



New Hanover County
Local Watershed Planning Group

MEETING SUMMARY

Wednesday, March 21, 2001 meeting held at the Cape Fear Riverwatch Educational Ctr.

Next Meeting scheduled for Wednesday, April 4, 2001

- ◆ Status of subcatchment selection
- ◆ Revisit scope for Major tasks two and three
- ◆ Strategizing Group's next steps:
Identifying information needs
- ◆ Check-in with Group's process (What is working? What can be improved?)
- ◆ Update on other projects being undertaken in the watershed

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
Joe Blair, NC Department of Transportation
Jabe Hardee, Cameron Company
Curt Hensyl, Local watershed resident/ International Paper
David Mayes, City of Wilmington
Marian McPhaul, UNCW
Karen Moorefield, Carolina Heights Neighborhood
Chris O'Keefe, New Hanover Co. Planning
Stacy Smaltz/Bouty Baldrige, Cape Fear River Watch
Tommy Tew, Corbett Timber Co.

Group members not present:

Michael Pope, Sierra Club, Wrightsboro Community

Support staff & guests present:

Larry Hobbs, NCWRP
Bonnie Duncan, NCWRP
Suzanne Klimek, NCWRP
Christy Perrin, WECO/NCSU
Sunny Snider, WECO/NCSU
Kevin Schneider, Cape Fear River Watch volunteer
Dick Loeffert, Guest from Northchase HOA

Choosing Subcatchments

The group spent their additional March meeting discussing the subcatchment rankings and other information provided in the watershed characterization report. Through discussions, the group decided which subcatchments they would like to see undergo further investigation as outlined in Major Task #2.

A copy of the watershed characterization report will be available for review at the Cape Fear Riverwatch Educational Center.

Some Important Points to Remember...

Before beginning discussions about the subcatchment rankings, Christy outlined a few important points for group members to keep in mind during deliberations. She also noted that if the group did not reach a consensus, the NCWRP staff would decide which subcatchments should receive further study. The points are listed below:

- Major Task #2 needs to occur where problems occur and where problem causes are unknown so fieldwork can help determine the likely causes.
- Restoration projects are very likely to occur in subcatchments in which Major Task #2 occurs. Thus, restoration opportunities must be a part of the criteria for choosing subcatchments.
- Restoration projects can also be chosen to occur in other subcatchments in the watershed.
- Other management recommendations developed by the group can occur anywhere within the watershed and are not limited to subcatchments studied in Major Task #2.

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Overview of Watershed Characterization Report

Presentation by Joe Pfeiffer, KCI

At the beginning of the March 21 meeting, Joe presented the Watershed Characterization report to the group. He gave a brief overview of the layout of the report and answered questions. Questions and comments about the report are summarized below.

Q: How were DOT plans and other development plans as discussed at the March 7 meeting incorporated into the report?

A: Potential development and DOT projects were not included in the numerical analysis of subcatchments as these types of additions would skew the consistency of the analysis. However, development plans identified by stakeholders are included in the stakeholder comments sections of the watershed characterization so they may be considered during the group's deliberations.

Comment: Some of the comments included in the descriptions of Northeast Cape Fear 1, Northeast Cape Fear 2, and Northeast Cape Fear 3 are not applicable to all of these subwatersheds.

A: The Northeast Cape Fear subwatershed was broken into three (3) portions after the comments were submitted. Since I was unsure as to which areas the comments referred, these comments were noted for each portion.

Q: Can you explain again why and how you did what you did for comparing the subwatersheds?

A: Bias had to be removed in order to compare the subcatchments to each other. KCI determined a relatively consistent method to assess physically measurable characteristics across subcatchments within a reasonable amount of time and costs.

Discussion of Subcatchment Rankings

Christy developed a matrix containing each subcatchment and where it ranked with respect to each of the groups' concerns. However, the subcatchments were not ranked based on their potential for wetlands restoration and stream

restoration. Before the group could decide which subcatchments they would like to study further, the subcatchments must be ranked according to their potential for restoration. The Watershed Characterization Report contains estimations of wetlands restoration potential and stream restoration potential for each of the subcatchments. During the meeting, Joe explained how he determined stream and wetlands restoration potentials. His methodology follows:

Stream Restoration Potential

Stream restoration potential was calculated by assessing the amount of degraded stream systems within each subcatchment. A degraded stream is defined as one that is **physically impacted**, **hydrologically impacted**, or **riparian impacted**.

The study identified **physically impacted** streams by comparing a 1950 aerial photograph with a 1998 aerial photograph. KCI noted changes in physical attributes of the stream such as form and location. Unfortunately, some of the streams may have been altered prior to 1950, and further research is currently underway.

Hydrologically impacted streams are those that have suffered changes in stream hydrology. Such alterations are difficult to assess, however, for analysis purposes, streams with urban or residential drainages are considered hydrologically impacted.

The study also used **riparian impacted** streams to determine stream restoration potential. Riparian impacted streams have inappropriate land uses located along the stream. These land uses, such as urban development and agricultural development, prevent proper functioning of the stream system.

Wetlands Restoration Potential

Wetlands restoration potential was determined by quantifying acres of land that contain hydric soils and are non-forested, open, agriculturally developed, or scrub land, or wetlands with obvious ditching.

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Q: *Is it possible that areas that have been drained can't be restored because they have lost necessary physical properties (i.e. soils have lost their "sponginess")?*

A: Restoration projects may take a significant amount of time to return to their original state, however, they will rebuild especially with some encouragement.

Q: *Will wetlands and streams in this area be difficult to restore?*

A: Don't know yet, we are only in the preliminary assessment stages.

Q: *Do areas that have been clear cut have wetlands restoration potential?*

A: No, working with clear cut areas is considered enhancement.

Q: *The rankings are based on some unknowns. For example, we don't know if the city will allow restoration activities.*

A: The rankings are just a starting point. We will learn more as we move forward.

NCWRP's Rankings

Larry Hobbs, NCWRP, examined the Watershed Characterization Report. Based on the information provided within the report, Larry applied a numerical ranking to each subcatchment within the watershed with respect to wetlands and stream restoration potential. The ranking by NCWRP follows:

- 1 - Upper Smith Creek
- 2 - Prince George Creek
- 3 - Lower Smith Creek
- 4 - Burnt Mill Creek
- 5 - Sturgeon Creek
- 6 - Spring Branch
- 7 - Ness Creek
- 8 - Unnamed Tributary 2 (Doctor's Creek)

Eliminated - NE Cape Fear 1, 2, & 3, Unnamed Tributary 1 (Rat Isle Creek), Dock Creek

The NCWRP staff noted that if anyone in the group knows of a specific tributary in the area that should be

restored, it can still be done. This ranking is simply another tool for the group to use in choosing subcatchments for further study.

Subcatchment Rankings Matrix

Christy provided the group with a matrix illustrating and summarizing the subcatchment rankings as described in the Watershed Characterization Report. Group members agreed that they were comfortable with the weightings that Joe used to determine subcatchment rankings. She also asked the group whether they would like to prioritize restoring areas that are more built out or preserving areas that are less built out. Questions were answered by Joe Pfeiffer and NCWRP staff.

Q: *With respect to the habitat rankings (areas with lower species frequency are ranked higher), a severe habitat may not be good for restoring wildlife.*

A: That's just the way habitat was ranked, those types of concerns can be considered in the groups deliberations.

Q: *What is in the scope-of-work for Major Task 2?*

A: We are honing the scope-of-work as we learn more about the project and the area. The major components are outlined in the February 7, 2001 Meeting Summary.

Q: *Is there any value in choosing areas that are geographically dispersed?*

A: From a water quality perspective, you will get the best results if areas restored are located close together. However, preservation is a very economical approach, as it will help prevent future damage.

Comment: An Environmental Impact Study (EIS) concerning the new highway is necessary in order to decide which subcatchments will undergo further study. The new highway is a very extensive project and may nullify restoration work in associated subcatchments.

Comment: Quality of life cannot be quantified and has not been included in the discussion thus far, however we can consider quality of life a we

discuss which subcatchments to choose for future study. For instance, development in Lower Smith Creek is primarily industrial. Will restoration projects in this area impact quality of life? Are we best served, with respect to quality of life, by targeting industrial or residential areas?

Q: What is the length of Burnt Mill Creek?

A: 32,211 linear feet.

Q: Is Burnt Mill Creek on the state's 303(d) impaired stream list?

A: Yes.

Comment: We can only improve the water quality of Burnt Mill Creek by doing something in Burnt Mill Creek.

Q: When do we consider the costs?

A: We won't talk about costs now. As of now, there are no limits to the projects that the group can propose. The future may reveal other sources of money to use for watershed planning projects.

Comment: The construction of Smith Creek Parkway may have a positive impact on some areas in the watershed as it will divert a portion of existing and future traffic away from other roads. Also, with the construction of Smith Creek Parkway, the NCDOT is implementing their own mitigation projects and cleaning up various areas in the watershed. These projects may help improve water quality in the watershed.

Note: Marian McPhaul asked to be on record as not feeling comfortable with choosing subcatchments for Major Task 2 at this point without the group having further information concerning the environmental impacts of proposed thoroughfare projects in the watershed.

Proposal

Based on Joe's rankings, Larry's rankings, and the groups concerns, group members decided that three of the subcatchments were obvious choices for further study:

1 -Upper Smith Creek

2 - Burnt Mill Creek

3 - Lower Smith Creek

Determining an order for the remaining subcatchments required additional discussion.

Comment: So far the group has focused on worst-case scenarios, which may be difficult to restore.

A: It may take a long time, but subcatchments will eventually benefit from restoration activities.

Q: Should we choose a less built out subcatchment to study next?

Comment: There is an error in the Water Quality table for Prince George Creek.

A: The error occurred when the table was sorted but it did not affect the rankings table.

Q: If Spring Branch is not chosen for further study, will you test where Spring Branch flows into the other subcatchments to assess its impact?

A: Yes, we will test all influences to each subcatchment.

Points made during discussion:

- ◆ We may want to consider looking at subcatchments in between the conservation and preservation extremes as these systems may get "sicker" in the near future.
- ◆ It may be more difficult and more costly to work in urban areas.
- ◆ Prince George Creek has conservation potential.
- ◆ Spring Branch should be considered next as it is included in the same drainage area as the top three subcatchments.

Decision

After the discussion, the group agreed on the following order of subcatchments for further research in Major Task 2.

1 - Upper Smith Creek

2 - Burnt Mill Creek

3 - Lower Smith Creek

4 - Prince George Creek

5 - Spring Branch

6 - Ness Creek

7 - Sturgeon Creek

8 - Unnamed Tributary 2 (Doctor's Creek)

Next step: NCWRP staff and KCI will next determine how many of these subcatchments will be studied under Major Task 2 based upon costs and available funds for conducting Major Task 2.



Informational Item:

N.C. Coastal Federation Coastal Excursion

Saturday, April 7th from 9:00 to 3:30

The NC Coastal Federation has organized a day-long excursion on the southeast coast. The following Coastal Resource Management Experts will join the excursion:

Mike Mallin, UNCW

Paul Hosier, UNCW

David Beresoff, Coastal Resources Commission

Buddy Milliken, Cape Fear Tomorrow

Ted Wilgus, Cape Fear CoastKeeper

Itinerary:

9:00 a.m. meet at NCCF's Wilmington Field Office

1. Impacts of Impervious surfaces on coastal waters (stormwater detention pond)
2. Solutions with Shoreline Restoration (NCCF's Oak Island Restoration Site)
3. Beach Movement and Dynamics
4. Fisheries and Water Quality (Holden Beach)
5. Stormwater Management with Environmental Design (Village of Woodsong)

Return at 3:30

Fees: \$20 per person for NCCF members, \$25 per person non-members.

Call 252-393-8185 to register and for more information.

Earth Day Festival Display

The New Hanover County Local Watershed Group will have a display at the Earth Day festival that is staffed by volunteers from the Group. (WECO and the NCWRP have display materials that may be used for this festival). The festival date is Saturday, April 21 from 10:00 am to 6:00 p.m. Please contact Christy at (919) 515-4542 if you would like to help with this event!

*For more information about the New Hanover County Local Watershed Planning Group, contact Christy Perrin at (919) 515-4542
email: christy_perrin@ncsu.edu*