



New Hanover County
Local Watershed Planning Group

MEETING SUMMARY

Wednesday, February 7, 2001 meeting held at the Cape Fear Riverwatch Educational Ctr.

Next Meeting scheduled for Wednesday, March 7, 2001

- ◆ Presentation by Joe Pfeiffer, KCI
 - Watershed characteristics of each of the subcatchments
 - Subcatchments ranked by restoration opportunities and by the group's watershed concerns
- ◆ The Group will discuss and choose subcatchments in the watershed for field study

The meeting will be held at the Cape Fear Riverwatch Educational Center from 6:30 p.m.- 8:30 p.m. The public is welcome to observe.

Group Members/alternates present:

Jim Bordeaux, Castle Hayne Steering Committee
Don Cooke, CP&L
Curt Hensyl, Local watershed resident/ International Paper
David Mayes, City of Wilmington
Marion McPhaul, UNCW
Karen Moorefield, Carolina Heights Neighborhood
Chris O'Keefe, New Hanover Co. Planning
Michael Pope, Sierra Club, Wrightsboro Community
Stacy Smaltz/Bouty Baldrige, Cape Fear River Watch
Tommy Tew, Corbett Timber Co.

Group members not present:

Jabe Hardee, Cameron Company
Curtis Wright, Council of Neighborhood Assoc.

Support staff & guests present:

Larry Hobbs, NCWRP
Della Dennis, City of Wilmington
Bonnie Duncan, NCWRP
Suzanne Klimek, NCWRP
Scott McLendon, USACE
Christy Perrin, WECO/NCSU
Marilyn Stowell, NRCS
Kevin Schneider, Cape Fear River Watch volunteer
Liesl Massey, Guest from McKim & Creed
Dick Loeffert, Guest from Northchase HOA
Rob Moul, Guest from Land Management Group
Paul Farley, Guest from Land Management Group

Results of Watershed Concerns Rankings

Group members were asked to order the group's list of watershed concerns. The purpose of the activity is to help the group determine which of the concerns listed that they would choose to investigate first. Throughout the process, they will investigate the issues. Giving them an order provides that the group will investigate the concerns that are most important to them first. Given the interconnectedness of the topics, the group will likely discuss the other topics as they proceed.

The resulting totals were:

Water Quality	23
Flooding	35
Growth/Dev.	35
Quality of life	47
Wildlife Habitat	56
Education	56

The topic with the lowest number is the first topic that will be investigated (water quality). The group will revisit the topic after the March meeting.

New Hanover County Local Watershed Assessment: An Overview

Presentation by Bonnie Duncan, NCWRP

Bonnie explained to the group how the technical assessment will unfold. This summary will provide highlights of her presentation, and an accompanying handout of her presentation will be provided with this mailing.

Purpose of Assessment: To identify deficiencies with current and future watershed function and determine if the problems identified merit restoration, enhancement, creation, preservation or other activities (buffers, stormwater management, etc.)

Continued on Page 2

Breakdown of Services for Assessment to be provided by contractor (KCI Associates):

The services are split into three major tasks:

Major task #1:

The consultants will create a watershed characterization which involves describing the entire watershed (water quality, physiography, geology, soils, land use, development patterns, etc.), delineating subcatchment drainages for streams within the watershed, and a historical trends analysis.

Based upon this information, some of the subcatchments (smaller sub-watersheds within the watershed that is the focus of this project) will likely rise to the surface with problems that need more investigation to solve. The stakeholder group will use this information to select subcatchments for major task #2 activities.

Major task #2:

Major task #2 is an additional tool for collecting more information about subcatchments in the watershed. Due to limited funding, only a few subcatchments will be studied in major task #2. Some activities to occur within selected subcatchments could include water quality models to determine watershed plumbing, stormwater analysis, compilation of stream geomorphology data, and water quality monitoring by UNC-W.

Major task #3:

Information collected in the 1st and 2nd tasks will be used to identify areas of water quality strategies which could include:

- Wetland and stream restoration projects
- Water quality improvement strategies
- Best management practices
- Enhancement/preservation
- Other strategies to address issues of importance to the stakeholders

The consultants will create a Final Summary of Findings Report to include by subcatchment:

- GIS information and written descriptions

about each recommended strategy

- Description of how recommended strategies address causes of degradation
- Estimated costs for each of the strategies
- Build-out/Resource development model- this model will illustrate the benefits of restoration projects and other strategies, by creating 3 scenarios based on 10 year projections.
 1. Water quality & flooding in the future with existing ordinances and programs (do nothing scenario)
 2. Strategies needed to maintain current water quality and flood retention (based on growth and development rates).
 3. Strategies necessary to improve water quality/flood retention (based on growth and development rates).

Questions for Bonnie about the Technical Assessment:

Q: Why will the historical trend analysis (with aerial photos) only go back until the 1970's?

A: Joe Pfeiffer was not able to get any good photo data from before 1954. The best available photo data begins in the 70's.

Q: Concerning the build-out scenario #2, in theory aren't the regulations in place supposed to maintain water quality?

A: The build-out model may show that they are or are not.

Comment: UNC-W is conducting modeling on global change and how it might affect flooding and water quality.?

A: That could be useful information for KCI. Please keep us informed of studies like this and provide details on it to us if you can.

Continued on Page 3

Major Task #2- Choosing Subcatchments for Further Field Study

Suzanne Klimek explained to the group that KCI would like the group's input on choosing which subcatchments they should include in their field work for Major Task #2. She opened a discussion on the information that KCI could provide the group to aid them in their decision of which subcatchments in the watershed to include in their field study. KCI would like to begin their field study before the leaves come out, so the group would need to make their choices at the March 7 meeting. Suzanne presented the following tools as information that KCI could offer to the group to help them in their decision:

- Information gathered for Major Task #1 for each subcatchment
- A ranking of the subcatchments based on restoration opportunities
- Rankings of the subcatchments based upon the group's prioritization of watershed concerns (to show where there might be an overlapping of watershed concerns and restoration opportunities). The "education" and "quality of life" topics would need to be thrown out for this purpose since they are not issues which can be physically measured by information being collected in Major Task #1.

The rankings provided by KCI would be tools for the group to use in their discussion.

The group discussed the possibility of using their prioritized watershed concerns to rank the subcatchments. Some concerns raised about this tool included:

- It has not been done before
- Questions about the validity of the numbers produced
- Taking out the "education" category would potentially change their watershed concern rankings and skew the numbers
- "Quality of life" is another topic that is too subjective to measure
- Why rush the decision-what changes when the leaves come out?

Larry Hobbs, who works in the implementation branch

of NCWRP, explained that when the leaves come out it is more difficult to access streams, and that one might not be able to see as much (for example storm drain outfalls).

The staff emphasized that the rankings would just be a tool for the group to consider in making their decision- the ranking itself will not make the definitive decision.

Decision and action steps:

The group decided to allow KCI to use their watershed concern prioritized list with the topics of "education" and "quality of life" taken out. The numbers from the other topics will stand as calculated for his purpose of ranking subcatchments. The group also agreed to decide upon which subcatchments to ask for further study at their March 7 meeting.

Actions:

- The group will be emailed or faxed the formula that Joe at KCI will use to rank the subcatchments based on the group's watershed concerns list.
- The group will respond about the formula if they have comments or suggestions (with a quick turn around!)

Information-Sharing About the Subcatchments in the Watershed

The NCWRP staff handed out maps of all the subcatchments in the watershed. To help orient each other to the subcatchments, the group shared what they knew about each of them.

1. Upper Smith Creek Drainage:

- New development close to creek located to right off Murray Rd.
- Includes part of airport
- Severe flooding with heavy rain in upper part (water in basements)
- Soils are hydric (absorb water)
- Artificial draining has occurred in recent years

- County is pursuing buy-outs for Floyd damage (5-6 in a row on the creek)
- Navigable up to I-40
- King's Grant Community has drainage problems (septic fields awash, some undeveloped lots, will hook up to sewer in future)

2. Lower Smith Creek Drainage

- Highly industrial (including wastewater treatment plant)
- Smith Creek Parkway crosses creek twice
- NCDOT plans on restoring 40 acres of bottomland hardwoods here
- Wetlands restoration projects in place
- Toward the mouth is an old rice plantation with channelization
- Some channelization of Smith Creek
- City of Wilmington examined stream restoration potential between 26th and 23rd streets
- An abandoned landfill borders this drainage on Castle Hayne
- Abandoned railroad land is idle
- Lumberyard w/ pressure treatment facility is on bank (uses arsenic)

3. Rat Isle Creek (unnamed NCWRP map)

- Part is a rice field
- Sand pit at end of Rock Hill Rd.
- Small package treatment plant
- 17 Bypass bridge will cross
- Hwy 17 is adjacent to creek
- Will be impacts from the highway
- Drainage starts further east than map shows
- New development coming- will create impervious surfaces

4. Doctor's Creek (lower unnamed on map)

- 1/3rd of it is a rice field
- Prime duck habitat

5. Sturgeon Creek

- A lot of industrial development (rock quarries, Occidental Chemical, Martin Marietta)
- Limestone outcropping (good for

groundwater recharge)

- A lot of beaver dams
- Largely undeveloped

6. Spring Branch

- Commercial and industrial development
- A lot of open land south of Market St.
- Good mitigation potential-most has been channelized
- Flooding problems in Cardinal Drive area

7. Prince George Creek

- Bypass goes through
- Quarry staging area between Highways 132 and 133
- Numerous potential mitigation sites due to channelization
- Superfund site (East of Hwy 132)
- Farmland cleared to creek
- Northchase Devpt.- flooding problems
- Cape Fear Community College expansion
- New jail being built
- County owns a lot of land
- Abandoned land fill
- Very little soils left that will perc for septic systems
- Tributaries being re-mapped for flood mapping
- Good canoeing in lower part
- Book of canoe put-ins available (CFRW)

8. Ness Creek Drainage

- Most is privately owned
- Oakley plantation
- Lots of rice fields
- Managed as a wildlife impoundment
- Major power line across river
- Good andronomous fish area (sea-going fish that breed upstream)
- New subdivision going in
- More development on Castle Hayne Rd (business and industrial)
- New flood maps being made
- Channelization in upper part

- History of serious groundwater contamination

9. Dock Creek

- G.E. drains into it
- A lot of wetlands
- Managed forest
- Lower Cape Fear Program sampling site in N.E. Cape Fear

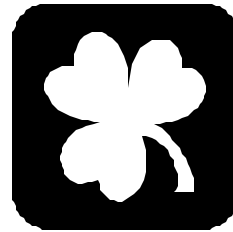
10. Burnt Mill Creek

- People eat fish out of it
- Only 303(d) listed stream in the watershed
- A City Park located
- No buffers left
- Serious flooding occurs
- Stormwater runoff
- Sewage pipe crosses creek and debris builds up
- Forest Hills had a recent sewage spill
- Rats live on it
- Major sewer outfall follows creek
- Tidal gates
- Landfill (that was listed earlier on border of Smith creek drainage)
- Kerr Ave. Wetlands Restoration Project
- High residential density
- Large retention facility at Ann McCrary Park
- Lots of wildlife (beaver, migratory waterfowl)
- Railroad track in use that has creosote pilings
- Largest watershed in the city
- Superfund sites/ brownfields
- Abandoned small dumps
- Pumping station at Princess Place Drive

11. Northeast Cape Fear (land area to west of Prince George Creek drainage on both sides of N.E. Cape Fear)

- East side is forestlands
- West side has industrial development and an active landfill
- Heaviest industrial corridor
- Best to separate the Eastern part from the Western part for this consideration

- County incinerator west of the N.E. Cape Fear
- Ship scrapping
- Federally documented CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) and RCRA (Resource Conservation and Recovery Act) site



Earth Day Festival Display

Della Dennis, City of Wilmington, informed the group that there will be booths for non-profits at the Earth Day Fest on April 21. She was hoping that the New Hanover County Local Watershed Group could have a display that is staffed by volunteers from the Group. (WECO and the NCWRP have display materials that may be used for this festival). Group members will have an opportunity to sign up to volunteer for a shift at the next meeting on March 7.

*For more information about the New Hanover County Local Watershed Planning Group, contact Christy Perrin at (919) 515-4542
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