It is funded by an EPA 319 grant. Below 264 bypass there were beaver dams that contained lots of trash- took away 200 trash bags.
- Can trash removal be a part of this project? Yes, but it requires maintenance time. Crews would be required to spend time cleaning out trash out of catch basins. Wilson does not have this much resources to spend on this maintenance.
- As for priorities and criteria: Can flooding be a main issue, but then also provide benefits for creek habitat issue? Can there be a measurable impact/reduction in flooding as a result of this project? Can it have an impact that folks can really see?
- What about Regional detention of stormwater? This could control peak flow and help with sediment. This would actually show a reduction in the frequency of flooding. There are several undeveloped locations on Hominy canal that are city owned, undevelopable. Could look at implementing regional storage there. Anything we do will have some residual effects on localized flooding- can't solve all of Wilson's problems with regional BMPs. Maintenance standpoint- city manpower and liability issue. Regional projects are harder to sell though.
- City of Wilson is required to meet nitrogen reductions for Neuse basin requirements. These requirements have been passed on to developers.
- Upstream of hwy 301 is 90% built out. Only undeveloped area is northwest of Airport Road loop, but it is being maxed out, although retention devices are required.

- Any amount of water added into Hominy adds to water downstream. Contentea will also have to be dealt with.
- POTENTIAL CRITERIA for ranking projects:
  - Reducing flooding (flood control as a selling point)
  - Water quality - clean the water up (nutrient removal and sediment removal)
  - Streambank erosion
  - Headwaters as focus/educate as why this would happen
- Don't go into public meeting with flooding as main selling point, say that we will work on water quality and these projects will also addressing flooding problems, since flooding will not stop overnight, if ever.
- Is there a need to address headwaters first, so that downstream projects are not negatively impacted by upstream problems? Yes, but must be careful about economic issues mentioned earlier.
- Can somebody find erosion violations from builders?
- Don't have a Sediment and Erosion program here yet. Have illegal discharge prevention requirement - anything that impairs water quality, including sediment. It is a manpower problem. Mark is only one available to enforce the ordinance. It is not economically feasible to take violators to court to collect fines. \$100 first offense, up to \$5,000. A lot of paperwork so it is hard to carry it out.
- Stormwater and building inspections will be meeting soon to discuss small site sediment and erosion control.
- ENFORCEMENT of rules is a problem
- Citizens and other professional groups in the community get more consideration than staff.

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WECO, Watershed Education for Communities and Officials, is a Cooperative Extension program based at NCSU in the Department of Agricultural and Resource Economics.

NCWRP has contracted with WECO to facilitate the Hominy Creek Swamp stakeholder meetings and a public meeting.

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Please contact us if you have any questions.